

Audit Instructions

July 2004

The esaa Code of Environmental Practice (the Code) consists of four policies, which are supported by documented principles and actions. These policies are further explained and illustrated in the associated esaa Environmental Guidelines. There is a commitment for signatories to audit their performance against the Code annually and for esaa to review the operation of the Code every two years. This audit by ESAA focuses on the Code actions, which demonstrate implementation of each policy and how compliance has been achieved as supported by evidence of actions within the organisation.

It is recognised that not all policies and actions are of equal importance to different organisations. It is the responsibility of each organisation to determine the significance of strategic actions described under each policy in the Code with regard to their activities that may have an impact on the environment, and to take appropriate control actions. The Code does not dictate specific control actions that an organisation needs to take, nor does it seek to determine whether these actions are suitable and adequate. Individual organisations' management systems should be structured to assess this, and initiate remedial and corrective action if necessary.

Internal or external staff, suitably qualified in auditing, may perform the audit. If the audit is internal, then a sample of such audits may be independently reviewed by an esaa appointed reviewer. Evidence of the auditor's qualifications and experience in auditing will need to be provided for transparency. If the audit is external by a suitably qualified auditor, no review by esaa is required. It is important for external credibility of the results that it can be verified that the audit was performed professionally and reliably.

Audit guidelines will assist audit of the Code performance by providing a common assessment process. In the audit assessment, one of the following results or findings is possible for each action and an appropriate score is assigned:

Audit Finding	Score
a) No evidence of any activities being undertaken to address a Code action	0
b) Evidence of Code actions being planned and documented	0.5
c) Code action planned and documented	1
d) Some aspects are being implemented, others are at planning and documentation stage only	1.5
e) Systems or processes being implemented	2
f) Some systems and processes fully implemented, others being implemented	2.5
g) Systems or processes are implemented	3
h) Some aspects of systems and processes are integrated into management decisions and business functions	3.5
i) Full integration into management decisions and business functions	4
j) Some aspects show evidence of leadership or industry best practice in implementation and functioning of a Code action.	4.5
k) Evidence of leadership or industry best practice in implementation and functioning of a Code action. (Note that leadership or industry best practice may vary from year to year)	5
l) A particular Code action is not applicable to the business	N/a

At the end of the audit assessment of each policy, scores for the related actions are totaled and averaged, ignoring any "N/a" ratings. If an organisation has an Environmental Management System certified to a recognised standard such as ISO 14001, then the assessment of Policy C will take this into account – see notes preceding Policy C. (Scores could be given to decimal points to indicate progress between audit findings, for instance, where implementation varies across the business.) Note that the score for the policy only represents a measure of a business's compliance with the Code policy and should not be regarded as a measure of performance of the environmental program of the business.

It is expected that this audit should take no more than one day to complete by an auditor familiar with the industry, including interviews with appropriate staff. Relevant documents in support of the audit findings may be attached.

This audit questionnaire may be used by businesses in the future to audit internally their own compliance with the Code.

Any queries related to the audit should be referred to Richard Hoy, Program Manager Environment and EMF, at the esaa Melbourne Office Telephone 03 96701014 or e-mail hoy@esaa.com.au.

This audit questionnaire for esaa use should be completed and returned to Richard Hoy at the ESAA Melbourne Office by 26 November 2004.

