

Energy Savings Big Win – Federal Tax Cuts + Energy Efficiency Programs

Canonical: <https://northmoregordon.com/news/energy-savings-big-win-federal-tax-cuts-energy-efficiency/>

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About this update

This dated news record has been reorganised for clear reading and connected to current guidance.

Publication date: October 9, 2020.

Status note: Present-tense statements, market figures, deadlines and program details in the archived record belong to its publication date. Check current official sources before making a decision.

What this article reported

Energy efficiency equipment payback drastically reduced. The payback period for many capital equipment purchases can be drastically reduced (40% or greater). Be it Boilers, Chillers, HVAC, UPS, Motors, VSD, Compressors and Blowers.

The October 2020 Federal Budget introduced temporary full expensing for eligible capital purchases. That measure ended on 30 June 2023. At the time, businesses could combine tax treatment with state energy-savings incentives to improve project payback. Current tax and scheme eligibility must be checked before an investment decision.

Take for example the upgrade of a 6MW Gas-Fired Steam boiler is using say 45,000 GJ PA at recent prices of say \$11.00 per GJ and hence \$500,000 PA in gas charges. The upgrade to a new high efficiency boiler with economiser, O2 trim could cost around \$800,000. The efficiency gains from moving from a 30 year old boiler to a modern one could be as high as 30%, but we'll use a 25% reduction in gas usage for this example and hence annual gas savings of 11,250 GJ PA. Prior to the Federal Budget (and after June 2022) a new boiler asset would need to be depreciated over 20 years.

The figures for the new boiler commissioned by June 2022 are as follows

Immediate tax writeoff 30% x \$800,000 = \$240,000

Compared with tax write off over 20 years = \$12,000 per annum

Energy Saving Certificates = \$110,000

Capital Costs (after tax writeoff and certificates) \$800,000 - \$350,000 = \$450,000

Annual Gas Savings of \$11.00 x 11,250 = \$124,000

Compare the three scenarios

No tax cuts & not claiming environmental certificates

Simple payback = \$800,000 / (\$124,000 + \$12,000) = 5.9 years

Using tax cuts & not claiming environmental certificates

Simple payback = (\$800,000 - \$240,000) / \$124,000 = 4.5 years

Using tax cuts & environmental certificates

Simple payback = $(\$800,000 - \$240,000 - \$110,000) / \$124,000 = 3.6$ years

Hence by performing the upgrade with the new Federal Budget changes reduces the outlay by more than 25% and brings down the payback period substantially. Also be aware that with the changes that allow companies to offset future losses against past profits for the financial years of 2020-2022 means that you can carry back losses (ie the capital cost) to reduce last year's tax bill as well.

Boilers are one asset type that uses a large amount of energy and has the potential to save substantial energy, but the same applies to many other equipment upgrades that will drive substantial energy savings. Consider these aging assets for replacement by using the immediate tax depreciation and NSW Energy Saving Scheme or Victorian Energy Upgrades to drive much short payback periods.

Gas-fired Steam Boilers in Industrial process

Gas-fired Hot Water Boilers for Commercial Buildings

Chillers for Commercial HVAC

UPS and CRAC upgrades for Data Centres

Air Compressor upgrades

Variable Speed Drives for large motors and fans (very fast payback)

Warehouse and Orchard Coolroom upgrade

Installation of Large Scale Solar PV in Victoria under the VEU

All these assets can claim energy savings certificates using the Measurement and Verification methods under the different state-based schemes as well as under the Australian Carbon Farming Initiative (Carbon Solutions Fund).

Image courtesy of: couriermail.com.au

How to use this information now

For current use, confirm the applicable scheme rules, regulator notices, market date and reporting period. Keep historical prices or forecasts separate from present quotes and verified outcomes.

Separate source-reported facts from forecasts, targets and commentary. For a current project, retain the official source, version, effective date, assumptions and decision record in the evidence file.

Related guidance

Environmental certificates

Government schemes

Carbon advisory

Energy audits

Measurement and verification

Solar PV

Current articles and guidance

Contact Northmore Gordon

What was the Federal Budget announced on 6 October 2020 designed to achieve for business investment in equipment?

The Federal Budget announced on 6 October 2020 allows nearly all businesses to fully deduct capital equipment purchases immediately, rather than depreciating them over multiple years. This immediate write-off applies to equipment in operation by June 2022. The policy accelerates tax deductions, allowing businesses to reduce their tax liability in the year of purchase rather than spreading deductions across decades. Combined with state-based energy savings schemes, this creates a significant financial incentive for industrial and commercial upgrades, particularly for energy-efficient equipment like boilers, chillers and motors that would otherwise have long payback periods.

How can combining federal tax deductions with state energy savings schemes affect equipment payback periods?

