



Final Report

2009 Performance Audit and Asset Management System Review for Emu Downs Wind Farm

Audit Report	Authorisation	Name	Position	Date
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Quality Control Record

	CLIENT	DATE
REQUESTED BY	PAUL McLAGAN – EMU DOWNS WIND FARM	JUNE 2009
PREPARED BY	NICOLE DAVIES	24 TH SEPTEMBER 2009
CHECKED BY	PAUL MCLAGAN	29 TH SEPTEMBER 2009
REVISION	2	20 TH OCTOBER 2009

1. EXECUTIVE SUMMARY

Emu Downs Wind Farm is a joint venture between Stanwell and Griffin Energy. The project was commissioned in June 2006 and comprises 48 turbines (each with 1.65 MW generating capacity), a substation, interconnection to the main 132 kV grid, an administration/stores building and a network of access roads.

The wind farm is close to the coast, with a good quality wind resource that has increased wind speed and reliability aligning with periods for peak power demand. However, the intermittent nature of wind generation means that it is not available for scheduling or dispatch so, under an agreement with Western Power, EDWF have no obligation to supply power, other than a financial incentive.

The wind farm is now in the operational phase of the 20 year life of the asset with initial commissioning issues resolved and operational procedures fully implemented and proven.

Emu Downs Wind Farm (EDWF) engaged Geographe Environmental Services Pty Ltd (GES) to undertake the second Performance Audit and Asset Management System Review as required by the Economic Regulation Authority (ERA) under generation licence EGL1. This combined report contains the audit findings for both the Performance Audit and Asset Management System Review.

Sections 13 & 14 of the Electricity Industry Act 2004 require as a condition of every licence that the licensee must, not less than once in every period of 24 months (or any longer period that the Authority allows) calculated from the grant of the licence, provide the Authority with a Performance Audit and Asset Management System Review conducted by an independent expert acceptable to the Authority.

The Authority approved the appointment of GES Pty Ltd on the 6th July 2009 and subsequently required the development of an audit plan for ERA approval. Notification of the approval of the audit plan for the 2009 Performance Audit of Licence EGL1 was provided on the 1st September 2009.

EDWF has elected to apply the Audit Guidelines – Electricity, Gas and Water Licences (July 2009) to this audit. As required, approval to follow the new Audit Guidelines was obtained from the ERA prior to undertaking the review. The ERA Audit Guidelines: Electricity, Gas and Water Licences (July 2009) will become obligatory for licensees from January 1st 2010.

The period for the audit and review is, 1 July 2007 to 30 June 2009 and the submission of this report before 16 October 2009 is evidence of compliance with the Authority's requirements.

The Asset Management System Review and the Performance Audit have been conducted in order to assess the effectiveness of the Emu Downs Wind Farm Asset Management Systems and level of compliance with the conditions of its Generation Licence EGL1. Through the execution of the Audit Plan, field work, assessment and testing of the control environment, the information system, control procedures and compliance attitude, the audit team members have gained reasonable assurance that the Emu Downs Wind Farm has an effective asset management and has complied with its Generating Licence during the audit period 1 July 2007 to 30 June 2009. Of particular note is improvement in availability statistics (i.e. Mean Time Between Inspections) and work prioritisation efficiency by Vestas through the implementation of effective maintenance programs. This audit report is an accurate representation of the audit teams findings and opinions.

Changes Since Last Audit

The 2007 Performance Audit and Asset Management Review was undertaken over the period of the defects liability where the contractor (Vestas) was responsible for the maintenance of the wind farm under an Engineer Procure Contract (EPC).

This EPC has now expired (6 October 2008) and EDWF have taken over responsibility for maintaining the asset. The core of their asset management plan is the Services Availability Agreement, SAA, which is again with Vestas. They are the manufacturers of the wind turbine generators and contractor for the construction of the farm. The SAA incorporates a guaranteed availability for the wind farm, with penalties if these are not achieved, and incentives for availability over the guaranteed level.

Included in the SAA is maintenance of the high voltage assets consisting of the substation and the static VAR compensators, SVC. For these portions of the works, which Vestas have sub-contracted to two reputable organisations, there is specified maintenance programme and a guaranteed response time to breakdowns in the SAA.

In a letter dated on the 29th May 2009, EDWF JV Manager communicated to the ERA (refer to letter EDWF 290509-01) that this change in contract is not considered a major change to the asset management program as Vestas are essentially providing the same services as the EPC except that the asset management system is documented in more detail. The audit team can confirm this is an accurate representation of the asset management system.

1.1 Performance Audit Summary

All licence requirements reviewed were found to be compliant during the audit.

As required in section 11.4.1 of the Audit Guidelines – Electricity, Gas and Water Licences (July 2009) Table 1 summarises the compliance rating for each licence condition using the 7-point rating scale described in Table 3 (Refer Section 2.3 Methodology).

A comprehensive report of the audit findings is included in Appendix 1.

There were Generation Licence compliance elements that were not included in the scope of this audit because they did not eventuate in this audit period or have not been established within licence EGL1. These are defined in Table 1.

Table 1 : Performance Audit Compliance Summary

Generating Licence Reference (CI = Clause, Sch = Schedule)	Generation Licence Criteria	Likelihood	Consequences	Inherent Risk	Adequacy of existing controls	Compliance Rating							
						NR	NA	0	1	2	3	4	5
CI 1	Definitions					✓							
CI 2	Grant of Licence	Unlikely	Minor	Low	Strong								✓
CI 3	Term	Unlikely	Minor	Low	Strong								✓
CI 4	Fees	Unlikely	Minor	Low	Strong								✓
CI 5	Compliance	Unlikely	Moderate	Medium	Strong							✓	
CI 6	Transfer of Licence	Unlikely	Major	High	Strong	✓							
CI 7	Cancellation of Licence					✓							
CI 8	Surrender of Licence					✓							
CI 9	Renewal of Licence					✓							
CI 10	Amendment of Licence on application of the Licensee					✓							
CI 11	Amendment of Licence by the Authority					✓							
CI 12	Expansion or Reduction of Generating Works, Distribution Systems and Transmission Systems	Unlikely	Minor	Low	Strong								✓
CI 13	Accounting Records	Unlikely	Minor	Low	Strong								✓
CI 14	Individual Performance Standards					✓							
CI 15	Performance Audit	Unlikely	Major	High	Strong							✓	
CI 16	Asset Management System	Unlikely	Major	High	Strong							✓	
CI 17	Reporting	Unlikely	Major	High	Strong								✓
CI 18	Provision of Information	Unlikely	Minor	Low	Strong								✓
CI 19	Publishing Information	Unlikely	Minor	Low	Strong								✓
CI 20	Notices	Unlikely	Minor	Low	Strong								✓
CI 21	Review of the Authority's Decisions					✓							

2. PERFORMANCE AUDIT

2.1 Performance Audit Scope

This is the second audit of EDWF's compliance with obligations relating to Generation Licence EGL1. As such, the scope of the audit for the period 1 July 2007 to 30th June 2009 is to:

- assess the license holders internal compliance systems (i.e. process, outcome and output compliance)
- assess the license holders compliance with its license (including integrity of reporting)
- measure performance over time

The previous Performance Audit covered the period 23 June 2005 to 30 June 2007.

This Performance Audit was conducted over the following period 6th July – 24th September 2009 and an overview methodology is outlined below;

- Initial approval to conduct audit obtained by ERA (6th July 2009)
- Preliminary Audit undertaken to assist with preparation of the Audit Plan (5th & 6th August 2009)
- Audit Plan preparation
- Submission of the Audit Plan to the ERA (18th August 2009)
- Audit Plan Approval (1st September 2009)
- Performance Audit conducted on site to execute Audit Plan (1st to 3rd September 2009)
- Preparation of Audit Report

The following people were interviewed during the Performance Audit;

- | | | |
|----------------------|---|-------------------------------------|
| • Paul McLagan | - | EDWF JV Manager |
| • Michael Karpinski | - | Project Accountant |
| • Pete Ryan | - | Manager Wholesale Energy Trading |
| • Rob Brady | - | Vestas Maintenance Manager |
| • Clay Douglas | - | Vestas OH&S Representative |
| • Charlene Neethling | - | Vestas Site Administration |
| • Vic Roque | - | Western Power - Metering Strategist |
| • Grant Woolard | - | Western Power - Business Analyst |

A list of key documents and other information sources examined by the auditor during the Performance Audit is provided below;

- Service and Availability Agreement (SAA)
- Monthly Reports
- ERA Correspondence
- Compliance Reports
- EDWF Asset Management Plan (27/8/07)
- Compliance Reporting Manual June 2006
- Crisis Management Plan EDWF 250.1124
- Vestas Service Management Plan (SMP)
- Land Lease
- Network Access Agreement
- Connection Agreement
- Service Agreements
- Western Australian Electricity Market Metrology Procedure (Western Power - September 2006)
- Web Portal
- SCADA system data
- EDWF Year Plan 2009 - 2010
- Vestas Monthly Reports

Further detail is included in Appendix 1 of the report. In total the Performance Audit required 75 hours of Nicole Davies time.

2.2 Performance Audit Objective

The objective of the performance audit, as defined by the Audit Guidelines, is to assess the effectiveness of measures taken by the licensee to meet obligations of the performance and quality standards referred to in the licence.

In addition to compliance requirements, a specific focus is to be taken on the systems and effectiveness of processes used to ensure compliance with the standards, outputs and outcomes required by the licence. The audit outcome is to identify areas of non-compliance and areas of compliance where improvement is required and recommend corrective action as necessary.

2.3 Performance Audit Methodology

A risk assessment, assessment of control environment and allocation of audit priority was undertaken in accordance with the Audit Guidelines – Electricity, Gas and Water Licences (July 2009) on each element relating to Generation licensee's of the Electricity Compliance Reporting Manual April 2008 issued by the Authority. The Performance Audit Methodology was detailed in the Audit Plan.

Table 3 defines the compliance ratings shown in section 1.1.

Table 3: Operational/Performance Compliance Rating Scale

Compliance Status	Rating	Description of Compliance
Compliant	5	Compliant with no further action required to maintain compliance
Compliant	4	Compliant apart from minor or immaterial recommendations to improve the strength of internal controls top maintain compliance
Compliant	3	Compliant with major or material recommendations to improve the strength of internal controls top maintain compliance
Non-Compliant	2	Does not meet minimum requirements
Significantly Non-Compliant	1	Significant weaknesses and/or serious action required
Not Applicable	N/A	Determined that the compliance obligation does not apply to the licensee's business operations
Not Rated	NR	No relevant activity took place during the audit period, therefore it is not possible to assess compliance

In order to focus the audit effort and identify areas for testing and analysis a preliminary assessment of the risk and materiality of non-compliance with the Generation Licence was undertaken in accordance with the requirements of AS/NZS4360 Risk Management and Appendix 2 of the Audit Guidelines. This assessment rating was reviewed during the audit process subject to the verification of control environment.

Deviation from the Audit Plan

Changes made to the pre-assessment ratings during the audit process are highlighted in Appendix 1 and an explanation for the amendment provided.

Follow-Up from Previous Audit Findings

A detailed assessment of the previous audit post implementation action plan was undertaken during the audit to assess effectiveness. A summary is provided in Table 4.

Table 4 : 2007 Performance Audit Key Findings, Recommendation, Post Audit Plan & Progress

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Progress	Effectiveness
81	A licensee must, not less than once every 24 months, provide the Authority with a performance audit conducted by an independent expert acceptable to the Authority.	Whilst compliance with this requirement is well evidenced, the allocation of responsibility and process for ensuring changes to licence conditions/legislation are identified was not defined.	Establish, implement and maintain a procedure to ensure the content of the Compliance Manual is executed, allocated for responsibility and kept up to date.	ACTION: Review the potential for the establishment of a compliance scheduling system for the organisation in order to manage critical compliance functions and assign responsibilities.	A procedure has been implemented to review the contents of the Compliance Manual. The EDWF Year Plan gives further details.	This procedure was verified as implemented and the item was noted in the EDWF Year Plan for the 2009-2010 year. However, it was incorrectly scheduled for August 2009. The error was identified and subsequently the audit has been conducted in compliance with licence requirements. The item has rolled forward to the audit plan in order to ensure correct implementation has occurred.
84	A licensee must provide the Authority with a report by an independent expert as to the effectiveness of its asset management system every 24 months, or such longer period as determined by the Authority.			RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 Sept 2008		

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Progress	Effectiveness
83	A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	Appropriate notification has occurred during the audit period. However, it is noted that the Draft Asset Management System will be required to be reported to the ERA as required by the licence condition 16.2.	Post Engineer Procure Contract (EPC) changes to Asset Management System and the changes effected by the proposed Draft Asset Management System will be required to be reported to the ERA within 10 business days of such a change.	ACTION: Include in review of Compliance Manual subject to change in JV Partnership arrangements. RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 Sept 2008	The EPC contract has been superseded by a Service and Availability Agreement (SAA) as of 6 October 2008. The SAA details an asset management plan for the wind farm.	The Audit Team confirms that there has been no substantial change to the asset management system as a result of the change from EPC to SAA. As such appropriate notification has occurred during the audit period.
107 & 108	A licensee must comply, and require its auditor to comply, with the Authority's standard audit guidelines dealing with the performance audit. A licensee must comply, and must require the licensee's expert to comply, with the relevant aspects of the Authority's standard guidelines dealing with the asset management system	The requirement for the auditor to comply with Authority's standard audit guidelines was included in the brief issued by the licensee and subsequently documented in the audit plan and issue of communications from the Authority was provided by the licensee however the Compliance Manual [EDWF 250.1236] did not reflect the most up to date copy of the audit guidelines.	Update the Compliance Manual to reflect the latest copy of the Audit Guidelines i.e. September 2006. Current reference made to draft guidelines only. Consideration could be given to establishing a Service Agreement for the conducting of audit and specify ERA audit requirements.	ACTION: Compliance Manual to be reviewed and Services Agreement established for future audits to formalise this requirement. RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 Sept 2008	The Compliance Manual currently in use is Revision 0. Service agreements will be used to appoint auditors for ERA audits as and when required.	Service Agreements have been utilised to ensure requirements of audit are met.

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Progress	Effectiveness
109	A licensee must report to the Authority, in the manner prescribed, if a licensee is under external administration or there is a significant change in the circumstances upon which the licence was granted which may affect a licensee's ability to meet its obligations.	The current JV Partnership has not changed during the audit period however in the near future the arrangements are expected to change and planning to ensure compliance with Generation Licence should be flagged during the transition phase.	Requirement to communicate to the ERA changes in JV partnership should the need arise.	ACTION: Ensure compliance with General Licence requirements during the JV Partnership transition process as detailed in Compliance Manual paragraph 20. RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 Sept 2008	The JV Partnership has not changed since the inception of the wind farm. EDWF shall communicate with the ERA and other relevant organisations should the JV Partnership change in the future.	There is still no change to JV Partnership arrangement.
111	A licensee must publish any information it is directed by the Authority to publish, within the timeframes specified.	The licensee does not specifically have a website established for the Wind Farm both JV Partners have website which would facilitate publishing.	Consideration could be given to establishing a website for the wind farm to allow for the publishing of information.	ACTION: As SCL are selling their interests in the wind farm and subject to the outcome of this JV Partnership arrangement a website will be established for Emu Downs Wind Farm. RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 Sept 2008	The JV Partnership has not changed since the inception of the wind farm. EDWF shall publish information as required by the Authority as and when required.	JV websites have continued to be utilised in manner observed during last audit.

