

# Labor's Solar Schools - Solar Homes Plan



New Leadership.

# Labor's Solar Schools - Solar Homes Plan

**Election 2007**

Policy Document

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# Labor's Solar Schools - Solar Homes Plan

## Overview

Australians care about their environment.

As Australians, we all want clean air, healthy waterways and green spaces for their children to play in. We understand the urgent challenge of climate change, and its potential to have devastating impacts on our environment, our economy and our jobs.

Australians are also keen to do what they can to help tackle climate change – by cutting our own greenhouse emissions, and reducing pressure on our water supplies and stressed river systems.

With the right leadership, we can transform our homes, our schools and our communities into solar power generators and water catchments, reducing household bills and supporting the growth of clean energy technologies.

A Rudd Labor Government will help Australian families join in and play their part by making it easier to undertake practical action in their own homes and their local communities.

### Labor's Solar Australia

There are currently 30,000 solar rooftops across Australia. Labor will aim to double this number within the next eight years and make every Australian school a solar school.

To achieve this Federal Labor will:

- Invest \$489 million to make every Australian school a **solar school**, installing up to \$20,000 worth of solar technology in each school and offering up to \$30,000 in energy and water efficiency improvements.
- Invest an extra \$25 million in the **Solar Cities program**, including funding for a new solar city in Perth.
- Offer rebates of up to \$8,000 for **solar power panels** for up to 3000 homes a year as part of a \$150 million program that also includes grants for half the cost of a 2kilowatt system for around 400 community buildings every year.

### Practical household action

A Rudd Labor Government will help Australian families with practical action in their homes and will:

- Establish a user-friendly 'one-stop-shop' website that links families, schools and businesses to all Commonwealth, State and local government household efficiency programs.
- Offer low interest Green Loans of up to \$10,000 to make 200,000 existing homes more energy and water efficient, with subsidised environmental audits and free Green Renovations packs.
- Offer rebates of up to \$1000 for 225,000 Australian homes to install solar and heat-pump hot water systems.
- Offer rebates of up to \$500 each for 500,000 homes under Labor's National Rainwater/Greywater Plan to help install new piping for grey water use or rainwater tanks.

- Offer a 30 per cent rebate of up to \$500 per property for landlords to install insulation in 300,000 rental homes.

**Standards for sustainable, affordable living**

A Rudd Labor Government will work with the building and appliance industries and State and Territory Governments to:

- Deliver more sustainable housing, by making new and existing homes more energy and water efficient and more affordable to live in.
- Establish a new 10 star appliance rating system and Greenhouse and Energy Minimum Standards to fast track smart efficient technology and phase out the most greenhouse-intensive hot water systems.

A Rudd Labor Government will invest in solar schools - solar homes for a Solar Australia. This will help Australian families to take practical action at home to tackle climate change, use energy and water more efficiently, and save money on household bills.

## The challenge of climate change

Climate change is one of the biggest challenges confronting our planet. It is a challenge not only to Australia's environment, but also to our economy and jobs.

The CSIRO has warned that we face hotter and drier summers, more intense droughts, less water for our cities, more extreme weather events, the loss of our snow fields and the devastation of the Great Barrier Reef.

For 11 long years, the Howard Government has denied and downplayed the threat of climate change – right from John Howard down to his backbench.

A Rudd Labor Government is committed to cutting greenhouse gas emissions by 60 per cent on 2000 levels by 2050. This is what scientists – including the CSIRO – are telling us needs to happen if we are to avert the serious economic consequences of dangerous climate change.<sup>1</sup>

If we are to meet this challenge, we will all need to make changes in our lives – at home, at work, at school and in the communities in which we live.

