NSW NOW The new state of business

NSW Government Resource Efficiency Policy

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Foreword

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Our vision is for a resource productive public sector that provides better services to the NSW community with less impact on the environment.

The NSW Government Resource Efficiency Policy will reduce the cost of providing core services and make resource efficient products and services more accessible to the people of NSW.

The NSW Government spends more than $500 million per year on energy, water and waste.

These costs can be reduced by adopting simple, cost effective technologies and practices. This policy makes these measures part of the day to day business of NSW Government agencies.

The NSW Government is a big purchaser, so when we make resource efficiency standard practice, better products and services become more accessible and affordable to NSW businesses and households.

With this policy, the NSW Government is setting an example in addressing the challenge of rising resource costs, and reducing impacts on our economy, environment and community.

Contents

Introduction

The aim of the NSW Government Resource Efficiency Policy is to reduce the NSW Government's operating costs and lead by example in increasing the efficiency of the resources it uses.

The policy will help to ensure NSW meets the goals of *NSW 2021: A plan to make NSW number one*. It aims to drive resource efficiency by NSW Government agencies in three main areas – energy, water and waste – and also reduce harmful air emissions from government operations.

This policy will ensure NSW Government agencies:

- meet the challenge of rising costs for energy, water, clean air and waste management
- use purchasing power to drive down the cost of resource-efficient technologies and services
- show leadership by incorporating resource efficiency in decision-making.

This policy replaces the previous NSW Government Sustainability Policy and streamlines reporting under the Waste Reduction and Purchasing Policy (WRAPP). It supports goals and targets in *NSW 2021* and delivers NSW Government actions from the:

- *NSW Energy Efficiency Action Plan* to drive government agencies to undertake energy efficiency projects
- *NSW Renewable Energy Action Plan* to encourage renewable energy development in NSW and support mid-scale solar projects
- *Draft NSW Waste Avoidance and Resource Recovery Strategy 2013–21* to reduce the generation of waste and make better use of resources
- NSW Auditor-General's report, *Building Energy Use in NSW Public Hospitals*, which recommends investment in energy efficiency and improved energy benchmarking
- *Data Centre Reform Project* that will consolidate the NSW Government's data centres into two new highly efficient centres.

This policy covers all general government sector agencies, generally on a whole-of-cluster basis: www.dpc.nsw.gov.au/__data/assets/pdf_file/0005/126086/Government_sector_employment_arrangements.pdf

Performance against this policy will be monitored by agencies publishing annual statements (electronically or otherwise).

Local government, state-owned corporations, public trading enterprises and public financial enterprises are strongly encouraged to adopt this policy's approach.

Overview

This policy's measures, targets and minimum standards will drive resource efficiency where significant opportunities for savings have been identified for energy, water, waste and clean air.

Energy

E1: Targets to undertake energy efficiency projects

E2: Minimum NABERS Energy ratings for offices and data centres

E3: Minimum standards for new electrical appliances and equipment

E4: Minimum standards for new buildings

E5: Identify and enable solar leasing opportunities

E6: Minimum fuel efficiency standards for new light vehicles

E7: Purchase 6% GreenPower

Water

W1: Report on water use

W2: Minimum water standards for office buildings

W3: Minimum standards for new water-using appliances

Waste

P1: Report on top three waste streams

Clean air

A1: Air emission standards for mobile non-road diesel plant and equipment

A2: Low-VOC surface coatings

Energy

NSW Government agencies own and operate facilities and infrastructure that use more than 1,800 gigawatt hours (GWh) of electricity each year or around 2.6% of NSW electricity sales. In 2012–13, the Government spent more than $390 million on electricity. Energy efficiency and on-site renewable energy projects can reduce cost pressures associated with the rising costs of energy. The NSW Government will lead by example in adopting cost-effective products and services and help make them more available to businesses and the broader community.

E1: Targets to undertake energy efficiency projects

All clusters will undertake energy efficiency projects at sites representing 90% of their billed energy use by the end of 2023–24, with an interim target of 55% for Health and 40% for other clusters by the end of 2017–18.

