



**The new state
of business**

NSW Energy Efficiency Action Plan



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Office of Environment and Heritage

59 Goulburn Street, Sydney NSW 2000

PO Box A290, Sydney South NSW 1232

Phone: (02) 9995 5000 (switchboard)

Phone: 131 555 (environment information and publications requests)

Phone: 1300 361 967 (national parks, climate change and energy efficiency information, and publications requests)

Fax: (02) 9995 5999

TTY users: phone 133 677, then ask for 131 555

Speak and listen users: phone 1300 555 727, then ask for 131 555

Email: info@environment.nsw.gov.au

Website: www.environment.nsw.gov.au

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Foreword

Robyn Parker
Minister for the Environment
Minister for Heritage

Our goal is to
reduce bills and
pressure on future
prices through
energy efficiency

The NSW Energy Efficiency Action Plan sets a new direction for efficient energy use in NSW. It will place downward pressure on electricity bills by assisting households to reduce their energy use, and improve energy productivity for business.

The NSW Government will lead by example by saving energy and electricity costs in its own operations.

To transform our energy use, we need a more flexible approach that removes the barriers that prevent people from saving energy. Our new approach in this Energy Efficiency Action Plan is to provide targeted support for overcoming these barriers to those most affected by recent price rises: households and small to medium-sized businesses.

This plan helps households and businesses to save on bills now, while putting the right structures in place to grow the energy efficiency products and services sector in NSW. These actions will ensure that energy savings are sustained, that there is growth in energy efficiency investment and that the NSW community continues to improve its energy productivity into the future.

Contents

Foreword

Executive summary

1	Introduction	1
2	NSW in the national policy context	5
3	Objectives for NSW energy efficiency	8
4	Strengthening the energy efficiency market	10
5	Energy efficient homes	12
6	Energy efficient business	16
7	Energy efficient government	19
8	Statewide delivery	21
9	Delivery of the plan	22

Executive summary

The NSW Energy Efficiency Action Plan will place downward pressure on the cost of living for households, unlock energy productivity for business and position the NSW Government to lead by example.

The objectives of the plan are to deliver bill savings to those most affected by recent price rises and further reduce pressure on future prices.

The plan will ensure the NSW Government can meet Goal 5 of *NSW 2021* to place downward pressure on the cost of living and make NSW number one. This goal includes targets to:

- realise annual energy savings of 16,000 gigawatt-hours by 2020
- support 220,000 low income households to reduce energy use by up to 20% by 2014
- deliver high standard building retrofit programs so 50% of NSW commercial floor space achieves a 4-star NABERS energy and water rating by 2020.

The NSW Government has made good progress towards meeting these targets. This plan maintains this progress by incorporating the best parts of existing NSW Government energy efficiency programs and making them more cost-effective, more accessible and more targeted. It also commits to investigating new policy options that could deliver the additional savings required to meet *NSW 2021* targets.

A new direction for NSW energy efficiency

This plan represents a shift to a more open and competitive market-based delivery of energy efficiency services that provide assistance to customers through their existing service providers.

There is increasing interest in energy efficiency across the community, but barriers that prevent the uptake of energy efficiency remain. The plan will provide the right structures, tools and incentives for product and service providers to help NSW households, business and government use energy more efficiently.

The plan details 30 actions across five streams to deliver savings on bills and reduce pressure on future prices. The five streams are:

- strengthen the energy efficiency market
- energy efficient homes
- energy efficient business
- energy efficient government
- statewide delivery.

Strengthen the energy efficiency market

The NSW Government will grow and mature the energy efficiency products and services industry. It will:

- 1 review the Energy Savings Scheme to see how it could be enhanced to help meet NSW 2021 targets
- 2 enhance the Energy Savings Scheme Rule to reduce red tape and improve access
- 3 investigate options to target energy savings at the times and locations of peak demand
- 4 explore options for market-based mechanisms to improve gas efficiency
- 5 deliver initiatives to position NSW as the Asia-Pacific region centre for energy efficiency
- 6 monitor, evaluate and report on the effect of energy efficiency programs.

Energy efficient homes

The NSW Government will make energy efficiency more accessible for NSW households. It will:

- 7 provide access to the Energy Savings Scheme for innovative behaviour change programs
- 8 enable the Energy Savings Scheme to support tradespeople to retrofit homes
- 9 streamline access to the Energy Savings Scheme for appliance retailers selling high-efficiency appliances
- 10 complete the Home Power Savings Program to support 40,000 more low income households save on bills
- 11 identify opportunities for improved access to energy efficiency for low income households
- 12 investigate voluntary ratings to help energy efficient homes stand out
- 13 explore measures to make finance for residential energy efficiency more affordable and accessible
- 14 share information, data and tools with households and their service providers through an digital platform.

Energy efficient business

The NSW Government will unlock business productivity by working with industry. It will:

- 15 increase upfront Energy Savings Scheme incentives and require savings to be verified
- 16 streamline energy efficiency projects with Energy Savings Scheme tools and business-case guides
- 17 accelerate the uptake of energy efficiency in priority sectors and technologies
- 18 offer hands-on training for site managers to help them apply best practice maintenance plans
- 19 provide energy efficiency basics training and information resources to general business advisors
- 20 standardise financial contracts for energy efficiency projects
- 21 build a digital platform to enable businesses to share data on energy savings.

Energy efficient government

The NSW Government will take a leadership role in adopting energy efficient technology. It will:

- 22 drive savings by key government agencies through a Government Resource Efficiency Policy
- 23 support agencies with a specialist team to help identify and implement projects
- 24 establish a pre-qualified tender panel to streamline procurement
- 25 improve the accessibility of finance for government energy efficiency projects
- 26 increase energy efficient office leases taken up by government
- 27 make government energy usage and energy efficiency data accessible.

Statewide delivery

The NSW Government will give communities across NSW access to initiatives. It will:

- 28 place energy specialists in regions to provide support for local communities
- 29 form partnerships with existing regional networks to accelerate the uptake of energy efficient solutions
- 30 provide easy-to-access online resources for households and businesses across NSW

1 Introduction

The NSW Energy Efficiency Action Plan is part of the NSW Government's effort to deliver a secure, affordable and clean energy supply for NSW households and businesses and make NSW number one.

The NSW Energy Efficiency Action Plan is the plan to help those most affected by recent energy price rises to save money on their bills, and to investigate options for new measures that will reduce pressure on future prices.

