

Introduction to the Energy Savings Scheme

April 2010

This document has been prepared to give an overview of the structure and operation of the Energy Savings Scheme (the ESS). It is current at April 2010.

Overview of the ESS

The ESS is a NSW-based mandatory energy efficiency scheme which commenced on 1 July 2009. The principal objective of the ESS is to create a financial incentive to reduce the consumption of electricity by encouraging energy savings activities. It was developed as a complimentary measure to the proposed Commonwealth Carbon Pollution Reduction Scheme (CPRS).

The ESS is designed to increase opportunities to improve energy efficiency by rewarding companies who undertake eligible projects that either reduce electricity consumption or improve the efficiency of energy use. The ESS is modelled on the end-use energy efficiency part of the Demand Side Abatement component of the Greenhouse Gas Reduction Scheme (GGAS). This part of GGAS ceased with the commencement of the ESS on 1 July 2009.

Electricity retailers and certain other parties such as electricity generators who supply direct to a customer and market customers who buy or sell electricity in NSW are known as Scheme Participants. They are mandatory participants in the ESS and are required to meet individual energy savings targets based on the size of their share of the electricity market. However, for some large electricity users, classified as emissions intensive trade exposed industries, a proportion of their electricity consumption will be partially exempt from the ESS.

Scheme Participants achieve their individual energy savings targets by surrendering Energy Savings Certificates (ESCs). ESCs are created by accredited certificate providers (ACPs) when they carry out activities that increase the efficiency of electricity consumption or reduce electricity consumption. These activities are known as Recognised Energy Savings Activities (RESAs) and are described in the *Energy Savings Scheme Rule of 2009* (the ESS Rule). ACPs voluntarily apply to the Scheme Administrator to become accredited in the ESS.

In the first four years of the ESS, it is estimated that 8.5 million megawatt-hours (MWh) of electricity will be saved. As ESCs are quantified in terms of carbon dioxide equivalents (CO₂e), the ESS is estimated to reduce around 9 million tonnes of carbon dioxide (the difference being due to a prescribed certificate conversion factor, currently 1.06).

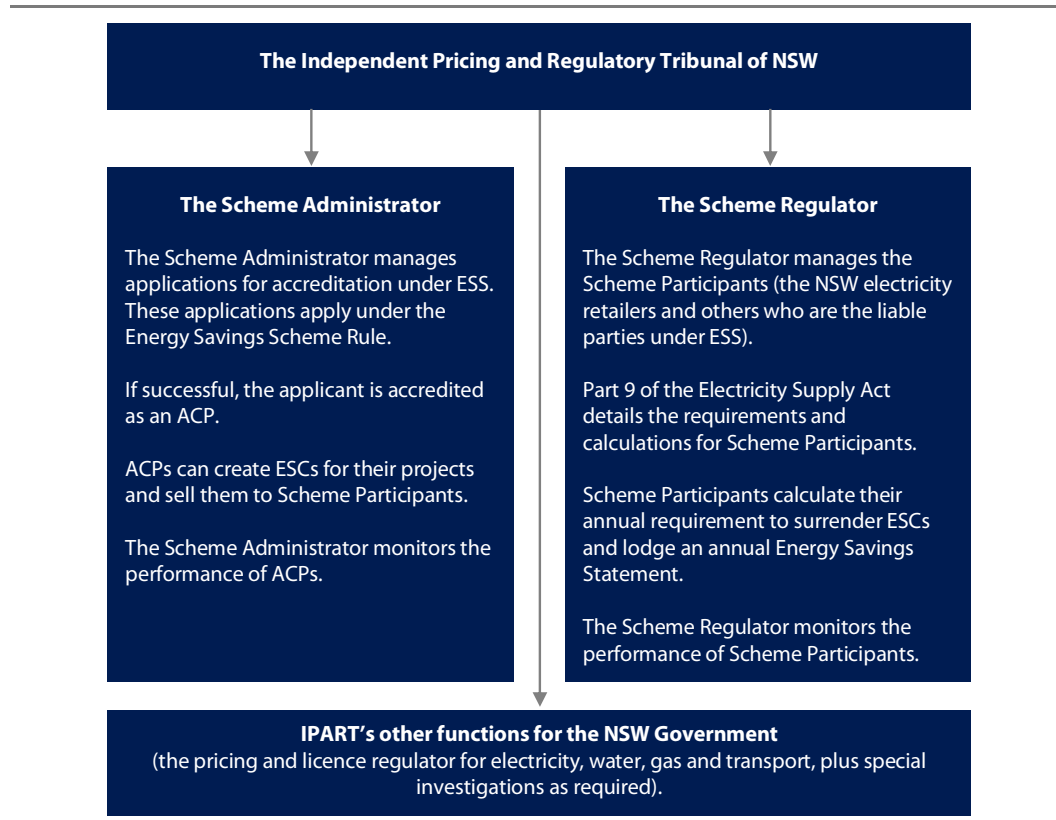
The Independent Pricing & Regulatory Tribunal of NSW

