

# **NSW Energy Efficiency Trading Scheme Discussion Paper**



**New South Wales  
Government**

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## NSW ENERGY EFFICIENCY TRADING SCHEME: INVITATION TO COMMENT

The NSW Department of Environment and Climate Change and the NSW Department of Water and Energy invite comments in writing on the design of the NSW Energy Efficiency Trading Scheme.

The closing date for comments is Wednesday 6 August 2008.

Comments and inquiries should be forwarded by email to [neetforum@dwe.nsw.gov.au](mailto:neetforum@dwe.nsw.gov.au), preferably in MS Word format. It would be appreciated if respondents indicated the section number of this Discussion Paper to which their comments refer. Alternatively, comments on disk or in hard copy format can be posted to:

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This Discussion Paper is also available electronically from the Departments' websites at [www.dwe.nsw.gov.au](http://www.dwe.nsw.gov.au) and [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).

Written comments, including names of submitters, will be published on the Department of Water and Energy website unless confidentiality is requested. The Departments will be pleased to receive confidential submissions which will not be published. All submissions will be considered in developing the Government's final design of the NSW Energy Efficiency Trading Scheme.

The NSW Government will conduct more detailed consultation on the Regulation and Rules for the NEET Scheme in the second half of 2008, with a view to commencement of the Scheme on 1 January 2009.

# 1 OVERVIEW

On 18 June 2008, the Premier and the Minister for Environment and Climate Change announced a major new energy efficiency package to reduce power use and cut the state's greenhouse gas emissions. A key initiative in the package is that the NSW Government will revitalise the energy efficiency component of the groundbreaking Greenhouse Gas Reduction Scheme (GGAS), to provide an enhanced market-based incentive for energy efficiency. The new scheme will be called the NSW Energy Efficiency Trading (NEET) Scheme.

The NSW Government has decided to continue the energy efficiency component of GGAS because greater energy efficiency incentives are needed now to help reduce the cost impact of a national Emissions Trading Scheme on end use energy customers, help delay the need for additional energy supply infrastructure and reduce greenhouse gas emissions. Energy efficiency trading schemes are able to harness the innovative capacity of the private sector to find cost-effective methods of delivering energy efficiency results.

This Discussion Paper provides some preliminary propositions for more detailed scheme design. The Paper is intended to form the basis for discussion and feedback.

The Government will build on the energy efficiency achievements under the NSW Greenhouse Gas Reduction Scheme (GGAS), by setting a new target to increase energy efficiency activity under the scheme. Retailers will be required to pursue additional energy efficiency measures in households and businesses from the start of next year (2009).

A new class of tradeable certificate will be established to support the enhanced energy efficiency target, which will be designed to achieve an optimal level of energy efficiency in NSW. The remainder of GGAS will continue as it has in the past until it is replaced by the national emissions trading scheme. The existing targets in GGAS will also continue.

The revitalised energy efficiency scheme will substantially utilise the existing GGAS architecture and continue to be regulated and administered by the Independent Pricing and Regulatory Tribunal.

## 2 RELATIONSHIP OF NEET TO NATIONAL POLICIES

NSW strongly supports the implementation of the Australian Emissions Trading Scheme, with the overall objective of reducing the cost of abatement to the economy. Energy efficiency is critical to this objective because it can contribute to abatement at low cost – sometimes at negative cost – and has the potential to improve productivity through more economically efficient energy consumption and supply patterns.

However, there is international consensus that many cost-effective improvements in energy efficiency may not be delivered by emissions trading schemes alone, because of market failures and barriers which prevent the full uptake of the commercial energy efficiency opportunities created by the price on emissions. These failures and barriers were documented in the Report of the Owen Inquiry into Electricity Supply in NSW. They include information barriers, transaction cost inefficiencies, high upfront costs of investment (despite

savings made over time) and split incentives between building owners and tenants. Energy efficiency trading schemes, such as the NEET Scheme, seek to complement emissions trading by providing a financial incentive for firms to overcome these market failures.

Market based instruments, including energy efficiency trading schemes, are key policy mechanisms for delivering energy savings in many jurisdictions, including European Union countries which also have emissions trading, such as the UK, Italy, France, Belgium. A number of states in the USA including California also have market based instruments for energy efficiency.