Coverage	All sites owned or leased by agencies
Implementation	Clusters will develop plans to identify and prioritise projects to meet the interim and 2024 targets. Agencies will identify and scope projects to reduce energy bills, including energy efficiency retrofits, energy management and optimisation, demand management, distributed generation or a combination of these types of measures. A project is defined as a measure or series of measures that combine to produce at least 10% savings in billed energy use or all measures identified through a full site energy audit that would deliver an internal rate of return of 12% over the life of the project (or lower if specified by the relevant agency). Billed energy use includes electricity usage and capacity charges and natural gas usage charges. Projects undertaken to meet 4.5 Star NABERS Energy ratings under measure E2 and new buildings that are constructed to consume a further 10% less energy than required by measure E4 will be counted as energy efficiency projects towards meeting measure E1. The Office of Environment and Heritage will provide a team of energy efficiency specialists to assist agencies with identifying and managing projects, ensuring projects are of a high quality and enabling agencies to have access to the NSW Government's energy efficiency finance facility where required. The Office of Finance and Services will maintain a pre-qualified tender panel for energy efficiency service providers for use by agencies. Measurement and verification methods used as part of the NSW Energy Savings Scheme and in Energy Performance Contracts may also be used to quantify energy bill savings. Energy efficiency projects undertaken after 1 July 2012 will be counted towards this target. For this measure, agencies may elect to define 'billed energy use' to exclude energy consumed by: • sites that agencies plan to divest from ownership within five years and which they reasonably consider do not have any feasible energy efficiency projects that would deliver a 12% internal rate of return while owned by the NSW Government • existing large infrastructure assets where energy efficiency opportunities would only be achievable with significant structural or mechanical works • leased sites with leases that expire before 1 January 2017 or with lease durations of two years or less.
Monitoring	Applications for finance will be tracked by the Office of Environment and Heritage. Projects using other funding will be tracked by agencies. Agencies will publish the annual bill savings achieved by energy efficiency projects implemented since July 2012.

E2: Minimum NABERS Energy ratings for offices and data centres

Large owned and leased office buildings will achieve and maintain a NABERS Energy rating of at least 4.5 stars by June 2017.

All data centres will achieve a minimum infrastructure and IT equipment NABERS Energy rating of 4.5 stars by June 2017.

Coverage	Owned and leased office buildings and data centres
Implementation	All office buildings owned by the NSW Government with a net lettable area of over 2000 m^2 will achieve and maintain a NABERS Energy whole building rating of at least 4.5 stars by June 2017. Where one or more NSW Government agencies occupy a net lettable area of at least 2000 m^2 within a single leased office building, the building will achieve a NABERS Energy base or whole building rating of at least 4.5 stars by June 2017. Government Property NSW will assist agencies to implement this measure by: • reviewing and updating the green lease toolkit to include provisions to help meet a NABERS Energy tenancy rating of at least 4.5 stars • where one or more NSW Government agencies will occupy at least a 2000 m^2 net lettable area within a single leased office building, requiring that all new and renewed leases of at least two years duration include a Green Lease Schedule with a requirement to achieve a NABERS Energy base building or whole building rating of at least 4.5 stars by June 2017 • requiring upgrades to tenancy lighting to 7 watts/m^2 or better for any leased space that is shown by a Tenancy Lighting Assessment to be over 12 watts/m^2 • managing the assessment of NABERS Energy base building and whole building ratings for office buildings that are owned by the NSW Government • negotiating Environmental Upgrade Agreements where this is the most cost-effective way to reduce energy consumption and costs within leased properties. Where a single agency occupies a net lettable area of at least 2000 m^2 within a leased office building, the occupying agency will: • obtain a NABERS Energy tenancy rating for the occupied space within 18 months of first occupancy or by July 2015, whichever is the latter • achieve and maintain a NABERS Energy tenancy rating of at least 4.5 stars by June 2017 • purchase sufficient GreenPower to achieve and maintain a 4.5 star NABERS Energy tenancy rating if required. NABERS ratings will be obtained for data centres that meet the minimum criteria published by the NABERS program (see www.nabers.gov.au/). For centralised data centres, the Office of Finance and Services will provide and maintain a minimum 4.5 star NABERS Energy rating. For other data centres, agencies will: • obtain and maintain a minimum 4.5 star NABERS Energy rating • migrate to the Office of Finance and Services centralised data centres where the existing data centre's energy rating cannot be improved to meet 4.5 stars. Agencies with large portfolios of other building types are encouraged to develop their own energy performance benchmarking system to help improve energy management practices.
Monitoring	The Office of Environment and Heritage will collate and maintain a record of NABERS ratings of government-owned and tenanted buildings and data centres. Government Property NSW or the agency, where relevant, will update NABERS Energy ratings if there has been a change in the estimated rating or it has been three years since the last accredited NABERS Energy rating.