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Progress	Effectiveness
367 (319)	A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.	There is no system established to notify a metering installation malfunction other than a significant deviation in metering data.	Consideration could be given to install voltage relay to facilitate the trigger of an alarm to notify metering installation malfunction.	ACTION: Liaise with WPN on the proposed strategies to ensure metering systems malfunctions are identified and managed appropriately RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 Sept 2008	Western Power has a main and backup meter for each of the two 132kV metering points. These meters are self powered, independent and meet the requirements of the Technical Rules which has been approved by the ERA. The metering installations are considered to be best practice for the industry. EDWF is in constant contact with Western Power and shall report any metering malfunction or problems as and when they occur.	Upon request EDWF is able to utilise the meter data maintained by Western Power. In addition, the SCADA data provides them with access to data should the need arise. Any discrepancies can be reconciled accordingly. Outcome is satisfactory and compliance with condition established. This is further detailed within Appendix 2 item 319.
397 (349)	A network operator and affected Code participants must liaise together to determine the most appropriate way to resolve a discrepancy between energy data held in a metering installation and data held in the metering database.	Although EDWF monitor the accuracy of the metering data, WPN do not have any system to become aware of discrepancy other than reactive to disputed invoice.	Access to the SCADA system for the Metering Services division of WPN similar to that of Technical Services would facilitate a more efficient process to be established.	ACTION: Nil this is the responsibility of WPN RESPONSIBILITY: NA DATE: NA	NA	NA

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Progress	Effectiveness
438 (390)	A Code participant must not request a test or audit unless the Code participant is a user and the test or audit relates to a time or times at which the user was the current user or the Code participant is the IMO.	WPN Technical Services branch have access to the SCADA and are establishing an audit schedule to verify metering databases.	Liaise with WPN Technical Services to determine whether an audit of the system is scheduled.	ACTION: Liaise with WPN Technical Services to determine whether an audit of the system is scheduled. RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 Sept 2008	Western Power has not undertaken an audit of the metering system to date.	It is understood that an audit will be scheduled by Western Power when the Meter Asset Management Plan is developed by Western Power and approved by the ERA.
464 (416)	A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed.	A Network Access Agreement has been established and compliance is monitored. However, the Compliance Manual covers some aspects of the NAA.	Monitoring of requirements of the NAA in the compliance manual is not comprehensive. Consideration could be given to including all specific clauses as detailed in the ERA Compliance Reporting Manual for completeness	ACTION: Include in review of Compliance Manual subject to change in JV Partnership arrangements. RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 Sept 2008	The Compliance Manual shall next be reviewed in the second half of 2009. The NAA shall also be reviewed and any compliance monitoring requirements shall be included into the Compliance Manual.	As the scheduled review is outside the scope of this audit period it has been carried through to the next audit

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan	Progress	Effectiveness
466 (418)	Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number for voice communication in connection with the Code.	WPN Metering Services indicated they have the means to communicate with EDWF however there is no telephone number recorded on their system	Provide telephone details to WPN for their records.	ACTION: Contact Metering Services Commercial Co-Ordinator to provide telephone contact details RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 October 2007	Western Power has been provided with relevant contact details.	Although EDWF provided details to Western Power the details have not been entered into the Meter Data Registry. This item has been carried forward to the next audit.
469 (421)	A Code participant must notify any affected network operator of any change to the contact details it notified to the network operator at least 3 business days before the change takes effect.	As the JV Partnership arrangements are anticipated to change notification to WPN is required to ensure compliance with the Metering Code 7.2 (5).	In the event of a change to JV partnership arrangements updated contact details will be required to be lodged with WPN in accordance with the metering code.	ACTION: Include in review of Compliance Manual subject to change in JV Partnership arrangements. RESPONSIBILITY: General Manager (EDWF MANAGER P/L) DATE: 30 Sept 2008	The JV Partnership has not changed since the inception of the wind farm. EDWF shall communicate with Western Power should the JV Partnership change in the future.	There is still no change to JV Partnership arrangement.

Note: Ref refers to the number of action item in the 2007 Audit Report and ref in brackets refers to 2008 Compliance Manual.

2.4 2009 Post Audit Implementation Plan

As stipulated in section 11.9 of the Audit Guidelines (July 2009), the Audit Team notes that the Performance Audit Post Implementation Plan (Appendix 3) does not form part of the Audit Opinion. It is the responsibility of the licensee to ensure actions are undertaken as determined by EDWF.

3. ASSET MANAGEMENT SYSTEM EFFECTIVENESS REVIEW

3.1 AMS Review Scope

The scope of the AMS review includes an assessment of adequacy and effectiveness of Emu Downs Wind Farm asset management system, by evaluating during the audit period 1 July 2007 to 30 June 2009 the following;

1. Asset Planning
2. Asset creation/acquisition
3. Asset disposal
4. Environmental analysis
5. Asset operations
6. Asset maintenance
7. Asset management information system
8. Risk management
9. Contingency planning
10. Financial planning
11. Capital expenditure planning
12. Review of asset management system

The previous Asset Management Review covered the period 23rd June 2005 to 30th June 2007.

The review has been established as a requirement of the current Generating Licence issued by the Economic Regulation Authority to Emu Downs Wind Farm (EDWF).

The asset management review follows the approved audit plan and uses;

- a risk based approach to auditing using the risk evaluation model set out in AS/NZS 4360:2004;
- an overall effectiveness rating for an asset management process, based on a combination of the process and policy adequacy rating and the performance rating
- the format and content of the reviewer's report; and post- implementation plan as described in the Guidelines.



The following people were interviewed during the review;

Paul McLagan -	EDWF JV Manager
Michael Karpinski -	Project Accountant
Rob Brady -	Vestas Maintenance Manager
Bevin Blunt -	Vestas Site Supervisor
Clay Douglas -	Vestas OH&S Representative
Charlene Neethling -	Vestas Site Administration
Matthew Kok -	Western Power - Systems Operations

The key documents and other information sources are detailed below and further in Appendix 2.

- EDWF - Annual Operations Report 2008-9
- EDWF - Monthly Reports
- Vestas Monthly Reports
- Network Access Agreement, WP EDWF
- Service Availability Agreement
- Griffin Energy EDWF RECs Process
- Draft EDWF Plant Management Strategy Substations and HV Equipment
- EDWF Whole of Life Cost Model
- EDWF Asset Management Plan Rev 27-8-07
- Fixed Asset Register, October 2006
- EDWF Maintenance Strategy Development Scope of Works
- Vestas Online Business Customisation Operator Manual
- EDWF Park Control Functional Specification
- EDWF Defects and Issues Register
- Garrad Hasson EDWF End of Warranty Inspections
- PB Resource and Energy Report
- PB Wind Data Report
- Appendix to Powerplan's Service Agreement
- Griffin EDWF Service Agreement
- EDWF Service Maintenance Plan
- Vestas Maintenance Service Schedule
- Capital Expenditure Budget, 2009-10
- Operational Expenditure Budget, 2009-10
- EDWF Year Plan 2009-10
- Vestas HV Training

- HV Electrical Operator - Audit
- PB EDWF Predicted and Actual Wind Farm Energy Output Analysis
- PB EDWF Expansion of Installed Capacity
- ERA Post Audit Report
- Management Committee Actions arising from meetings
- Asset register
- Operational Expenditure Budget, 2009-10
- Capital Expenditure Budget, 2009-10
- Noise monitoring Avery residence
- Western Power Contract Agreement
- Western Power Access Agreement
- EDWF Update of 2007 post audit implementation plan

The review was conducted in conjunction with the Performance Audit during August – September 2009 and included a 2 day preliminary site audit, desktop review, 3 day audit to execute audit plan and interview sessions and report writing. In total the audit required 65 hours of Simon Ashby's time.

3.2 Objective of the Asset Management System Review

The objective of the review is to examine the effectiveness of the processes used by Emu Downs Wind Farm to deliver asset management, the information systems supporting asset management activities and the data and knowledge used to make decisions about asset management. These elements were examined from a life cycle perspective i.e. planning, construction, operation, maintenance, renewal, replacement and disposal using the guidelines developed by the Economic Regulation Authority.

3.3 Methodology for Asset Management System Review

The audit methodology detailed in the Audit Guidelines – Electricity, Gas and Water Licences (July 2009) was used in the execution of the Asset Management System Review and is detailed in the Audit Plan

Asset Management System Effectiveness Rating

The Audit Guidelines (section 11.4.2) states that the asset management review report must provide a table that summarises the auditor's assessment of both the process and policy definition rating and

the performance rating for each key process in the licensee's asset management system using the scales described in Table 5 and Table 6. It is left to the judgement of the auditor to determine the most appropriate rating for each asset management process.

Table 5: Asset management process and policy definition adequacy ratings

Rating	Description	Criteria
A	Adequately defined	<ul style="list-style-type: none"> Processes and policies are documented. Processes and policies adequately document the required performance of the assets. Processes and policies are subject to regular reviews, and updated where necessary The asset management information system(s) are adequate in relation to the assets that are being managed.
B	Requires some improvement	<ul style="list-style-type: none"> Process and policy documentation requires improvement. Processes and policies do not adequately document the required performance of the assets. Reviews of processes and policies are not conducted regularly enough. The asset management information system(s) require minor improvements (taking into consideration the assets that are being managed).
C	Requires significant improvement	<ul style="list-style-type: none"> Process and policy documentation is incomplete or requires significant improvement. Processes and policies do not document the required performance of the assets. Processes and policies are significantly out of date. The asset management information system(s) require significant improvements (taking into consideration the assets that are being managed).
D	Inadequate	<ul style="list-style-type: none"> Processes and policies are not documented. The asset management information system(s) is not fit for purpose (taking into consideration the assets that are being managed).

Table 6: Asset management performance ratings

Rating	Description	Criteria
1	Performing effectively	<ul style="list-style-type: none"> • The performance of the process meets or exceeds the required levels of performance. • Process effectiveness is regularly assessed and corrective action taken where necessary.
2	Opportunity for improvement	<ul style="list-style-type: none"> • The performance of the process requires some improvement to meet the required level. • Process effectiveness reviews are not performed regularly enough. • Process improvement opportunities are not actioned.
3	Corrective action required	<ul style="list-style-type: none"> • The performance of the process requires significant improvement to meet the required level. • Process effectiveness reviews are performed irregularly, or not at all. • Process improvement opportunities are not actioned.
4	Serious action required	<ul style="list-style-type: none"> • Process is not performed, or the performance is so poor that the process is considered to be ineffective.

Deviation from the Audit Plan

There were several changes made the risk assessment ratings conducted for the Audit Plan for the Asset Management System Review. The revisions only involve the adequacy of existing controls. These changes are highlighted within Appendix 2 of the report.

In addition, the Reference numbering differs to that in the Audit Plan as the Outcome has been put as an overarching reference to reflect the structure of Table 16 in the Guidelines

2007 Asset Management Review Key Findings, Recommendation, Post Audit Plan & Progress

Most of the 2007 audit recommendations concerned the maintenance of the high voltage, HV, equipment as no arrangements for the post defects liability period had been established at the time. The SAA now incorporates maintenance and repairs in it and these tasks have been sub-contracted to reputable organisations by Vestas.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan	Progress To Date (EDWF Response)	Effectiveness
1.3	Asset Planning - Service levels are defined Effectiveness Rating - 4	At the time of the audit a maintenance contract for the substation was not in place	A Maintenance Contract is required for the substation	ACTION: A contractor has been appointed to ensure compliance with this requirement. RESPONSIBILITY: General Manager (EDWF Manager P/L) DATE: 30th September 2008	The EPC contract has been superseded by a Service and Availability Agreement (SAA) as of 6 October 2008. The Contractor is responsible for substation maintenance as per the SAA.	SAA covers substation and SVC maintenance and repairs.
2.6	Asset Creation/Acquisition - Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood Effectiveness Rating - 3	The risk summary identifies the risk, description of risk causes, impact and control measures, risks identified include ongoing legal/environmental/safety obligations and current status of actions. The service agreements and	The risk summary could be developed further to register ongoing compliance and to flag issues as they fall due	ACTION: Develop Risk Summary as per recommendation RESPONSIBILITY: General Manager (EDWF Manager P/L) DATE: 30th September 2008	A risk review was performed and the results included into the documentations associated with the 2009-2010 Year Plan.	A risk register has been implemented which includes compliance.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan	Progress To Date (EDWF Response)	Effectiveness
		GM KPI's assign responsibilities and expected outcomes				
3.1	Asset Disposal - Effective management of the disposal process will minimise holdings of surplus and under-performing assets and will lower service costs. Effectiveness Rating – 2	At this early stage of the project the Whole of Life Plan identifies the predicted life of the assets out to 2027, as the plan matures under-performing assets will be identified. Long term - the EDWF dismantling, removal & rehabilitation costs document based on a rough order of magnitude cost estimation provides estimated costs for dismantling, removal and rehabilitation, it includes in detail the plans for remediation.	Maintenance of the whole of life model will improve the identification of underperforming assets	ACTION: Implementation and ongoing review of the Whole of Life Plan RESPONSIBILITY: General Manager (EDWF Manager P/L) DATE: 30th September 2008	Whole of life plans are reviewed as appropriate.	The whole of life model does not appear to be maintained with actual performance being "sample data only".

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan	Progress To Date (EDWF Response)	Effectiveness
6.1	Asset Maintenance - Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost. Effectiveness Rating - 3	Maintenance plans for scheduling and resourcing are undertaken for Wind Turbine Generators (WTGs). Only fault maintenance is presently being performed on the HV system.	Maintenance plans for scheduling and resourcing for HV system required.	ACTION: The requirement for the HV system has been identified and a contractor has been appointed (RJE) to rectify issue. RESPONSIBILITY: General Manager (EDWF Manager P/L) DATE: 30th September 2008	The Contractor is responsible for the maintenance of the HV system as per the SAA. The Contractor has adequate plans and resources for the maintenance of the HV system.	SAA covers substation and SVC maintenance and repairs.
6.2	Asset Maintenance - Maintenance policies and procedures are documented and linked to service levels required Effectiveness Rating - 3	Maintenance policies and procedures are established and implemented for Wind Turbine Generators. Only fault maintenance is presently being performed on the HV system.	Maintenance policies and procedures for HV system required.	As above	The Contractor is responsible for the maintenance of the HV system as per the SAA. The Contractor has adequate maintenance policies and procedures for HV system.	SAA covers substation and SVC maintenance and repairs.
6.3	Asset Maintenance - Regular inspections are undertaken of asset performance and condition Effectiveness Rating - 3	Inspections of Wind Turbine Generators are undertaken. Records of inspections were available for review on site. Inspections of HV system is presently being performed on an informal basis.	Maintenance inspection and test schedules for HV system required.	As above	The Contractor is responsible for the maintenance of the HV system as per the SAA. The Contractor has adequate maintenance inspection and test schedules for HV system.	SAA covers substation and SVC maintenance and repairs.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan	Progress To Date (EDWF Response)	Effectiveness
6.4	Asset Maintenance - Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule Effectiveness Rating – 3	Emergency, corrective and preventative maintenance plans for Wind Turbine Generators are established. Only fault maintenance is presently being performed on the HV system. Discussions with the Acting Site Supervisor indicated that contingency plans have been established however these documents were not available for review during the audit.	Emergency, corrective and preventative maintenance plans for HV system required.	As above	The Contractor is responsible for the maintenance of the HV system as per the SAA. The Contractor has adequate emergency, corrective and preventive maintenance plans for HV system.	SAA covers substation and SVC maintenance and repairs.
8.2	Risk Management – Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system Effectiveness Rating – 3	Contract provisions currently prescribe the risk management process during the warranty period. The AMP considers both internal & external risks associated with the project in the planning process.	Develop an integrated risk policy which takes account of all phases of the project lifecycle including the post warranty period.	ACTION: As per recommendation RESPONSIBILITY: General Manager (EDWF Manager P/L) DATE: 30th September 2008	A risk review was performed and the results included into the documentations associated with the 2009-2010 Year Plan.	SAA covers substation and SVC maintenance and repairs.
8.3	Risk Management - Risks are documented in a risk register and treatment plans are actioned and monitored Effectiveness Rating - 3	The risk summary identifies the risk, description of risk causes, impact and control measures, risks identified include ongoing legal/environmental/safety obligations and current status of actions.	Further development of the risk summary to include an action plan tracking system	ACTION: Review risk management strategies as per 8.2. RESPONSIBILITY: General Manager (EDWF Manager P/L) DATE: 30th September 2008	A risk review was performed and the results included into the documentations associated with the 2009-2010 Year Plan.	A risk register has been implemented.