The Independent Pricing and Regulatory Tribunal of NSW (IPART) is the independent economic regulator for NSW. IPART oversees regulation of the electricity, gas, water and transport industries and undertakes other tasks referred to it by the NSW Government.

Another task required of IPART is the administration of the ESS. IPART has two functions, as both the Scheme Administrator and Scheme Regulator. These roles include assessing applications, accrediting parties to undertake eligible activities and to create certificates, monitoring the ESS compliance and monitoring the performance of the Scheme Participants.

The Scheme Administrator also manages the online Registry which records the registration, transfer and surrender of ESCs.

Figure 1 IPART's functions



The ESS Legislation

The ESS is established in NSW through an Act of the NSW Parliament. The *Electricity Supply Act 1995* (the Act) sets out the functions and responsibilities given to IPART to ensure compliance by Scheme Participants (as Scheme Regulator). It also sets out IPART's functions as Scheme Administrator.

The Act is supported by the *Electricity Supply (General) Regulation 2001* (the Regulation) which makes provision for aspects of the operation of the ESS. The Regulation provides further details of the ESS, such as:

- ▼ assessment of compliance of Scheme Participants
- ▼ eligibility requirements for accreditation as an ACP
- ▼ conditions of accreditation that are imposed by the Scheme Administrator
- ▼ creation and transfer of ESCs
- ▼ the conduct of audits, and
- ▼ the Register of ACPs and ESCs.

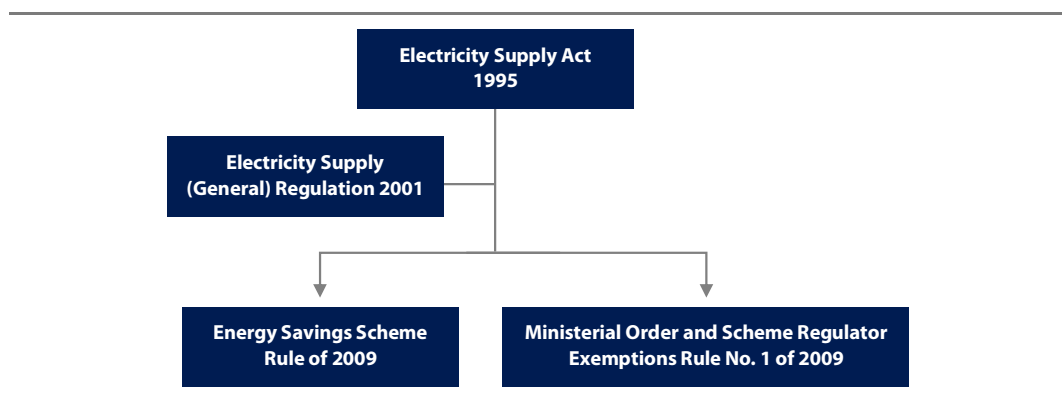
The ESS Rule issued by the Minister details the eligibility requirements and calculation methodologies for ACPs and their RESAs.

The Minister for Energy has granted exemption from the Energy Savings Scheme for electricity loads used in conjunction with emission intensive and trade exposed industries or activities. These industries are listed in a Ministerial Order published in the Government Gazette. The most recent order was published on 18 December 2009 and applies from the commencement of the ESS (1 July 2009) until 31 December 2010.

In addition, the *Scheme Regulator Exemptions Rule No. 1 of 2009* (Exemptions Rule) sets out how the Scheme Regulator will determine whether partially exempt loads have been correctly deducted from a Scheme Participants' Total Liabile Acquisitions.

