Non-DSA Activities

- Demand side abatement excludes:
  - activities for which NGACs can be created under other Rules in the NSW GHG Abatement Scheme
  - Green Power purchases
  - reduction of losses in electricity transmission or distribution networks
  - installation of solar water heaters which are eligible to create Renewable Energy Certificates under Australian federal government legislation
Demand Side Abatement Projects
Types of DSA Projects

DSA Projects Accredited as at January 2005

- Commercial Energy Efficiency: 39%
- Residential Energy Efficiency: 16%
- Industrial Energy Efficiency: 25%
- Fuel switching: 2%
- On-site generation: 8%

Source: NSW GHG Abatement Scheme Administrator
Commercial Energy Efficiency

- Commercial energy efficiency projects include:
  - lighting upgrades
  - boiler and chiller upgrades
  - installation of variable speed drives on fans and pumps
- Sites include banks, supermarkets, hotels, clubs...
Residential Energy Efficiency (1)

Get a REFIT Kit and save up to $150 a year!

Each REFIT Kit includes:
- 1 MA rated water-saving showerhead
- 2 tap aerators
- 1 garden hose spray gun
- 2 energy-saving CTIs (compact fluorescent lights halved)
- An energy and water audit of your home from a
  qualified technician to identify problem areas that could be adding to your bills.

A REFIT Kit saves you water, saves you power, and helps stop your money going down the drain.

Yours fully installed for only $39! Just call 1800 815 727.
Residential Energy Efficiency (2)

1. If every Domain reader replaced just one light bulb at home with an energy saving bulb, greenhouse gas emissions would be reduced by 60,000 tonnes a year.

2. Cut the cost of lighting your home or office by up to 89%. These high quality bulbs from GE use a fraction of the energy of standard bulbs and last up to 8 times longer.

3. Available in bayonet or screw fittings, they are rated at 15W, have a similar light output to a standard 75W lightbulb and emit a 'warm white' light.

4. Low Energy Supplies and Services (LESS) generates Greenhouse Certificates when you install the bulbs, which keep the cost low.

5. Normally retaile at $8 each, right now you can order 5 for $18.95 (inc GST and postage). A saving for your wallet and the environment.

Please complete this order and send to:
Low Energy Supplies and Services,
PO Box 686, North Sydney NSW 2060
before 30 April 2009
Orders are normally processed within 48 hours of receipt and your light bulbs dispatched within 7 days.

Terms and conditions: Subject to availability. Offer available in NSW only. Return damaged or faulty light bulbs within 14 days for replacement. Limit 2 packs per order. Not suitable for screw lighting or dimmers.

For details about LESS energy efficiency programs, visit www.lesseven.com.au. Enquiries: 0800 882 12

Send me______ pack(s) of GE’s Energy Saving Bulbs @ $18.95 each.
Total $_____.
Cheque enclosed
Send credit card details

Card number:
Expiry date:

Name on card:
Address (non-mandatory)

Signature:

I agree to install the light bulbs and I nominate Low Energy Supplies and Services Pty Ltd to deduct the cost of all the related ‘Abatement Certificates’ under the NSW Greenhouse Gas Benchmark Rules.” I acknowledge that I am entitled to make this nomination, being a person who is contractually or otherwise liable to pay for energy consumed by those light bulbs.

For details about NSW Greenhouse Gas Abatement Scheme visit www.greenhousegas.nsw.gov.au

[Signature]

[Address]

[Enquiries]

[Telephone]

[Address]

[Enquiries]
Industrial Energy Efficiency

**Chlorine Production**

- Salt (NaCl)
- Water (H₂O)
- Electricity

**Hydrogen (H₂)**

**Chlorine (Cl₂)**

**Hydrochloric Acid Production**

**Sodium Hydroxide (NaOH) (Caustic Soda)**

**Sodium Hypochlorite Production**

**Ferric Chloride Production**

**Ferrous Chloride (FeCl₃)**

**Chlorine Gas (Cl₂)**

**Sodium Hypochlorite (NaOCl)**

**Ferric Chloride (FeCl₄)**

**Process where electricity consumption reduction occurred**

**Hydrogen (H₂)**
On-site Generation
How Are Demand Side Abatement NGACs Created?
Responsibility for Creating DSA NGACs

- In the DSA Rule, the person responsible for creating NGACs is termed “the Abator”
- Initially, the Abator for a DSA project is the person contractually responsible for paying for the energy consumption at the abatement site
- The initial Abator may nominate in writing another person to be the Abator
- Assignment of the ability to create NGACs enables third parties to specialise in the creation of DSA NGACs
Abator Nomination Form

I agree to install the light bulbs and I nominate Low Energy Supplies and Services Pty Ltd as the “Abator” to create and own all the related “Abatement Certificates” under the NSW Greenhouse Gas Benchmark Rules**. I declare that I am entitled to make this nomination, being a person who is contractually or otherwise liable to pay for energy consumed by these light bulbs.