3.4 2009 Post Audit Implementation Plan

As stipulated in section 11.9 of the Audit Guidelines (July 2009), the Audit Team notes that the Asset Management Review Post Implementation Plan (Appendix 4) does not form part of the Audit Opinion. It is the responsibility of the licensee to ensure actions are undertaken as determined by EDWF.

4. RECOMMENDATIONS FOR AMENDMENT TO AUDIT PROCESS

Audit Guidelines

The following errors were noted in the Audit Guidelines (July 2009). These were communicated to the ERA by GES Pty Ltd in order to clarify the audit process;

1. Section 6.3 Risk based approach to audits & reviews. Reference to Appendix 1 is incorrect and should be Appendix 2 on;
 - Last paragraph Page 5
 - Second paragraph Page 6
2. Section 8.2. Auditor Independence; typographic error entity³ should be entity³ (Page 8)
3. Appendix 4, Section 2 Asset Management Key System Processes – numbering (3) to (14) should be (1) to (12)

These errors have not impacted the audit process and are understood to be addressed by the ERA on the next revision of the document.

5. FOLLOW UP AUDIT PROCESS

This is the second Performance Audit and Asset Management Review conducted since the issue of the licence and as such previous audit report findings have been addressed in the content of the report. Review of actions taken in response to recommendations will form part of subsequent audit plans.

The license proposes that EDWF reports progress on the Post Audit Implementation Plan (refer Appendix 3 & 4) to the ERA in the annual Compliance Reports.

APPENDIX 1

EMU DOWNS WIND FARM PERFORMANCE AUDIT SEPT 2009

Ref	License Condition Obligations under Condition	Description	Type	Inherent Risk (i.e. no controls)	Likelihood	Consequence	R Rating	Residual Risk (i.e. Controls Applied)	Adequacy of Existing Controls	Audit Priority	Verification/Tests	Compliance Rating	Effectiveness	Corrective Action	Post Audit Implementation Plan
GENERATION LICENCE CONDITION 1 - DEFINITIONS															
	Not applicable	Not applicable	NA	Not applicable	NA	NA	NA	Not applicable	NA	Not applicable	Not applicable	N/R Not Rated	Not applicable	Not applicable	Not applicable
GENERATION LICENCE CONDITION 2 - GRANT OF LICENCE															
	Generation Licence condition 2.1 Electricity Industry Act 2004	The licensee is granted a licence for the licence area to construct and operate generating works or operate existing generating works in accordance with the terms and conditions of this licence.	N/A	Construct or operate generating works outside the terms and conditions of the licence	Unlikely	Minor	Low	<ul style="list-style-type: none"> Good Corporate Citizenship Shire Approvals JV Partnership Service & Availability Agreement S 15.3 (5 June 2009) Legal requirements 	Strong	Priority 5	<ul style="list-style-type: none"> Discussions with JV Manager and Vestas Maintenance Manager Visual site inspection Review of site documentation (i.e. monthly reports) 	5 Compliant	Compliance with requirement confirmed through review of documentation and visual confirmation of compliance sighted during site audit. There are only 46 wind turbines approved in the licence and 46 are operational on site during the audit period. Plans to expand the wind farm would require shire approvals, government approvals, community consultation. It was noted that plans to expand were not enacted, however a feasibility study was undertaken during the audit period. Monthly reports business plans report on only the 46 operational machines. Priority reduced from 2 to 5 in line with auditing methodology (i.e. several parameters restricting operation without approvals/notification. Similar precedence in audits undertaken by other auditors.	NI	NI
GENERATION LICENCE CONDITION 3 - TERM															
	Generation Licence Condition 3.1 Electricity Industry Act 2004	The licence commences on the commencement date and continues until the earlier of: (a) the cancellation of the licence pursuant to clause 7 of this licence; (b) the surrender of the licence pursuant to clause 8 of this licence; or (c) the expiry date.	N/A	Licensee does not comply with term requirements of licence	Unlikely	Minor	Low	<ul style="list-style-type: none"> Good Corporate Citizenship Management Committee Compliance Reports Compliance Scheduling Service Agreements Technical Support 	Strong	Priority 5	<ul style="list-style-type: none"> Review of documentation Whole of Life Model (EDWF Asset Management Plan) Compliance Reports for the years 2008 and 2009 EDWF 1 July 2007 - 30 June 2008 submitted 21/8/08 approved by ERA 5/9/08 (Ref D0698330) EDWF 1 July 2008 - 30 June 2009 submitted 14/7/09 approved by ERA 21/7/09 (Ref D200910289) Interview with Vestas Manager & JV Manager 	5 Compliant	No issues with regards to surrender or cancellation of the licence were raised during the audit period. The organisation is tracking and maintaining a Whole of Life Model spreadsheet which details the asset management plans for the wind farm. Consequence and Audit Priority have been reduced through audit process to stream the audit methodology as outlined above.	NI	NI
GENERATION LICENCE CONDITION 4 - FEES															
65	Generation Licence Condition 4.1 Electricity Industry Act section 17 (1)	The licensee must pay the applicable fees in accordance with the Regulations. A licensee must pay to the Authority the prescribed licence fee within one month after the day of grant or renewal of the licence and within one month after each anniversary of that day during the term of the licence.	NR	Non payment of licence fee as per legislative requirements i.e. before the 23rd July of each year	Unlikely	Minor	Low	<ul style="list-style-type: none"> Management Committee Invoice issued by the Authority Compliance Scheduling Service Agreements Budget process - detailed in accounting system, reminders through cash call process 	Strong	Priority 5	<ul style="list-style-type: none"> Ref # 35 Compliance Reporting Manual June 2008 (Doc Ref EDWF250.1236) & Section 3.9 (1) Requirement defined in Schedule 1 Marketing & Trading Services Agreement (Jan 2007) Discussion with Project Accountant for payment/pending invoice process Review of payment/pending invoice process 	5 Compliant	License fees were paid in accordance with requirements as follows: - ERA Invoice 069 was banked on 16/7/08 - ERA Invoice 122 was banked on 30/7/09 but check was written on 25/6/09 (signed cheque but no record) Noted: both invoices were issued by ERA on 16th June of each year. Compliance Manual (paragraph 35 EDWF 250.1236) defines the requirement for payment of licence fees no later than the 23rd July each year, in accordance with Electricity Industry (Licensing Fees) Regulations 2005 and specifies Griffin as entity responsible. Discussions with the Project Accountant confirm requirement for licence fees to be paid annually and this is detailed in the Marketing & Trading Services Agreement (ref Schedule 1 Standing Legislative and Regulatory Obligations (2)).	NI	NI
GENERATION LICENCE CONDITION 5 - COMPLIANCE															
Electricity Industry Act 2004															
66	Generation Licence Condition 5.1 Electricity Industry Act section 31 (3)	A licensee must take reasonable steps to minimise the extent or duration of any interruption, suspension or reduction of the supply of electricity due to an accident, emergency, potential danger or other unavoidable cause.	NR	<ul style="list-style-type: none"> Loss of availability Failure to meet obligations with Western Power 	Unlikely	Moderate	Medium	<ul style="list-style-type: none"> Service & Availability Agreement; financial penalties Crisis Management Plan (EDWF) Secure Premises Effective Health and Safety Management Plans Safety System Audits Safety Compliance Audits 	Strong	Priority 4	<ul style="list-style-type: none"> Supply & Availability Agreement (SAA) - Force Majeure provisions, S2.9 Communication and Reporting reference (e) Emergency Notices SAA availability criteria - stipulate penalties Crisis Management Plan EDWF 250.1124 Through the Office of Government Owned Corporations (OGOCs) Old Treasury assesses GOCs for risk and to compliance (Annual Report 2007-2008) Vestas Service Management Plan (SMP) 	5 Compliant	Agreement adequately addresses requirements to maximise electricity generation; high availability targets are set for Vestas - performance guarantees requirement under the SAA strict penalties levied if not met, additionally Force Majeure within contract conditions including notification requirements. Compliance with the Agreement is monitored through JV Management Committee. Vestas has safety audits and EDWF scheduled biannual safety audits encompassing Emergency Response and Preparedness.	NI	NI
67	Generation Licence Condition 5.1 Electricity Industry Act section 41 (b)	A licensee must pay the costs of taking an interest in land or an easement over land.	2	Breach of legislation	Unlikely	Minor	Low	<ul style="list-style-type: none"> Ownership of land by JV partners Extensive Community Consultation process Capital Expenditure Processing Return on Revenue Assessment JV Approvals Risk Review 	Strong	Priority 5	<ul style="list-style-type: none"> Land lease sighted for lots 3963, 3941 and 3942 between WRC Carpenter and SOL and Griffin Energy (Arthur Allens Robinson) 	5 Compliant	There has been no change in land ownership/ lease arrangements since the previous audit. The following still applies: noted in paragraph 46 of the Compliance Manual (EDWF250.1326) Lease and lease back arrangements have been established. Land owner is JV partner subsidiary company.	NI	NI

Risk	Obligations under Condition	Description	Type	Inherent Risk (i.e. no controls)	Unlikely	Moderate	Medium	Risk Rating	Adequacy of Existing Controls	Audit Priority	Verification Tests	Compliance Rating	Effectiveness	Corrective Action	Post Audit Implementation Plan
Electricity Industry Metering Code															
309	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 3.1(6)	A network operator may only impose a charge for providing, installing, operating or maintaining a metering installation in accordance with the applicable service level agreement between it and the user. Western Power Networks (WPN) is the Network Operator for EDWF.	2	Charges are made by the network operator that are not in accordance with the service agreement	Unlikely	Moderate	Medium	Strong	Priority 4	• Power Purchase Agreements (PPAs) established with the Network Operator (i.e. WPN) • Requirement defined in Attachment 1 Metering & Trading Service Agreement (TSA) (EDWF-007) • Discussion with WPN • Review and review metering data from Western Power portal which is recorded on a daily basis (Accounts Payable (S) Schedule 1 of EDWF Business Services Agreement (April 2008))	5 Compliant	N/A	WPN imposes a charge for providing, installing, operating or maintaining a metering installation in accordance with the applicable service level agreement between it and the user.	N/A	N/A
310	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 3.1(6)	A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the Network operator as soon as practicable.	2	Metering data ignored or outside of acceptable limits	Unlikely	Moderate	Medium	Strong	Priority 4	• Discussion with WPN, Business Analyst • Discussion with Grid Energy - Manage Wholesale Energy • 2007 Performance Audit Report recommendations (ref 387) • Letter to ERA 20/09 Post Audit Implementation Plan (ref EDWF-250403-01) review of progress to date outcome and effectiveness • Business Services Agreement (ref Accounts Payable (S) Schedule 1 of EDWF Business Services Agreement - April 2008) • Callibration scheduled for EMA & EMB meters by WPN between now and Feb 2010 (communication from WPN) • Review Metering Procedure	5 Compliant	N/A	The absence of a real-time monitor to detect faults with metering installations was noted in the previous audit. Progress report on the post audit implementation plan (EDWF-250403-01) - recommendation of faultage relay not implemented due to existing systems established by both WPN and EDWF. Outcome is satisfactory and compliance with condition enabled due to systems established detailed as below: • Discussion with WPN confirmed that the metering data is recorded with duplicate systems and is maintained by WPN. • EDWF is on a monthly cycle to verify WPN (WPN manages all transmission and distribution assets and is responsible for communication functionality) • Issues that have arisen during the audit period were due to communication problems i.e. modern issues. The data was recorded but not able to be transmitted through Western Power Portal. • EDWF can request backup metering data be used until deleted corrected and monitor easily exported/imported using own data from SCAADA system for the purposes of RECs process • EDWF have access to web portal and discussions with Manager Wholesale and Energy Trading discuss that review frequency is currently twice monthly / financial production purposes. No significant issues have been raised during the audit period.	N/A	N/A
331	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 3.1(6)	A network operator or a user may require the other to negotiate and enter into a written service level agreement in respect of the meters in the metering procedure dealt with under clause 3.1(6) of the Code.	2	Action or requested are made by the network operator or EDWF that are not in accordance with the metering procedure	Unlikely	Moderate	Medium	Strong	Priority 4	• Network Access Agreement (NAA) between Western Power Corporation and EDWF Holdings Pty Ltd and EDWF Holdings Pty Ltd addresses metering requirements • Western Australian Electricity Market Metering Procedure (Western Power - September 2006)	5 Compliant	N/A	Well documented and defined with section 9 of the NAA and defined with Metering Procedures	N/A	N/A
340	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 3.27	A person must not install a metering installation on a network unless the person is the network operator or a registered metering installation provider for the network operator doing the type of work authorised by its registration.	2	Metering installation may not be recognised by network operator and may be ignored or inaccurate	Unlikely	Moderate	Medium	Strong	Priority 4	• Confirm that the metering installations have not been changed since commissioning EDWF • Key lock procedures established limit access to authorised personnel only WPN hold the key. • EDWF should not allow anyone other than the network operator or its agent to replace the metering installation • Key locked room procedures established for access • Western Australian Electricity Market Metering Procedure (Western Power - September 2006)	5 Compliant	N/A	In previous audit it was noted that EDWF does not have access to the meters. This is confirmed in that they do not have access to data meter by nature of secure possession conditions. It was previously noted that there is a key lock to EDWF and Western Power in order to perform routine inspections on the equipment installed within the room. A key register is maintained by Western Power and allows for tracking of access to the room. The document was signed during the audit. Interviews with Western Site Manager and JV Manager confirmed the policy. Note: Reduced consequence to moderate variation from Audit Plan due to physical perimeter.	N/A	N/A
349	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 4.4(1)	A network operator and affected Code participants must take together to determine the most appropriate way to resolve a discrepancy between energy data held in a metering installation and data held in the metering databases.	NR	Data from network operators' metering installation and metering databases differ	Unlikely	Moderate	Medium	Strong	Priority 4	• Regular network operator's metering database processes • Metering A. The metering database is updated nightly • Compliance Obligations (C) defines the requirements for "supply metering data to customers and bills with WPN to ensure metering data is accurate and up to date" • Business Services Agreement Schedule 1 Accounts Payable (S) includes and review metering data from Western Power on a daily basis • Compliance Manual Reference 3.13 Generation (S) • Interview with WPN Metering Services, Business Analyst • Review Web Portal • The MAA section 9.1 (m) (A) addresses requirements relating to incorrect metering information	4 Compliant	N/A	The MAA specifies details regarding processes. Discussions confirm that communications are established regarding metering data. The programme used to manage WPN metering data is the Metering Business System (MBS) and the system feeds the web portal which is accessible by EDWF. Access to the system is granted to both the JV Manager, the Project Accountant and the Manager Wholesale Energy Trading. Access to the system is password protected. It is understood that Western Power has yet to develop an Meter Asset Management Plan for the maintenance of the MBS (the Meter Asset Management Plan currently exists within Western Power's internal systems). It was noted that the current Metering Installation records the metering data and clear for calibration. However, Western Power have indicated that Plan will have to be put in place to cover the period of testing (near date). The document will require ERA approval. Consideration could be given to requesting calibration of the meters if the Plan is not developed and implemented before the Feb 2010 timeframe. Liaison with Western Power/ERA is recommended. Reference is noted for finding ref 351 that there have been no data reconciliation identified during the audit period that would indicate an issue with data integrity.	N/A	N/A