Figure 3 shows a very simplified diagram of the hierarchy and relationship between the legal instruments that form the legislative framework of GGAS.

Figure 2 Legislative framework

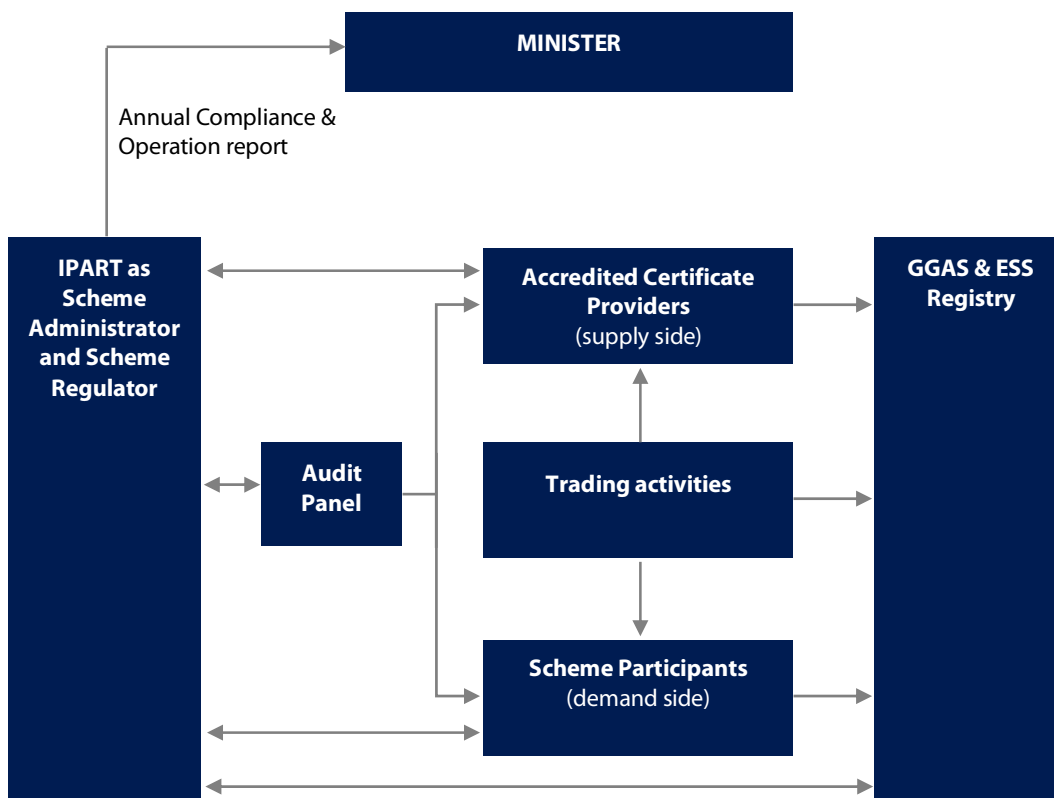


Stakeholder roles within the ESS

There are a number of stakeholders who play significant roles within the ESS.

Building on the earlier introduction to IPART's two functions, the diagram below illustrates the different roles within the ESS and how IPART interacts with other important stakeholders within the ESS.

Figure 3 Roles within the ESS



Scheme Participants

Electricity retailers and certain other parties who buy or sell electricity in NSW are mandatory participants in the ESS and are called 'Scheme Participants'. Scheme Participants are required to meet individual energy savings targets based on the size of their share of the electricity market.

Each Scheme Participant must calculate its individual energy savings target and obtain and surrender ESCs in order to meet their individual energy savings target. If a Scheme Participant does not surrender sufficient ESCs to meet its individual energy savings target, it will have an energy savings shortfall and may be subject to a shortfall penalty. As set out in Schedule 5A of the Act, the base penalty rate for the

ESS is \$24.50 per MWh. The base penalty rate may be adjusted by movements in the consumer price index.

To comply with the ESS, Scheme Participants must lodge an audited Annual Energy Savings Statement with the Scheme Regulator on or before 18 March each year, in respect of the previous compliance period. However, to take account of the shortened compliance period for the first year of operation of the ESS, the lodgement date for Annual Energy Savings Statements for the 2009 compliance period was extended until 29 April 2010.