NSW will continue to pursue the feasibility of a national market-based energy efficiency instrument with the Commonwealth and other States and Territories. NEET is designed to bridge the potential gap in the incentive for energy efficiency projects which the introduction of a national emissions trading scheme (ETS) in 2010 will not address. This is because it is highly unlikely that a separate national energy efficiency trading scheme would be developed by the time the core elements of GGAS end in 2010 with the start of a national ETS. It is proposed that the NEET Scheme would continue until a national energy efficiency trading scheme is established, or in the absence of this, until 2020. The Government plans to evaluate NEET in the early years of the national emissions trading scheme. Any proposed changes arising from this process would be subject to thorough consideration and detailed consultation in order to maintain investor certainty.

Victoria and South Australia are also establishing market-based instruments to encourage energy efficiency. As the Victorian and South Australian energy efficiency schemes have similarities with the residential energy efficiency component of GGAS, a harmonised multi-state scheme is a realistic objective and could eventually form the basis of a national scheme.

### **3 RELATIONSHIP OF NEET TO GGAS**

From 1 January 2009, at the commencement of the NEET, it is proposed that activities that would currently qualify as Demand Side Abatement (DSA) activities under GGAS will be eligible to create the new class of NEET certificates.

From the same date, DSA activities would no longer be eligible to create NSW Greenhouse Abatement Certificates (NGACs) for compliance with GGAS benchmarks.

The GGAS benchmarks will remain at the current levels. This will effectively tighten the GGAS target as DSA NGACs can no longer be created to meet liable parties' GGAS liabilities. However NGACs previously created under the GGAS DSA Rule will continue to be eligible for surrender under GGAS, but will not be eligible for surrender under the NEET.

## **4 DETERMINING THE REQUIREMENT FOR ELECTRICITY SAVINGS**

### **4.1 Scheme coverage and liable parties**

Currently GGAS covers all electricity used by grid-connected customers in NSW, without exemption. It is proposed that the NEET Scheme will cover all electricity used by grid-connected customers in NSW except electricity sales to trade-exposed emissions-intensive industries (TEEIs), preferably as defined by the Commonwealth Government for its Australian Emissions Trading Scheme (AETS) design.

With the exception of TEEIs, liable parties will be all holders of NSW electricity retail licences, electricity generators that supply directly to retail customers and market customers that take their electricity supply directly from the National Electricity Market (NEM) and have a load that is classified as a market load with NEMMCO. Although it is not currently proposed that TEEIs will be liable parties under the NEET, it is noted that they may still be required to implement cost-effective energy savings projects identified under their NSW Energy Savings Action Plan requirement.

For administrative simplicity, and regulatory harmonisation, it is intended that the exemptions for TEEIs be based on the same exemptions as the AETS. However as the NEET will commence on 1 January 2009, prior to the AETS starting in 2010, it may be necessary for the TEEIs to be named in NSW Regulations as an interim measure. However every effort will be made to use principles similar to those that will be used for the AETS.

The GGAS allows certain large users to manage their own liability, rather than requiring them to rely on electricity retailers to find the most efficient greenhouse reductions and then pass the cost through to users (the Large User Abatement Rule). This Rule allows large users to find non-electricity greenhouse savings that relate to their production processes and count these savings to their own benchmark. They cannot create NGACs to be traded via this mechanism. A number of large users have availed themselves of this option under GGAS, and it is thought to have resulted in very efficient greenhouse reductions contributing to GGAS.

However, it is not proposed to allow non-exempt large electricity users to elect to manage their NEET obligation for themselves. As all firms will be eligible to undertake projects to create energy savings credits which can be used to meet Scheme obligations, there is no need for special provisions like the Large User Abatement Rule for non-electricity on-site abatement projects.

It is currently proposed that, initially, the NEET will only cover electricity use. However, scheme coverage could be expanded later to include other sources of stationary energy including natural gas. This may assist harmonisation with schemes in other States and Territories such as the Victorian Energy Efficiency Target scheme and South Australia's Residential Energy Efficiency Scheme, and progress towards a national energy efficiency scheme.

## **4.2 Determining the total energy savings requirement**

Following stakeholder comments, the Government will determine the new requirement for energy savings for the NEET after taking into account:

- estimates of the extent of the opportunity for cost-effective energy efficiency in NSW;
- an assessment of the contribution to energy efficiency that is likely to be made by the Australian Emissions Trading Scheme;
- the impact on retail electricity prices;
- the capacity of industry to accelerate deployment of energy efficiency measures once there is a market incentive; and
- the energy savings likely to be available under a revised NEET rule which incorporates the changes proposed in Section 4 of this Paper.