Ref	License Condition / Obligations under Condition	Description	Type	Inherent Risk (i.e. no controls)	Likelihood	Consequence	Risk Rating	Residual Risk (i.e. Controls Applied)	Adequacy of Existing Controls	Audit Priority	Verification/Tests	Compliance Rating	Effectiveness	Corrective Action	Post Audit Implementation Plan
350	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 4.5(1)	A Code participant must not knowingly permit the registry to be materially inaccurate.	NR	Contents of network operator's registry inaccurate	Unlikely	Minor	Low	<ul style="list-style-type: none"> Monitor network operator's registry and report any significant inaccuracies Monthly report prescriptive methodology for payment of what is generated in SWIS system and control process for inaccuracies Western Australian Electricity Market Metrology Procedure (Western Power - September 2006) 	Strong	Priority 5	<ul style="list-style-type: none"> Review network operator's registry for inaccuracies Web portal access model checks on what is generated and what the portal records in the system Web system not able to be manipulated i.e. data not accessible by network people only accessed by WPN 2 systems for control what EDWF consume and what is generated 	5 Compliant	<p>Finding is as for previous audit. This is primarily the responsibility of WPN.</p> <p>EDWF Manager has established processes for verifying metering data from three different sources:</p> <ul style="list-style-type: none"> (i) Western Power Portal (ii) Monthly Reports from Contractor (iii) SCADA System <p>A percentage variation criteria has been defined for the review of the data to ensure it is correct. Spreadsheet for calculations was signed and is maintained by the JV Manager.</p>	Nil	N/A
351	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 4.5(2)	If a Code participant (other than a network operator) becomes aware of a change to or an inaccuracy in an item of standing data in the registry, then it must notify the network operator and provide details of the change or inaccuracy within the timeframes prescribed.	2	Contents of network operator's registry changes or is inaccurate	Unlikely	Minor	Low	<ul style="list-style-type: none"> Monitor network operator's registry and report any significant changes or inaccuracies Western Australian Electricity Market Metrology Procedure (Western Power - September 2006) 	Strong	Priority 5	Review network operator's registry for changes or inaccuracies i.e. Western Power Portal	5 Compliant	During the audit period there have been no instances where there has been a change or inaccuracy in metering data.	Nil	N/A
363	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.4(2)	A user must, when reasonably requested by a network operator, use reasonable endeavours to assist the network operator to comply with the network operator's obligation under clause 5.4(1).	NR	Network operator does not read the meters at least once a year	Unlikely	Minor	Low	<ul style="list-style-type: none"> Assist network operator as requested and monitor frequency of meter readings Automatic metering process with duplicate system Western Australian Electricity Market Metrology Procedure (Western Power - September 2006) 	Strong	Priority 5	Interview with WPN Metering Department, Business Analyst	5 Compliant	<p>Processes have been established to allow for compliance with this requirement. Evidence of this demonstrated in email communications (8/8/07) between Manager Wholesale Energy Trading and WPN Account Manager re: communication issues regarding modem in July 2007.</p> <p>Note: Reduced consequence due to fact that WPN control all meters remotely. Also recent changes to WP system allow auto reset i.e. eliminate EDWF need to access meters</p>	Nil	N/A
365	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.5(3)	A user must not impose any charge for the provision of the data under this Code unless it is permitted to do so under another enactment.	2	User imposed charges for the provision of data occur that are not permitted	Unlikely	Minor	Low	Only make requests for charges for the provision of data that are permitted under this or another enactment	Strong	Priority 5	<ul style="list-style-type: none"> The NAA section 8 addresses requirements relating to Financial Covenants Interview with Project Accountant and Metering Services 	5 Compliant	There has been no change to this finding since the previous audit. The Network Access Agreement specifies charges in relation to this requirement.	Nil	N/A
378	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.16	A user that collects or receives energy data from a metering installation must provide the network operator with the energy data (in accordance with the communication rules) within the timeframes prescribed.	2	EDWF does not collect or receives energy data from the network operator's metering installation. This clause is not applicable.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
377	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.17(1)	A user must provide standing data and validated (and where necessary substituted or estimated) energy data to the user's customer, to which that information relates, where the user is required by an enactment or an agreement to do so for billing purposes or for the purposes of providing metering services to the customer.	2	The network operator is responsible for tariff metering at EDWF. This clause is not applicable.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
378	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.18	A user that collects or receives information regarding a change in the energisation status of a metering point must provide the network operator with the prescribed information, including the stated attributes, within the timeframes prescribed.	2	EDWF does not collect or receives information regarding a change in the energisation status of a metering point. This clause is not applicable.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
379	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.19(1)	A user must, when requested by the network operator acting in accordance with good electricity industry practice, use reasonable endeavours to collect information from customers, if any, that assists the network operator in meeting its obligations described in the Code and elsewhere.	NR	The network operator is responsible for tariff metering at EDWF. EDWF does not have other customers. This clause is not applicable.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
380	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.19(2)	A user must, to the extent that it is able, collect and maintain a record of the address, site and customer attributes, prescribed in relation to the site of each connection point, with which the user is associated.	NR	The network operator is responsible for tariff metering at EDWF. EDWF does not have other customers. This clause is not applicable.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
381	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.19(3)	A user must, after becoming aware of any change in a site's prescribed attributes, notify the network operator of the change within the timeframes prescribed.	2	The network operator is responsible for tariff metering at EDWF. EDWF does not have other customers. This clause is not applicable.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
382	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.19(4)	A user that becomes aware that there is a sensitive load at a customer's site must immediately notify the network operator's Network Operations Control Centre of the fact.	2	The network operator is responsible for tariff metering at EDWF. EDWF does not have other customers. This clause is not applicable.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
384	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.19(5)	A user must use reasonable endeavours to ensure that it does notify the network operator of a change in an attribute that results from the provision of standing data by the network operator to the user.	NR	The network operator is responsible for tariff metering at EDWF. EDWF does not have other customers. This clause is not applicable.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A

Ref	License Condition Obligations under Condition	Description	Type	Inherent Risk (i.e. no controls)	Likelihood	Consequence	Risk Rating	Residual Risk (i.e. Controls Applied)	Adequacy of Existing Controls	Audit Priority	Verification/Tests	Compliance Rating	Effectiveness	Corrective Action	Post Audit Implementation Plan	
390	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.21(5)	A Code participant must not request a test or audit unless the Code participant is a user and the test or audit relates to a time or times at which the user was the current user or the Code participant is the IMO.	2	A request for an audit is made to the network operator by someone or an organisation other than EDWF.	Unlikely	Minor	Low	<ul style="list-style-type: none">Request for audits may only be made to the network operator by EDWF.Western Australian Electricity Market Metrology Procedure (Western Power - September 2006)NATA Accreditation to ISO/IEC 17025:2005	Strong	Priority 5	<ul style="list-style-type: none">Interview with Manager Wholesale Energy TradingInterview with Metering Services/Technical Services WPNReview Metrology ProcedureMetering Management PlanNATA website verify certification/compliance with ISO/IEC 17025:2005	5 Compliant	<p>The licensee has not made any requests for tests or audits of the metering system during the audit period.</p> <p>Finding as per previous audit. WPN has access to the SCADA system and is yet to schedule an audit for their operations. This was communicated to the ERA in a Post Audit Implementation Update on 28/4/09.</p> <p>It is also understood that the testing regime will be finalised when the Asset Management Plan for the meters is developed by Western Power and approved by the ERA.</p> <p>Noted Western Power Accreditation Certificate No. 47 - Scope Last Changed 03-MAR-09</p>	Nil	N/A	
391	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.21(6)	A Code participant must not make a test or audit request that is inconsistent with any access arrangement or agreement.	2	Requests are made that are inconsistent with the agreements	Unlikely	Minor	Low	<ul style="list-style-type: none">Only make requests that are consistent with the agreementsWestern Australian Electricity Market Metrology Procedure (Western Power - September 2006)NATA Accreditation to ISO/IEC 17025:2005	Strong	Priority 5	<ul style="list-style-type: none">The NAA section 9.1 (d) addresses requirements relating to testing the accuracy of the metering equipmentInterview with Manager Wholesale Energy Trading and Metering ServicesReview Metrology ProcedureMetering Management PlanNATA website verify certification/compliance with ISO/IEC 17025:2005	5 Compliant	<p>No tests or audit requests were made during the audit period.</p> <p>The Network Access Agreement (NAA) specifies charges in relation to this requirement and requires the Network Operator to provide a certificate detailing the results of the testing to the User. Further detailed within the Metrology Procedure.</p> <p>The NATA Accreditation process provides third party assurance to competency of testing program this can be viewed on the web at http://www.nata.asn.au/.</p>	Nil	N/A	
409	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 5.27	Upon request, a current user must provide the network operator with customer attribute information that it reasonably believes are missing or incorrect within the timeframe prescribed.	2	The network operator is responsible for tariff metering at EDWF. EDWF does not have other customers. This clause is not applicable.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	
418	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 6.1(2)	A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed	2	Rules, procedures, agreements or criteria relating to the network are not complied with	Unlikely	Moderate	Medium	<ul style="list-style-type: none">Comply with rules, procedures, agreements or criteria relating to the networkCompliance ManualNetwork Access AgreementWestern Australian Electricity Market Metrology Procedure (Western Power - September 2006)	Strong	Priority 4	<ul style="list-style-type: none">Review operations and procedures relating to the network and interview with Business Analyst Metering Services WPNEDWF Year Plan 2009-2010	4 Compliant	<p>Network Access Agreement has been established</p> <p>Compliance Manual covers some aspects of the NAA. Noted in the previous audit that monitoring of requirements of the NAA in the Compliance Manual is not comprehensive. Consideration could be given to including all specific clauses as detailed in the ERA Compliance Reporting Manual for completeness.</p> <p>Scheduled within the EDWF Year Plan to review the Compliance Manual in August 2009 (note outside audit scope).</p> <p>Further defined within the Metrology Procedure</p>	Ensure that the Compliance Manual is reviewed as scheduled in the EDWF Year Plan 2009-2010 and that the NAA is reviewed to ensure requirements are updated where necessary.	As detailed in Corrective Action	
418	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 7.2(1)	Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number for voice communication in connection with the Code.	NR	Written and oral communications not received	Likely	Moderate	High	<ul style="list-style-type: none">Ensure that notices can be sent and received by post, facsimile and electronic communication and that oral communications can be made by telephone	Strong	Priority 2	<ul style="list-style-type: none">Review communications by post, facsimile and electronic communication to confirm access.Interview with Business Analyst Metering Services WPN	4 Compliant	<p>Evidence of means of communication have been established.</p> <p>Discussions with the Metering Services indicated they have the means to communicate with EDWF and evidence of emails indicated access to it. Additionally WPN confirm telephone contact to site requesting reset modem.</p> <p>Corrective action identified in previous audit that the MBS system be updated with correct details. Although EDWF have confirmed they conveyed the details, it appears that these are still yet to be entered into Meter Data Registry.</p>	Contact Metering Services and issue current contact details. Request written confirmation or MBS print out when complete to ensure details are included in Meter Data Registry.	Contact provided at chonda.littles@westernpower.com.au	As detailed in Corrective Action
420	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 7.2(4)	A Code participant must notify its contact details to a network operator with whom it has entered into an access contract within 3 business days after the network operator's request.	2	Contact details are not given or are given late to the network operator when requested	Unlikely	Minor	Low	<ul style="list-style-type: none">Give contact details to the network operator within 3 business days of receiving a requested	Strong	Priority 5	<ul style="list-style-type: none">Review agreements, requests for contact details from the network operator and interview Metering Services Business Analyst	5 Compliant	Refer to finding Ref 418	Refer to finding Ref 418	As detailed in Corrective Action	
421	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 7.2(5)	A Code participant must notify any affected network operator of any change to the contact details it notified to the network operator at least 3 business days before the change takes effect.	2	Changed contact details are not given or are given late to the network operator	Probable	Major	High	<ul style="list-style-type: none">Give contact details to the network operator at least 3 business days before changes are made	Strong	Priority 2	<ul style="list-style-type: none">Review agreements, any changes to contact details and interview Business AnalystInterview with Project Accountant and JV Manager	4 Compliant	<p>This item is related to 418. However consideration could be given to including a trigger for notification by including requirement in Service Agreement for JV Manager i.e. Annexure 1 - Managers Duties</p>	Include in Service Agreement for JV Manager	As detailed in Corrective Action	
422	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 7.5	A Code participant must not disclose, or permit the disclosure of, confidential information provided to it under or in connection with the Code and may only use or reproduce confidential information for the purpose for which it was disclosed or another purpose contemplated by the Code.	2	Confidential information relating to the Code is given to unauthorised persons or organisations	Probable	Moderate	Medium	<ul style="list-style-type: none">Identify confidential information relating to the Code and ensure that it is not given to unauthorised persons or organisationsSecure systems for communication of information i.e. secure IT systems and access personnel, service agreement and official correspondence authorised by management committee	Moderate	Priority 4	<ul style="list-style-type: none">Confirm that confidential information relating to the Code has been identified, review access to this information, review procedures relating to the disclosure of this information and interview Project Accountant	5 Compliant	<p>There has been no breach of Confidentiality during the audit period.</p> <p>The NAA section 18 addresses requirements relating to Confidentiality</p>	Nil	N/A	
423	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 7.6(1)	A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.	2	Confidential information relating to the Code is not given to unauthorised persons or organisations when requested	Unlikely	Moderate	Medium	<ul style="list-style-type: none">Identify confidential information, authorised persons or organisations relating to the Code and ensure information is given to authorised persons or organisations when requested	Strong	Priority 4	<ul style="list-style-type: none">Confirm that confidential information, authorised persons or organisations relating to the Code have been identified, review procedures relating to the disclosure of this information and interview supervisor	5 Compliant	<p>Finding is as detailed in previous audit.</p> <p>Confidential information is described in the code as: (a) metering database or (b) other information that is confidential or commercially sensitive. The NAA section addresses confidentiality requirements and the metering database is controlled by WPN.</p>	Nil	N/A	