E3: Minimum standards for new electrical appliances and equipment

All new electrical equipment purchased by government must be at least the market average star rating. In categories where no star ratings are available, equipment purchased should be recognised as high efficiency either by being ENERGY STAR® accredited, in a high efficiency band under Australian Standards or being above-average efficiency of Greenhouse and Energy Minimum Standards (GEMS) registered products.

Coverage	All agencies
Implementation	Appliances and equipment purchased in the following categories with star ratings under the Greenhouse and Energy Minimum Standards (GEMS) will be at least the following: • refrigerators – 2 stars • clothes dryers – 2.5 stars • washing machines – 3 stars • dishwashers – 4 stars • pool pumps – 5 stars • fridge/freezers – 2.5 stars • freezers – 2.5 stars • air-to-air heat pumps and air conditioners – 3.5 stars if less than 4kW and 2.5 stars if greater than 4kW • televisions – 4 stars (Tier 2 rating). Equipment in the following categories will be endorsed as being high efficiency rating under ENERGY STAR® in Australia: • computers (i.e. desktops, notebooks and tablets, workstations, small-scale servers and thin clients) • printers • fax machines • photocopiers • DVD players. Equipment in the following categories will meet the definition of 'high efficiency' under Greenhouse and Energy Minimum Standards: • refrigerated commercial display cabinets – AS1731.14 • distribution transformers – AS2374.1.2 • electric motors – AS1359.5 • external power supplies – AS4879.2. Equipment in the following categories will meet the following performance benchmarks: • air-cooled liquid chilling packages – IPLV of 4.5 • water-cooled liquid chilling packages – IPLV of 9 • closed-control air conditioners – AEER of 3.2
Monitoring	Star rating benchmarks will be evaluated on a two-year cycle to track market improvements. Agencies will publish an annual statement on their compliance with these standards.

E4: Minimum standards for new buildings All new office buildings and fitouts will be designed and built to a predicted performance of at least 4.5 stars NABERS Energy rating. For other building types, new facilities with project costs over $10 million should be designed and built so that energy consumption is predicted to be at least 10% lower than if built to minimum compliance with National Construction Code requirements.	
Coverage	All construction projects initiated from January 2015
Implementation	Government Property NSW will collaborate with agencies in the development of specifications for fitout lighting. Agencies will incorporate the new minimum standards into contract specifications for new building projects. If agencies wish to use their predicted NABERS Energy rating to promote their building design on a commercial basis, they will enter into a NABERS Commitment Agreement (see www.nabers.gov.au/). Where a building complies with the National Construction Code using a 'deemed to satisfy' approach, agencies will develop a range of design initiatives that would be sufficient to meet the 10% benchmark based on a typical building design. In building types where specialist equipment typically consumes more than 10% of energy demand, the baseline energy use should be limited to lighting, space heating and cooling, hot water, domestic and commercial appliances and on-site energy generation. Where an agency has developed an energy performance benchmarking system for their facilities, this may be used in place of the National Construction Code benchmark.
Monitoring	The Office of Environment and Heritage, in consultation with Government Property NSW, will maintain a record of NABERS ratings of office buildings and tenancy fitouts constructed by Government. Agencies will publish an annual statement outlining how the minimum standard is being incorporated into their construction specifications.