BUSINESS NAME	Power and Water Corporation
ADDRESS	GPO Box 1921 Darwin NT 0801
DATE OF AUDIT	November 22/23 2004
NAMES AND POSITIONS OF STAFF INTERVIEWED DURING AUDIT	Randall Scott - Manager Environmental Services Chris Yam – Manager Network Maintenance Belinda Hunt – Senior Maintenance Specialist (Networks) Clive Scobie – Manager Quality, Safety and Risk Richard Earl – General Manager Power Networks Russell Jennings – Development and Asset Support Manager (Generation) David Whitehead – Development Manager (Generation) Mike Maurer – General Manager Generation Deborah Wightman – General Manager Corporate Communications
MANAGER OR OFFICER RESPONSIBLE FOR ENVIRONMENTAL MANAGEMENT PROGRAM (NAME, TITLE AND SIGNATURE)	Randall Scott Manager Environmental Services
CONTACT PHONE NO. AND EMAIL ADDRESS	08 8924 5921 Randall.Scott@powerwater.com.au
GENERAL COMMENTS ON THE AUDIT OR CODE OF ENVIRONMENTAL PRACTICE NOT INCLUDED ELSEWHERE (OPTIONAL)	<p>Power and Water Corporation (PWC) are involved in numerous programs looking at alternative and renewable energy sources. There is also a strong environmental awareness campaign aimed towards informing the community of the functions of Power and Water and how to use electricity safely and efficiently. Power and Water acknowledges good environmental management practices through the establishment of the Environmental Awards and Grants scheme.</p> <p>The development and implementation of an Integrated Management System (IMS) should go a long way in ensuring consistency in environmental management across the various business groups within PWC that are present throughout the Northern Territory. It will also provide a mechanism to drive continuous improvement.</p> <p>This audit was performed against the audit protocol supplied by esaa to the PWC. Rankings were made based on established criteria. The audit was conducted by office interviews and supporting documentation was viewed where possible. Interviews were held mainly with Management personnel. Comparisons with other levels of the organisation to verify on-ground operations were not conducted.</p>
AUDITOR NAME AND SIGNATURE	Stephanie Myles

esaa CODE OF ENVIRONMENTAL PRACTICE -- AUDIT FORM

AUDITOR'S EMPLOYER AND POSITION TITLE	EcOz Environmental Services Environmental Scientist/Auditor
AUDITOR'S QUALIFICATIONS AND EXPERIENCE	Bachelor of Science with First Class Honours in Zoology University of Queensland, St Lucia Campus QSA International - Associate Environmental Auditor (014036)
CHIEF EXECUTIVE OFFICER (NAME AND SIGNATURE)	

A SUSTAINABLE DEVELOPMENT POLICY (Actions A1 to A4)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
<p>1. Consider environmental values at all levels of decision-making in order to enhance environmental performance of the business.</p>	<p>3.5</p>	<p>There is an established Environment Committee that meets at least quarterly. The Terms of Reference for this committee were viewed. Basically the EC's objectives are to provide strategic advice to the board on environmental issues, ensure that environmental management is implemented throughout PWC, oversee corporate environmental documents, ensure that the board and the risk management committee are informed of significant environmental risks and changes and monitor and report to the board on PWC's environmental performance.</p> <p>Although the Environment Policy was recently updated (viewed version dated April 2003 and minutes of meeting where changes were agreed for latest version), the policy will now form part of the integrated management system policy that is in the final stages of approval.</p> <p>A separate group (EQUALS) has been created to develop an Integrated Management System to achieve certification to ISO 14001 for Environment, AS 4801 for Safety and AS/NZS ISO 9001 for Quality Management.</p> <p>From a marketing perspective, environmental performance is highly valued.</p> <p>There is more communication with personnel and contractors in the field in regards to environmental management eg. Contractors working at Dundee.</p>
<p>2. Integrate environmental management into existing management practices.</p>	<p>3.5</p>	<p>Environment is discussed in the induction and environmental awareness training is provided to all employees (viewed training package).</p> <p>There is an Environmental Committee that the General Managers sit on – they pass on the relevant information to their work group.</p> <p>There was general awareness regarding the Corporate Plan that has been developed that details the Environmental Strategies for PWC.</p> <p>Power Networks have established an Environmental Management Plan based on the Corporate Strategy. Generation have not undergone this process but were aware that there was a requirement to minimise emissions to air, any water run-off from sites and ensure that oil traps are installed and functioning.</p> <p>A training needs analysis has been conducted.</p> <p>Environmental Officers give presentations to project officers who are responsible for projects.</p> <p>There is an Environmental Management Plan for construction that all contractors must comply with. Also have a Corporate Statement.</p>