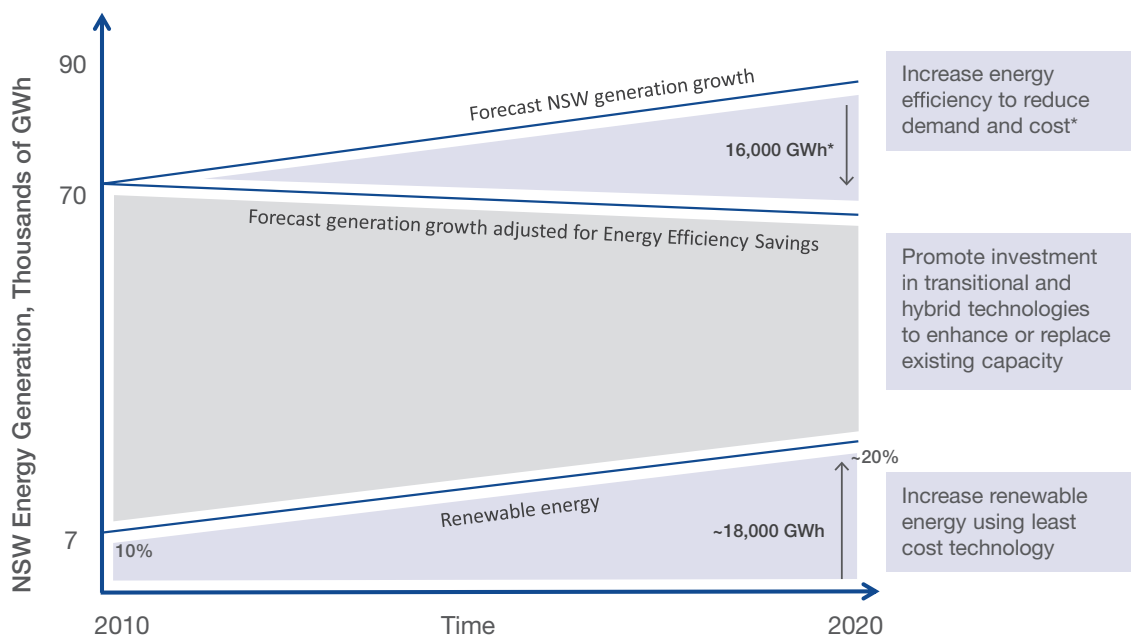
The plan incorporates the best parts of existing NSW Government energy efficiency programs and makes them more efficient, more accessible and more targeted.

The plan will increase access to energy efficiency programs and provide additional support for consumers who have a limited ability to change their consumption. These consumers include low-income households, small to medium-sized businesses and frontline government services.

The Energy Efficiency Action Plan will be implemented alongside the Renewable Energy Action Plan, recognising the common policy intent of both these plans in attracting investment and growing expertise, building community support and containing electricity costs for customers. The NSW Renewable Energy Action Plan has been developed to support the achievement of the national target of 20% renewable energy by 2020.

Together, these plans work to deliver a secure, affordable and clean energy supply for NSW, as illustrated in Figure 1 below.

Figure 1: NSW Government's plan to deliver a secure, affordable and clean energy supply



Source: NSW Government 2012, *Draft NSW Renewable Energy Action Plan*.

Note*: This figure relates to the energy efficiency savings target in *NSW 2021: Contain electricity costs through efficient energy use*: assist businesses and households to realise annual energy savings of 16,000 GWh by 2020 compared to 'business as usual' trends.

Note: Electricity can be sourced from anywhere across the National Electricity Market (NEM).

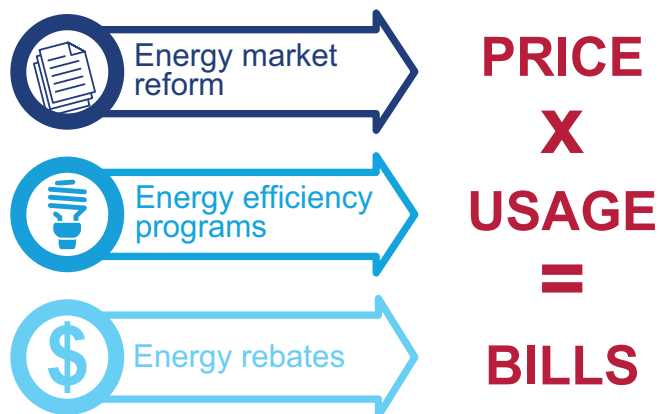
NSW Government is reducing pressure on bills and future prices

The NSW Government is committed to reducing pressure on the cost of living, both now and in the future. Government actions to limit the impact of the sharp increases in the cost of electricity bills and reduce pressure on future prices include:

- energy market reform to enable consumer participation and remove perverse incentives that encourage investment that increases future prices
- energy efficiency programs that assist households and businesses to save money on bills in the short-term and reduce pressure on future prices
- energy rebates for low-income households to help reduce the immediate impact of price rises.

By making structural changes to electricity networks in NSW, the government has already identified over \$2.5 billion of savings in infrastructure investment, which will reduce pressure on future prices. This plan will build on these achievements by helping customers use energy more efficiently.

Figure 2: NSW Government's approach to tackling rising prices



Energy efficiency delivers short-term and long-term benefits

Households and businesses need electricity to run equipment including everything from lights and heating to industrial compressors and data servers. Increased demand for energy can be met by either supplying more energy or by improving the efficiency of equipment and the ways in which it is used.

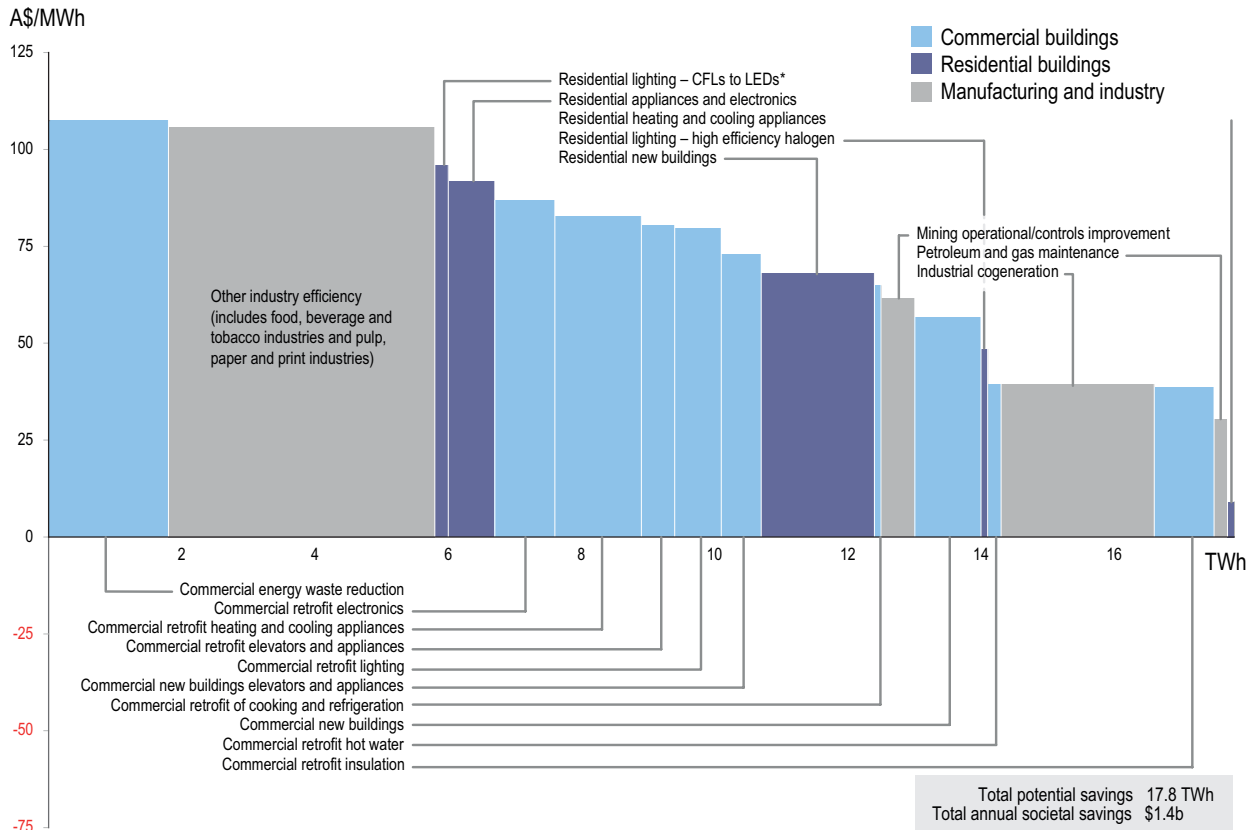
Office of Environment and Heritage research has found that 28% of NSW energy use can be avoided through energy efficiency. This has been confirmed through energy assessments of over 160,000 low-income households and 17,000 small to medium-sized businesses. Across all households and small to medium-sized businesses in NSW, \$5.2 billion could be saved.