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424	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 8.1(1)	Representatives of disputing parties must meet within 5 business days after a notice given by a disputing party to the other disputing parties and attempt to resolve the dispute under or in connection with the Electricity Industry Metering Code by negotiations in good faith.	NR	Disputes remain unresolved	Unlikely	Major	High	Dispute to be resolved in accordance to the provisions of the Code • legal positions vetted • compliance requirements assigned for action • Compliance Manual • Metrology Procedure - Section 3.12 (September 2006)	Moderate	Priority 2	Confirm that a copy of the Code is assessable to relevant staff and that they are aware of the dispute resolution provisions in the Code	5 Compliant	The JV Manager has indicated that there has been no notices given in regards to disputes. NAA is used as a control measure and the item is addressed in Schedule 8 of the NAA	NI	N/A
425	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 8.1(2)	If a dispute is not resolved within 10 business days after the dispute is referred to representative negotiations, the disputing parties must refer the dispute to a senior management officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith.	NR	Disputes remain unresolved	Unlikely	Major	High	Dispute to be resolved in accordance to the provisions of the Code	Moderate	Priority 2	Confirm that a copy of the Code is assessable to relevant staff and that they are aware of the dispute resolution provisions in the Code	5 Compliant	As above	NI	N/A
426	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 8.1(3)	If the dispute is not resolved within 10 business days after the dispute is referred to senior management negotiations, the disputing parties must refer the dispute to the senior executive officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith.	NR	Disputes remain unresolved	Unlikely	Major	High	Dispute to be resolved in accordance to the provisions of the Code	Moderate	Priority 2	Confirm that a copy of the Code is assessable to relevant staff and that they are aware of the dispute resolution provisions in the Code	5 Compliant	As above	NI	N/A
427	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 8.1(4)	If the dispute is resolved by representative negotiations, senior management negotiations or CEO negotiations, the disputing parties must prepare a written and signed record of the resolution and adhere to the resolution.	2	Disputes agreements are not recorded or adhered too	Unlikely	Major	High	Dispute to be resolved in accordance to the provisions of the Code	Moderate	Priority 2	Confirm that a copy of the Code is assessable to relevant staff and that they are aware of the dispute resolution provisions in the Code	5 Compliant	As above	NI	N/A
428	Generation Licence Condition 5.1 Electricity Industry Metering Code clause 8.3(2)	The disputing parties must at all times conduct themselves in a manner which is directed towards achieving the objective of dispute resolution with as little formality and technicality and with as much expedition as the requirements of Part 8 of the Code and a proper hearing and determination of the dispute, permit.	NR	Disputes handled poorly or in bad faith	Unlikely	Major	High	Dispute to be resolved in accordance to the provisions of the Code	Moderate	Priority 2	Confirm that a copy of the Code is assessable to relevant staff and that they are aware of the dispute resolution provisions in the Code	5 Compliant	As above	NI	N/A
	Generation Licence Condition 5.1 Review of Government Gazette Amendments	Review relevant government gazettes for applicability.		Failure to include legislative amendments in compliance process	Unlikely	Major	High	• Compliance scheduling • Service Agreement • Legal advisory service	Strong	Priority 2	• Review process for keeping up to date with legislative changes • Amendments will be reviewed for relevancy during the audit	5 Compliant	There has been no change to this audit finding. Discussions with Project Account indicated that the process for keeping up to date with changes to legislation was generally provided by the Authority through communications regularly received. These are reviewed for relevancy and acted upon where required. In addition the organization has access to internal legal counsel.	NI	N/A
	Generation Licence condition 5.2	Subject to the provisions of any applicable legislation, the Authority may direct the Licensee in writing to do any measures necessary to: (a) correct the breach of any applicable legislation; or (b) prevent the breach of any applicable legislation occurring again, and specify a time limit by which such action must be taken		• Electricity Industry (Code of Conduct) Regulations 2005 • Electricity Industry (License Conditions) Regulations 2005 • Electricity Industry (Licensing Fees) Regulations 2005 • Electricity Industry (Network Quality and Reliability of Supply) Code 2005 • Electricity Industry (Obligation to Connect) Regulations 2005 • Electricity Industry (Ombudsman Scheme) Regulations 2005 • Electricity Industry Metering Code 2005 • Reliability and Quality of Supply Code 2005	Unlikely	Major	High	• Compliance scheduling • Service Agreement • Legal advisory service	Strong	Priority 2	• Discussion with JV Manager • Corporate requirements in relation to compliance and reputation	5 Compliant	During the audit scope the Authority has not required the licensee to correct the breach of any applicable legislation, or prevent the breach of any applicable legislation occurring again	NI	N/A
GENERATION LICENCE CONDITION 6 - TRANSFER OF LICENCE															
	Generation Licence condition 6.1 Electricity Industry Act section 18 - Transfer of a licence	This licence may be transferred only in accordance with the Act.		As above	Unlikely	Major	High	As above	Strong	Priority 2	Review State Law Publisher Website for records of transfer of licence	N/A Not Applicable	No transfer of licence undertaken during the audit period	NI	N/A
GENERATION LICENCE CONDITION 7 - CANCELLATION OF LICENCE															
	Generation Licence condition 7.1 Electricity Industry Act section 35 - Cancellation of a licence	This licence may be cancelled only in accordance with the Act.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
GENERATION LICENCE CONDITION 8 - SURRENDER OF LICENCE															
	Generation Licence condition 8.1 Electricity Industry Act 2004 (Schedule 1 - provision I)	The licensee may surrender the licence at any time by written notice to the Authority.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A

Ref	License Condition/ Obligations under Condition	Description	Type	Inherent Risk (i.e. no controls)	Likelihood	Consequence	Risk Rating	Residual Risk (i.e. Controls Applied)	Adequacy of Existing Controls	Audit Priority	Verification/Tests	Compliance Rating	Effectiveness	Corrective Action	Post Audit Implementation Plan
	Generation Licence condition 8.2	The surrender of the licence will take effect on the day that the Authority publishes a notice of the surrender in the Gazette.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
	Generation Licence condition 8.3	The licensee will not be entitled to a refund of any fees by the Authority.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
GENERATION LICENCE CONDITION 9 - RENEWAL OF LICENCE															
	Generation Licence condition 9.1	This licence may be renewed only in accordance with the Act.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
GENERATION LICENCE CONDITION 10 - AMENDMENT OF LICENCE ON APPLICATION OF THE LICENSEE															
	Generation Licence condition 10.1	The licensee may apply to the Authority to amend the licence in accordance with the Act.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
GENERATION LICENCE CONDITION 11 - AMENDMENT OF LICENCE BY THE AUTHORITY															
	Generation Licence condition 11.1	Subject to any applicable legislation, the Authority may amend the licence at any time in accordance with this clause.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
	Generation Licence condition 11.2	Before amending the licence under clause 11.1, the Authority must: (a) provide the licensee with written notice of the proposed amendments under consideration by the Authority; (b) allow 15 business days for the licensee to make submissions on the proposed amendments; and (c) take into consideration those submissions.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
	Generation Licence condition 11.3	This clause also applies to the substitution of the existing licence.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
	Generation Licence condition 11.4	For avoidance of doubt, the licensee will not have to pay an associated application fee or licence fee for the purpose of clause 11.1.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
GENERATION LICENCE CONDITION 12 - EXPANSION OF GENERATING WORKS															
	Generation Licence condition 12.1	The licensee may expand or reduce the generating works if the relevant expansion or reduction is provided for in the asset management system.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
103	Generation Licence condition 12.2 Electricity Industry Act section 11	A licensee must amend the asset management system before an expansion or reduction in generating works, distribution systems and transmission systems and notify the Authority in the manner prescribed, if the expansion or reduction is not provided for in the asset management system.	2	Major assets; 48 wind turbines each 1.65 MW and associated generating works configured into two groups of 24 wind turbines with each group connected to a separate 132kV eastern Power Corporation transmission line	Unlikely	Minor	Low	• Operations & Maintenance Contract • Capital Expenditure Processing • Return on Revenue Assessment • JV Approvals • Risk Review • Yearly plans • Asset Management Planning Process	Strong	Priority 5	• Service and Availability Agreement (SAA) • Interview with JV Manager	5 Compliant	As previous audit finding - Expansion and reduction of operating works is governed and monitored at a local level with Shire Approvals required and links to capital expenditure require Joint Venture approval. There has been no expansion or reduction of the asset management system during the audit period.	Nil	N/A
104	Generation Licence condition 12.3 Electricity Industry Act section 11	A licensee must not expand the generating works, distribution systems or transmission systems outside the licence area.	2	The licence area is Emu Downs, locations 3841, 3842 on deposited plan 209084 and location 3883 on deposited plan 209085 in the Shire of Dandenong	Unlikely	Minor	Low	• Capital Expenditure Processing • Return on Revenue Assessment • JV Approvals • Risk Review • Shire Approvals • Public consultation processes	Strong	Priority 5	• Service and Availability Agreement (SAA) • Planning Consent Conditions 15 & 23 relate to constraints in approvals and expansion i.e. require shire approvals	5 Compliant	As previous audit finding - Appropriate controls and processes established to ensure that there will be no expansion of the generating works, distribution systems or transmission systems outside the licence area. There has been no expansion or reduction outside the licence area during the audit period.	Nil	N/A
	Generation Licence condition 12.4	The licensee must pay any applicable fees in accordance with the Regulations.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
GENERATION LICENCE CONDITION 13 - ACCOUNTING RECORDS															
105	Generation Licence condition 13.1 Electricity Industry Act section 11	The licensee and any related body corporate must maintain accounting records that comply with the Australian Accounting Standards Board Standards or equivalent International Accounting Standards.	2	Failure to maintain accounting records	Unlikely	Minor	Low	• Budget Approvals • Capital Expenditure Processing • Systematic and Monitored accounting processes • Return on Revenue Assessment • JV Approvals • Risk Review • Financial Audits • Queensland Treasury accounting practices apply (i.e. JV owned by QLD Gov't v. prescriptive)	Strong	Priority 5	• Discussion with Project Accountant • Accounting process review • Monthly Reports review • Business Services Agreement (Jan 2007) Schedule 1 Treasury Functions • Review of Financial Audit 2008 (6th August 2008) NOTE: 2009 Financial not available at the time of the audit.	5 Compliant	Debiting Audit Conducted (6th August 2008) Statement of Compliance noted that the financial report was prepared in accordance with the basis of accounting specified by all Accounting Standards and IFRS group interpretations and the disclosure requirements of: AASB 101 AASB 107 AASB 108 Accounting Standards include Australian equivalents to International Financial Reporting Standards (A-IFRS) Additionally, Accounting Standards are prescribed by the Queensland Treasury to which SQ must comply. Ongoing verification observed through Monthly Reports which contain: • Cash Flow statements • Financial statements	Nil	N/A
GENERATION LICENCE CONDITION 14 - INDIVIDUAL PERFORMANCE STANDARDS															
	Generation Licence condition 14.1	Performance standards are contained in applicable legislation.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A

R#	License Condition Obligations under Condition	Description	Type	Inherent Risk (i.e. no controls)	Likelihood	Consequence	R# Rating	Residual Risk (i.e. Controls Applied)	Adequacy of Existing Controls	Audit Priority	Verification/Tests	Compliance Rating	Effectiveness	Corrective Action	Post Audit Implementation Plan
-	Generation Licence condition 14.2	The Authority may prescribe individual performance standards in relation to the licensee of its obligations under this licence or the applicable legislation.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
-	Generation Licence condition 14.3	Before approving any individual performance standards under this clause, the Authority will: (a) provide the licensee with a copy of the proposed individual performance standards; (b) allow 15 business days for the licensee to make submissions on the proposed individual performance standards; and (c) take into consideration those submissions.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A
106	Generation Licence condition 14.4 Electricity Industry Act section 11	Once approved by the Authority, the performance standards are included as additional terms and conditions to this licence. A licensee must comply with any individual performance standards prescribed by the Authority.	2	• Breach of legislation • Failure to become aware of performance standard	Unlikely	Minor	Low	• Management Committee • Internal legal advisory services • Compliance Scheduling • Service Agreements • Technical Support • Strict operating protocols established through Western Power - prescriptive	Strong	Priority 5	• Review compliance schedule • Service agreements • Generation Licence EGL1 • Annexure A - Scope of Services Legal Counsel Service Agreement - Griffin (May 2005)	N/R Not Rated	There are no individual performance standards prescribed in the Generation Licence EGL1 for Emu Downs Wind Farm.	Nil	N/A
GENERATION LICENCE CONDITION 15 - PERFORMANCE AUDIT															
81	Generation Licence Condition 15.1 Electricity Industry Act section 13(1)	A licensee must, not less than once every 24 months, provide the Authority with a performance audit conducted by an independent expert acceptable to the Authority.	NR	Failure to provide the Authority with a Performance Audit	Unlikely	Minor	Low	• Management Committee • Reminder service from the Authority • Compliance Scheduling • Service Agreements • Technical Support	Strong	Priority 5	• EDWF Year Plan 2009-2010 • Service Agreement - EDWF Manager and Power Plan Engineers for JV Manager role • Email correspondence	4 Compliant	Whilst the audit was flagged in the EDWF Year Plan 2009-2010 it was incorrectly scheduled for 2010 at a 3 year interval. The issue was identified internally and planning undertaken as per the licence requirements however the scheduling process requires further verification and accountability.	Include specific performance requirement into the Service Agreement for the JV Manager and ensure scheduling corrected in the 2010-2011 Year Plan.	As per corrective action
107	Generation Licence condition 15.2 Electricity Industry Act section 11	A licensee must comply, and require its auditor to comply, with the Authority's standard audit guidelines dealing with the performance audit.	2	Failure to comply with Audit Guidelines	Unlikely	Minor	Low	• Management Committee • ERA has established Audit Guideline for process • Service Agreements • Technical Support	Strong	Priority 5	• Compliance with ERA process • Management meeting minutes	4 Compliant	Direct instructions from Licensee to Auditor to comply with the ERA guidelines. Copies of communications received from ERA relating to audit requirements sent by EDWF through to Auditor to convey requirements specifically the understanding of audits in compliance with the Audit Guidelines: Electricity, Gas and Water Licences (Letter ERA 6/7/06 D/2009/05076)	Update the Compliance Manual to reflect the latest copy of the Audit Guidelines i.e. July 2009. Current reference made to draft guidelines only.	Update the Compliance Manual As per 419
-	Generation Licence condition 15.3	The licensee may seek a review of any of the requirements of the Authority's standard audit guidelines in accordance with clause 21.1.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
-	Generation Licence condition 15.4	The independent auditor may be nominated by the licensee but must be approved by the Authority prior to the audit pursuant to clause 0.1. Should the Authority reject the licensee's nomination of an independent auditor twice or, in the event that no nomination has been made by the licensee within 1 month of the date the audit was due, the Authority may choose an independent auditor who will conduct the audit.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A