A SUSTAINABLE DEVELOPMENT POLICY (Actions A1 to A4)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>Remote operations contracts to local councils in outstation communities who in turn employ local people to run the day-to-day operations of the power generators. They are trained rigorously in their environmental responsibilities and how to manage and maintain the equipment.</p> <p>Power Networks have work instructions for each job where OHS and Environmental issues are highlighted. Part of the job folder requires identification of hazards/risks and assessments must be completed for each job.</p> <p>Power Networks manage the contractor for tree trimming/removal. There are clauses in the contract for appropriate environmental management practices.</p>
<p>3. Work with government, business and the community to ensure that electricity is used safely, effectively and efficiently.</p>	<p>4.5</p>	<p>The Green Guide that is produced by PWC provides guidance on how to use electricity safely and efficiently.</p> <p>PWC engages with various landcare groups (eg. this year implemented firebreaks for the Leanyer rainforest landcare).</p> <p>There is a modest level of interaction with the electrical safety regulator in the NT.</p> <p>There was general acknowledgement from all personnel interviewed that PWC run various energy saving campaigns within the company and the public. PWC personnel often visit schools to discuss how to use and be safe around electrical equipment and also on the conservation of electricity.</p> <p>PWC runs an intensive public media campaign including TV advertisements, pamphlets, newspaper adverts etc. These regularly target how to use electricity efficiently and also how to be safe (eg. promote safe tree trimming or removal around powerlines).</p> <p>PWC run the Environmental Awards annually and there are a number of Environmental Grants as a part of that program (Cool Communities Grant and the Desert Knowledge Environment Awards).</p> <p>PWC also assists the NT Minerals Council to run 'Enviro Smart' in NT Schools.</p>
<p>4. Identify and implement measures to reduce greenhouse gas emissions and enhance greenhouse gas sinks.</p>	<p>4.5</p>	<p>PWC involved in the NT Government's Greenhouse Working Group at the strategic level.</p> <p>Signatory to the Greenhouse Challenge and report emissions annually. This was known by most persons interviewed.</p> <p>Also have adopted more energy efficiency practices in buildings by following the Green Purchasing Principles. However, this is limited to the building infrastructure that PWC owns and there is not much scope in buildings that are</p>

A SUSTAINABLE DEVELOPMENT POLICY (Actions A1 to A4)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>leased.</p> <p>There is a Manager Renewable Energy whose prime job is to ensure that PWC meets its MRET targets.</p> <p>Generation people have a Generator Efficiency Program where they have a commitment to maintain equipment to the highest standard and refurbished to at least new condition. Trying to get more efficient in generating electricity (eg. Newcastle Waters diesel generator shut down and a new power line run in from Elliott where electricity is generated by natural gas). Part of this plan is to replace low efficiency equipment around the Alice region with more efficient equipment.</p> <p>Generation monitor fuel usage monthly to ensure that they are meeting the targets set in the greenhouse challenge.</p> <p>Monitor diesel use on outstations to ensure engines are running efficiently.</p> <p>PWC must chase Mandatory Renewable Energy Certificates.</p> <p>Power Networks aim to minimise the loss of power from transmission lines. This results in the powerstations not needing to generate as much electricity.</p>
<p>A AVERAGE LEVEL OF COMPLIANCE FOR THE SUSTAINABLE DEVELOPMENT POLICY →</p>	<p>4</p>	<p>Average the scores above, ignoring the ones marked "N/a".</p>