The energy savings requirement for the NEET Scheme will also be one of the major measures to achieve the wider NSW economy-wide energy savings target, also announced by the Premier and Minister for Environment and Climate Change on 18 June.

## **4.3 Determining energy savings obligation for each liable party**

A number of stakeholders have raised concerns with the level of complexity with the current system for determining the individual abatement obligation of each liable party under GGAS.

It is proposed that a simpler system for setting the obligations under NEET would be to determine the total energy savings requirement each year as a given percentage of the liable electricity sales for that year. The percentage would be fixed for each year for the life of the Scheme (but need not be the same in all years). The percentage would then be applied directly to each liable party's liable electricity sales (or purchases for market customers), to determine the individual obligation of each liable party.

As with GGAS, certificate surrender would take place after the end of the compliance year. Hence, using sales in that year (ie the compliance year) as the basis for determining obligations does not create any compliance risks.

This approach has been suggested by a number of stakeholders, was recommended by the Consultative Reference Committee chaired by the Hon Barry Unsworth and has the advantage of being simple, while also linked to actual electricity use outcomes.

For consistency with GGAS and the Victorian and South Australian schemes, the requirement would be expressed as tonnes of greenhouse gas equivalent. This would be converted into energy savings using a fixed average pool emissions intensity (including a fixed loss factor) set in the Regulations or the new NEET rule.

It is currently proposed to set the energy savings requirement in the NEET Regulations or rules for each year for the life of the NEET Scheme. The Government may review the requirement to take account of the NEET Scheme's performance and the capacity of the

market. A fixed period of notice would be provided for any change, to give sufficient notice to scheme participants and to maintain confidence and stability in markets.

#### **4.4 Penalty**

As for GGAS, liable parties will be required to pay a penalty if they do not surrender sufficient NEET certificates to meet their obligation in a particular year. The role of the penalty is to ensure compliance. It is proposed to set the penalty after taking into account:

- the certificate price required to ensure that sufficient certificates will be supplied for all liable parties to comply;
- a safety valve to ensure that the certificate price does not exceed the level required to deliver cost-effective energy efficiency in NSW; and
- the impact on electricity prices for end use customers.

Liable parties that are required to pay the penalty will not be required to 'make good' the shortfall in certificates in the subsequent period.

## **5 ENERGY EFFICIENCY ACTIVITIES AND CERTIFICATE CREATION**

### **5.1 Sectors and activities**

It is proposed that the NEET Scheme will allow certificate creation for improving the efficiency of electricity use in the residential, commercial and industrial sectors, as does the GGAS Demand Side Abatement Rule. The NEET rules will focus on end-use efficiency.

Under the existing GGAS DSA Rule, organisations can use a range of methods for calculating electrical energy savings across many different activities and across all classes of electricity customers. The most popular of these has been the Default Abatement Factors method which, in effect, allows creation of certificates for future abatement arising from the replacement of less efficient products, such as showerheads, with more efficient products. However, certificates can also be created by demonstrating savings made by metering or engineering calculations and from efficiency improvements demonstrated through the Australian Building Greenhouse Rating approach (ABGR).

It is currently proposed that a new NEET rule will build on the approach taken in the GGAS DSA Rule. A NEET rule will be created to replace the DSA Rule from 1 January 2009 and all energy efficiency activity (except on-site generation) will take place under the NEET rule.

The new rule will update the existing DSA Rule in two ways.

Firstly, the NEET rule will expand the number of activities for which simple, broadly applied certificate calculation approaches such as the Default Abatement Factors method are available. The lower transaction costs with this type of approach have, in part, driven the wide uptake of that area of the GGAS DSA Rule. A full review of the existing Rule will be undertaken to identify opportunities to add technologies, activities and calculation

approaches to enhance uptake of energy efficiency. Stakeholder consultation will be an integral part of this review.

Secondly, some existing Default Abatement Factors will need to be updated. The main case is lighting. Under GGAS, certificates have been created for abatement from many millions of compact fluorescent light bulbs which have been installed at homes and businesses. The certificates that can be earned from the giveaway, sale and installation of energy efficient light bulbs will be adjusted to take account of the Minimum Energy Performance Standard that is being developed to preclude sales of relatively inefficient light bulbs.

As under the current GGAS, energy efficiency activities will only be eligible if undertaken in NSW (and the ACT if the ACT Government adopts the same approach).