E5: Identify and enable solar leasing opportunities Small government sites will self-assess their suitability for solar leasing by July 2015.	
Coverage	All agencies
Implementation	Each site on *Contract 776 – Supply of Electricity – Small Sites* will self-assess the suitability for solar leasing. Suitability is determined by the following factors: • sites that are likely to be owned or leased by the Government for the next 10 years (to ensure a minimum lease term) • sites that are operational throughout daylight hours for at least 45 weeks of the year (to maximise the use of electricity on-site) • sites with at least 100 m^2 of unshaded, northerly aspect roof (to ensure there is sufficient space for a solar PV system with a 10 kWp capacity) • sites with average electricity consumption greater than 45 MWh per annum (to ensure that solar PV systems are designed to deliver around 30% of the site's annual consumption). The Office of Environment and Heritage will send agencies a shortlist of small sites that consume more than 45 MWh by October 2014. The Department of Education and Communities and Office of Environment and Heritage will develop a supply panel contract for solar leasing by July 2015. Agencies will collate a list of their sites suitable for solar leasing and provide this to the Office of Environment and Heritage by July 2015. The Office of Environment and Heritage will publish a list of all suitable sites and relevant contacts by October 2015. This list will be accompanied with guidance to assist agencies to assess market offers. The installation of solar PV systems is voluntary. Agencies may choose whether to engage a solar leasing or Power Purchase Agreement provider to install a solar PV system through an outright purchase or not to install a solar PV system. Agencies are encouraged to identify energy efficiency opportunities at sites before the capacity of a solar PV system is determined.
Monitoring	Agencies will provide a list of suitable sites to the Office of Environment and Heritage by July 2015. From October 2015, agencies will publish a list of implemented solar PV projects and any new solar PV opportunities identified on an annual basis.

E6: Minimum fuel efficiency standards for new light vehicles Improve minimum fuel efficiency standards for new light vehicles so that the average NSW Government purchase is at least the market average fuel efficiency by vehicle category by July 2017.	
Coverage	All vehicles owned or leased by agencies, excluding novated lease vehicles
Implementation	State Fleet will amend the pre-qualification criteria in Supply of Motor Vehicles to NSW Government (SCM0653) each year to improve fuel efficiency by reducing the maximum allowable gram of greenhouse gas per kilometre (gCO_2/km) for each light vehicle category. State Fleet will publish minimum standards for each vehicle category to enable other organisations to adopt NSW Government standards.
Monitoring	Average fuel efficiency of new light vehicles purchased by the NSW Government (in gCO_2/km) is recorded by the Federal Chamber of Automotive Industries and published by the National Transport Centre on an annual basis. Agencies not using the standard contract will publish an annual statement on their compliance with these standards.

E7: Purchase 6% GreenPower Purchase a minimum of 6% GreenPower.	
Coverage	All general government sector agencies except NSW Local Health Districts
Implementation	The Office of Finance and Services will negotiate contract specifications to purchase accredited GreenPower for *Contract 776 – Supply of Electricity – Small Sites* and *Contract 777 – Supply of Electricity – Large Sites*. Where agencies purchase electricity outside Contracts 776 and 777, specifications to purchase a minimum of 6% GreenPower are to be applied.
Monitoring	The Office of Finance and Services will provide data to the Office of Environment and Heritage and agencies on total GreenPower purchased by agencies. Agencies not using government contracts for electricity will report on the percentage of GreenPower purchased.

Water

The NSW Government is estimated to use at least 17 billion litres of water each year.* By installing efficient water infrastructure and appliances, the NSW Government can become more resilient to future water shortages, while leading by example in the procurement of water-efficient products. Encouraging reporting on water use and setting minimum standards for buildings and appliances will ensure the NSW Government is playing its part in securing the state's water resources.