**For details about NSW Greenhouse Gas Abatement Scheme visit www.greenhousegas.nsw.gov.au

Signature

Source: Advertisement by Low Energy Supplies and Services
Generally, NGACs may be created only after the corresponding demand side abatement has taken place.

NGACs must be created no later than six months after the end of the calendar year in which abatement occurs.

Timing of NGAC creation may be varied for projects which generate only small quantities of NGACs – this applies particularly to DSA projects.
For small projects, the timing for creating NGACs may be varied to allow up to 2000 NGACs to be created at one time.

The Abator may create up to 2000 NGACs before abatement of the corresponding 2000 tCO2-e actually occurs.

For example, the Abator may elect to deem that 2000 tCO2-e have been abated on the date on which the abatement first commences and create the corresponding 2000 NGACs at that time.

Once the abatement has actually occurred, the abator may continue creating NGACs in lots of 2000.
Eligibility to Create DSA NGACs

- To be eligible to create NGACs, an Abator must be accredited with the Scheme Administrator as a DSA Abatement Certificate Provider.

- To be eligible to generate NGACs, a DSA project:
  - must be implemented in NSW
  - must be implemented after 1 January 2002
  - must result in reduced GHG emissions after 1 January 2003
Accreditation Process (1)

- During the accreditation process, the Scheme Administrator examines
  - the eligibility of the proposed DSA project; and
  - the calculation methods used to estimate the number of NGACs the project will generate
- Detailed guidance is provided by the DSA Rule
- An audit may used to obtain assurance about the record keeping methodology proposed and specific uncertainties in relation to the project
Phase 1: Application

- Application form
- Guide to applying

Complete application form and attach documents

Submit application to S.A. with application fee

Supporting documents

Application fee - $500

Application essentially complete?

No

Yes
Phase 2: Assessment by Scheme Administrator

1. Request for further information
2. Application Essentially Complete? (Yes/No)
   - Yes: Project Eligible? (Yes/No)
   - No: Request for further information
3. Adequate information provided? (Yes/No)
   - Yes: Project Eligible? (Yes/No)
   - No: Additional information
4. Assessment by S.A.

If any step results in a rejection, the process moves to Reject Application.
Phase 3: Audit (where required)

1. Audit required? (Yes/No)
   - Yes: S.A. determines audit scope
   - No: Applicant advised that no audit is required

2. Applicant advised of required audit and audit scope

3. Panel member appointed by the S.A.

4. Contract with Panel Member

5. Audit Manual

6. Audit Guideline

7. Audit or investigation undertaken
   - Yes: Audit report submitted to S.A. and copy provided to applicant
   - No: Auditor's report

8. Applicant consents to audit scope and lodges cost of audit with Tribunal
   - Yes: Applicant with draws application
   - No: Continued over
Phase 4: Approval and registration

From previous page

S.A. approves application?

Yes

Reject application

No

Corrective action undertaken or further information provided

S.A. determines conditions of accreditation

Yes

Application successful

AACP listed in registry by RSP

No

Request for corrective action or further information

Conditions of accreditation

AACP agreement to adhere to conditions of accreditation

Registry Service Provider (RSP) advised of accreditation

Certificate of Accreditation
Compliance and Performance Monitoring

- The objectives are:
  - to assist in monitoring compliance (baselines, accreditation conditions, annual reporting)
  - to bring transparency to the operation of the Scheme
  - to assist in annual reporting on the Scheme to the Minister
  - to contribute to the overall integrity of the Scheme

- Compliance is monitored through:
  - the audit regime (both before and after project implementation)
  - periodic reporting
  - incident reporting
  - controls within the Registry
Methods for Calculating the Number of NGACs Generated by DSA Projects
How Many NGACs?

- Demand Side Abatement occurs when a project results in a reduction in GHG emissions compared with the level of emissions without the project.
- Therefore, calculating the number of NGACs generated by a project requires measuring the GHG emissions before and after the project is implemented.
Methods for Calculating DSA NGACs

Number of NGACs = Emissions Abated

Calculated using following methods

- Project Impact Assessment
- Metered Baseline
- Default Abatement Factors
- Generation Emissions
The Project Assessment Method is most appropriate when:

- the abatement is small compared to electricity consumption at the site
- baseline energy consumption data for the site is unavailable
- unexplained variation in the baseline is high
Project Assessment Method (2)

Emissions Abated = Reduced Energy Consumption \times Emissions Coefficient

- Estimated from engineering assessment
- Pool coefficient or scheduled emissions factor