B SOCIAL RESPONSIBILITY POLICY (Actions B1 to B6)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
<p>1. Consult with interested parties (including through participation in public forums) on significant environmental and health issues and projects related to the electricity business.</p>	<p>4</p>	<p>PWC consult with various landcare/conservation groups where required.</p> <p>PWC is represented on the NT Government Contaminated Land Advisory Group.</p> <p>For networks electro-magnetic radiation (EMF) is perceived as an issue. Fuel handling and air emissions were viewed as the environmental issues in Generation.</p> <p>Power Networks is required to consult with community groups and local councils regarding tree trimming and removal on a regular basis.</p> <p>Networks and Generation both acknowledged the requirement to consult with the public and community groups where there may be impacts from new developments.</p> <p>The undergrounding project has involved the establishment of an office at the local shopping centre to provide information to the community.</p> <p>Occupational Health and Safety is integrated into work practices.</p> <p>At a strategic level there is a strong focus on the relationship with the community.</p>
<p>2. Contribute to education, information and general awareness programs for employees and the public on issues that are considered environmentally significant, including regular reporting on environmental performance.</p>	<p>4</p>	<p>There is an environmental component of the induction as well as targeted environmental awareness packages that are presented to the various groups by either a Registered Training Organisation (RTO) or an Environmental Officer.</p> <p>There is also some requirement for personnel to demonstrate practical components of standard operating procedures.</p> <p>PWC have run the annual Environmental Awards for the community for the past two years.</p> <p>This year they started an internal environmental awards promotion where the best work group were rewarded. This will be ramped up in future years.</p> <p>There is also a weekly update and a monthly newsletter that the majority of people acknowledged as a means of communicating environmental issues. These newsletters have a safety, quality and risk section which environment is now coming under.</p> <p>PWC produces an annual Environmental Report which is available on the web for the public.</p> <p>PWC produces the Green Guide which details energy and water saving ideas. This is available for the public at counters and on the PWC website.</p>

B SOCIAL RESPONSIBILITY POLICY (Actions B1 to B6)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>PWC maintains an asbestos register. It also has an established permit system for electrical work. There is a requirement for high-vis clothing at all sites and anyone who enters a powerstation must undergo an induction course.</p>
<p>3. Monitor and support engineering, scientific and social research and policy development regarding environmental and human health issues of significance to the supply and use of electricity.</p>	<p>4</p>	<p>In addition to the above, PWC sponsors various renewable energy projects that are run from Charles Darwin University.</p> <p>PWC personnel sit on various environmental committees in the NT such as the Darwin Harbour Advisory Committee and have contributed to the Natural Resource Management Plan for the NT.</p> <p>PWC is a member of the esaa and also participates in the EMF program.</p> <p>PWC did sponsor the NT Centre for Energy Research but this is now closed and funds have been redirected into the renewable energy projects.</p>
<p>4. Maintain and enhance customer information services on the safe and responsible use of electricity.</p>	<p>4</p>	<p>PWC has a strong corporate communication policy and prior to the wet season annually has extensive media coverage for power outages, tree management associated with powerlines etc.</p> <p>The undergrounding of powerlines project in Nightcliff has involved setting up an office in the local shopping centre to answer any questions and provide information to the public.</p>
<p>5. Promote partnerships with others, such as community, environmental and business groups, to enhance communication of specific issues to the wider community and to encourage fair and balanced feedback.</p>	<p>4</p>	<p>PWC regularly assists landcare groups.</p> <p>Power Networks is currently running a native flora project which is trying to determine what native plant species are most suitable to plant under or around powerlines.</p> <p>PWC is also a member of the NT Chamber of Commerce Inc, The NT Minerals Council and the Territory Construction Association.</p>
<p>6. Act prudently (particularly in relation to EMF) when designing and operating electricity generation, transmission and distribution facilities.</p>	<p>4.5</p>	<p>During the design phase of projects there is an internal environmental assessment process which involves a part scoping/part risk assessment approach which also captures heritage issues. Projects must also go through the required assessment by government bodies. This requirement was understood by all personnel interviewed.</p> <p>In regards to EMF, officers are trained in monitoring and will go and measure levels in response to complaints from the public. They will also provide information that puts levels of exposure into context.</p> <p>Equipment is now purchased where possible enclosed to increase sound attenuation and also reduce potential exposure to EMF. There should be no places where people are working so that they are exposed to high EMF levels for</p>

B SOCIAL RESPONSIBILITY POLICY (Actions B1 to B6)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>the long-term.</p> <p>Numerous people acknowledged the undergrounding project that is underway in the Nightcliff area and the undergrounding work that has been conducted in the Alice Springs region.</p> <p>All practices fall within Australian or International codes of practice. PWC is always trying to run the most efficient plant.</p>
<p>B AVERAGE LEVEL OF COMPLIANCE FOR THE SOCIAL RESPONSIBILITY POLICY →</p>	<p>4.08</p>	<p>Average the scores above, ignoring the ones marked "N/a"</p>

C ENVIRONMENTAL MANAGEMENT POLICY

Members *not* having third party EMS certification to a recognised Environmental Management Standard (such as ISO 14001 or Victorian EPA accredited licensee) should complete all of Section C, C1 to C13.