Energy efficiency reduces pressure on bills in the short term because households and businesses pay for less electricity while the equipment maintains the same level of service. For example, efficient fridges can have the same features and storage capacity as minimum standard fridges but will cost less to run.

Energy efficiency also reduces pressure on prices in the future because it reduces the need to expand the electricity supply system to cope with increased demand. This means that all energy users can benefit from energy efficiency actions.

The Australian Energy Market Operator lists energy efficiency as one of the factors in the recent reduction of energy demand. To ensure that this trend continues, there is a need to overcome barriers to implementing energy efficiency and to grow the energy efficiency product and service industry.

Figure 3: Potential annual NSW savings from energy efficiency measures



Source: Office of Environment and Heritage
This cost curve has been developed for NSW in 2011 based on the McKinsey methodology

*Note: CFLs = compact fluorescent lamps and LEDs = light-emitting diodes

Barriers prevent cost-effective savings

There are opportunities for more efficient use of energy in all sectors of the economy, but a series of market barriers restrict their uptake. These barriers include:

- information gaps and asymmetry where consumers are not aware of opportunities available to them or cannot evaluate different offers from tradespeople and suppliers
- lack of skills and time, or 'hassle factor', where the costs and time associated with gaining knowledge and organising energy efficiency actions prevent their uptake
- high upfront costs for high-efficiency products and services which reduce their appeal and accessibility even though they could be the cheapest option over their useful life
- split incentives where one party owns equipment that consumes energy but another pays the bills, leaving both without a reason to invest in more efficient equipment, for example, owners and tenants
- data as a public good, where no market participant has the resources to collect and analyse energy efficiency data even though everyone would benefit from new opportunities being identified.

A mature energy efficiency market can overcome these barriers

Grants and rebates provide an initial financial incentive to kick-start the market, but they do not change the underlying supply and demand balance. They encourage case-by-case investments and tend to result in stop-start cycles that are dependent on the availability of grant funding.

Large scale, market-based programs that offer long-term certainty such as the Energy Savings Scheme can encourage the private sector to develop energy efficiency products and services for households and businesses that are scalable and sustainable.

This plan will support the development of a sustainable energy efficiency products and services market by ensuring the right structures, incentives, tools and skills are in place. Such a market will enable the private sector to make it easier for all NSW households and businesses to save money on bills and reduce pressure on future prices.

Figure 4: Barriers that prevent energy efficiency and solutions provided by a mature market.

Obstacles



Information gaps and asymmetry



Lack of skills and time to identify and implement energy efficiency measures



High upfront costs and lack of funds to pay for energy efficiency upgrades



Split incentives to invest in energy efficiency when someone else pays the bill



Data is a public good that is not shared

Solutions



Effective, trustworthy and tailored advice



High quality, low cost planning and delivery of energy efficient products and services



Financial incentives to reduce upgrade costs and financing mechanisms to spread costs over time



Mechanisms to share costs and benefits



Frameworks to share and access data

2 NSW in the national policy context

Complement Commonwealth climate change policy

Climate change mitigation policy is led by the Australian Government. The Energy Efficiency Action Plan is minimising the price impacts of this policy through complementary energy efficiency actions.

The Australian Government has introduced a package of climate change mitigation programs called the Clean Energy Future Initiative, which includes the carbon price mechanism.

The NSW Government, as part of the Council of Australian Governments, agreed to review policies and programs so they align with the Commonwealth's Clean Energy Future Initiative and maximise value for taxpayers.

The Energy Efficiency Action Plan incorporates the recommendations of this review, taking the best energy efficiency programs currently offered by the NSW Government and making them more efficient, more accessible and more targeted.

In the event of a major shift in national energy efficiency or climate change mitigation policy, the Energy Efficiency Action Plan will be reviewed to ensure that it continues to complement any Commonwealth programs.

Improve standards for appliances and buildings to protect consumers

Improving minimum energy efficiency standards for appliances and buildings is the most effective way of improving energy efficiency and protecting consumers.

The NSW Government supports a number of state and national standards, including:

- the National Construction Code (visit www.abcb.gov.au), previously called the Building Code of Australia, which places minimum energy efficiency performance standards on the construction of new buildings and major refurbishments
- the NSW Building and Sustainability Index (BASIX) (visit www.basix.nsw.gov.au) which places energy performance standards on all major renovations and new residential buildings
- the national Greenhouse and Energy Minimum Standards (visit www.energyrating.gov.au) which keeps the worst performing electrical appliances out of Australia and gives consumers information to help them choose more efficient appliances
- the National Australian Built Environment Rating Scheme (NABERS) (visit www.nabers.gov.au) which enables the energy performance of different types of buildings (offices, hotels, shopping centres and data centres) to be rated and compared to average performance
- the Commonwealth's Commercial Building Disclosure program (visit cbd.gov.au) which requires commercial office spaces over 2000 square metres to disclose their NABERS ratings at the point of sale or lease.

The Energy Efficiency Action Plan builds on these minimum standards by encouraging households, businesses and government to take up even more efficient technologies and techniques that further reduce pressure on the cost of living and doing business.

Harmonise schemes to improve the market for energy efficiency

A robust national market for energy efficiency could help NSW energy consumers save money on bills. The NSW government will work with other jurisdictions to harmonise energy efficiency trading schemes.

The NSW and Victorian governments have led the development of a national market for energy efficiency through the NSW Energy Savings Scheme (visit www.ess.nsw.gov.au) and the Victorian Energy Efficiency Target (visit www.veet.vic.gov.au).