W1: Report on water use

All agencies will report on water use.

Coverage	All agencies
Implementation	Agencies will report on water use where data is available from agency-held accounts. All agencies will provide the Office of Environment and Heritage with water meter numbers from NSW Government-owned sites in Sydney, the Hunter and the Central Coast. The Office of Environment and Heritage will work with water companies to gather consistent information available on water use in these areas to inform water consumption baseline information for each cluster. Agencies are encouraged to identify and implement specific actions to reduce annual water usage.
Monitoring	After July 2014, agencies will report annual water use data sourced by the Office of Environment and Heritage.

W2: Minimum water standards for office buildings

All new and refurbished owned office buildings and leased office buildings with a net lettable area of over 2000 m^2 will achieve a whole building NABERS Water rating of 4 stars where cost-effective.

Coverage	All owned and leased office buildings
Implementation	Agencies will incorporate minimum water performance standards into contract specifications for the construction of new office buildings and refurbishment projects of existing office buildings with a net lettable area of over 2000 m^2 to meet a 4 star NABERS Water rating, where cost-effective. Government Property NSW will require all new and renewed leases of at least two years duration where the NSW Government occupies at least 2000 m^2 net lettable area to include a Green Lease Schedule that requires an annual NABERS Water rating. The Green Lease Schedule will also include a target to achieve a 4 star NABERS Water rating where cost-effective. For the purposes of this measure, refurbishment projects only include projects where the majority of water-consuming building plant (e.g. cooling towers) and bathroom fixtures (e.g. toilets) will be replaced.
Monitoring	The Office of Environment and Heritage will maintain a record of NABERS Water ratings in consultation with Government Property NSW for owned and leased office buildings.

* 2011–12 data reported by budget-dependent agencies in the Online System for Comprehensive Reporting (OSCAR) with gaps estimated by the Office of Environment and Heritage.

W3: Minimum standards for new water-using appliances All new water-using appliances, shower heads, taps and toilets purchased by agencies must be at least the average WELS star rating by product type.	
Coverage	All agencies
Implementation	The Office of Finance and Services will update specifications in standard supplier contracts in NSW ProcurePoint. Appliances and equipment in the following categories with star ratings under the Water Efficiency Labelling Scheme (WELS) must have at least the following star ratings: • showerheads – 3 stars • toilets and urinals – 4 stars • washing machines – 4 stars • dishwashers – 4 stars • taps and flow controllers – 4.5 stars. Star rating benchmarks will be evaluated over a two-year cycle to ensure the policy keeps pace with market improvements.
Monitoring	Agencies will publish a report annually on performance against these standards.

Waste

The NSW Government sent almost 3 million tonnes of waste to landfill in 2010–11. Diverting waste from landfill delivers savings of at least $120 per tonne in the Sydney Metropolitan Area.* Annual reporting of waste to landfill will help save the government money through encouraging strategies to reduce waste volumes and costs and encourage improved recycling practices across all waste streams.

P1: Report on top three waste streams

All agencies will report on their top three waste streams by total volume and by total cost.

Coverage	All agencies
Implementation	Agencies will source information on their top three waste streams by volume and total cost from their waste contractors where reliable data is available. Financial year 2013–14 is to be used as the baseline year to acknowledge inclusion of reporting on new waste streams. Agencies are encouraged to continually improve their waste efficiency through: • using the integrated waste management contracts • creating an agency-specific waste reduction plan to target key waste streams that can be reduced or redirected from landfill • improving separation of recyclable materials out of the general waste stream (e.g. organics, clean natural excavated material) • introducing paper reduction targets and electronic file management systems • recycling waste products where there is access to a national voluntary stewardship scheme. Agencies are encouraged to help drive growth and innovation in the market for recycled and sustainably sourced material by purchasing: • construction materials with recycled content to comply with relevant Environment Protection Authority exemptions and reference design specifications for re-use (such as the specifications from the Institute of Public Works Engineering Australia for pavements, earthworks and drainage) • copy, stationery and print publication paper with post-consumer recycled content as defined under AS14021 or certified as lifecycle carbon reduced under the National Carbon Offset standard • non-recycled paper from sustainable sources accredited under the PEFC, FSC or equivalent.
Monitoring	Agencies will publish an annual statement including the volume disposed and expenditure on disposal of their top three waste streams and a comparison with the previous three years.