Each Scheme Participant is allowed to carry forward a shortfall of certificates into the following year. The maximum allowable amount is 20% except for the 2009 compliance year when participants may carry forward up to a 50% shortfall into 2010.

The legislation provides for the Scheme Regulator to require audits of Energy Savings Statements as part of the assessment of compliance by Scheme Participants. Where an audit is required, this will involve Scheme Participants engaging an Auditor from the ESS Audit Services Panel.

A list of all Scheme Participants can be found on the ESS website at www.ess.nsw.gov.au/participants/scheme_participants.asp.

Accredited Certificate Providers (ACPs)

ACPs voluntarily apply for accreditation in the ESS to undertake energy savings activities, known as RESAs. ACPs are subject to a number of Conditions of Accreditation which outline their responsibilities as determined by the Act, Regulation and the ESS Rule. There are two criteria for being an ACP:

- ▼ that the person is an Energy Saver, and
- ▼ that the accreditation is in respect of one or more RESAs.

RESAs are the specific activities implemented by the Energy Saver to reduce the consumption of electricity or increase the efficiency of electricity consumption. To be eligible, a RESA must have been implemented on or after 1 July 2008.

Importantly, a RESA does not include an activity that has been undertaken to comply with any Statutory Requirement. This ensures there is regulatory additionality in the ESS. In addition, a RESA cannot reduce the scope or quantity of production or service from the use of electricity. Closing part of a factory, for example, would not qualify as a RESA under the ESS.

The ESS Rule makes provisions for the creation for ESCs where an ACP is carrying out an eligible RESA. In general ESCs are created after the energy savings occur, however the ESS Rule also allows certain types of activities to create certificates in

advance of the actual savings. This is referred to as 'deeming' in the ESS, and is provided for by the Deemed Energy Savings Method.

The legislation provides for the Scheme Administrator to require audits of RESAs as part of the assessment of compliance by ACPs. Where an audit is required, this will involve Scheme Participants engaging an Auditor from the ESS Audit Services Panel.

The energy savings target

The ESS establishes legislated annual energy savings targets that must be met through the creation and surrender of ESCs. In the first year the target has been set to 0.4% of total electricity sales and will increase gradually to 4% in 2014.

The energy savings target is allocated each year to electricity retailers in proportion to their liable electricity sales, which are total sales less sales to partially exempt emissions intensive trade exposed industries or activities. The list of activities which are partially exempt under the ESS takes into account the national approach to exemptions for the Expanded Renewable Energy Target and the proposed CPRS. If exemptions were not included, the mandated energy savings requirement for retailers would start at 0.5% of liable sales, then increase to 5% by 2014 and continue at that level until 2020. Table 1 sets out how the target gradually increases until 2014, after which it remains constant until 2020.


Table 1 Energy Savings Scheme target

Year	Effective scheme target (% of annual NSW electricity sales)	Retailer compliance obligation (% of annual liable electricity sales)
2009 ^a	0.4%	0.5%
2010	1.2%	1.5%
2011	2.0%	2.5%
2012	2.8%	3.5%
2013	3.6%	4.5%
2014-2020	4.0%	5.0%

^a (half year from 1 July)

Ministerial Order and the Exemptions Rule

Exemptions are allowed under the ESS and have been granted by the NSW Minister for Energy in a Ministerial Order. The Order lists the exempted persons, their location, the emissions intensive trade exposed activity being carried out, and the proportion of exemption granted (either 60% or 90%). It also allows a further deduction for network losses and authorises the Scheme Regulator to make rules with respect to the way in which the deduction of the exempt load is applied and the evidence needed in support of these deductions.



Scheme Participants who supply electricity to a person specified in the Ministerial Order are entitled to deduct a specified portion of the electricity load from that location (as stated in the Ministerial Order) from their Liabile Acquisitions under the ESS using the Exemptions Rule.

The Exemptions Rule outlines the manner in which Scheme Participants calculate and claim deductions from the total value of their Liabile Acquisitions and specifies the evidence Scheme Participants must provide in support of any deductions.

Exemptions under the ESS are meant to align with the approach the Commonwealth Government is taking regarding emissions intensive trade exposed industries and activities in implementing its expanded Renewable Energy Target and the proposed Carbon Pollution Reduction Scheme.