Members having third party EMS certification to a recognised Environmental Management Standard should complete section C as follows:

a) Complete the following information:

To what Standard has certification been achieved?		Date of initial certification	
Name of third-party certification body		Date of last audit	

b) Score '3.5' for C1 to C12 without providing supporting comments; score C13 as appropriate and determine the average level of compliance for this policy in the box at the end of this section. If a score higher than '3.5ersi' were appropriate for any Action, then a supporting comment to justify this would be required and the appropriate average calculated.

C ENVIRONMENTAL MANAGEMENT POLICY (Actions C1 to C13)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
1. Develop and promote environmental policies commensurate with the potential impacts of the business.	4.5	<p>PWC has an Environmental Policy. This will soon be superseded by the integrated management system policy (viewed draft, soon to be approved).</p> <p>The Environment Policy was viewed to be displayed in the workplace and was available on the PWC website. The policy was commensurate with the impacts of the business and was developed by the Environmental Committee and approved by the executive management committee. The policy was signed by the Managing Director.</p> <p>The communication of the IMS policy once approved will involve a powerpoint awareness presentation. This presentation was viewed.</p>
2. Establish clear and achievable environmental objectives and targets.	2.5	<p>The Environment group assists all operational business units as well as Retail in developing an annual action plan from the Environment Strategy. Business units are expected to report on progress quarterly to the Environment Group.</p> <p>The Power Networks group acknowledged their action plan (they call it their Environmental Management Plan) and stated that these are updated on an annual basis in consultation with the Environment Group. Progress is reported quarterly. The personnel interviewed in the Generation group were not aware of an environmental plan for their business unit.</p>

C ENVIRONMENTAL MANAGEMENT POLICY (Actions C1 to C13)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>The Statement of Corporate Intent details key environmental strategies for PWC.</p> <p>A new position of Manager Strategic Planning is being created.</p> <p>Currently objectives and targets are set at the corporate level but the aim is for all levels to have a plan based on the corporate strategies.</p> <p>A Performance Development Plan is also being developed where key objectives and targets will be put into individual's performance plans.</p>
<p>3. Ensure that environmental responsibilities are clearly identified for all employees relevant to their activities.</p>	<p>3.5</p>	<p>There is an environmental section in the induction.</p> <p>There is an environmental training package that discusses individual people's responsibilities towards the environment.</p> <p>Power Networks are currently developing safe operating procedures for all jobs. These will be available on the PWC intranet when completed. Communication of these procedures will be required through meetings with personnel.</p> <p>In Generation, training is completed by various supervisors or environmental personnel and tends to be more informal.</p> <p>There is an EMP for construction. Contractors must comply with the requirements from the EMP. Members from the Environment group and other relevant Government departments such as Office of Environment and Heritage will go and meet with contractors where required.</p>
<p>4. Ensure that all employees are aware of environmental legislative requirements relevant to their activities.</p>	<p>3.5</p>	<p>There is an environmental training package that discusses briefly environmental legislative requirements.</p> <p>The environment and risk induction manual provides general information regarding conforming with environmental legislative requirements.</p> <p>Although the above documents were viewed, most of the personnel interviewed assumed that the Environment Group would be responsible for communicating this information but weren't sure of how this was done.</p>
<p>5. Train employees to identify the potential for environmental harm and develop processes and procedures to reduce the likelihood of such harm occurring.</p>	<p>3.5</p>	<p>Power Networks have job folders for each job conducted by its personnel. These job folders contain a basic risk/hazard assessment and although are more OHS focused do include environmental issues.</p> <p>A basic risk assessment/hazard identification training package was recently rolled out across PWC by the RTO.</p> <p>In Generation, a Job Hazard Analysis is completed before</p>