* Estimated savings are based on the Waste and Environment Levy for the Sydney Metropolitan Area and Extended Regulated Area which is $120.90 per tonne for 2014–15 and do not include gate charges. The levy for the Regional Regulated Area is $64.50 per tonne for 2014–15.

Clean air

The annual health cost of air pollution in the Sydney Greater Metropolitan Region has been estimated at $4.7 billion or $893 per head of population.* Diesel and volatile organic compound (VOC) emissions contribute significantly to air pollution in NSW and there are major health and economic gains to be made from their reduction. This policy uses targeted procurement standards to assist in reducing emissions and improving air quality.

A1: Air emission standards for mobile non-road diesel plant and equipment

Contractor-supplied and government-purchased equipment will comply with EU or US EPA standards.

Coverage	All agencies purchasing, leasing or contracting non-road diesel plant and equipment
Implementation	Applies to: • mobile non-road diesel plant and equipment with engines greater than 19 kW • all mobile non-road diesel plant and equipment purchased by agencies from January 2015 • procurement of contractor-supplied and leased mobile non-road diesel plant and equipment from December 2015. For contractor-supplied and leased plant and equipment: • procurement contracts requiring the use of mobile non-road diesel plant and equipment will require reporting of engine conformity with relevant United States Environmental Protection Agency (US EPA), European Union (EU) or equivalent emission standards and the fitting of any exhaust after-treatment devices • the tender selection process will incorporate a weighting for air-emission standards in conjunction with other environmental considerations to ensure it is factored into the selection process and apply a consistent weighting to preference the lowest emission engines. For equipment purchased by agencies from 1 January 2015 to 31 December 2017, minimum performance standards for new mobile non-road diesel plant and equipment ordered must be at least: • US EPA Tier 3 or EU Stage IIIA compliant for engines 19 to 560 kW (see Appendix 2) • US EPA Tier 2 or EU Stage II compliant for engines greater than 560 kW (Appendix 2). From 1 January 2018, the minimum performance standard for newly manufactured mobile non-road diesel plant and equipment must be: • US EPA Tier 4 or EU Stage IV (Appendix 2) compliant (Appendix 2). The Office of Finance and Services will update standard contract specifications for sub-contractors and lease agreements and specifications for products purchased through ProcurePoint by 1 January 2015. Where goods are high value and purchased through another route other than ProcurePoint, agencies will apply the same minimum standards from 1 January 2015. Agencies will incorporate new standard specifications in contracts using sub-contractors or when mobile non-road diesel plant and equipment is leased. Details of US emission standards: www.dieselnet.com/standards/us/nonroad.php Details of EU emission standards: www.dieselnet.com/standards/eu/nonroad.php
Monitoring	Agencies will publish an annual statement outlining how their specifications comply with the standard.

* *Health Costs of Air Pollution in the Greater Sydney Metropolitan Region*, Department of Environment and Conservation NSW, November 2005.

A2: Low-VOC surface coatings All surface coatings will comply with the Australian Paint Approval Scheme (APAS) where fit for purpose.	
Coverage	All agencies
Implementation	Agencies will update standard contract specifications for sub-contractors for work that requires use of general purpose surface coatings. The Office of Finance and Services will update specifications for general purpose surface coating products purchased through ProcurePoint. Details of Australian Paint Approval Scheme (APAS): www.apas.gov.au/index.asp Details of APAS Volatile Organic Compounds Limits available in APAS document D181: www.apas.gov.au/PDFs/D181.pdf
Monitoring	Agencies will publish an annual statement outlining how their specifications comply with the standard.