The NSW Government is working with the Victorian Government to increase harmonisation between the NSW and Victorian energy efficiency schemes. This will help ensure that both schemes can be delivered at least cost to electricity retailers and energy efficiency service providers, while still delivering energy savings for households and businesses.

The Energy Efficiency Action Plan will implement actions that see further steps towards consistency in the NSW and Victorian schemes.

The Australian Government has also been considering the establishment of a National Energy Savings Initiative. The NSW Government has set conditions for integrating the Energy Savings Scheme into a national scheme. These conditions ensure that NSW households and businesses will see the same or greater benefits under any national scheme.

If the Australian Government implements a National Energy Savings Initiative, the Energy Efficiency Action Plan will be reviewed and reformed to maximise its ongoing value to NSW households and businesses.

What is the NSW Energy Savings Scheme?

The Energy Savings Scheme creates a market to help households and businesses save energy. The scheme has four key features:

- a legislated target for electricity retailers to either purchase energy savings certificates or pay a penalty
- energy efficiency product and service providers who create certificates from energy savings activities and sell them to electricity retailers
- an Energy Savings Scheme Rule that defines eligible energy saving activities and methods for calculating certificates
- a scheme administrator, the Independent Pricing and Regulatory Tribunal (IPART), which accredits energy efficiency product and service providers, provides a registry for certificates and requires electricity retailers to meet their obligations.

Households and businesses do not need to access the scheme directly. Instead, energy efficiency product and service providers use the financial incentives available under the scheme to provide their customers with cost effective, accessible, and high quality energy efficiency products and services.

Coordinate energy efficiency with national energy market reform

Comprehensive reforms of the national energy market are under way at a state and national level. The Energy Efficiency Action Plan complements these reforms by improving customer participation through energy efficiency.

The Council of Australian Governments has agreed to a comprehensive package of reforms (visit www.coag.gov.au/node/481) to Australia's energy markets. This package includes a directive for the Standing Council on Energy and Resources to develop and implement a package of reforms based on the recommendations of the Australian Energy Market Commission's Power of Choice Review (visit www.aemc.gov.au/market-reviews/open/power-of-choice-update-page.html).

The Power of Choice Review made recommendations to improve demand-side participation in the national energy market including:

- greater coordination of energy efficiency and demand management programs to ensure the value of reductions in peak demand are recognised in existing energy efficiency programs
- improved availability of publicly accessible data on the impacts of energy efficiency measures on both peak and average electricity demand.

The Energy Efficiency Action Plan contributes to these recommendations. It includes actions to investigate measures that could deliver energy savings at peak times and locations, and provide better access to government data on the peak demand impacts of energy efficiency activities.

3 Objectives for NSW energy efficiency

Keep on track to meet NSW 2021 and make NSW number one

The objectives of the plan are to deliver bill savings to those most impacted on by recent price rises and investigate policy options for new measures that will further reduce pressure on future prices.

The NSW Government is committed to reducing the cost of living by containing electricity costs through efficient energy use. Goal 5 of *NSW 2021* includes targets and actions to:

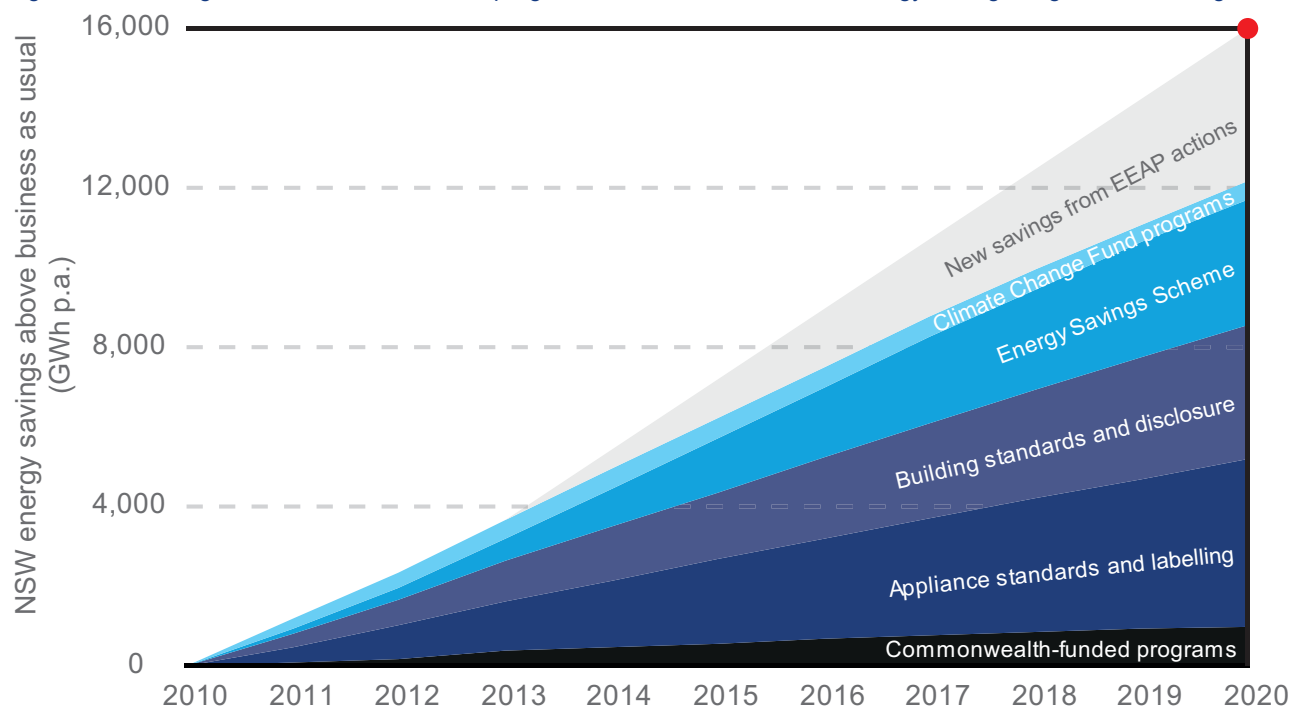
- assist businesses and households to realise annual energy savings of 16,000 gigawatt hours by 2020
- support 220,000 low income households to reduce their energy use by up to 20% by 2014
- deliver high-standard building retrofit programs so 50% of the commercial floor space of NSW achieves a 4-star NABERS energy and water rating by 2020.

Existing action on energy efficiency is estimated to deliver three-quarters of the energy savings targets by 2020. Actions have already supported 180,000 low-income households and improved the average star rating of NSW commercial floor space from 2.5 to 3 stars.

The NSW Government has made good progress towards these targets but there is still more to do. The plan contains programs to deliver immediate bill savings to those who need them most and to maintain this momentum. It also commits to investigating new policy options that will deliver the additional savings that are required to meet the *NSW 2021* targets.

Meeting the *NSW 2021* energy savings target will require a shift in focus from programs that assist end-users directly to a more open and competitive market-based delivery of energy efficiency services that assists end-users indirectly through service providers.