It is also proposed that the existing provisions for eligible on-site generation (embedded generation and cogeneration) in the GGAS DSA Rule will continue under the existing GGAS, rather than under the NEET, as this will be a covered activity under the AETS when it starts. Existing projects will be able to continue to create NGACs under GGAS.

## **5.2 Accreditation**

It is proposed to allow GGAS Abatement Certificate Providers (ACPs) accredited under the current DSA Rule by IPART as the Scheme Administrator, to be accredited as ACPs under the new rule for the NEET Scheme without reapplying. This is specifically designed to aid administrative simplicity for scheme participants and ensure a smooth transition to the new NEET. The Scheme Administrator will review and amend existing accreditations to update calculation factors and other requirements, to make accreditations consistent with the new Rule. Existing ACPs wanting to undertake new activities will also have to request amendment to their existing accreditation.

## **5.3 Certificates**

Accredited ACPs will be able to create NGACs under the DSA Rule from activity taking place until 31 December 2008 and only to create NEET certificates under the new Rule from activity taking place from 1 January 2009.

Only certificates derived from energy efficiency activity taking place from 1 January 2009 will be eligible under the NEET Scheme. The rest of GGAS will essentially remain unchanged, including NGACs created under the DSA Rule from activity taking place up to 31 December 2008, which will not be eligible under the NEET Scheme. This approach is intended to rejuvenate energy efficiency activity in the market, while maintaining the strength of GGAS and avoiding adding further uncertainty to the transition of the non-energy efficiency parts of GGAS to the AETS.

# **6 COST IMPACT OF THE NEET SCHEME**

The costs associated with the NEET may initially be incurred by retailers, but may eventually be passed through to electricity customers. In the absence of energy savings measures however, customers would face the even higher cost of a greater expansion of the electricity supply system. Although electricity retailers can assist customers in reducing their energy use, it is electricity customers, in particular large users and third party providers of energy

efficient services, who may be able to change their energy usage patterns and use energy more efficiently. The incentives provided by the NEET Scheme will therefore be a means of encouraging electricity customers to reduce their overall energy consumption, and potentially reduce their electricity bills.

## **7 EXPECTED RESULTS**

The Demand Side Abatement element of the NSW Greenhouse Gas Reduction Scheme put in place financial incentives for companies to get involved in mass deployment of energy efficiency. A key feature was allowing credit for future abatement. This allowed cash flow to finance deployment of energy efficiency now, to overcome the market failures and barriers which prevent the full uptake of commercial energy efficiency opportunities. This made it easier for householders and business to agree to the necessary investment.

The GGAS DSA incentive made it possible for commercial operators to visit around 450,000 households in NSW and the ACT to install compact fluorescent light bulbs and water and energy efficiency showerheads. This represents about 20% of the households in NSW and the ACT.

About 75 companies are currently accredited to undertake energy efficiency projects under the GGAS DSA provisions. These include major commercial building operators and industrial facilities, as well as the companies involved in mass deployment to the household sector.

To date, the greenhouse gas abatement achieved by energy efficiency within the GGAS is equivalent to about 20 million tonnes. Some of that abatement will occur in the future over the lifetime of the energy efficient products installed under the Scheme. The capacity of industry to accelerate deployment of energy efficiency measures once there is a market incentive was demonstrated by the rise in DSA certificate creation from under two million per year in the first three years of GGAS to nine to ten million per year in 2006 and 2007.

This level of energy efficiency activity would be at risk if the DSA provisions were terminated in 2010 with the core elements of GGAS. NSW has already started to see a reduced level of energy efficiency activity as a result this end-of-scheme risk.

NEET is intended to revitalise energy efficiency activity in NSW to help reduce the cost impact of a national Emissions Trading Scheme on end use energy customers, help delay the need for additional energy supply infrastructure and reduce greenhouse gas emissions.

## **8 NEXT STEPS**

After consulting stakeholders about the overall design of the NEET, the NSW Government will introduce legislation in the Spring 2008 session of Parliament. The NSW Government will also conduct more detailed consultation on the Regulation and Rules for the NEET scheme, in the second half of 2008, with a view to commencement of the NEET on 1 January 2009.

The Government recognises the importance of seeking input from stakeholders in developing this important energy efficiency measure to ensure that it operate as an efficient and cost-effective way to reduce NSW energy consumption and greenhouse gas emissions.