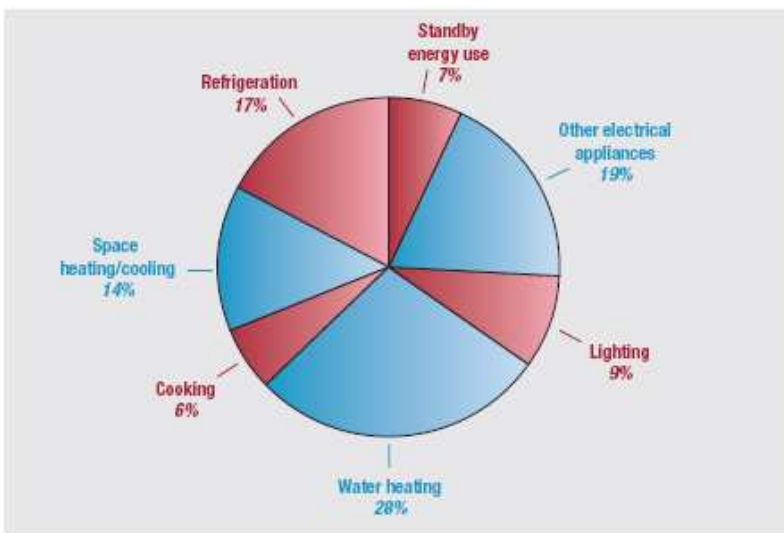
Our homes are using more energy and creating more greenhouse gases every year. Australia's household energy greenhouse indicator has increased by almost 20 per cent since 1990, from 2.8 to 3.3 tonnes for every Australian.<sup>2</sup>

Domestic energy demand will continue to increase substantially, with large numbers of new air conditioners expected to be installed in Australian homes. This demand will add to the cost of living pressures being felt by Australian families, and will further stretch our electricity supply infrastructure during peak periods.

The CSIRO has warned that we face a hotter and drier future.

Meeting the challenge of climate change requires taking action now to secure our future prosperity.

**FIGURE 1: GREENHOUSE GASES FROM HOME ENERGY USE**



Source: Home Technical Manual, Third Edition, Australian Greenhouse Office, 2005

### Solar power in Australia

Solar power is one of the cleanest forms of energy available. It is capable of significantly reducing greenhouse pollution and providing low-cost renewable energy for Australia's future to power our homes and heat our water.

Despite Australia's abundant sunshine, only 0.05 per cent of our energy needs are met with solar power<sup>3</sup>, with solar panels on the rooftops of around 30,000 homes<sup>4</sup>. According to a group of leading Australian companies, the Australian Business and Climate Group, an increase in the number of solar homes will help offset the rising and costly demand for centralised electricity supply infrastructure, and bring down the cost of solar systems.<sup>5</sup>

While solar power systems require a significant up front investment, they have extremely low running costs. A typical system could generate around one third of an average home's electricity needs – or all of an efficient home's requirements.

By connecting their solar system to the grid, households can draw additional energy as they need it and sell excess energy back into the electricity grid, spinning the home electricity meter backwards, reducing energy bills and cutting greenhouse emissions.

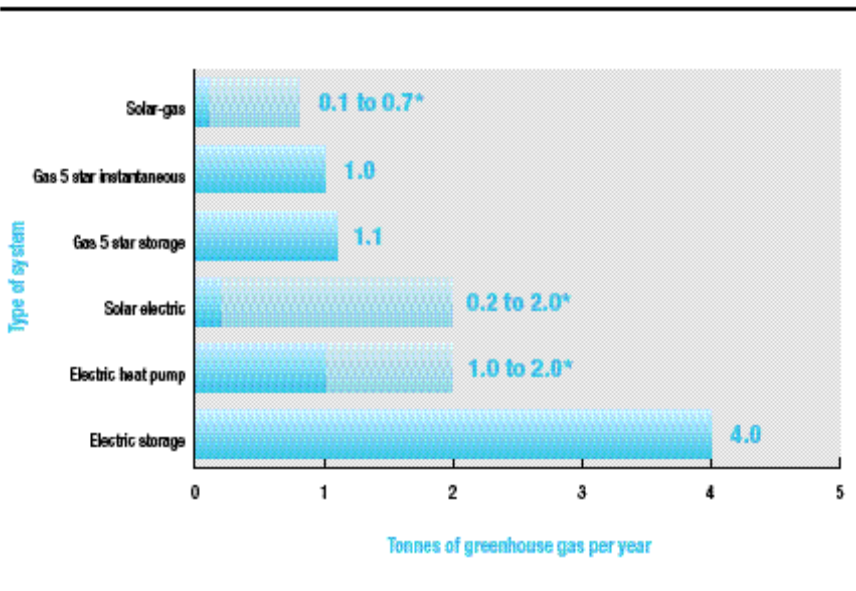
Solar hot water systems are one of the most cost effective ways of cutting greenhouse gas emissions in the home and saving on energy bills.

Hot water systems are energy intensive, accounting for around 28 per cent of the average household's greenhouse gas emissions, and around three per cent of Australia's total greenhouse pollution.<sup>6</sup>

Solar power is one of the cleanest forms of energy

By connecting to the grid, solar powered households can sell excess energy to their energy retailer

FIGURE 2: EMISSIONS FROM HOT WATER SYSTEMS



Solar hot water systems can cut greenhouse emissions and cut household energy bills

Source: Australian Greenhouse Office, Global Warming: Cool It, 2007  
\* Range depends on climate and product performance. Emissions based on 140 litres of hot water each day.