Figure 5: Tracking the estimated cumulative progress towards the NSW 2021 energy savings target from existing measures



Source: Office of Environment and Heritage estimates based on evaluation of NSW and national energy efficiency policies and programs

EEAP = Energy Efficiency Action Plan

● = NSW 2021 energy savings target.

Distribute direct and indirect benefits equitably

Most energy efficiency programs are funded through obligations on network providers and energy retailers. This funding is passed onto consumers through electricity bills. Customers who participate in programs see financial benefits from energy efficiency as it saves them money on bills. Customers who do not participate also see benefits through reduced pressure on future prices and market transformation where high efficiency products become cheaper as they are adopted more widely.

There is a need to maximise access to programs that overcome barriers to energy efficiency and save money on bills

The Office of Environment and Heritage estimates that households and small businesses contribute around 37% to the costs of energy efficiency programs. The NSW Energy Efficiency Action Plan aims to balance the direct benefits received by households and small businesses with the amount these sectors contribute by increasing access to the Energy Savings Scheme. Low-income households also contribute to energy efficiency programs and require targeted support.

There is also a need to maximise benefits for energy users who do not participate in programs

Indirect benefits can be maximised by targeting energy savings at the sectors, times and locations that place pressure on prices. The Australian Energy Market Commission's Power of Choice Review recommends better coordination of energy efficiency programs and demand management to maximise benefits.

Energy prices are higher at peak times, in regional areas and for small energy users because it costs more to supply energy in these circumstances. Programs will be delivered to target savings where they maximise benefits for all energy users across the economy.

Figure 6: Energy efficiency has short-term and long-term benefits

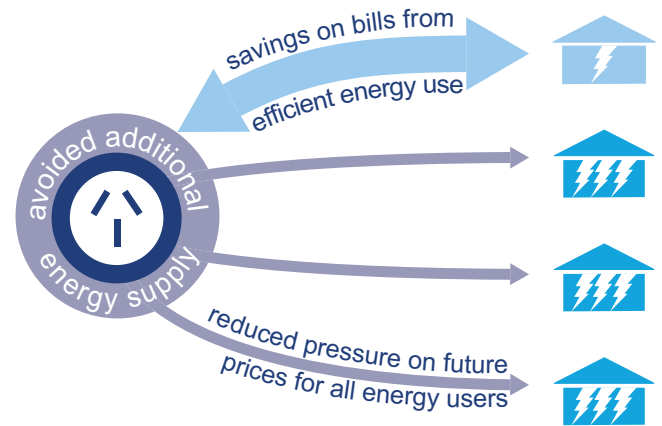


Figure 7: The plan will maximise the accessibility of programs by tailoring offerings to each sector

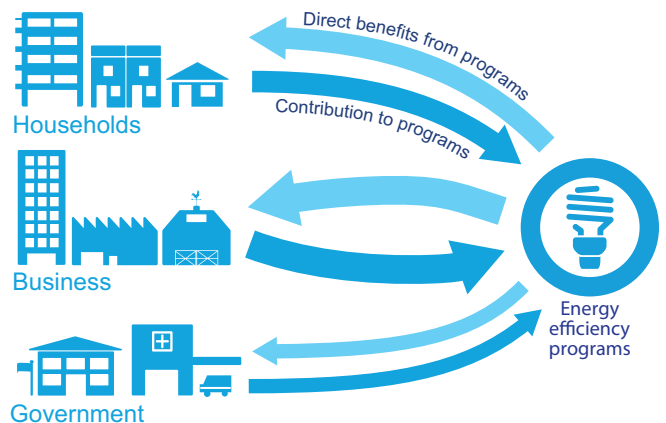
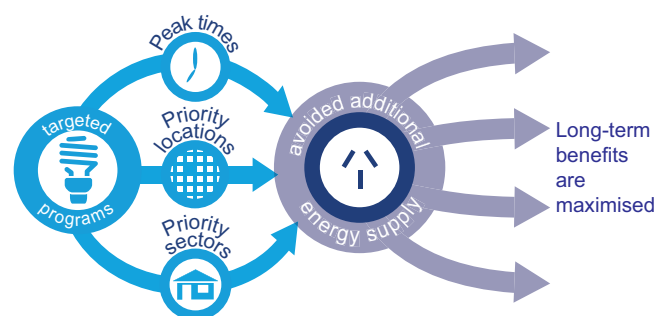


Figure 8: The plan will maximise long-term benefits for energy customers



4 Strengthening the energy efficiency market

The energy efficiency market in NSW is still emerging. Energy efficiency policies and programs need to facilitate market growth while maintaining accessibility, quality and affordability.

This plan contains actions to investigate policy options to provide the market with the structures, incentives, tools and skills it needs to mature. Through the plan, programs will use market delivery approaches to deliver bill savings to households, business and government.

Enhance the Energy Savings Scheme

The NSW Energy Savings Scheme is the largest single contributor to the NSW 2021 energy savings target. The scheme has already locked in 5,000 gigawatt hours of energy savings over the life of the projects it has helped to implement and has been a key driver of growth in the energy efficiency service industry over the past four years.

The NSW Government will investigate ways that the scheme can be enhanced as the key mechanism for market delivery of energy efficiency in NSW.

Action 1

Review the Energy Savings Scheme, including:

- targets, penalties and scope to help meet *NSW 2021* targets and drive sustainable industry growth
- scheme functions and capabilities to define roles and responsibilities to make the administration of the scheme more understandable, logical and transparent
- the state of the current energy efficiency market to identify pathways for market transformation.

Responsibility: Office of Environment and Heritage with NSW Trade & Investment – Resources and Energy Division

The NSW Government will undertake the first major enhancement to the Energy Savings Scheme Rule since the scheme began in 2009. These enhancements will aim to encourage a broader range of energy efficiency actions, remove unnecessary red tape that prevents some service providers from accessing the scheme and embed processes to ensure lasting savings through quality products and services.

A joint NSW-Victorian taskforce is working to harmonise the Energy Savings Scheme and the Victorian Energy Efficiency Target (see ‘Harmonise schemes to improve the market for energy efficiency’ under ‘NSW in the national policy context’).

In the short-term, the NSW Government will reform the rule to harmonise categories and requirements for deemed savings. Further recommendations from the joint taskforce will be considered in future rule changes.

Action 2

Enhance the Energy Savings Scheme Rule by proposing:

- a rule change that harmonises with the Victorian Government’s scheme, reduces red tape, opens access to households and gives evidence-based incentives to business
- a medium-term rule change that introduces low-cost ways for small and medium-sized businesses to access the scheme
- future enhancements to further harmonise with the Victorian Government scheme and update the rule to reflect transformation in the residential and commercial building and appliance market.

Responsibility: NSW Trade & Investment – Resources and Energy Division

Target energy savings at peak times and locations

The key driver behind rising electricity costs has been to meet demand at peak times and locations. Energy efficiency policy can maximise benefits if it encourages investment in technologies and services that save energy during peak times in the most congested areas of the electricity grid.