Ref	License Condition/ Obligations under Condition	Description	Type	Inherent Risk (i.e. no controls)	Likelihood	Consequence	R Rating	Residual Risk (i.e. Controls Applied)	Adequacy of Existing Controls	Audit Priority	Verification/Tests	Compliance Rating	Effectiveness	Corrective Action	Post Audit Implementation Plan
GENERATION LICENCE CONDITION 16 - ASSET MANAGEMENT SYSTEM															
82	Generation Licence Condition 16.1 Electricity Industry Act section 14 (1)(a)	A licensee must provide for an asset management system.	NR	Failure to provide for an asset management system	Unlikely	Major	High	<ul style="list-style-type: none"> Management Committee/JV Committee Ongoing Operations and Maintenance Programme Operations and Maintenance Contract 	Strong	Priority 2	<ul style="list-style-type: none"> Compliance Manual paragraph 34 (EDWF250.1236) SAA specific Maintenance requirements EDWF Asset Management System Proposal 18/05/07 (as tabled at May 07 JV Management Committee) Monthly Report June 2009 EDWF Asset Management Plan Rev 27/8/07 Plant Management Strategy - Emu Downs Substation and HV Equipment (Draft - 13/8/09) 	5 Compliant	<p>The Licensee has provided for an asset management system.</p> <p>The primary driver of the SAA is availability which provides the requirements for an effective asset management system for the wind turbines.</p> <p>Of particular note is the improvement in the MTBI (Mean Time Between Inspections) which has been increased primarily due to effective planning and work bundling procedures. Emu Downs sits in Top 5 of world for Vestas.</p> <p>Noted, that Vestas has no enforceable obligations to meet availability targets for the substation and associated equipment. As such, a Plant Management Strategy is being developed for the Substation and HV Equipment to provide the operational and maintenance philosophy (The implementation of which is outside the audit scope).</p> <p>It is noted that the management of these still fall under the contractors responsibility as previously undertaken under the EPC and is now included in SAA.</p>	Nil	N/A
83	Generation Licence Condition 16.2 Electricity Industry Act section 14 (1)(b)	A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	2	Failure to notify the Authority details of the asset management system and/or substantial changes to it to the Authority	Unlikely	Minor	Low	<ul style="list-style-type: none"> Targets set as JV Manager KPIs Management Committee Compliance Scheduling Service & Availability Agreement - Certain Notifications S3.10(c) 	Strong	Priority 5	<ul style="list-style-type: none"> Discussion with JV Manager regarding requirements for notification Evidence of Contractors awareness to notify management i.e. SAA Itemised in the Compliance Manual (EDWF250.1236) [Ref # 34, Electricity Industry Act 14(1)] Documented in Service Agreement - JV Manager - Appendix - Managers Duties Compliance Report issued to ERA by EDWF JV Manager for Asset Management System Period July 2007 to June 2008 dated 21/8/08. Compliance Report issued to ERA by EDWF JV Manager for Asset Management System Period July 2008 to June 2009 dated 14/7/09. Compliance Manual Paragraph 6 (EDWF250.1236) Letter ERA D/200805597-30/4/09 - Post Audit Implementation Plan Letter EDWF 250509-01 - Notification of no substantial change to the Asset Management System with the change from EPC to SAA 	5 Compliant	<p>Appropriate notification has occurred during the audit period.</p> <p>The change from the EPC to the SAA is not considered a material change as there is no change to the manner in which the wind farm is being operated and maintained. This was conveyed to the ERA in a letter dated 29/05/09. As a result of documents reviewed during the audit and discussions with the JV Manager and Vestas Manager it is the auditors opinion that there is no material change to the asset management system with change in contract and it is "business as usual" with changes relating to report format changes.</p>	Nil	N/A
84	Generation Licence Condition 16.3 Electricity Industry Act section 14 (1)(c)	A licensee must provide the Authority with a report by an independent expert as to the effectiveness of its asset management system every 24 months, or such longer period as determined by the Authority.	NR	Failure to provide the Authority with an Asset Management System Review	Unlikely	Minor	Low	<ul style="list-style-type: none"> Management Committee Reminder service from the Authority Compliance Scheduling Service Agreements Technical Support 	Strong	Priority 5	<ul style="list-style-type: none"> Management Meeting Minutes EDWF Manager Marketing & Trading Services Agreement Jan 2007 Compliance Reporting Manual June 2008 (Doc Ref EDWF250.1236) Key Performance Indicator for JV Manager EDWF Year Plan 2009-2010 Discussion with personnel responsible for Audit/Compliance Schedule 	4 Compliant	<p>Refer to finding for Ref 81.</p> <p>Management meeting minutes have reflected the requirement since March 2009</p>	Refer to corrective action for Ref 81	As for 81
108	Generation Licence condition 16.4 Electricity Industry Act section 11	A licensee must comply, and must require the licensee's expert to comply, with the relevant aspects of the Authority's standard guidelines dealing with the asset management system.	2	Failure to comply with Audit Guidelines	Unlikely	Minor	Low	<ul style="list-style-type: none"> Management Committee ERA has established Audit Guideline for process Service Agreements Technical Support 	Strong	Priority 5	<ul style="list-style-type: none"> Compliance with ERA process Management meeting minutes 	4 Compliant	<p>Direct instructions from Licensee to Auditor to comply with the ERA guidelines.</p> <p>Copies of communications received from ERA relating to audit requirements sent by EDWF through to Auditor to convey requirements specifically the understanding of audits in compliance with the Audit Guidelines: Electricity, Gas and Water Licences (Letter ERA 6/7/06 D/200803676)</p>	As for 107	As for 107
	Generation Licence condition 16.5	The licensee may seek a review of any of the requirements of the Authority's standard guidelines dealing with the asset management system in accordance with clause 21.1.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
	Generation Licence condition 16.6	The independent expert may be nominated by the licensee but must be approved by the Authority prior to the review pursuant to clause 16.3. Should the Authority reject the licensee's nomination of an independent expert twice or in the event that no independent expert has been nominated by the licensee within 1 month of the date the review was due, the Authority may choose an independent expert who will conduct the review.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A

Ref	Licence Condition/ Obligations under Condition	Description	Type	Inherent Risk (i.e. no controls)	Likelihood	Consequence	Risk Rating	Residual Risk (i.e. Controls Applied)	Adequacy of Existing Controls	Audit Priority	Verification/Tests	Compliance Rating	Effectiveness	Corrective Action	Post Audit Implementation Plan
GENERATION LICENCE CONDITION 17 - REPORTING															
109	Generation Licence condition 17.1 Electricity Industry Act section 11	The licensee must report to the Authority: (a) if the licensee is under external administration as defined by the Corporations Act 2001 (Cwth) within 2 business days; or (b) if the licensee experiences a significant change in the licensee's corporate, financial or technical circumstances upon which this licence was granted which may affect the licensee's ability to meet its obligations under this licence within 10 business days of the change occurring. A licensee must report to the Authority, in the manner prescribed, if a licensee is under external administration or there is a significant change in the circumstances upon which the licence was granted which may affect a licensee's ability to meet its obligations.	2	Failure to report external administrator process or significant change	Unlikely	Minor	Low	<ul style="list-style-type: none"> Management Committee Service Agreements Technical Support Reporting controls Hierarchy of approvals and information dissemination 	Strong	Priority 5	<ul style="list-style-type: none"> Compliance with ERA process Management meeting minutes 	5 Compliant	There has been no significant change to the circumstances upon which the licence was granted which may affect the licensee's ability to meet its obligations during the audit period. The Compliance Manual [paragraph 20] notes that The EDWF Manager must notify the Authority within 10 Business Days if there is a significant change in the EDWF JV corporate/financial or technical circumstances which may affect their ability to meet their obligations under the Licence.	Nil	N/A
GENERATION LICENCE CONDITION 19 - PROVISION OF INFORMATION															
110	Generation Licence condition 18.1 Electricity Industry Act section 11 Compliance and Reporting Manual March 2008 section 5.3 and section 5.4	A licensee must provide the Authority, in the manner prescribed, any information the Authority requires in connection with its functions under the Electricity Industry Act.	2	Failure to provide the Authority with information	Unlikely	Minor	Low	<ul style="list-style-type: none"> Annual Compliance Reports Compliance and Reporting Manual March 2008 Management Committee Trading services agreements (Griffin - major faults) Reporting protocols include standard format form ERA Service Agreements Technical Support AV approvals Risk Review Electricity, Gas and Water Industry Licensing Compliance Policy - Final August 2008 	Strong	Priority 5	<ul style="list-style-type: none"> Compliance with ERA process Management meeting minutes 	5 Compliant	The Compliance Manual [paragraph 22] notes that if the information requested is confidential then the EDWF Manager must immediately notify the Authority and seek review under clause 21. Other than those defined within the Electricity and Compliance Reporting Manual, there has been no requirement to provide the Authority with information in connection with its functions under the Electricity Industry Act during the audit scope.	Nil	N/A
GENERATION LICENCE CONDITION 19 - PUBLISHING INFORMATION															
	Generation Licence condition 19.1	The Authority may direct the licensee to publish any information within a specified timeframe it considers relevant in connection with the licensee or the performance by the licensee of its obligations under this licence.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
111	Generation Licence condition 19.2 Electricity Industry Act section 11	A licensee must publish any information it is directed by the Authority to publish, within the timeframe specified.	2	Failure to comply with publishing requirements of the Authority	Unlikely	Minor	Low	<ul style="list-style-type: none"> Management Committee ERA 	Strong	Priority 5	<ul style="list-style-type: none"> Compliance with ERA process Management meeting minutes Use of ERA reporting protocols 	5 Compliant	There have been no requirements by the Authority to "publish" anything. However, a review of the requirement of publish under the Meters Code 2005 (s1.6) confirm that EDWF has the ability to comply by publishing on either SCL or Griffin Group websites.	Nil	N/A
	Generation Licence condition 19.3	If the licensee considers that the information is confidential it must: (a) immediately notify the Authority; and (b) seek a review of the Authority's decision in accordance with clause 21.1.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
	Generation Licence condition 19.4	Once it has reviewed the decision, the Authority will direct the licensee in accordance with the review to: (a) publish the information; (b) publish the information with the confidential information removed or modified; or (c) not publish the information.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A
GENERATION LICENCE CONDITION 20 - NOTICES															
112	Generation Licence condition 20.1 Electricity Industry Act section 11	Unless otherwise specified, all notices must be in writing.	2	Failure to provide notices in writing	Unlikely	Minor	Low	<ul style="list-style-type: none"> Management Committee ERA 	Strong	Priority 5	<ul style="list-style-type: none"> Compliance with ERA process Management meeting minutes Use of ERA reporting protocols 	5 Compliant	Use of ERA reporting protocols as per protocol. Notification of Compliance Report for both 2008 and 2009 years. Documented in the Compliance Manual	Nil	N/A
	Generation Licence condition 20.2	A notice will be regarded as having been sent and received: (a) when delivered in person to the addressee; or (b) 3 business days after the date of posting if the notice is posted in Western Australia; or (c) 5 business days after the date of posting if the notice is posted outside Western Australia; or (d) if sent by facsimile when, according to the sender's transmission report, the notice has been successfully received by the addressee; or (e) if sent by email when, according to the sender's electronic record, the notice has been successfully sent to the addressee's electricity licensing email address.	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A

Ref	License Condition/ Obligations under Condition	Description	Type	Inherent Risk (i.e. no controls)	Likelihood	Consequence	R/R Rating	Residual Risk (i.e. Controls Applied)	Adequacy of Existing Controls	Audit Priority	Verified/Tests	Compliance Rating	Effectiveness	Corrective Action	Post Audit Implementation Plan
GENERATION LICENCE CONDITION 21 - REVIEW OF THE AUTHORITY'S DECISIONS															
	Generation Licence condition 21.1	<p>The licensee may seek a review of a reversible decision by the Authority pursuant to this licence in accordance with the following procedure:</p> <p>(a) the licensee shall make a submission on the subject of the reversible decision within 10 business days (or other period as approved by the Authority) of the decision; and</p> <p>(b) the Authority will consider the submission and provide the licensee with a written response within 20 business days.</p> <p>For the avoidance of doubt, this clause does not apply to a decision of the Authority pursuant to the Act, nor does it restrict the licensee's right to have a decision of the Authority reviewed in accordance with the Act.</p>	NA	Not applicable	N/A	N/A	N/A	Not applicable	N/A	N/A	N/A	N/R Not Rated	N/A	N/A	N/A

APPENDIX 2

EMU DOWNS WIND FARM ASSET MANAGEMENT SYSTEM REVIEW SEPT 2009

EDWF Pty Ltd Asset Management Review 2009

Note 1, Ref numbering differs to that in the Audit Plan as the Outcome has been put as an overarching ref to reflect the structure of Table 16 in the Guidelines

Ref	Key Process	Effectiveness criteria	Inherent Risk (i.e. no controls)	Policy	Performance	Post Audit Priority					Comments	Asset management review effectiveness		Audit follow up
						Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority		Process and policy definition adequacy rating	Performance rating	
Note 1														
1	Asset Planning Asset planning strategies are focused on meeting customer needs in the most effective and efficient manner (delivering the right service at the right price). Outcome Integration of asset strategies into operational or business plans will establish a framework for existing and new assets to be effectively utilised and their service potential optimised.			Interviewees Paul McLagan - Manager Michael Karpinski - Project Accountant Rob Brady - Vestas Maintenance Manager Bevin Blunt - Vestas Site Supervisor Matthew Kok - Western Power EPCC References 1. SAA, Service Availability Agreement, Vestas EDWF 2. Draft EDWF Plant Management Strategy Substations and HV Equipment 3. EDWF Whole of Life Cost Model 4. EDWF Asset Management Plan Rev 27-8-07 5. EDWF Maintenance Strategy Development Scope of Works 6. PB Resource and Energy Report 7. PB Wind Data Report 8. Appendix to Powerplan's Service Agreement 9. Capital Expenditure Budget, 2009-10 10. EDWF Year Plan 2009-10 11. HV Electrical Operator - Audit 12. Western Power Contract Agreement 13. Western Power Access Agreement 14. Management Committee 15. Western Power EPCC, Matthew Kok 16. Operational Expenditure Budget, 2009-10		C	3	H	S	2		A	1	
1.1		Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning	Some stakeholder needs not addressed	The wind farm is fully established, defects liability period ended 6 Oct 2008. Expansion of generation capacity has been investigated but found uneconomic and no further expansion is planned. Refs 3, 4, 6, 7, 9, 10	Wind farm now operating for some time and stakeholder issues have been mainly addressed Western Power have been invited to comment but no response to date. Ref 15	B	1	L	S	5		A	1	
1.2		Service levels are defined	Some service levels not defined	The agreement with Western Power is to supply whatever power is available from the wind farm, subject to various system operational restraints defined in the agreement. Refs 12, 13 The SAA clearly defines roles and responsibilities and performance targets. Ref 1	Assets now part of a proven operating system and service contracts established for wind turbines and substation. Refs 1, 4 Substation service requirements being reviewed and the SAA may be revised. Ref 2	A	3	H	S	2	Audit showed HV substation now has an AMS	A	1	
1.3		Non-asset options (e.g. demand management) are considered	Agreements in place with WP for consumption of resource, demand management not applicable for wind farm	N/A. This project aims maximise generation and sales. Refs 12, 13		C	1	L	S	N/A				
1.4		Lifecycle costs of owning and operating assets are assessed	Lifecycle costs larger than expected	Life cycle costing has been applied to the original project and the expansion review Refs 3, 10	Upfront capital cost is dominant in LCC and these are established now The life cycle costs have not been updated to reflect actual performance or changes in tariffs. Budget revised every year. Refs 3, 10 In a long term contract with favourable rates	C	2	M	S	4		A	2	Maintain life cycle costing updated with actual performance
1.5		Funding options are evaluated	Alternate funding cost less	Budget reviewed annually Refs 9, 10, 16		B	2	M	S	4		A	1	
1.6		Costs are justified and cost drivers identified	Costs are larger than expected	Interest and O & M are the main cost drivers	CapX mainly spent already and experience of real OpX has been gained. Budget revised regularly looking at costs. Refs 9, 10, 16	C	2	M	S	4		A	1	
1.7		Likelihood and consequences of asset failure are predicted	Asset fail more often with severer consequences than expected	SCADA system monitors performance and alarms. These are reported to EDWF. Ref 1. Vestas monitor all their wind turbines around the world and analyse reliability and faults. Life cycle costing considers equipment replacement Ref 3	Vestas regularly upgrade equipment identified as a threat to performance and availability. Spare parts held on site, in Geraldton, Victoria, Singapore and Denmark. Risk is spread over 48 generators	B	2	M	S	4		A	1	
1.8		Plans are regularly reviewed and updated	Plans do not reflect best practices	Regular reporting and review	EDWF Year Plan 2009-2010 Ref 10 Assets now part of a proven operating system. Operation and Maintenance contract for WTGs is with the manufacturer and upgrades are incorporated in the contract. Service contracts established for wind turbines and substation. Ref 1	C	2	M	S	4		A	1	
2	Asset creation/acquisition Asset creation/acquisition means the provision or improvement of an asset where the outlay can be expected to provide benefits beyond the year of outlay. Outcome A more economic, efficient and cost-effective asset acquisition framework which will reduce demand for new assets, lower service costs and improve service delivery.			Interviewees Paul McLagan - Manager Michael Karpinski - Project Accountant References 1. EDWF Whole of Life Cost Model 2. PB Resource and Energy Report 3. PB Wind Data Report 4. Capital Expenditure Budget, 2009-10 5. PB EDWF Expansion of Installed Capacity 6. EDWF Update of 2007 post audit implementation plan 7. Garrad Hassan EDWF End of Warranty Inspections		B	2	M	S	4		A	2	Monitor when compliance renewals are due.
2.1		Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions	Higher costs than necessary	No creations or acquisitions are planned. Installed capacity is at Licence level. Option of additional wind turbines was investigated but won't proceed.	Wind farm is at full development. No major creations/acquisitions are planned. Refs 1, 4.	B	1	L	S	5		A	1	
2.2		Evaluations include all life-cycle costs	Higher costs than expected	Whole of life modelling	Included in original project and expansion project studies. Ref 1	C	1	L	S	5		A	1	
2.3		Projects reflect sound engineering and business decisions	Projects cost more, do not meet their objectives or are unsafe to operate	Use best practice, quality design and plant Refs 2, 3, 5	Availability target now being exceeded. Reputable suppliers used to supply and maintain. Independent design review Refs 2, 3, 5, 7	B	2	M	S	4		A	1	
2.4		Commissioning tests are documented and completed	Valuable information lost and asset does not operate correctly or safely		Project commissioning was complete in previous audit period.	B	2	M	S	4		A	1	
2.5		Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	Assets and practices do not meet current legislative requirements	Compliance register	Not adequately monitoring compliance renewals dates. Independent reviews of performance and equipment.	C	3	H	M	2	Compliance reporting not programmed	A	2	Monitor when compliance renewals are due.