C ENVIRONMENTAL MANAGEMENT POLICY (Actions C1 to C13)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>each job. Hazard information comes out with the works orders. Any issues that are raised are reported to the safety group or relevant supervisor.</p>
<p>6. Develop environmental management plans through environmental risk assessment to ensure continual improvement of environmental performance.</p>	<p>2</p>	<p>All operational business units have developed their own annual environmental plan. The Networks group possessed such a plan and reported progress quarterly to the Environmental Manager. A full review of the plan is conducted annually. The Environmental Plans draw from the Environmental Strategy that is the long-term environmental document for PWC. Risk assessment outcomes are not incorporated into this plan as yet.</p> <p>The Generation Group were not aware of having an environmental plan that they reported on quarterly.</p> <p>It was generally acknowledged that risk assessment work has been conducted at the management level.</p> <p>There has been a corporate risk assessment where environment was considered.</p> <p>There is a risk assessment methodology being prepared as part of the IMS. Each work group must identify key risks and will undergo training and participate in risk assessments.</p>
<p>7. Develop and implement emergency response plans consistent with the potential for environmental impact.</p>	<p>3.5</p>	<p>There are a range of crisis/emergency response plans throughout the different levels and work groups at PWC. It was recognised that there are irregular emergency plans that tend to sit at a higher level and there is no regular testing of the plans. This is currently being addressed through the IMS.</p> <p>There is a Counter-Disaster Manual for cyclone response. This is reviewed annually prior to the cyclone season and widely distributed.</p> <p>Various personnel sit on emergency response panels or groups within PWC and with Government and Community bodies. There are people involved in counter-disaster response groups across the Territory (eg. Katherine – flooding).</p> <p>Each facility also has its own emergency response plan.</p> <p>The EQUALS group is working on the Integrated Management System (IMS) and one of the tasks will be to coordinate and standardise all the emergency response plans.</p> <p>There was general acknowledgement of the higher level counter disaster plan.</p> <p>There has been a couple of recent exercises (desktop) using the Crisis Management and Recovery Plan which is still in a</p>

C ENVIRONMENTAL MANAGEMENT POLICY (Actions C1 to C13)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>draft stage.</p> <p>Corporate Communications have their own manual as they become the crisis communication team in an emergency. It was acknowledged that this may be replaced with the current work being conducted by the IMS.</p> <p>In Power Networks, there are policies and procedures for spills. System control is the first point of contact and they have a set of protocols that details what they should do under a variety of situations.</p>
<p>8. Report environmental performance on a regular basis to senior management.</p>	<p>4</p>	<p>Environmental action plans are present for all operational units as well as Retail. Units are required to report on their progress quarterly to the Manager Environmental Services. The Networks group were aware of their action plan (they called it an EMP) however, the personnel interviewed from Generation were not.</p> <p>Environmental KPIs are reported on annually.</p> <p>Environmental reports are produced fortnightly and are provided to the Executive Management Committee. These discuss any environmental incidents and significant issues. Monthly reports are also produced.</p> <p>There is a procedure for reporting pollution incidents titled the Pollution Incident Reporting Policy that details the process for reactive reporting. The Manager Environmental Services stated that this procedure was available on the PWC intranet for all employees. Personnel interviewed generally knew to contact the Environment Group for any environmental incidents but did not seem to be aware of any formal procedure.</p> <p>An Environmental Report is produced annually. This is available to the public via the PWC website.</p> <p>The Environmental Committee meets every quarterly.</p>
<p>9. Monitor the impact of the business on the environment to ensure that reliable information is available and encourage continual improvement.</p>	<p>3.5</p>	<p>There is no requirement for point source air emission monitoring in the NT for PWC's operations. However, there are plans for air emission monitoring around powerstations in the future.</p> <p>There was an air quality monitoring trial conducted in May 2003 in Alice Springs (RGPS powerstation) in response to a complaint from a member of the public.</p> <p>CO₂ calculations are made under the Greenhouse Challenge. Equipment is monitored regularly to ensure that it is operating efficiently.</p> <p>The majority of electricity for the major centres is produced using natural gas and so there is no sulfur emissions.</p>