Australia used to lead the world in solar hot water technology, but instead of encouraging the use of solar hot water, the Howard Government has overseen a decline in its use.

In 2005, only 4.4 per cent of our homes used solar hot water systems. This figure had declined from 4.9 per cent a decade earlier.<sup>7</sup> This is despite the potential of solar hot water systems to save households up to \$300 a year in energy bills, cutting energy use on water heating by around 80 per cent and reducing greenhouse gas emissions by over three tonnes annually.

With Australia's electricity supply infrastructure already under strain, and the introduction of emissions trading set to put a price on carbon, the benefits of switching our homes to solar power are clear.

Switching large and medium-sized household electric hot water heaters to climate-friendly systems would save over 7.5 million tonnes nationally of greenhouse gas emissions every year.

The Clean Energy Council calculates the net cost of replacing electric hot water systems in New South Wales with solar and heat pump systems at \$6.21 for every tonne of greenhouse gas emissions reduced – a far lower cost of cutting emissions than many supply-side alternatives, like using renewable energy or advanced coal technologies.<sup>8</sup>

New leadership and a range of incentives are required to substantially boost the proportion of Australian households with solar hot water, moving the market away from greenhouse-intensive systems.

### **Cutting energy waste**

Australians are unwittingly purchasing appliances like dishwashers and fridges that are more costly to run and less energy efficient than they could be. These appliances produce about half of our total household greenhouse emissions.<sup>9</sup>

Using energy and water more efficiently can dramatically reduce our greenhouse emissions, improve productivity, save money and build innovative clean technology industries.

For example, by investing in insulation for the estimated 40 per cent of Australian homes that are not insulated, we can significantly reduce energy used for space heating and cooling, save money on energy bills and make our homes more comfortable to live in.

In September 2007, an analysis by the Centre for International Economics identified a potential average efficiency gain from residential appliances of around 48 per cent.<sup>10</sup>

There is clearly considerable scope to increase greenhouse savings from appliance efficiency by making standards more stringent, while ensuring Australian households actually benefit from reduced running costs.

Purchasing highly-efficient appliances, like fridges and televisions, will reduce running costs significantly over time. Standard incandescent globes can be replaced with compact fluorescent lamps that use 75 per cent less energy to produce the same amount of light.

Switching to climate-friendly hot water systems would cut over 7.5 million tonnes of greenhouse emissions every year

Action taken now can help Australian families cut emissions and drive down energy and water bills

A 350 litre fridge with a three-star rating will cost around \$75 a year to run. This compares to a fridge with a five-star rating which will cost around \$45 a year to run.

If we fail to adopt cost effective energy efficiency improvements, we will soon need to invest heavily to upgrade our electricity generation and supply infrastructure.

Delaying the need for such investments by increasing energy efficiency will allow clean energy technologies to play a larger role in Australia's future energy mix, limit increases in energy prices driven by infrastructure costs and reduce the risk of blackouts.

### **Cutting water waste**

Urban water supplies are coming under increasing pressure from our growing population and the effects of climate change.

While average water use in capital cities has dropped by 15 per cent per person since 2001, there are still significant gains to be made by using water more efficiently at home, capturing rainwater and recycling 'grey water'.

Household water usage and bills can be cut significantly by installing water efficient taps, showerheads and toilets, and also by using water-efficient dishwashers, washing machines and outdoor irrigation equipment.

Household rainwater tanks allow Australian families to capture and use the water falling on their roof – transforming our homes and cities into water catchments.

In urban areas, rainwater tanks are still used by only a small minority of households, except in Adelaide where 38 per cent of households have rainwater tanks and 12.6 per cent use rainwater for drinking.

However, less than 6 per cent of homes in other Australian capital cities have rainwater tanks.

Although rainwater tanks are likely to be installed in many new homes in New South Wales and Queensland as a result of building requirements, there is significant potential for installation of tanks in existing homes to capture rainwater for use in gardens, laundries and toilets.

Water supply in urban areas could be boosted with the installation of extra piping to supply treated water for toilets, gardens and other non-drinking purposes.

