

Newcastle District Bowling Association (Zone 2) Inc.

PHONES: 49 293441

E-MAIL: zone2@ndba.com.au



90 Withers St
West Wallsend
NSW 2286

ADVISORY COMMITTEE PAMPHLET No 028a.

IMPLEMENTING ENERGY COST SAVINGS

Regardless of the size of your club, energy consumption is a critical cost, one that is increasing dramatically.

In 2013 the NSW Government's Office of Environment and Heritage produced a toolkit specifically designed for clubs to use as starting point for cost savings. While some of the State Government programs it links to are no longer active, one of the real assets is its six-page energy efficiency checklist. (<https://www.environment.nsw.gov.au/resources/business/140015-registered-club-toolkit.pdf>).

The toolkit will help your club:

- Understand the drivers of energy use
- Recognise seasonal and daily energy use cycles
- Identify key areas for improvement
- Identify appropriate energy efficient technologies
- Understand how much energy saving initiatives cost and their likely return on investment

The kit is not just for big clubs. It was developed after analysing energy audits conducted for 21 clubs of different sizes, operating hours and geographic locations. These audit results revealed common energy saving opportunities: More efficient lighting; improved HVAC systems; use of sensors and timers in infrequently used areas; switching off gaming machines when not in use.

In total the audits found cost savings totalling \$2.8m p.a with an average payback period of just 2.6 years. Had the clubs implemented all of the opportunities, they would have achieved average savings of around 17%. At today's prices these figures would be dramatically more impressive.

As well as the kit, there is a multitude of information on the Federal Government's site <https://www.energy.gov.au>. Because that site be a bit overwhelming, we have summarised key information and live links here.

(1) WHERE TO START:

Check with your local or regional council or organising committee to find out if there are any energy-efficiency resources available to you.

(2) REBATES AND ASSISTANCE

The [energy.gov.au rebates sorter](https://www.energy.gov.au/rebates-sorter) identifies a wide range of programs from the Federal and State governments. Use it to find rebates, funding, grants, loans, support and assistance.

(3) AFFORDABLE FINANCING

(3.1) Environmental upgrade finance: Environmental upgrade finance (EUF), or building upgrade finance (BUF), is an agreement under which external financiers cover the upfront cost of a retrofit, which is then recovered from the building owner through a council levy.

Building owners can also pass on part of the environmental upgrade charge to tenants. The council forwards levy payments to the finance provider. These structured payments remain with the property if ownership changes.

The [Building Upgrade Finance](#) website is a collaborative initiative between the governments of NSW, South Australia and Victoria. It provides an independent, single source of information, including a directory of providers to help you get started.

(3.2) Energy Performance Contracts: These are commonly used as a financing method in the commercial building sector. Energy service companies guarantee reduced energy bills for commercial tenants by identifying potential savings in a building's operations, commissioning and funding a retrofit of the building, and using the energy saved to fund the upfront costs.

This financing model overcomes the inherent barrier of split incentives where building tenants benefit from retrofits through reduced energy bills, but building owners are responsible for the upfront infrastructure costs.

(3.3) Loan Financing: A range of loan financing options are available. These include traditional loans but also arrangements for companies to avoid upfront costs, with repayments made using the savings generated from an energy efficiency project.

(3.4) Leasing: Leasing equipment enables companies to avoid upfront costs and manage energy efficiency projects within operational budgets.

(3.5) On-bill Financing: This allows businesses to install and upgrade energy efficiency equipment which is financed by the energy utility. Repayments are made by the business through their monthly power bill and ownership is transferred on final payment of the finance. Up-front capital is not required and repayments can be equal to or less than the energy cost savings achieved.

READ MORE:

[Check if you're ready to apply for a grant](#) Australian Government
[Energy Efficiency and Renewables Finance Guide](#) NSW Government

(4) ENERGY AUDITS

An energy audit can clarify your energy consumption and identify areas for potential savings. Audits can be conducted in-house or you can engage external experts or energy services companies to conduct part or all of the process.

(4.1) In-house Energy Audits:

Access energy data: To get a complete picture of electricity and gas use, you will need at least 12 months of data showing energy-use patterns. Billing data should uncover gaps or identify some of your company's higher-energy use processes. This information can be obtained directly from the energy supplier.

You can also rent a meter to measure short-term energy use or install meters to capture specific operating periods. Factor in daily, monthly or seasonal variations when analysing the results.

Electricity monitors show in real time how much energy your business is using and how much this energy costs. Some energy retailers offer free energy monitoring. There are also energy monitoring apps for both Apple and Android devices. Plug-in monitors are also available.

To read more on accessing and understanding energy data, visit the [Victorian Energy Saver](#) website.

Analyse Your Energy Baseline: Your energy baseline will clarify the relationship between your business' energy use and various activities, linking energy costs to business output.

Common analysis techniques include:

- graphing energy use over time to determine energy use patterns.
- plotting energy use versus production or other parameters.

- benchmarking energy performance to see whether a process, facility or business unit is operating at optimum performance level, or to draw comparisons between sites.

Track Results: Track your progress and any improvements in your company's energy use over time. You'll have useful data to share across your business.

Energy Efficiency Training: For a range of energy efficiency training providers and options including accredited training, on-the-job learning, government workshops, and programs offered by professional and industry associations, see the [Energy efficiency training](#) page.

(4.2) Engage An Energy Auditor

Audits should be completed to the relevant Australian Standards:

- [AS/NZS 3598.1:2014 Energy Audits—Commercial buildings](#)
- [AS/NZS 3598.2:2014 Energy Audits—Industrial and related activities](#)
- [AS/NZS 3598.3:2014 Energy Audits—Transport related activities.](#)

Choose The Right Type of Audit: Australian Standard energy audits fall into 1 of 3 categories:

- **Type 1 audit (basic energy audit):** A basic overview of your company's energy consumption, and a broad estimate of energy savings with relatively short payback periods.
- **Type 2 audit (detailed energy audits):** A more rigorous analysis of your energy consumption. It will quantify potential energy savings based on detailed data and analysis of the specific equipment and operating conditions applying to each site. Also includes financial evaluation of opportunities based on agreed criteria that will help prioritise the opportunities shown in the audit.
- **Type 3 audit (precision subsystem audits):** Focuses on a major subsystem, such as boilers or compressed air systems. It involves additional measurements to quantify opportunities to a higher level of accuracy. Mainly for businesses with specialist equipment or major production facilities.

Find An Auditor:

The Energy Efficiency Council website has a [list of service providers](#). The Australian standards specify the kinds of skills, knowledge and experience auditors need to do their job well. These requirements can vary across industry.

Questions to ask when selecting an energy auditor include:

- Have you assessed other businesses in my sector?
- How much do you know about my industry, type of business, specialist equipment?
- Can you provide references from similar clubs you've audited using the Australian Standard?
- What type of audit are you experienced and qualified to provide for the equipment at my site?
- How do you or your team meet the competency requirements in the Australian Standard?
- What type of Australian Standard audit do you think my business needs and why?
- Can you help me with implementing the opportunities you identify?
- Does your company guarantee the savings identified will cover all project costs?

<https://www.energy.gov.au>