C ENVIRONMENTAL MANAGEMENT POLICY (Actions C1 to C13)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>Power Networks needs to monitor SF₆ levels at the Channel Island powerstation and all its equipment. Basically, equipment is weighed annually to determine the degree of leakage of SF₆. This is reported annually to the Environment Group.</p> <p>Part of the Generator Efficiency Program looks at certain emissions.</p> <p>Improvements are being made through the use of improved technology.</p> <p>PWC reports annually to the National Pollutant Inventory. These numbers are available in the Annual Environmental Report.</p>
<p>10. Introduce reporting procedures to communicate promptly to senior management and boards non-conformances with the environmental policy or legislation.</p>	<p>4</p>	<p>A fortnightly report is produced that details any pollution incidents or significant issues. A monthly report is then produced from these fortnightly reports.</p> <p>The Manager Environmental Services reports any changes in legislation or environmental issues to the Environment Committee.</p> <p>There was general consensus that environmental non-conformances are reported to the Environment Group who can provide advice and will report on to upper management and the relevant government departments. However, there was little knowledge of the established Pollution Incident Reporting Policy that is available to all personnel via the intranet.</p> <p>Generation report all spills or other environmental incidents to the environmental group who must report to DIPE.</p> <p>The IMS team is putting in place an incident reporting procedure that includes environmental non-conformances. This will replace the Pollution Incident Reporting Policy.</p>
<p>11. Audit the environmental management systems to determine shortcomings against performance criteria. Incorporate the audit outcomes in succeeding environmental management plan.</p>	<p>2.5</p>	<p>The Environmental Group recently conducted an internal audit of the Power Networks system on request. Findings of the audit were captured in action sheets. Power Networks are working on these action sheets.</p> <p>At the moment audits are conducted on request. An internal audit program is being developed as part of the IMS. All audit findings (and findings from incidents) will go into the RISQ database as part of the corrective action process.</p>
<p>12. Undertake reviews of environmental management systems at regular intervals to ensure that they reflect contemporary business activities and best practice.</p>	<p>3</p>	<p>The Environment Committee meets quarterly. Basically the EC's objectives are to provide strategic advice to the board on environmental issues, ensure that environmental management is implemented throughout PWC, oversee corporate environmental documents, ensure that the board and the risk management committee are informed of significant environmental risks and changes and monitor and</p>

C ENVIRONMENTAL MANAGEMENT POLICY (Actions C1 to C13)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>report to the board on PWC's environmental performance.</p> <p>Minutes from a EC meeting were viewed showing review of the Environmental Policy.</p> <p>A gap analysis was completed earlier in 2004 which recognised some gaps in the EMS including the review process. These are now being addressed as part of the IMS development.</p>
<p>13. Use contractors and suppliers who adopt environmental management systems based on accepted standards.</p>	<p>2.5</p>	<p>Where required, environmental requirements are written into contracts (For example the tree trimming/felling contract states requirements for where to cut, how to cut, what to do with waste etc.).</p> <p>The IMS team are working to ensure that there is a consistent approach to including environmental requirements into contracts.</p>
<p>C AVERAGE LEVEL OF COMPLIANCE FOR THE ENVIRONMENTAL MANAGEMENT POLICY →</p>	<p>3.27</p>	<p>Average the scores above, ignoring the ones marked "N/a"</p>