The ESS Rule

The ESS Rule issued by the Minister provides additional eligibility requirements and calculation methodologies for ACPs and their accreditations. The ESS Rule sets out:

- ▼ types of eligible and ineligible activities
- ▼ requirements for eligible applicants
- ▼ detailed calculation methodologies
- ▼ the creation of ESCs.

Recognised Energy Savings Activities

RESAs are specific activities implemented by an ACP that increase the efficiency of electricity consumption or reduce electricity consumption, without negative effects on production or service levels, by:

- ▼ modifying End-User Equipment or usage of End-User Equipment (including installing additional components)
- ▼ replacing End-User Equipment with other End-User Equipment that consume less electricity
- ▼ installing New End-User Equipment that consumes less electricity than other End-User Equipment of the same type, function, output or service, or
- ▼ removing End-User Equipment that results in reduced electricity consumption, where there is no negative effect on production or service levels.

The ESS Rule recognises three different methods for claiming the energy savings from RESAs:

- ▼ the Project Impact Assessment Method is a calculation method best suited to discrete RESAs where the overall reduction in electricity use is a small proportion of total site use.
- ▼ the Metered Baseline Method provides calculation methodologies for use where the RESA(s) materially reduce the electricity consumption of a whole site, or discrete part of a site, and the energy savings can be determined by reference to a site baseline. This method can be used for buildings with a NABERS rating.
- ▼ the Deemed Energy Savings Method provides calculation methodologies for use where the RESA(s) involve installing or replacing a range of common End User Equipment types. Under these methodologies, the energy savings are deemed (i.e. the lifetime savings are created upfront).

RESAs are defined in the ESS Rule.

Audit panel

Under the ESS legislation, IPART has strong auditing and enforcement powers to ensure that:

- ▼ Scheme Participants meet their individual energy savings targets, and
- ▼ ACPs are accredited and create ESCs in accordance with the Act, Regulation and the ESS Rule.

IPART has established an Audit Services Panel (the ESS Audit Panel) to assist it and other participants in meeting the audit requirements of the Energy Savings Scheme established under Part 9 of the Electricity Supply Act 1995. To date there are 8 Audit Panel members appointed to the ESS Audit Services Panel and these companies are listed on the ESS website available at www.ess.nsw.gov.au/compliance_audit/compliance_audit.asp#AuditPanelMembers

The Registry

An online Registry to support the ESS has been incorporated into the GGAS Registry, now known as the GGAS & ESS Registry, and is available at www.ggas-registry.nsw.gov.au.

The Registry is a web-based database which manages records of certificate providers and certificates. All participants and members of the public may access the Registry. The basic functions of the Registry include:

- ▼ lists details of accreditations and projects in both GGAS and the ESS
- ▼ facilitates creation and transfer of certificates
- ▼ lists details and tracks ownership of certificates



allows all participants to surrender certificates to meet mandatory obligations or personal offset schemes.

The following information is available to all members of the public:

- ▼ details of certificate providers
- ▼ details of certificates (through individual searches)
- ▼ a summary of the number of certificates in the Registry
- ▼ a summary of transfer activity undertaken in any month, giving the total number of transfers for that month and the total number of certificates involved.

A fee is imposed on the registration of each abatement certificate at the time of creation, payable prior to the certificate being released for transfer or surrender. The fee for registering ESCs is set by legislation at \$0.70 per ESC.

The Registry is not a trading platform, as trading of certificates is expected to occur outside of the Registry. Where such a trade has occurred, whether bilaterally, through brokers or through other trading platforms, the change in ownership of those certificates is recorded on the Registry.

The Registry was designed and developed, and is now operated by Logica Pty Ltd.

The ESS Website

The ESS website, located at www.ess.nsw.gov.au, provides significantly more detail of key aspects of the ESS and provides current and relevant information for anyone interested or participating in the ESS. The types of information on the web site include:

- ▼ the legal framework that supports the ESS (the Act, the Regulations and the Rule)
- ▼ information about Scheme Participants, Accredited Certificate Providers and their activities
- ▼ application forms for accredited certificate providers
- ▼ compliance and audit overview
- ▼ information and a user guide to the GGAS & ESS Registry.