The Australian Energy Market Commission's Power of Choice Review has recommended better coordination of energy efficiency and demand for energy (demand-side participation) to deliver the greatest benefits to energy consumers.

Action 3

Investigate policy options to deliver cost-effective energy savings at the times and locations of peak demand and to better coordinate energy efficiency programs and demand-side participation.

Responsibility: Office of Environment and Heritage with NSW Trade & Investment – Resources and Energy Division

Explore options to increase gas energy efficiency

There is concern that NSW natural gas prices could increase because of growing links with international demand for natural gas and the carbon pricing mechanism. Other jurisdictions, including Victoria, have energy efficiency schemes that include incentives for natural gas efficiency.

The NSW Government will explore policy options to provide incentives for natural gas efficiency that place downward pressure on energy prices and align NSW energy efficiency policy with international best practice.

Action 4

Investigate policy options for market-based mechanisms to provide incentives for household and business gas efficiency.

Responsibility: Office of Environment and Heritage with NSW Trade & Investment – Resources and Energy Division

Position NSW as the Asia-Pacific region centre for energy efficiency

The NSW Government's Economic Development Framework and response to the Professional Services Industry Action Plan identifies actions for industry and the NSW Government to develop local capabilities and grow exports in energy services.

This includes leveraging existing research strengths in Newcastle and Sydney, greater industry-research collaborations, and facilitating international jurisdictions' access to NSW's regulatory expertise and intellectual property, such as NABERS.

Action 5

Deliver initiatives to position NSW as a leading centre of energy technology and services in the Asia-Pacific Region.

Responsibility: NSW Trade & Investment – Industry Investment Attraction Team

Improve publicly accessible data

Energy efficiency is a key factor that informs the planning of electricity supply infrastructure. The Australian Energy Market Commission's Power of Choice Review included a recommendation to improve reporting and availability of publicly accessible data on the impacts of energy efficiency measures on both peak and average demand.

The Office of Environment and Heritage has an ongoing evaluation program to quantify the impacts of energy efficiency programs and ensure they remain effective. Making this evaluation available to the public will help inform infrastructure planning and investment decisions and increase resource efficiency.

Action 6

Measure and verify savings from energy efficiency programs to ensure they are being delivered efficiently and effectively. Report evaluation findings to the energy market to inform infrastructure planning and investment.

Responsibility: Office of Environment and Heritage

5 Energy efficient homes

The Energy Efficient Homes program will foster a sustainable market for household energy services, residential building upgrades and high-efficiency appliances.

The program will ensure quality control and enable low-income households to access significant bill savings. It will provide consistency and administrative efficiency by integrating with existing policy frameworks through BASIX, the Energy Savings Scheme and appliance standards.

Encourage innovative behaviour change programs

Influencing energy consumption by changing consumer behaviour presents a significant energy efficiency opportunity, but it requires responsive feedback and continuous engagement. There are few existing mechanisms that encourage the development of innovative behaviour change programs.

The NSW Government will enable the Energy Savings Scheme to provide incentives to encourage new innovative behaviour change programs that save energy.

Action 7

Provide incentives through the Energy Savings Scheme for energy retailers and networks to give their customers tools and information that are proven to save energy, for example comparing energy usage levels to similar households.

Responsibility: NSW Trade & Investment – Resources and Energy Division with Office of Environment and Heritage

Support households to make energy efficient choices

Households have limited time available to properly assess energy efficiency options, with competing demands on their time. These pressures mean that households may not undertake energy efficiency projects even if they know it is in their best interest.

Households often rely on energy efficiency service providers to identify and plan energy efficiency upgrades. These can expose households to poor estimates of future energy savings or result in some service providers lowering the quality of work to make a profit.

The NSW Government will enable the Energy Savings Scheme to provide incentives for residential building fabric upgrades. Tradespeople will be able to access the Energy Savings Scheme with quality-assured, low-cost planning and technical support so they can help households make informed decisions and implement energy efficiency.

Action 8

Provide incentives through the Energy Savings Scheme for tradespeople to reduce the cost and increase the quality of household upgrades to lighting, fixed appliances and building fabric.

Train and licence tradespeople to use an Energy Savings Scheme home retrofit tool to identify appropriate energy efficiency opportunities for each household.

Provide Energy Savings Scheme incentives for households to go beyond minimum BASIX targets when building or renovating.

Responsibility: NSW Trade & Investment – Resources and Energy Division, Office of Environment and Heritage, and Department of Planning and Infrastructure

Energy efficient appliances are the cheapest to run, but they have often have high upfront costs. Consumers may choose cheaper, less efficient appliances because it is currently difficult to assess the energy performance between different appliances.

The NSW Government will reduce red tape for appliance retailers to access the Energy Savings Scheme so they can make high-efficiency appliances more affordable and accessible.

Information on energy efficiency at the point of sale is often difficult to understand. Appliance retailers that provide other goods and services to households do not typically know about energy efficiency.

The NSW Government will provide training for appliance retailer staff, and information online and at the point of sale to help customers make informed decisions about energy efficient appliances.

Action 9

Provide access to Energy Savings Scheme incentives for appliance retailers to make high-efficiency appliances more affordable and accessible for their customers.

Provide training for appliance retailer staff and provide web-based information on the benefits of higher star ratings to help households make informed decisions.

Responsibility: NSW Trade & Investment – Resources and Energy Division with Office of Environment and Heritage

Target additional support for low income households

Energy poverty occurs when a household spends a disproportional amount on energy, sometimes considered as over 10% of their income. On average, low-income households in NSW spend 8% of their income on energy bills with some households spending over 14%.

When energy costs comprise this much of a household's income, it can lead to disconnection or cutting back on other essentials. These may include food or clothing, and avoiding heating and cooling during weather extremes which can impact on health.

The NSW Government provides targeted assistance to low-income households because they are less able to access existing energy efficiency schemes and programs. The Home Power Savings Program has delivered energy efficiency support to over 180,000 low income households, putting NSW on track to meet the *NSW 2021* target to support 220,000 households by June 2014.

Action 10

Complete the Home Power Savings Program to support 40,000 low income households save money on bills.

Responsibility: Office of Environment and Heritage

The Home Power Savings Program is not the only support offered to low-income households to help them manage their energy bills.

With the completion of the Home Power Savings Program, the NSW Government will identify ways to enable low-income households to access energy efficiency and manage their energy bills.

Action 11

The NSW Government will review energy efficiency programs to identify opportunities for improved access to energy efficiency for low income households.

Responsibility: Office of Environment and Heritage with NSW Trade & Investment – Resources and Energy Division

Help energy efficient homes stand out

Households face split incentives that create obstacles to meeting energy efficiency: between tenants and owners, and between vendors and home buyers. For example, a landlord has no incentive to pay for an upgrade that reduces energy costs when these costs are paid by their tenant. A tenant pays for energy but cannot upgrade the building fabric. As a result, energy efficiency upgrades are not common in the private rental property market.

It is difficult for vendors to sell the benefits of an energy efficient home in a way buyers can easily understand, and enable buyers to compare different properties. These difficulties reduce the appeal of upgrading a property to boost its sale price.