Rainwater tanks allow families to capture and use the water falling on their roof – transforming our homes into water catchments

## Labor's Solar schools - Solar Homes Plan

Labor's Solar Schools - Solar Homes Plan will help Australian families take practical action in their homes to tackle climate change.

### Labor's Solar Australia

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A Rudd Labor Government will help Australian families with practical action in their homes and will:

- Establish a user-friendly '**one-stop-shop**' website that links families, schools and businesses to all Commonwealth, State and local government household efficiency programs.
- Offer low interest **Green Loans** of up to \$10,000 to make 200,000 existing homes more energy and water efficient, with subsidised environmental audits and free Green Renovations packs.
- Offer rebates of up to \$1000 for 225,000 Australian homes to install **solar and heat-pump hot water systems**.
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### Standards for sustainable, affordable living

A Rudd Labor Government will work with the building and appliance industries and State and Territory Governments to:

- Deliver more **sustainable housing** to make new and existing homes more energy and water efficient, and more affordable to live in.
- Establish a new 10 star appliance rating system and **Greenhouse and Energy Minimum Standards** to fast track smart efficient technology, and phase out the most greenhouse-intensive hot water systems.

## **Labor's Solar Australia**

### ***Labor's Solar Schools Plan***

Every Australian school will be a solar school within eight years under Labor's comprehensive Solar Schools Plan.

Under this initiative, a Rudd Labor Government will fund the installation of up to \$20,000 worth of solar technology in every one of Australia's 9,612 schools within eight years.

This investment will support the installation of a 2kW solar power system which could provide around 5 per cent of a modest primary school's daily energy needs using around 300 kw/h a day. This would result in an average greenhouse gas saving of 2.8 tonnes per year and deliver electricity savings of up to \$500 per year for every school.

In total, these systems will reduce annual emissions by 27,000 tonnes.

In addition, the Solar Schools Plan will fund up to \$30,000 worth of efficiency improvements so schools can invest in any combination of solar hot water systems, rainwater tanks, passive solar innovations such as sky lights, shade awnings, lighting upgrades or other energy efficiency measures and extended solar power systems.

The Solar Schools Plan will invest up to a total \$50,000 for each school.

This will provide educational benefits for students and communities, jobs and investment in Australia's renewable industries and trades, and sustainable development for our schools.

Surplus electricity generated on weekends and summer holidays can be sold back to the electricity grid for further electricity and greenhouse savings.

Solar Schools' power systems will be compatible with any existing school solar power system, such as those provided under State and Territory Government solar energy programs, and will be expansion-ready should a school wish to install additional solar panels.

### ***Solar Cities***

There are currently five Solar Cities – Adelaide, Townsville, Blacktown, Alice Springs and Central Victoria.

A Rudd Labor Government will invest an additional \$25 million over four years in the Solar Cities program to create new solar cities, including one in Perth . This will bring the investment in Labor's expanded Solar Cities program to \$100 million.

This additional investment will help to further roll out solar power, smart meters, energy efficiency and new approaches to electricity pricing in urban locations throughout Australia. Projects will involve partnerships with all levels of Government, the private sector and the local community.

In partnership with local councils and the Western Australian Government, a Rudd Labor Government will commit \$13.9 million to make Perth a Solar City.

Every Australian  
school will be a solar  
school within eight  
years

It is estimated that more than 6,000 homes and businesses could participate in the first stage of the Perth Solar City project, receiving access to:

- Discounted solar hot water and solar panels.
- Low flow showerheads that save water.
- Efficient low watt light bulbs that save energy.
- Insulation that reduces the need to cool in summer and heat in winter.
- Home energy assessments and smart electricity meters.

The Perth Solar City project is expected to deliver greenhouse gas emission reductions of more than 15,000 tonnes – equivalent to taking 3,500 large vehicles off the road.

### ***Solar Homes and Communities Plan***

In addition to Solar Schools and Solar Cities, a Rudd Labor Government will aim to make every Australian city a solar city through its solar power rebate program. Under this program \$150 million will be made available over five years to households and community buildings to install solar power panels.

Labor's **Solar Homes and Communities Plan** includes:

- Rebates of \$8 per peak watt of installed photovoltaic capacity, up to \$8000 for household installations.
- Rebates for community buildings such as church facilities, scout halls and sports clubs, providing up to half the cost of a maximum 2kW solar system through a competitive grants program.
- A community icons program, promoting examples of sustainable living in neighbourhoods, houses and community centres, funding the full cost of installation of 2kW systems on significant community buildings, like town halls, tourist centres and hospitals.