EDWF Pty Ltd Asset Management Review 2009

Ref	Key Process	Effectiveness criteria	Inherent Risk (i.e. no controls)	Effectiveness		Post Audit Priority					Comments	Asset management review effectiveness		Audit follow up
				Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority		Process and policy definition adequacy rating	Performance rating	
3	Asset disposal Effective asset disposal frameworks incorporate consideration of alternatives for the disposal of surplus, obsolete, under-performing or unserviceable assets. Alternatives are evaluated in cost-benefit terms. Outcome Effective management of the disposal process will minimise holdings of surplus and under-performing assets and will lower service costs.			Interviewees Paul McLagan - Manager Michael Karpinski - Project Accountant References 1. EDWF Whole of Life Cost Model		C	2	M	S	4		A	2	Maintain whole of life model with actual performance
3.1		Under-utilised and under-performing assets are identified as part of a regular systematic review process	Higher costs and lower service	Ongoing review of performance incorporated in whole of life model. Ref 1 Unreliable plant reviewed and mitigation measures taken. Ref Vesta's reports	Bearing and SVC problems addressed. Whole of life model not updated. Ref 1	C	2	M	S	4		A	2	Maintain whole of life model with actual performance
3.2		The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	Higher costs and lower service	Vestas worldwide monitoring identifies poor performing components.	Upgrades to WTG components are regularly done by Vestas.	C	2	M	S	4		A	1	
3.3		Disposal alternatives are evaluated	Higher costs	Performance of each WTG is monitored, compared with others and reported to EDWF		C	2	M	S	4		A	1	
3.4		There is a replacement strategy for assets	Higher costs and lower service	Design life is greater than project life of 20 years.	Whole of life model has mid life refurbishment costs. Early in the life of the asset	C	2	M	S	4		A	1	
4	Environmental analysis Environmental analysis examines the asset system environment and assesses all external factors affecting the asset system. Outcome The asset management system regularly assesses external opportunities and threats and takes corrective action to maintain performance requirements.			Interviewees Paul McLagan - Manager Rob Brady - Vestas Maintenance Manager References 1. EDWF - Annual Operations Report 2008-9 2. EDWF - Monthly Reports 3. Vesta's Monthly Reports 4. Service Availability Agreement, Vestas EDWF 5. EDWF Service Maintenance Plan 6. EDWF Year Plan 2009-10 7. PB EDWF Predicted and Actual Wind Farm Energy Output Analysis 8. PB EDWF Expansion of Installed Capacity 9. Western Power Contract Agreement 10. EDWF Update of 2007 post audit implementation plan 11. Management Committee		B	2	M	S	4		A	1	Continue developing wind forecast model
4.1		Opportunities and threats in the system environment are assessed	Failure to assess opportunities and threats in the system environment	Monitor performance and wind resource. Community involvement and support WTG locations considered noise and wind regime Refs 1, 2, 3, 7, 8, 11	Reporting Local staff employed and contributions made to local events Ongoing dialogue to resolve noise/visual complaints. Ref 11 Developed tourist information facilities. Leasing surrounding property and sub-leasing with "no building clause"	C	1	L	S	5		A	1	
4.2		Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	Failure to monitor performance standards	Regular and ongoing reporting and monitoring	Vestas reports, SCADA, EDWF monthly reports Refs 1, 2, 3, 6, 11	C	1	L	S	5		A	1	
4.3		Compliance with statutory and regulatory requirements	Failure to comply with statutory and regulatory compliance	Compliance with statutory and regulatory requirements	A Compliance Manual is maintained and monitored internally. Reports to ERA through audit process. Additionally, compliance issues are incorporated into the SAA (ref 4.9)	C	1	L	S	5		A	1	
4.4		Achievement of customer service levels	Failure to achieve customer service levels	Meet or exceed customer service levels	Many service levels are incorporated in the SAA with penalties for non compliance. Some of the access agreement service levels are automated in the SCADA system, Ref 4	C	2	M	S	4		A	1	
5	Asset operations Operations functions relate to the day-to-day running of assets and directly affect service levels and costs. Outcome Operations plans adequately document the processes and knowledge of staff in the operation of assets so that service levels can be consistently achieved.			Interviewees Paul McLagan - Manager Michael Karpinski - Project Accountant Rob Brady - Vestas Maintenance Manager Clay Douglas - Vestas OH&S Representative Western Power EPCC, Matthew Kok References 1. Western Power Contract Agreement 2. Asset register 3. Management Committee 4. Monthly Reports 5. Operational Expenditure Budget, 2009-10 6. Service Availability Agreement, Vestas EDWF		B	2	M	S	4		A	1	
5.1		Operational policies and procedures are documented and linked to service levels required	Service levels not consistently achieved	Connection Agreement (Transmission Network) Schedule 13, 5.2 has no obligation to schedule or dispatch power, rather to supply all power available and acceptable from wind resource. The SAA is tied to service levels. Refs 1, 6	Reporting is thorough and performance is improving.	B	2	M	S	4		A	1	
5.2		Risk management is applied to prioritise operations tasks	Unimportant tasks performed before important tasks	Planned Maintenance Schedule included in monthly reports and available for inspection any time. Replacement/upgrade work planned in conjunction with planned maintenance and to minimise outage time. "Bundling" Ref 4	EDWF is in the top 5 worldwide of Vestas maintenance scheduling performance through continuous improvement and planning. Western Power have been invited to comment but no response to date.	B	1	L	S	5		A	1	
5.3		Assets are documented in an Asset Register including asset type, location, material, plans of components, an assessment of assets' physical/structural condition and accounting data	Asset information missing and condition unknown	Asset register. Ref 2	EDWF asset register is maintained and includes written down value. Vestas have just gone over to SAP database for stock control worldwide and after an implementation stage it is now beginning to show benefit.	C	2	M	S	4		A	1	
5.4		Operational costs are measured and monitored	Operational costs too high	Monthly reports Ref 4	Operational costs are set in the SAA SCADA system and maintenance programme closely monitors performance. Ref 5, 6	B	2	M	S	4		A	1	
5.5		Staff receive training commensurate with their responsibilities	Staff perform tasks for which they are not trained	Monthly report includes training. Ref 4	Vestas provide a lot of training opportunities. Staff were generally pleased with the training. Vestas reports have regular refs to training of staff	C	3	H	S	2		A	1	

EDWF Pty Ltd Asset Management Review 2009

Ref	Key Process	Effectiveness criteria	Inherent Risk (i.e. no controls)	Effectiveness		Post Audit Priority					Comments	Asset management review effectiveness		Audit follow up
				Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority		Process and policy definition adequacy rating	Performance rating	
Note 1														
6	<p>Asset maintenance Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.</p> <p>Outcome Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost.</p>			<p>Interviewees Paul McLagan - Manager Rob Brady - Vestas Maintenance Manager Clay Douglas - Vestas OH&S Representative</p> <p>References 1. EDWF - Annual Operations Report 2008-9 2. EDWF - Monthly Reports 3. Vestas Monthly Reports 4. Service Availability Agreement, Vestas EDWF 5. Draft EDWF Plant Management Strategy Substations and HV Equipment 6. EDWF Asset Management Plan Rev 27-8-07 7. EDWF Maintenance Strategy Development Scope of Works 8. Vestas Online Business Customisation Operator Manual 9. EDWF Defects and Issues Register 10. Garrad Hasson EDWF End of Warranty Inspections 11. Appendix to Powerplan's Service Agreement 12. EDWF Update of 2007 post audit implementation plan 13. Operational Expenditure Budget, 2009-10</p>		B	2	M	S	4		A	1	
6.1		Maintenance policies and procedures are documented and linked to service levels required	Service levels not consistently achieved	Vestas issue monthly updates that users download from the internet. Ref 3	Extent of data and poor internet connections have caused minor delays in getting updates which are sent out on CDs rather than downloading them of the web. This has minimal impact on operations.	B	2	M	M	4		A	1	
6.2		Regular inspections are undertaken of asset performance and condition	Asset performance and condition unknown	Maintenance planning is included in Monthly reports Ref 2	Routine maintenance is scheduled, with an allowance for capital and forced outage works, for next 5 years Ref 2. The schedules were being adhered to.	B	2	M	S	4	Audit showed high quality monitoring	A	1	
6.3		Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	Maintenance tasks not done on time, in sequence or correctly	Vestas manuals	Manufacturer doing maintenance. Maintenance is being done on schedule EDWF is in the top 5 worldwide of Vestas maintenance scheduling performance through continuous improvement and planning	A	2	H	S	2		A	1	
6.4		Failures are analysed and operational/maintenance plans adjusted where necessary	Failures are repeated	Monitor performance and availability of elements of the windfarm and respond to poorly performing items. Refs. 2-6 and 9	Static VAR compensator, SVC, equipment found to be unreliable, spare stocks increased and negotiations with Western Power have reduced the consequences of a failure. SAA sub contractor is the Australian agent for this equipment. Refs 1, 2, 3, 4, 13	B	2	M	S	4		A	1	
6.5		Risk management is applied to prioritise maintenance tasks	Unimportant tasks performed before important tasks	Planned maintenance schedule has slack for other maintenance. Ref 4	Work is "bundled" where possible and outage time minimised.	B	1	L	S	5		A	1	
6.6		Maintenance costs are measured and monitored	Maintenance costs too high	Monthly reports.	Monthly reports. Ref 4	B	1	L	W	5		A	1	
7	<p>Asset Management Information System (MIS) An asset management information system is a combination of processes, data and software that support the asset management functions.</p> <p>Outcome The asset management information system provides authorised, complete and accurate information for the day-to-day running of the asset management system. The focus of the review is the accuracy of performance information used by the licensee to monitor and report on service standards.</p>			<p>Interviewees Paul McLagan - Manager Rob Brady - Vestas Maintenance Manager Charlene Neethling - Vestas Site Administration</p> <p>References 1. Vestas Monthly Reports 2. Network Access Agreement, WP EDWF 3. Service Availability Agreement, Vestas EDWF 4. Draft EDWF Plant Management Strategy Substations and HV Equipment 5. EDWF Asset Management Plan Rev 27-8-07 6. EDWF Maintenance Strategy Development Scope of Works 7. Vestas Online Business Customisation Operator Manual 8. EDWF Park Control Functional Specification 9. EDWF Defects and Issues Register 10. Appendix to Powerplan's Service Agreement 11. Griffin EDWF Service Agreement 12. Western Power Contract Agreement</p>		B	2	M	S	4		A	2	Clarify and flag ERA reporting requirements.
7.1		Adequate system documentation for users and IT operators	Service levels not consistently achieved		Griffin provides IT support Ref 11	B	2	M	S	4		A	1	
7.2		Input controls include appropriate verification and validation of data entered into the system	Incorrect data entered into system		Energy balances and cross checking	B	2	M	S	4	Existing controls are good	A	1	
7.3		Logical security access controls appear adequate, such as passwords	Unauthorised access to system		SCADA system has several levels of access, password protected. SAP is only accessible by Vestas staff and password protected. Ref 7, 8	B	3	H	S	2	Existing controls are good	A	1	
7.4		Physical security access controls appear adequate	Unauthorised access to equipment		Building is locked when unattended and has security system	B	3	H	S	2	Existing controls are good	A	1	
7.5		Data backup procedures appear adequate	Complete loss of data or very old data available after systems failure		Data stored locally, Griffin Offices and on Vestas worldwide system in Denmark and India.	A	3	H	S	2		A	1	
7.6		Key computations related to licensee performance reporting are materially accurate	Service levels not consistently achieved		Western Power have access to limited data and control as required under their contract. SCADA reporting automated.	B	2	M	M	4		A	1	
7.7		Management reports appear adequate for the licensee to monitor licence obligations	Service levels not consistently achieved	Compliance register	Not fully familiar with ERA reporting requirements	B	2	M	M	4		A	2	Clarify and flag ERA reporting intervals/requirements.