ESAA CODE OF ENVIRONMENTAL PRACTICE -- AUDIT FORM

D RESOURCE MANAGEMENT POLICY (Actions D1 to D4)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
<p>1. Promote the efficient and responsible production transmission, distribution, retailing and use of electricity, including the development of renewable energy sources.</p>	4.5	<p>There is a public charter that details the commitments for delivery of electricity to customers. There is also a Corporate Plan with Environmental Strategies. The strategy document in general promotes best practice and efficiency.</p> <p>PWC is very interested in the efficient production of electricity and are running a Generator Efficiency Program. An inefficient diesel generator has been shut-down in a remote community with a line put in connecting to a gas powerstation which is more efficient.</p> <p>There is also a Power Factor Correction program that looks at minimising energy losses. Part of this has involved the installation of capacitor banks at zone substations.</p> <p>PWC produces the Green Guide for advice on saving electricity and water.</p> <p>PWC is a business and wants to avoid implementing immature technology. PWC takes a pilot project approach and have funded various renewable energy projects including solar (see below), a <i>Mimosa pigra</i> biomass study and wind energy.</p> <p>Will run a biodiesel trial in Daly Waters with 100 000L (fuel supplier has not yet been decided upon).</p> <p>Solar array systems established in Kings Canyon and Bulman to take part of the electrical load during the day.</p> <p>There is also a waste heat heating project that PWC is involved in.</p> <p>PWC publicises all renewable energy projects.</p> <p>There is a long-term plan to standardise conductor cables.</p> <p>PWC provides rebates for new solar hot water systems.</p> <p>Generation commented that it is difficult to drive energy efficiency projects in the NT with only 70 000 energy contracts. However, these difficulties don't deter PWC in seeking initiatives and it is seen as a real challenge.</p>
<p>2. Facilitate research, development and demonstration into the more efficient and effective supply and use of electricity through partnership programs with government, business and research centres.</p>	4	<p>There is an Environmental Grants programme that is run as part of the Environmental Awards.</p> <p>There is also a graduate trainee program in place.</p> <p>PWC is working with the Australian Greenhouse Office to commercialise the solar array systems.</p> <p>PWC is also trialling solar and wind driven street lights.</p> <p>Although diesel is used in outstations, only 5% of the power generated in regional centres comes from diesel. The rest is</p>

ESAA CODE OF ENVIRONMENTAL PRACTICE -- AUDIT FORM

D RESOURCE MANAGEMENT POLICY (Actions D1 to D4)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
		<p>natural gas.</p> <p>The cooling system at Channel Island powerstation is a closed circuit system so there is no discharge. PWC have also installed a chilling plant at Channel Island to get the best use out of the turbines.</p>
<p>3. Reduce the consumption of natural resources through implementing programs and practices which focus on the more efficient use of resources, such as cleaner production, waste minimisation and the use of more environmentally-friendly materials, processes and procedures.</p>	4	<p>Remote services use approximately 20 million litres of diesel per year whereas natural gas is used for regional centres. Diesel engines are monitored closely to ensure that they are running efficiently.</p> <p>PWC is very interested in the efficient production of electricity and are running a Generated Efficiency Program.</p> <p>During the Ben Hammond re-build, PWC have followed the Green Building Guide where possible.</p> <p>Power Networks recycles all transformer oils. Where possible, equipment will be refurbished and put back into stock rather than throwing it away.</p> <p>PWC aim to replace old equipment with the most efficient technology available.</p> <p>There have been internal saving projects such as replacement of fluorescent lights with more efficient lighting and timers on air-conditioners.</p>
<p>4. Integrate catchment management and sustainable land management practices to minimise their impact on the environment, ensure effective rehabilitation of land used for operations and support biological diversity.</p>	3.5	<p>PWC have some sustainable land management practices including for power line easements.</p> <p>One of the strategy objectives looks at biodiversity.</p> <p>Power Networks are trialling the growth of native tree species to see which should be encouraged to be planted under and around powerlines when identified nuisance trees are removed.</p> <p>Rehabilitation is carried out where required on projects, unused access tracks and decommissioned sites (eg. the George Crescent fuel depot site in Alice Springs). Contamination and rehabilitation assessments are carried out on all de-commissioned powerstations. Stabilisation and rehabilitation are expected standard practices with any new developments or construction work.</p> <p>Power Networks are looking at alternatives to bulldozing when clearing under powerlines such as slashing and chipping.</p> <p>PWC have produced a weeds pamphlet in conjunction with DBIRD that gets distributed throughout the business. Weeds are recognised as an issue along powerline easements and at some sites.</p>

ESAA CODE OF ENVIRONMENTAL PRACTICE -- AUDIT FORM

D RESOURCE MANAGEMENT POLICY (Actions D1 to D4)

COMPLIANCE ACTIONS	LEVEL OF COMPLIANCE (0 to 5 or N/a)	SUPPORTING COMMENTS
D AVERAGE LEVEL OF COMPLIANCE FOR THE RESOURCE MANAGEMENT POLICY➔	4	Average the scores above, ignoring the ones marked "N/a".