This funding will deliver solar power for up to 3,000 homes and around 400 community buildings a year - reducing power bills, cutting greenhouse pollution and boosting investment in one of the world's fastest-growing technologies.

Applications for competitive grants for community buildings will be assessed on the value for money and educational merit. Local councils will be eligible for grants, and may enter into partnerships with other community and non-government organisations, such as churches, scout groups and local sporting groups.

### **Practical household action**

#### ***One Stop Green Shop***

There are a growing number of programs at all levels of government for energy and water efficiency. Trying to access these can be confusing and frustrating for households.

Labor will make it easy for households, schools and businesses to access these resources at a simple and centralised point.

A Rudd Labor Government will create a user friendly **'one-stop-shop' website** that links families, schools and business to all Federal, State, Territory and Local Government energy and water efficiency programs.

Labor will:

- Use existing Government websites to create an online one-stop-shop with direct access to Labor's Green Loans, allowing households to request customised environmental audits.
- Provide centralised links to green programs and rebates, including Labor's \$500 rebate for grey water pipes and rainwater tanks, \$1,000 Commonwealth rebates for solar and heat-pump hot water systems and \$8,000 rebates for rooftop solar panels.
- Provide access to information on carbon offsets, certified through Labor's national standard for carbon offset programs, which will require the accreditation of credits sold in the voluntary carbon offset market.

### **Green Loans**

Many households struggle to find the up front cash that they need to invest in solar power, water efficiency and other products to make their home greener.

In addition, many working families do not have the time to do the necessary research to find appropriate energy and water saving products for their home.

For these reasons, a Rudd Labor Government will offer Australian households low interest rate loans of up to \$10,000 to help families with practical measures to make their homes greener.

Under Labor's **Green Loans Plan**:

- Households need the right information to make smart and affordable decisions. That is why Green Loans starts with an environmental audit.
- The homeowner simply picks up the phone or sends an email to arrange a visit from an environmental auditor.
- The auditor assesses the home and drops off a free Green Renovations pack with a water efficient showerhead, shower timer, energy efficient light globes and tips on how to save energy and water. The audit costs the homeowner just \$50, which is fully refundable if they go ahead with the loan.
- The household receives a fully costed list of possible improvements, complete with estimated benefits to electricity and water bills and to the environment.
- The homeowner then selects the improvements they want, and if they decide to go ahead with the loan, the auditor organises the loan and relevant rebate payments, and puts the homeowner in touch with accredited suppliers and qualified tradespeople.

Labor's plan will therefore make the choice to install energy and water efficiency products as simple as asking for an environmental audit.

The plan will build on the existing programs and administrative structures already operated by State and Federal Governments.

Moreover, a Rudd Labor Government will:

Labor will create a user friendly 'one-stop' website that links families, schools and business to all energy and water efficiency programs

Labor will offer low Green Loans of up to \$10,000 to help families take practical action at home

Making energy and water efficient choices will be as simple as asking for an audit.

- Make available 200,000 loans of up to \$10,000 each. Households will only have to pay back 2 per cent of their annual income, with a minimum of \$300 to be repaid each year. These loans will have no real interest charged and will only be indexed to the Consumer Price Index.

### **Case study: Five-person household with existing water tank and gas connection**

#### **Possible actions:**

- Change electric storage water heater to high-efficiency gas (cost \$1350)
- Connect existing water tank to laundry and toilet (cost \$1250)
- Install three star water head in shower (cost \$50)
- Ceiling insulation (cost \$1200)
- Replace 20 halogen downlights with 30 compact fluorescent downlights (cost \$660)
- Install 10 Compact fluorescent lights (cost \$60)

**Total costs: \$4570**

#### **Savings:**

Water saved = More than 45,000 litres per year

Greenhouse gas reduction = up to 7.2 tonnes of greenhouse gas per year

Money saved on water and energy bills = \$800 per year

#### **Payback:**

Loan payback, based on a household income of \$100,000 a year, is under three years.

### ***Solar Hot Water***

A Rudd Labor Government will provide rebates of up to \$1,000 for the installation of solar and heat-pump hot water systems. Under this program, up to 225,000 eligible homes will receive the rebate, with a total investment of \$250 million including administration costs.

Labor will also work with industry and State and Territory Governments to gradually phase-out greenhouse-intensive hot water systems.