The NSW Government will investigate how to assist owners and vendors to provide trusted, easy to access information at the point of sale or lease.

Action 12

Investigate a voluntary rating system for residential buildings at the point of sale or lease.

Responsibility: Office of Environment and Heritage

Enable affordable and accessible finance for residential energy efficiency

Household energy efficiency upgrades are often expensive even though they deliver significant savings in the long-term. This makes the decision to undertake energy efficiency harder for households. This is especially the case for low-income households who lack access to upfront capital.

Household energy efficiency upgrades are often unique investments so households and financial institutions have to do more work to arrange a loan. These loans typically attract higher interest rates and reduce the potential benefits to a household from undertaking energy efficiency projects. Taking on additional debt carries a higher amount of risk for low-income households, who are often targeted by predatory lending.

The NSW Government will explore options for new and innovative financial mechanisms which reduce the overall costs of undertaking energy efficiency projects, spread upfront costs over time, and allow tenants and owners to share the costs and benefits of energy efficiency.

Environmental Upgrade Agreements are an innovative financing mechanism that enables owners and tenants to repay loans for energy efficiency through council rates. To date, these agreements have only been used for commercial buildings even though they could also apply to multi-unit residential buildings.

Action 13

Investigate options to enable affordable private finance for residential building energy efficiency upgrades. This will include safeguards for quality assurance and consumer protection.

Provide households with standard contracts for Environmental Upgrade Agreements to finance upgrades to multi-unit residential buildings.

Responsibility: Office of Environment and Heritage

Share information, data and tools through an online portal

Many households do not know how much energy their homes and appliances consume, or the ways in which their behaviour affects their energy consumption. Energy savings companies can assist households, but publicly available information on energy efficiency and energy consumption is often disparate, unreliable and outdated. This means that different service providers give widely varying estimates of energy savings for the same initiative, making it difficult for households to make informed decisions.

The NSW Government will form partnerships with industry to develop an online digital platform for households and their service providers to access reliable data, information and tools. This digital platform will focus on giving service providers access to online resources to help streamline transaction costs and better inform their customers about energy efficiency.

Action 14

Provide households and tradespeople with online access to energy savings tips, the Energy Savings Scheme home retrofit tool and household energy efficiency datasets.

Responsibility: Office of Environment and Heritage

6 Energy efficient business

The Energy Efficient Business program will unlock business energy productivity by working with industry to accelerate the uptake of energy efficiency opportunities.

Through the program, partnerships will be formed with business networks to inform NSW businesses about opportunities to save energy using datasets from existing programs and incentives through the Energy Savings Scheme. Government effort will be targeted at priority sectors and focus on building market capacity to deliver savings for businesses.

Establish upfront incentives for businesses to verify savings

It is often difficult to estimate energy savings achieved through complex energy efficiency projects. This makes it hard for businesses to make investment decisions with confidence.

Measurement and verification of energy savings is the emerging best practice in quantifying the benefits of energy efficiency. Energy use is measured before and after, or between, control and treatment groups. Estimates produced by measurement and verification make energy efficiency more certain and bankable.

Action 15

Provide upfront incentives through the Energy Savings Scheme for businesses and their product and service providers that reflect equipment lifetimes and require best practice measurement and verification of energy savings.

Responsibility: NSW Trade & Investment – Resources and Energy Division with Office of Environment and Heritage

Accelerate the uptake of energy efficiency in priority sectors and technologies

Certain sectors, like the commercial property sector, have substantial untapped potential to save energy. A number of technologies, like lighting and air conditioning, can generate significant energy savings across many business sectors.

Tapping into these opportunities can deliver significant savings on bills to individual businesses and all NSW energy users. However, many businesses are not aware which technologies are most appropriate and effective for their needs.

The NSW Government will target these priority technologies and sectors by developing Energy Savings Scheme tools and business-case guides so they can easily identify opportunities, implement upgrades and access the Energy Savings Scheme.

Action 16

Provide small and medium-sized businesses and their product and service providers with Energy Savings Scheme tools and business-case guides.

Encourage quality energy efficiency projects by publishing lists of eligible products, and training and licensing tradespeople to use the Energy Savings Scheme tools.

Responsibility: Office of Environment and Heritage

Energy Savings Scheme tools and business-case guides will be based on comprehensive datasets compiled by the Office of Environment and Heritage from over 17,000 energy efficiency assessments under the previous Energy Saver and Energy Efficiency for Small Business programs.

The NSW Government will build on this existing knowledge base with targeted investigations into priority sectors and technologies to make the business case for energy efficiency certain.

The NSW Government will form partnerships with industry associations to ensure this information is relevant to their members and to efficiently roll-out these tools and business-case guides across NSW.

Action 17

Identify priority sectors and technologies and support a small number of businesses to identify, implement and verify energy savings actions to provide real-world case studies.

Form partnerships with industry associations to engage small to medium-sized businesses with these information resources and accelerate uptake of energy efficiency opportunities.

Responsibility: Office of Environment and Heritage

Many small and medium-sized businesses do not have an energy manager or staff who specialise in energy efficiency. For non-specialist staff, implementing energy efficiency upgrades can be time consuming and costly. Such staff members may also avoid deciding between competing suppliers or technologies until there is a clear market leader.

These barriers increase the work required to procure energy efficiency, making it a low priority.

The NSW Government will provide access to hands-on training for site managers to help them implement and maintain energy efficiency projects in their businesses.

Action 18

Offer hands-on training for site managers to help them apply business-case guides and best practice maintenance plans to their own circumstances.

Responsibility: Office of Environment and Heritage

Support small businesses by enhancing existing services and advice

The NSW Government supports small businesses through several programs including the Small Biz Connect program, which provides free business administration advice. Industry associations also provide this kind of advice to their members.

The Energy Efficient Business program will enhance these existing services by enabling them to provide initial energy efficiency advice to their customers.

Action 19

Provide energy efficiency basics training and information resources to general business advisors.

Responsibility: Office of Environment and Heritage

Standardise financial contracts for energy efficiency projects

Most energy efficiency upgrades in small and medium-sized businesses are unique. Unique projects increase the amount of work required by financial institutions to arrange a loan. This additional work increases interest rates and reduces the overall benefit of implementing energy efficiency.

For some smaller businesses, the size of the loan required for energy efficiency can be too small for financial institutions to provide finance at all.

By providing standardised contracts, the Energy Efficient Business program will reduce transaction costs and make energy efficiency more accessible and affordable for small and medium-sized businesses.

Action 20

Form partnerships with industry associations to provide commercial financial contracts for energy efficiency, including Environmental Upgrade Agreements, Energy Performance Contracts and on-bill finance.

Responsibility: Office of Environment and Heritage

Build a digital platform to improve access and share data on energy savings

Robust and comprehensive data on energy end use and energy efficiency opportunities can greatly assist both energy efficiency companies and their customers by improving the quality of advice offered and providing certainty about future energy savings from projects.