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Ref	Key Process	Effectiveness criteria	Inherent Risk (i.e. no controls)	Policy	Performance	Post Audit Priority					Comments	Asset management review effectiveness		Audit follow up
						Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority		Process and policy definition adequacy rating	Performance rating	
Note 1														
8	<p>Risk Management Risk management involves the identification of risks and their management within an acceptable level of risk.</p> <p>Outcome An effective risk management framework is applied to manage risks related to the maintenance of service standards</p>			<p>Interviewees Paul McLagan - Manager Rob Brady - Vestas Maintenance Manager</p> <p>References 1. Service Availability Agreement, Vestas EDWF 2. Griffin Energy EDWF RECs Process 3. Draft EDWF Plant Management Strategy Substations and HV Equipment 4. EDWF Whole of Life Cost Model 5. EDWF Asset Management Plan Rev 27-8-07 6. Fixed asset register, October 2006 7. EDWF Maintenance Strategy Development Scope of Works 8. Vestas Online Business Customisation Operator Manual 9. EDWF Park Control Functional Specification 10. EDWF Defects and Issues Register 11. Garrod Hasson EDWF End of Warranty Inspections 12. EDWF Update of 2007 post audit implementation plan 13. Insurance register 14. EDWF Year Plan 2009-10</p>		C	2	M	S	4		B	2	Document risk policy and contingency plans critical risks.
8.1		Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system	Ineffective or misapplication of risk management procedures to asset management system	Risk management was employed in initial project assessment. Maintain a risk register. Insured against loss of production. Some risks e.g. loss of transformer, are accepted but policy is not documented. Refs 5, 13, 14	SWOT analysis in Year Plan 2009-2010	C	2	M	S	4		A	1	
8.2		Risks are documented in a risk register and treatment plans are actioned and monitored	Failure to capture risks within risk register processes	Risks spread over 48 WTGs. SAA transfers some risk to Vestas. Ref 1	Risk Register in Year Plan 2009-2010 Ref 14. This is an updated register based on one establish post commissioning.	B	2	M	S	4		A	1	
8.3		The probability and consequences of asset failure are regularly assessed	Inadequate review of asset failures	Maintain risk register. Vestas global performance monitoring	Risk Register in Year Plan 2009-2010 Ongoing performance monitoring Contingency plans are not fully documented Ref 14	C	2	M	S	4		B	2	Document risk policy and contingency plans critical risks.
9	<p>Contingency Planning Contingency plans document the steps to deal with the unexpected failure of an asset.</p> <p>Outcome Contingency plans have been developed and tested to minimise any significant disruptions to service standards.</p>			<p>Interviewees Paul McLagan - Manager Rob Brady - Vestas Maintenance Manager</p> <p>References 1. EDWF - Monthly Reports 2. Vestas Monthly Reports 3. Service Availability Agreement, Vestas EDWF 4. Draft EDWF Plant Management Strategy Substations and HV Equipment 5. EDWF Asset Management Plan Rev 27-8-07 6. EDWF Maintenance Strategy Development Scope of Works 7. Garrod Hasson EDWF End of Warranty Inspections 8. Appendix to Powerplan's Service Agreement 9. EDWF Service Maintenance Plan 10. Western Power Contract Agreement 11. Western Power Access Agreement</p>		A	3	H	S	2		B	2	Document risk policy and contingency plans critical risks.
9.1		Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	Service levels worse than expected following failures	Diverse risk with 48 separate WTGs. Common mode failure of some substation plant such as transformers accepted due to their high cost and high reliability.	Diligent maintenance manages this risk. Contingency planning inadequately documented	A	3	H	M	2	Not documented	B	2	Document risk policy and contingency plans critical risks.
10	<p>Financial Planning The financial planning component of the asset management plan brings together the financial elements of the service delivery to ensure its financial viability over the long term.</p> <p>Outcome A financial plan that is reliable and provides for long-term financial viability of services</p>			<p>Interviewees Paul McLagan - Manager Michael Karpinski - Project Accountant</p> <p>References 1. Network Access Agreement, WP EDWF 2. Griffin Energy EDWF RECs Process 3. EDWF Whole of Life Cost Model 4. EDWF Asset Management Plan Rev 27-8-07 5. Griffin EDWF Service Agreement 6. Operational Expenditure Budget, 2009-10 7. Capital Expenditure Budget, 2009-10 8. EDWF Year Plan 2009-10</p>		C	1	L	S	5		A	1	
10.1		The financial plan states the financial objectives and strategies and actions to achieve the objectives	Financial objectives and strategies not documented appropriately in financial plan	Annual budget, no further major capital expenditure anticipated.	Now in operational stage	C	1	L	S	5		A	1	
10.2		The financial plan identifies the source of funds for capital expenditure and recurrent costs	Source of funds for Capital and Operational expenditures not identified or documented	Remain with existing funding	Funding established on a long term basis at reasonable rates.	C	1	L	S	5		A	1	
10.3		The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	Inadequate financial plan	Annual budget maintained which includes capital and operation expenditures and revenue. Performance against plan monitored and reported in monthly reports.	Included in Annual Plan 2009-10 and monthly reporting Ref 8. Monthly reports prior to 2009-10 reported against earlier budgets.	C	1	L	S	5		A	1	
10.4		The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period	Inadequate financial plan	Annual budget maintained which includes capital and operation expenditures and revenue. Performance against plan monitored and reported in monthly reports.	Included in the whole of life model Ref 8 Sales are CPI indexed on long term contracts.	C	1	L	S	5		A	1	
10.5		The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Inadequate financial plan	Annual budget maintained which includes capital and operation expenditures and revenue. Performance against plan monitored and reported in monthly reports.	Year budget and whole of life model include O&M Refs 3, 6, 7, 8	C	1	L	S	5		A	1	
10.6		Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary	Corrective action not taken when significant variances in actual/budget income and expenses occurred	Annual budget maintained which includes capital and operation expenditures and revenue. Performance against plan monitored and reported in monthly reports.	Monthly reports of actual against forecast generation and budget	C	1	L	S	5		A	1	

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Ref	Key Process	Effectiveness criteria	Inherent Risk (i.e. no controls)	Effectiveness		Post Audit Priority					Comments	Asset management review effectiveness		Audit follow up
				Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority		Process and policy definition adequacy rating	Performance rating	
Note 1														
11	Capital Expenditure Planning The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with estimated annual expenditure on each over the next five or more years. Since capital investments tend to be large and lumpy, projections would normally be expected to cover at least 10 years, preferably longer. Projections over the next five years would usually be based on firm estimates. Outcome A capital expenditure plan that provides reliable forward estimates of capital expenditure and asset disposal income, supported by documentation of the reasons for the decisions and evaluation of alternatives and options.			Interviewees Paul McLagan - Manager Michael Karpinski - Project Accountant References 1. EDWF Whole of Life Cost Model 2. PB Resource and Energy Report 3. PB Wind Data Report 4. Griffin EDWF Service Agreement 5. Capital Expenditure Budget, 2009-10 6. EDWF Year Plan 2009-10		C	2	M	S	4		A	1	
11.1		There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates.	Inadequate Capital Expenditure plan	No further major capital expenditure anticipated		C	2	M	S	4		A	1	
11.2		The plan provide reasons for capital expenditure and timing of expenditure	Inadequate Capital Expenditure plan	No further major capital expenditure anticipated		C	2	M	S	4		A	1	
11.3		The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Inadequate Capital Expenditure plan	No further major capital expenditure anticipated	Plan includes for mid life refurbishment. Refs 1, 6	C	2	M	S	4		A	1	
11.4		There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned	Inadequate Capital Expenditure processes to ensure update of plan	No further major capital expenditure anticipated		C	2	M	S	4		A	1	
12	Review of AMS The asset management system is regularly reviewed and updated Outcome Review of the Asset Management System to ensure the effectiveness of the integration of its components and their currency.			Interviewees Paul McLagan - Manager Michael Karpinski - Project Accountant References 1. Service Availability Agreement, Vestas EDWF 2. Draft EDWF Plant Management Strategy Substations and HV Equipment 3. EDWF Asset Management Plan Rev 27-8-07 4. Assetivity appointment 5. EDWF Update of 2007 post audit implementation plan		C	1	L	S	5		A	1	
12.1		A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current	Inadequate review processes for AMS	Regular reporting and internal review	Response to previous audit, major issues have been addressed in Rev 1 of EDWF Asset Management Plan, Ref 5 AMS with respect to the substation has been developed in the SAA and is currently being reviewed, Ref 1, 2 and 4. Monitored by the Management Committee.	C	1	L	S	5		A	1	
12.2		Independent reviews (e.g. internal audit) are performed of the asset management system	Inadequate review processes for AMS	Ongoing monitoring of performance and reliability and third party review.	Monthly reports on generation, availability, and maintenance carried out. Assetivity and other's review of substation AMS and it's proposed revision. Vestas's monthly updates on maintenance policy and procedures. Ref 2, 4	C	1	L	S	5		A	1	

APPENDIX 3

EDWF PERFORMANCE AUDIT POST AUDIT IMPLEMENTATION PLAN SEPTEMBER 2009

2009 Performance Audit Key Findings, Recommendation & Post Audit Plan

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan
349	<p>Licence Condition – 5.1</p> <p>A network operator and affected Code participants must liaise together to determine the most appropriate way to resolve a discrepancy between energy data held in a metering installation and data held in the metering database.</p> <p>COMPLIANCE RATING – 4</p>	<p>The Electricity Industry Metering Code 2005 notes in Table 3 that EDWF meters are Class 2/Type 0.5 Meters. The Metrology Procedure (4 Sept 2006) defines the frequency for calibration and testing for these meters in Schedule 1 (ref 5.86) and notes the frequency as 4 yearly calibration.</p> <p>It is understood that Western Power has yet to develop a Meter Asset Management Plan for the maintenance of the HV meters (the Meter Management Plan currently available refers to Residential meters only). It would appear that with the current approved Metrology Procedure the meters are due for calibration. However, Western Power have indicated that to implement the testing, a Metering Asset Management Plan will have to be put in place to cover the period of testing (start date). This document will require ERA approval.</p> <p>It is important to note that there have been no data inaccuracies identified during the audit period (Ref 351) that would indicate an issue with data adequacy.</p>	<p>Consideration could be given to requesting calibration of the meters if the Plan is not developed and implemented before the Feb 2010 timeframe. Liaison with Western Power/ERA is recommended.</p>	<p>ACTION: Clarify calibration requirements for the EDWF meters and monitor testing schedule as per outcome.</p> <p>RESPONSIBILITY: Manager Wholesale Energy Trading</p> <p>DATE: 31 May 2010</p>

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan
416	<p>Licence Condition 5.1</p> <p>A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed</p> <p>COMPLIANCE RATING – 4</p>	<p>The Compliance Manual covers some aspects of the NAA. Noted in the previous audit that monitoring of requirements of the NAA in the Compliance Manual is not comprehensive. Consideration could be given to including all specific clauses as detailed in the ERA Compliance Reporting Manual for completeness.</p> <p>It is noted that this is scheduled within the EDWF Year Plan to review the Compliance Manual in August 2009 (note outside audit scope).</p>	<p>Ensure that the Compliance Manual is reviewed as scheduled in the EDWF Year Plan 2009-2010 (i.e. August 2009) and that the NAA is reviewed to ensure requirements are updated where necessary.</p> <p>Note: this has not been included in audit as outside the scope of the audit timeframe.</p>	<p>ACTION: Undertake the review of the Compliance Manual</p> <p>RESPONSIBILITY: EDWF JV Manager</p> <p>DATE: 31 Dec 2009</p>
418	<p>Licence Condition 5.1</p> <p>Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number for voice communication in connection with the Code.</p> <p>COMPLIANCE RATING – 4</p>	<p>Appropriate means of communication have been established.</p> <p>Discussions with the Metering Services indicated they have the means to communicate with EDWF and evidence of emails indicated access t and all required details are now recorded within their system.</p> <p>Corrective action identified in previous audit that the MBS system be updated with correct details. Although EDWF have confirmed they conveyed the details it appears that these are yet to be entered into Meter Data Registry.</p>	<p>Contact Metering Services and issue current contact details. Request written confirmation or MBS print out when complete.</p> <p>Wester Power Metering Services indicated that contact person for MBS is rhonda.timms@westernpower.com.au</p>	<p>ACTION: Contact Metering Services and issue current contact details. Request written confirmation or MBS print out when complete.</p> <p>RESPONSIBILITY: Manager Wholesale Energy Trading</p> <p>DATE: 31 Dec 2009.</p>

Ref	Licence Condition	Issue	Recommendation	Post-Audit Action Plan
420	<p>A Code participant must notify its contact details to a network operator with whom it has entered into an access contract within 3 business days after the network operator's request.</p> <p>COMPLIANCE RATING – 5</p>	As for 418	As for 418	As for 418
81	<p>A licensee must, not less than once every 24 months, provide the Authority with a performance audit conducted by an independent expert acceptable to the Authority.</p> <p>COMPLIANCE RATING – 4</p>	<p>Whilst the audit was flagged in the EDWF Year Plan 2009-2010 it was incorrectly scheduled for 2010 at a 3 year interval. The issue was identified internally and planning undertaken as per the licence requirements however the scheduling process requires further verification and accountability.</p>	<p>Include specific performance requirement into the Service Agreement for the JV Manager and ensure scheduling corrected in the 2010-2011 Year Plan.</p>	<p>ACTION: Include a specific reference in the Compliance Manual that an audit is required every 24 months.</p> <p>RESPONSIBILITY: EDWF JV Manager</p> <p>DATE: 31 Dec 2009</p>



APPENDIX 4

EDWF ASSET MANAGEMENT SYSTEM REVIEW POST REVIEW IMPLEMENTATION PLAN SEPTEMBER 2009

Asset Management System Review Key Findings, Recommendations and Post Audit Plan

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
1.4	Asset Planning Effectiveness Rating : Process & Policy – A Performance – 2	Life cycle costing (Whole of life) not being maintained.	Update WOL with actual availability, generation and capacity factor and use historical data to revise forecasts.	ACTION: Update WOL with actual availability, generation and capacity factors and use historical data to revise forecasts. RESPONSIBILITY: Project Accountant DATE: 30 June 2010
2.5	Asset Creation/Acquisition – Effectiveness Rating : Process & Policy – A Performance – 2	Compliance update requirements being missed or nearly missed. The onus is on the licensee and reminders aren't always issued.	Fully review compliance requirements and establish an notification system	ACTION: Review compliance requirements and establish a notification system. RESPONSIBILITY: EDWF JV Manager DATE: 31 Dec 2009
3.1	Asset Disposal Effectiveness Rating : Process & Policy – A Performance – 2	Life cycle costing (Whole of life) not being maintained.	Update WOL with actual availability, generation and capacity factor and use historical data to revise forecasts.	ACTION: Update WOL with actual availability, generation and capacity factors and use historical data to revise forecasts. RESPONSIBILITY: Project Accountant DATE: 30 June 2010
4.3	Environmental Analysis Effectiveness Rating : Process & Policy – A Performance – 1	Wind forecasting using Bureau of Meteorology data is inaccurate	Continue developing the forecast model.	ACTION: Continue developing the forecast model. RESPONSIBILITY: Manager Wholesale Energy Trading DATE: 31 Dec 2009

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
7.7	Asset Management Information System Effectiveness Rating : Process & Policy – A Performance – 2	Compliance update requirements being missed or nearly missed. The onus is on the licensee and reminders aren't always issued.	Fully review compliance requirements and establish an notification system	ACTION: Review compliance requirements and establish a notification system. RESPONSIBILITY: EDWF JV Manager DATE: 31 Dec 2009
8.3	Risk Management Effectiveness Rating : Process & Policy –B Performance – 2	Overall risk policy and contingency planning is poorly documented. Some risks are said to be accepted but we did not see this written down	Document risk policy and prepare contingency plans for identified risks	ACTION: Document risk policy and prepare contingency plans for identified risks. RESPONSIBILITY: EDWF JV Manager DATE: 30 June 2010
9.1	Contingency planning Effectiveness Rating : Process & Policy –B Performance – 2	Overall risk policy and contingency planning is poorly documented. Some risks are said to be accepted but we did not see this written down	Document risk policy and prepare contingency plans for identified risks	ACTION: Document risk policy and prepare contingency plans for identified risks. RESPONSIBILITY: EDWF JV Manager DATE: 30 June 2010