Reporting

Data collection

Where general government sector agencies use government contracts, the Office of Finance and Services will work with suppliers to provide this data directly to agencies and the Office of Environment and Heritage on an annual basis. This includes data from the following contracts:

- electricity consumption for small sites under *Contract 776* and large sites under *Contract 777*
- natural gas consumption under *Contract 4000* and LPG consumption for non-automotive uses under *Contract 349*
- integrated waste management under *Contract 9698*.

Agencies will be required to provide the Office of Environment and Heritage with data where they do not use standard contracts.

Annual reporting

General government sector agencies will report performance against this policy by publishing financial year data annually. This may be through existing reporting channels, such as agency websites, ProcurePoint or e-Tendering. The Office of Environment and Heritage will publish collated agency data online. This publication may function as agencies' public reporting channel.

Specific measures to be reported against are:

- total electricity consumption and total gas consumption and expenditure, including a comparison with the previous three years
- number of energy efficiency projects undertaken during the reporting year and the estimated annual bill savings (E1)
- total potable water consumption and expenditure, including a comparison with the previous three years (W1) once data is available
- top three waste streams by volume or top three waste streams by cost of disposal (P1) over the past three years.

Reporting under this policy will replace the current Waste Reduction and Purchasing Policy (WRAPP) reporting requirements.

Agencies will also publish a statement of compliance with the procurement standards set out in this policy (i.e. E2, E3, E4, E5, E6, E7, W2, W3, A1 and A2). Any instances of non-compliance should be noted and explained.

Whole-of-government performance review

The Office of Environment and Heritage will coordinate the delivery of this policy and review whole-of-government progress every two years. The review will also identify if there are particular challenges in implementing the policy and whether the targets and minimum standards require review.

Appendix 1: Glossary

Term	Definition
Agencies	Also known as NSW public sector entities. Includes NSW Government departments and other statutory bodies who represent and form part of the Crown, excluding state-owned corporations.
Base building	Refers to the part of a multi-tenant building that directly serves and affects all tenants. The base building normally includes the building's primary structure; the building envelope (roof and facade) in whole or part; public circulation and fire egress (lobbies, corridors, elevators and public stairs); and primary mechanical and supply systems (electricity, heating and air conditioning, telephone, water supply, drainage, gas, etc.) up to the point of contact with individual occupant spaces.
Cluster	An aggregation of agencies or NSW Public entities. For detail of NSW Government clusters see: www.dpc.nsw.gov.au/__data/assets/pdf_file/0005/126086/Government_sector_employment_arrangements.pdf
Energy star rating	Energy star ratings are available for a range of domestic appliances, including dishwashers, freezers and washing machines. The star rating of an appliance is determined from the energy consumption and size of the product. These values are measured under Australian Standards which define test procedures for measuring energy consumption and minimum energy performance criteria. Appliances must meet these criteria before they can be granted an Energy Rating Label.
Environmental Upgrade Agreement	An Environmental Upgrade Agreement (EUA) is a finance model for businesses to make environmental improvements to existing commercial, industrial, strata scheme and large multi-unit residential buildings in NSW. A finance provider lends funds to a building owner for water, energy and other environmental upgrades and this low-risk loan is repaid through a local council charge on the land. Tenants of commercial buildings can be asked to contribute to the costs. However, these additional costs must be offset by their reduced energy and water bills.
Green lease	A 'green lease' is a lease between the landlord and tenant which aims to ensure that the ongoing use and operation of the building minimises environmental impacts. A green lease is different from conventional leases in that it incorporates ecologically sustainable development (ESD) principles. These provide a framework under which both landlord and tenant can achieve and maintain energy efficiency and other sustainability goals throughout the lease term.
GreenPower	GreenPower is a government accreditation program that enables energy providers to purchase renewable energy on your behalf. When you choose to buy a GreenPower product, customers pay an additional charge which is invested in the renewable energy sector.
NABERS	The National Australian Built Environment Rating System (NABERS) is a rating system that measures the environmental performance of Australian buildings, tenancies and homes. NABERS measures the energy efficiency, water usage, waste management and indoor environmental quality of a building or tenancy and its impact on the environment.