Currently, much of this data is fragmented, restricted, and outdated, making accurate assessment of the market for energy efficiency difficult.

The NSW Government will form partnerships with industry to build an online digital platform that enables government and businesses to share data on energy efficiency opportunities and provide easy access to case studies, guides and tools.

Action 21

Provide businesses with online access to real life case studies, business-case guides and Energy Savings Scheme tools. The online service will also assist small and medium-sized businesses to measure and verify bill savings.

Equipment suppliers will have online access to Energy Savings Scheme tools and government datasets on energy efficiency opportunities.

Responsibility: Office of Environment and Heritage

7 Energy efficient government

The NSW Government will take a leadership role in adopting energy efficient technology and innovative financial mechanisms to retrofit existing facilities. This leadership will accelerate the growth of the energy services market in NSW and provide a best practice example for large businesses to follow.

The Office of Environment and Heritage will provide a whole-of-government team that will work with key agencies and energy service providers with the intent to invest around \$170 million in energy efficiency projects initiated over the next four years that could deliver savings of up to \$27.5 million a year on energy bills. Over 14 years, the NSW Government could see a net benefit of \$75 million over and above the investment and interest payments.

The Auditor General has conducted a comprehensive review of building energy use in NSW public hospitals. This plan adopts and implements the key recommendations of the review to improve energy management across all agencies.

Drive savings by key government agencies

There are significant savings to be achieved across all government facilities but the cost of energy is small relative to most agency budgets, so price signals are not a driver for energy efficiency.

The NSW Government will bring forward a Government Resource Efficiency Policy to drive energy efficiency projects over the next four years and in the longer term. This policy will be flexible and allow agencies to direct their effort to sites that require special attention, including emergency services and heritage buildings. It will also deal with water efficiency and waste minimisation for government agencies.

Action 22

Bring forward a Government Resource Efficiency Policy for key agencies with the intent to deliver \$75 million net bill savings to government.

Responsibility: Office of Environment and Heritage

Support agencies with a specialist team and a pre-qualified tender panel

Energy efficiency is not core business for most government agencies. They are focused on providing health services, educating students or building roads – delivering essential services.

This means that agencies often do not have staff dedicated to finding and implementing opportunities to save energy. Agency facility and contract managers lack skills in energy efficiency, increasing the amount of work required by agencies to tender and implement energy efficiency upgrades.

The NSW Government will establish a dedicated whole-of-government team that will work with key agencies and energy service providers to deliver energy efficiency projects.

Action 23

Provide a dedicated team of energy efficiency specialists in the Office of Environment and Heritage to help key agencies to identify and implement energy efficiency projects.

Responsibility: Office of Environment and Heritage

The Auditor General has identified the need for a pre-qualified panel of energy efficiency service providers to streamline procurement processes for energy efficiency at NSW public hospitals. This approach is consistent with the Victorian Greener Government Buildings Program and will benefit all agencies in procuring energy services.

Action 24

Establish a pre-qualified tender panel to streamline procurement and harmonise with the Victorian Greener Government Buildings Program.

Responsibility: Department of Finance & Services

Streamline government energy efficiency finance

The Auditor General recommended that financial mechanisms for cost effective energy efficiency projects be simple, flexible, and effective.

The NSW Government will streamline access to public and private financial mechanisms to make implementing energy efficiency projects simpler for all government agencies.

Access to finance will be flexible and allow agencies to provide supplementary funding where projects have benefits outside of energy efficiency, for example, where projects result in savings in maintaining heritage buildings.

Action 25

Assist agencies to access a range of financial mechanisms to pay for energy efficiency projects over time through savings on bills.

Project establishment costs will be fully recovered through project finance to remove upfront barriers.

Financial mechanisms include the use of government finance facilities for general agencies, Environmental Upgrade Agreements, and Energy Performance Contracts or equivalent through private finance for non-general agencies.

Responsibility: Office of Environment and Heritage

Increase energy efficient office leases

The commercial property sector faces a number of barriers to achieving greater energy efficiency, and needs support to drive higher NABERS building ratings and uptake of Environmental Upgrade Agreements.

The NSW Government will lead by example in supporting the upgrade of commercial buildings by increasing the number of energy efficient office leases taken up by government agencies.

Action 26

Increase the number of energy efficient office leases using a range of methods to maximise value for government.

Methods include the negotiation of Green Lease schedules, use of Environmental Upgrade Agreements with owners to reduce the cost of leases and the achievement of targets for NABERS ratings where cost effective.

Responsibility: Department of Finance & Services

Share government energy savings data

Sharing data on government energy use will enable government agencies and pre-qualified service providers to more easily identify government sites with high consumption and drive better energy management in the public sector.

Action 27

Provide all agencies with online access to government energy consumption data and analysis.

The digital platform will include interval meter data on government energy consumption where already available and cost effective to publish.

Responsibility: Office of Environment and Heritage and Department of Finance & Services

8 Statewide delivery

The statewide delivery strategy gives communities, businesses and local governments across NSW access to Energy Efficiency Action Plan initiatives and the opportunity to maximise their energy productivity and save money on bills.

Statewide delivery is a key principle embedded in each major NSW Government plan and strategy, including *NSW 2021*, which has a goal to drive economic growth in regional NSW. Households and businesses in regional NSW typically pay around 10% in higher electricity prices because the larger rural network serves a comparatively smaller number of customers.

Place energy specialists in regions to provide support

The NSW Government will place energy efficiency resources in local communities, offering a dependable source of independent, robust advice.

Action 28

The Regional Clean Energy Precincts program, which currently focuses on renewable energy projects, will be expanded to provide local communities with face-to-face links to the energy efficiency programs offered by the NSW Government.

Responsibility: Office of Environment and Heritage

Leverage existing regional networks

To provide further support for regional communities, the NSW Government will form partnerships with industry associations, community organisations and agencies running other government programs, to leverage existing regional networks.

Action 29

Form partnerships with industry associations, community organisations and agencies running other government programs with existing links to regional communities.

Responsibility: Office of Environment and Heritage

Provide easy-to-access online resources for all households and businesses

Online resources hosted on a digital platform will provide access to independent, credible and up-to-date information and tools for households and businesses.

Action 30

Provide online access to independent, credible and up-to-date information and tools for households, businesses and their services providers across NSW.

Responsibility: Office of Environment and Heritage

9 Delivery of the plan

The NSW Government will support the delivery of this plan with clear governance arrangements and new structures.

The Minister for the Environment will lead on the delivery of the Energy Efficiency Action Plan, working with the Minister for Resources and Energy to report on progress.

The Energy Efficiency Action Plan will be implemented alongside the Renewable Energy Action Plan to attract investment and growing expertise, build community support and reduce pressure on electricity costs for customers.

The implementation of the NSW Energy Efficiency Action Plan will be guided by the NSW Economic Development Framework. The Framework, released by the Deputy Premier in December 2012, emphasises that it is only through partnerships with industry, education and research organisations and all levels of government that the vision of dynamic economic growth will be achieved.