This phase out is already underway through various State and Territory measures, for example:

- Queensland is already planning to phase out greenhouse-intensive hot water in all homes.
- Western Australia and Queensland no longer allow the installation of greenhouse-intensive electric storage systems in new homes, and nor does South Australia in areas with access to reticulated natural gas.
- Victoria requires new homes to have either solar hot water or a rainwater tank.
- In New South Wales, BASIX requirements mean that one in four new homes are installing solar or heat pump hot water systems.

Switching Australia's electric storage hot water systems over to climate-friendly systems will save more than 7.5 million tonnes of greenhouse pollution

Labor will help families cut their greenhouse emissions and save up to \$300 on their energy bills

every year, and families could save up to \$300 each year on their energy bills using solar systems.

Under this program:

- Households can receive rebates worth up to \$1000 each for the installation of solar or heat-pump hot water systems. The rebate will be payable to households with a taxable income less than \$100,000 who install solar or heat-pump systems as replacements for electric storage hot water systems in established homes.
- Low interest Green Loans of up to \$10,000 to make 200,000 existing homes more water and energy efficient by replacing electric storage hot water systems with solar, heat pump and high efficiency gas hot water systems.
- Labor will work with industry to harmonise and accelerate State and Territory Government initiatives, implementing nationally consistent Greenhouse and Energy Minimum Standards for hot water heaters.
- These standards will allow for the gradual phase-out of greenhouse-intensive hot water systems in new homes and areas with access to reticulated natural gas in 2010, before extension to all homes by 2012. This phase out will apply to new and replacement installations only, and will not require premature replacement of existing systems.
- Labor will provide exemptions for households where the installation of solar, heat pump and gas systems is impractical or uneconomical, including small homes and multistorey dwellings.

Climate friendly hot water systems can save an average of \$300 on household energy bills

**National Rainwater/Greywater Plan**

A Rudd Labor Government will assist families to take practical action in their own homes to preserve and recycle water – helping to combat Australia’s urban water shortages.

Australians are entitled to a secure water supply, regardless of whether they live in rural and regional communities or towns and cities. On this front, we can all make a difference through our personal actions at home.

Choice magazine says using greywater from the laundry, shower and the bath can save the average family of four up to 4,000 litres every week.

Labor wants every Australian home and its roof to be a personal water catchment area, maximising the collection of rainwater for household use.

A Rudd Labor Government will:

- Invest \$250 million over six years to offer households a rebate of up to \$500 to help install new piping for greywater use or rainwater tanks. The rebate will be in addition to existing subsidies and will help families make their homes more water efficient.
- Help to re-use up to 50 billion litres of greywater – equivalent to 25,000 Olympic swimming pools every year.
- Work in partnership with other levels of government to deliver this practical plan, and ensure that local health and environmental standards are met.

Labor wants every home to be a personal catchment area

- Set an aspirational target that by 2020 all Australian homes, where suitable, will have appliances such as rainwater tanks and grey water re-use systems.

### ***Energy efficient rental homes***

A Rudd Labor Government will provide rebates of up to \$500 for landlords to install energy-efficient insulation in 300,000 Australian rental homes over 4 years.

Insulation is one of the least-cost ways of improving household energy efficiency, with the potential to significantly reduce energy used for space heating and cooling. It has been estimated that installing ceiling insulation, which typically costs around \$1000, could save households upwards of \$300 in annual running costs.<sup>11</sup>

According to the ABS, approximately 40 per cent of Australian homes - more than 2.7 million – are uninsulated.<sup>12</sup> This survey also identified that the main obstacle to installing insulation was the lack of incentive for tenants who were not responsible for insulating their homes.

This makes life especially tough for low-income households, who are already feeling cost of living pressures. Adequate insulation will ease cost of living pressures over the long-term, increasing the year-round comfort of Australian families.

Labor will:

- Invest \$150 million over four years to provide rebates to landlords of 30 per cent of the cost of installing insulation, up to a maximum of \$500 per property for 300,000 Australian rental homes – initially targeting low income rental properties. There will be no limit to the number of eligible properties per landlord.
- Work with the real estate industry and landlords to initially target low income households.

## **Standards for sustainable and affordable living**

### ***Delivering more sustainable housing***

A Rudd Labor Government will accelerate the development and implementation of a nationwide assessment tool for reducing water and energy usage in new homes, and will provide Australian families with crucial cost-of-living information through smart meters and sustainability scorecards.

The housing we build today will impact on Australia's greenhouse footprint for decades to come. There is significant potential to reduce greenhouse gas emissions through smarter housing design and cost-effective improvements to existing homes.