Term	Definition
ProcurePoint	The NSW Government's electronic system for purchasers and suppliers available to all agencies and managed by the Office of Finance and Services.
Site	A 'site' refers to premises at which a NSW Government agency pays for stationary energy (electricity or natural gas).
Solar leasing	'Solar leasing' refers to the leasing of solar photovoltaic (PV) panels for the purposes of on-site electricity generation to meet energy needs.
Water star rating	A 'water star rating' is a rating achieved under WELS, Australia's water efficiency labelling scheme, that requires certain products to be registered and labelled with their water efficiency in accordance with the standard set under the national *Water Efficiency Labelling and Standards Act 2005*.
WRAPP	The Waste Reduction and Purchasing Policy introduced by the NSW Government in July 1995. The policy requires all NSW Government agencies, except state-owned corporations, to adopt and report on environmentally responsible waste reduction and purchasing practices.

Appendix 2: Clean air emission standards

The tables below describe the emission standards for non-road diesel engines related to A1.

US EPA Standards

Tier 2	Category of engine power – hp (kW)									
Emission limit (g/kWhr)	<11 (8)	≥11 (8)	≥25 (19)	≥50 (37)	≥75 (56)	≥100 (75)	≥175 (130)	≥300 (225)	≥600 (450)	≥750 (560)
Carbon monoxide (CO)	8	6.6	5.5	5	5	5	3.5	3.5	3.5	3.5
Hydrogen chloride and nitrogen dioxide ($HCl+NO_x$)	7.5	7.5	7.5	7.5	7.5	6.6	6.6	6.4	6.4	6.4
Particulate matter (PM)	0.8	0.8	0.6	0.4	0.4	0.3	0.2	0.2	0.2	0.2

Tier 3	Category of engine power – hp (kW)						
Emission limit (g/kWhr)	≥50 (37)	≥75 (56)	≥100 (75)	≥175 (130)	≥300 (225)	≥600 (450)	≥750 (560)
Carbon monoxide (CO)	5	5	5	3.5	3.5	3.5	3.5
Hydrogen chloride and nitrogen dioxide ($HCl+NO_x$)	4.7	4.7	4	4	4	4	6.4
Particulate matter (PM)	0.4	0.4	0.3	0.2	0.2	0.2	0.2

EU Standards

Stage IIIA	Category of engine power – kw				
Emission limit (g/kWhr)	≥18*	≥37	≥56	≥75	≥130
Carbon monoxide (CO)	5.5	5	5	5	3.5
Hydrogen chloride and nitrogen dioxide ($HCl+NO_x$)	7.5	4.7	4.7	4	4
Particulate matter (PM)	0.6	0.4	0.5	0.3	0.2

Stage IIIB	Category of engine power – kw				
Emission limit (g/kWhr)	≥18*	≥37	≥56	≥75	≥130
Carbon monoxide (CO)	n/a	5	5	5	5
Hydrogen chloride and nitrogen dioxide ($HCl+NO_x$)	n/a	4.7	n/a	n/a	n/a
Particulate matter (PM)	n/a	0.025	0.025	0.025	0.025
Hydrogen chloride (HCl)	n/a	n/a	0.19	0.19	0.19
Nitrogen dioxide (NO_x)	n/a	n/a	3.3	3.3	2

Stage IV	Category of engine power – kw				
Emission limit (g/kWhr)	≥18	≥37	≥56	≥75	≥130
Carbon monoxide (CO)	n/a	n/a	5	5	3.5
Particulate matter (PM)	n/a	n/a	0.4	0.4	0.4
Hydrogen chloride (HCl)	n/a	n/a	0.19	0.19	0.19
Nitrogen dioxide (NO_x)	n/a	n/a	0.025	0.025	0.025

NSW GOVERNMENT