According to Northmore Gordon, combining the federal immediate tax write-off with state-based energy savings schemes like NSW Energy Savings Scheme (ESS) or Victorian Energy Upgrades (VEU) can reduce payback periods by 40% or greater. In a boiler upgrade example, the payback reduced from 5.9 years (no tax cuts or certificates) to 4.5 years (with tax cuts only) to 3.6 years (with both tax cuts and environmental certificates). This dual incentive structure makes capital investments in energy efficiency commercially attractive much faster, enabling businesses to recover their investment while achieving operational energy savings and emissions reductions simultaneously.

What is the financial impact of the immediate tax write-off compared to traditional depreciation for a capital equipment purchase?

Under traditional depreciation, a capital asset is deducted gradually over its useful life. For example, an \$800,000 boiler upgraded over 20 years would allow only \$12,000 per annum in tax deduction. Under the 2020 Federal Budget rules, 30% of the \$800,000 (\$240,000) can be written off immediately in the year of purchase. This accelerates tax relief by decades, providing immediate cash-flow benefits and reducing the effective capital cost. The timing advantage is particularly significant for businesses with sufficient tax liability to absorb the deduction, making energy-efficient equipment financially competitive against less efficient alternatives.

How do Energy Savings Certificates contribute to reducing the net cost of equipment upgrades?

Energy Savings Certificates (ESCs) are tradeable instruments created by eligible energy-saving activities under state schemes. In the boiler upgrade example, \$110,000 in certificates can be claimed alongside the \$240,000 tax write-off, reducing the net capital cost from \$800,000 to \$450,000. These certificates represent the quantified energy savings from the upgrade and can be sold or retained by the business. Our measurement and verification services establish the evidence needed to claim certificates, connecting technical performance with commercial value. Understanding certificate eligibility early—before equipment selection and project timing—is critical to maximising financial benefits.

What types of equipment are most suitable for claiming both federal tax write-offs and state energy savings incentives?

Equipment most suitable includes gas-fired steam and hot-water boilers, commercial HVAC chillers, UPS systems for data centres, air compressors, variable speed drives for large motors and fans, and large-scale solar PV installations. These systems typically have high energy consumption, measurable efficiency gains from upgrades, and long operating lives that justify capital investment. The article also mentions warehouse and orchard coolroom upgrades. Common to all are significant energy bills, identifiable efficiency opportunities, and alignment with prescribed or project-based activities under NSW ESS or Victorian Energy Upgrades schemes. Our energy audits and investment-case guidance help prioritise which upgrades offer the strongest financial case.

In the boiler example, what annual operational savings result from the upgrade, and how do they compare to the upfront capital cost?

The boiler upgrade example assumes a 25% reduction in gas usage (efficiency gains could reach 30% compared to 30-year-old equipment). With existing consumption of 45,000 GJ per annum at \$11 per GJ (\$500,000 annual cost), the upgrade saves 11,250 GJ annually, equalling approximately \$123,750 per year in operational gas costs. Against a net capital cost of \$450,000 (after tax and certificates), this delivers a 3.6-year simple payback period. Beyond payback, the business enjoys permanent annual savings of \$123,750, reduced emissions, and improved reliability. This demonstrates why combining capital incentives with operational savings makes energy efficiency a strategic investment rather than a cost burden.

What additional tax benefit does the Federal Budget provide for businesses experiencing losses?

The Federal Budget includes provisions allowing companies to carry back losses against past profits for the 2020-2022 financial years. This means businesses can offset current capital costs or losses against prior-year tax bills, generating immediate cash refunds rather than waiting for future profits to utilise the deduction. For a business purchasing \$800,000 in equipment and recognising a loss, the immediate 30% tax write-off (\$240,000) could be applied to reduce the prior year's tax liability. This accelerated cash recovery strengthens the financial case for energy-efficiency investments, particularly for businesses undergoing transition or facing reduced profitability during economic uncertainty.

How should businesses approach investment decisions to capture all available federal and state incentives?

Businesses should align project timing, equipment selection, and incentive claims from the outset. Begin with an energy audit and investment-case analysis that separates energy savings, tax benefits, and certificate proceeds. Confirm equipment eligibility under applicable state schemes before purchase commitments, as eligibility depends on specific activity definitions and implementation dates. Our approach connects technical assessment, commercial decisions, and measurement planning to preserve evidence and funding options. A project brief documenting the business problem, equipment, stage, available energy data, and prior incentives allows advisers to identify which state scheme applies and what baseline measurement is needed before installation.

Why is measurement and verification planning important when claiming both tax write-offs and environmental certificates?

Environmental certificates require verified evidence of energy savings under state scheme rules. NSW ESS and Victorian Energy Upgrades each define measurement and verification requirements, baseline methodologies, and eligible calculation methods. Planning measurement before equipment changes allows advisers to establish appropriate baseline conditions and data collection protocols. Measurement performed after installation or without clear boundaries cannot retrospectively establish baseline evidence, potentially losing certificate revenue and limiting the financial benefits demonstrated in investment cases. Our measurement and verification services include project-boundary selection, baseline modelling, and savings calculation, ensuring the technical evidence supports both operational claims and certificate eligibility.