Minimum energy efficiency design standards for new homes have been adopted by the Australian Building Codes Board, which administers the Building Code of Australia (BCA). However, progress in implementing this code has been slow.

Labor will provide rebates of up to \$500 to install insulation in 500,000 Australian rental homes

The housing we build today will impact Australia's greenhouse footprint for decades to come

A number of states and local authorities have added requirements to those under the BCA in order to meet community expectations about sustainable housing. In 2004, New South Wales varied the code to introduce a web-based energy and water standard for new residential construction called the Building Sustainability Index (BASIX).

Some States have indicated they may follow this approach, with its clear focus on reducing energy and water use, without being prescriptive in how builders meet those standards.

In February 2007, the Council for the Australian Federation agreed to investigate the implementation of a nationwide tool for reducing energy and water usage:

*Adoption of the BASIX or similar system nationally has the potential to save in the order of 25 million tonnes of CO<sub>2</sub> and 630 billion litres of water over a ten year period.*<sup>13</sup>

In this context, a Rudd Labor Government will:

- Build on the work already undertaken by the State and Territories Governments to accelerate the development and implementation of a nationwide tool for reducing water and energy usage in new homes.
- Ensure that homeowners save money through cost-saving design features and fittings, and that industry benefits through reduced red tape and harmonisation of key regulations across jurisdictions.

There is an opportunity to drive significant energy and water efficiency improvements in existing homes by providing households and prospective homebuyers with better information.

Smart meters offer the potential for families to easily monitor their electricity use. In the future, these could be linked to appliances to allow the efficient management of energy in the home.

Smart meters also provide households with real time information on their electricity use, allowing them to directly measure the impact of any energy efficiency measures they implement. For example, a family will be able to see the impact of replacing their incandescent light globes with compact fluorescent lamps.

A Rudd Labor Government will work with the energy industry and State and Territory Governments to develop options to accelerate the roll-out of smart meters and develop and implement national standards for smart meters, ensuring compatible smart meter technologies are adopted across Australia.

Prospective buyers are often unaware of the increased costs of living associated with poorly designed homes, with inadequate insulation, inefficient heating and cooling systems and greenhouse-intensive hot water heaters. Similarly, there is a lack of market recognition for homes which perform highly in terms of energy and water efficiency.

Household energy and water efficiency reporting was endorsed in the bipartisan House of Representatives' Standing Committee on Environment and Heritage *Sustainable Cities Report*, which recommended:

*..that the Australian Government encourage the States and Territories*

Prospective buyers are often unaware of the increased costs of living associated with poorly designed homes

*to mandate disclosure of the energy efficiency and greenhouse performance of residences at point of sale and point of lease.<sup>14</sup>*

Any framework for compulsory disclosure of energy and water ratings must be transparent and nationally consistent, and account for split incentives between landlords and tenants in rental properties.

A Rudd Labor Government will:

- Work with State and Territory Governments to implement compulsory point-of-sale sustainability scorecards, based on a transparent and nationally consistent protocol for home energy and water efficiency ratings.
- Work with the housing and real estate industry to encourage point-of-lease scorecards on a voluntary basis, providing prospective tenants with crucial cost-of-living information and landlords with recognition for energy and water efficiency improvements.

### ***Climate friendly appliances***

A Rudd Labor Government will introduce Greenhouse and Energy Minimum Standards that fast-track efficient technology, helping Australian families to save money, cut energy use and reduce greenhouse gas emissions.

Federal Labor will work with industry, and the States and Territories to:

- Improve the six star energy rating label scheme so that up to ten stars could be awarded to an expanded list of products, including TVs. This would give manufacturers the incentive to continually improve their products and give consumers more precise information to help with their choices.
- Introduce Greenhouse and Energy Minimum Standards that ensure greenhouse benefits as well as energy savings are factored into standard setting.
- Fast-track new standards for products including digital set top boxes, computers and home entertainment systems.
- Formally review existing standards every three years for all major appliances, like fridges and air conditioners, to ensure they keep up with technology improvements.
- Ensure any up front costs to consumers are outweighed by savings on energy bills.
- Accelerate the introduction of the One Watt standard for standby power (Standby power consumes up to 10 per cent of all household energy).
- Enhance ongoing testing and compliance measures to ensure products meet new standards.

A Rudd Labor Government will work with State and Territory Governments to phase out all inefficient light bulbs, with new standards to be in place by 2010. Labor will work with industry groups to see if this timetable can be fast-tracked. It is estimated this will reduce Australia's emissions by 4 million tonnes by 2012.

Minimum standards will fast track smart efficient technology.

## Financial implications

Labor's Solar Schools - Solar Homes Plan is fully costed and funded.

### FINANCIAL IMPLICATIONS – IMPACT ON UNDERLYING CASH BALANCE (\$M): 378.3

	2007-08	2008-09	2009-10	2010-11	Total
Solar Schools	50.75	149.1	63.8	46.8	310.45
Solar PV rebates*	-	-	-	-	-
Solar Cities	1.0	8.0	8.0	8.0	25.0
Green Loans	-	8.7	30.5	63.1	102.3
Climate-Friendly Hot Water#	-	-	-	-	-
National Rainwater/Grey water Plan	-	38.00	38.00	50.0	126.00
Insulation for rental properties	-	12.5	37.5	50.0	100.0
<b>Gross Total</b>	<b>51.75</b>	<b>216.3</b>	<b>177.8</b>	<b>217.9</b>	<b>663.75</b>
Schools Green vouchers	-50.75	-149.10	-51.30	-34.30	-285.45
<b>Total Offsets</b>	<b>-50.75</b>	<b>-149.10</b>	<b>-51.30</b>	<b>-34.30</b>	<b>-285.45</b>
<b>Net impact</b>	<b>1</b>	<b>67.2</b>	<b>126.5</b>	<b>183.6</b>	<b>378.3</b>

\* Solar Homes is funded through the existing \$150 million *Photovoltaic Rebate Programme* as set out in Minister Turnbull's press release of 11 May 2007 'Australian government solar rebate start-up' and at p.23 of the Environment Budget Overview 2007 [2007-08 \$22.7m, 2008-09 \$28.8m, 2009-10 \$29.3m, 2010-11\$19.8].

# Climate friendly hot water is funded through the existing \$252 million *Solar hot water systems – rebates for households* as set out in Minister Turnbull's press release of 17 July 'Australia leading the world on climate change' and in Appendix A of MYEFO 2007 [2007-08 \$31.8m, 2008-09 \$40.3m, 2009-10 \$50.0m, 2010-11\$65.0m].

## Endnotes

- <sup>1</sup> CSIRO (2007), Submission to the Prime Minister's Task Group on Emissions Trading
- <sup>2</sup> Australian Greenhouse Office (2007), National Greenhouse Gas Inventory: Analysis of Recent Trends and Greenhouse Indicators 1990 to 2005, Australian Greenhouse Office, 2007.
- <sup>3</sup> Australian Bureau of Resource and Agriculture Economics (2006) Australian Energy and National and State Projections to 2029-30, ABARE Report 2006.26.
- <sup>4</sup> Clean Energy Council (2007) EcoGeneration September/October Edition
- <sup>5</sup> Australian Business and Climate Group (2007), Stepping Up: Accelerating the Deployment of Low Emission Technology in Australia, August 2007.
- <sup>6</sup> Australian Greenhouse Office (2007), Home Technical Manual, Third Edition, 2005 and National Framework for Energy Efficiency, Consultation Paper, National Framework for Energy Efficiency Stage Two, September 2007.
- <sup>7</sup> Australian Bureau of Statistics (2005) Environmental Issues: People's Views and Practices, March 2005.
- <sup>8</sup> Clean Energy Council (2007), Clean Energy Potential in NSW: Demand and Supply Options to Meet NSW Power Needs and Fight Global Warming.
- <sup>9</sup> Australian Greenhouse Office (2007), History of the Labelling Program in Australia, [www.energyrating.gov.au](http://www.energyrating.gov.au), last modified 27 June 2007.

- <sup>10</sup> Centre for International Economics (2007), Capitalising on the Building Sector's Potential to Lessen the Costs of a Broad Based GHG Emissions Cut, prepared for ASBEC Climate Change Task Group, September 2007.
- <sup>11</sup> Productivity Commission (2005), The Private Cost-Effectiveness of Improving Energy Efficiency, Productivity Commission Inquiry Report, No. 36, 21 August 2005.
- <sup>12</sup> Australian Bureau of Statistics, Environmental Issues: People's Views and Practices, 4602.0, March 2005.
- <sup>13</sup> Council for the Australian Federation (2007), Communiqué, 9 Feb 2007
- <sup>14</sup> The Parliament of the Commonwealth of Australia (2005), House of Representatives Standing Committee on Environment and Heritage, Sustainable Cities.