

NewGen Power Kwinana Pty Ltd 2014 Performance Audit and Asset Management System Review, Electricity Generation Licence

POST AUDIT IMPLEMENTATION PLAN

EIA = Electricity Industry Act 2004
 EIMC = Electricity Industry (Metering) Code 2012

PERFORMANCE AUDIT							
Oblig No	Lic CI/ Act	Rating/ Licence Requirement	Non-compliance or Inadequacy of controls	Recommendation	Action	By Whom	Date
124	CI 5.1	A2 Provision of Information Electricity Industry Act section 11 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.	The 2014 submission of the annual generation licence compliance report was five days late as it was due on the 31 August 2014 and was submitted on the 5 September 2014.	1/2014 The 2014 submission of the annual generation licence compliance report was five days late as it was due on the 31 August 2014 and was submitted on the 5 September 2014. Non-compliance will need to be recorded for the reporting year 1 July 2014-30 June 2015.	<ul style="list-style-type: none"> Non-compliance shall be recorded and reported as per the recommendation. This has been added to the station CMMS and scheduled for July 2015 to ensure sufficient time is allowed for completion of the report. 	Station Manager	August 2015

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POST REVIEW IMPLEMENTATION PLAN

ASSET MANAGEMENT REVIEW							
Item No	EC Ref	Rating / AMS Component Effectiveness Criteria	Asset System Deficiency	Recommendation	Management Action	By Whom	Due Date
1	1.1	B2 Asset management plan covers key requirements.	<ul style="list-style-type: none"> ▶ Whilst MEX provides the individual list of maintenance tasks, there is no evidence of the planning process, the decisions, reasons and formulation of a maintenance strategy. There is documentation demonstrating various aspects of an asset management plan however the Review did not find a comprehensive document dealing with the review of strategy at regular intervals. ▶ The Review did not find a clear definition and review of service levels and objectives within the asset management plan (AMP) documentation, the review of performance against those objectives, the results analysed and the resulting corrective actions clearly defined. 	1/2014 Prepare a suitable Asset Management Plan (AMP). The AMP should provide clear definition of measurable objectives and strategies implemented to achieve those objectives. The AMP should indicate the processes used to review plant performance and plan strategies and activities, manage the costs, risk and performance of the assets, the creation, acquisition or enhancement of assets, the utilisation, maintenance, replacement and disposal of assets; it should indicate the means to monitor performance and report it to management. The AMP should report on past performance.	<ul style="list-style-type: none"> • NPK to produce, formalise and approve for issue an Asset Management Plan. A reporting system will be established and incorporated into the plan to monitor actual against the performance. 	Station Manager	November 2015
2	1.2	C2 Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning.	<ul style="list-style-type: none"> ▶ There is a process however there is no formal documented description of the planning process, so that the scope, consideration of operating objectives, stakeholder needs 	2/2014 Planning process should be documented either in the AMS documentation or in a stand-alone procedure.	<ul style="list-style-type: none"> • NPK to review and amend the Asset Management System document to incorporate a clear and concise planning process. 	Station Manager	November 2015

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			review are not formally defined.				
3	1.3	B/NR Service levels are defined.	<ul style="list-style-type: none"> ▶ Under the Tradeable Purchase Agreement the source of the electricity is not stipulated so that, if generation fails, electricity can be sourced elsewhere and the service levels maintained. However this will severely impact the internal performance and commercial viability of the asset. ▶ The Review did not find in the AMS documents or in the Business Services Reports clear information on quantifiable service levels and objectives. 	3/2014 Provide a clear and measurable definition of service levels. Review the definition of the plant objectives.	<ul style="list-style-type: none"> • NPK to amend the Asset Management System to incorporate service levels and objectives. • Report against these objectives on a monthly basis, to be included in the business service reports. 	Chief Operating Officer	October 2015
-	1.5	B2 Lifecycle costs of owning and operating assets are assessed. (also at 2.2).	<ul style="list-style-type: none"> ▶ The Asset Life Plan was issued in July 2008 and had not been reviewed since. This finding is further addressed under EC1.9 (the Review has noted that the Asset Life Plan was reviewed after the Review period, in September 2014). 	Recommendations made under EC1.9	<ul style="list-style-type: none"> • See management action 6/2014 at EC1.9 	Station Manager	September 2015
4	1.6	B2 Funding options are evaluated.	<ul style="list-style-type: none"> ▶ No procedure was found of the process of proposing, reviewing and approving major projects and evaluation of funding options. No procedure for review of funding options for unbudgeted items was found. 	4/2014 Document a procedure for proposal, review and approval of projects and for evaluation of funding options. Procedure should include Life Cycle Costing in new asset evaluations.	<ul style="list-style-type: none"> • Procedure to be developed for funding fixed assets and plant projects. 	Chief Operating Officer	September 2015

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5	1.8	B2 Likelihood and consequences of asset failure are predicted.	<ul style="list-style-type: none"> Likelihood and consequences of asset failure were analysed in 2010, actions were identified however the Review noted that some of actions had not been followed up since 2010. Further findings and recommendations are raised at EC8. 	5/2014 Documentation on risk management, asset failure likelihood and consequences should be reviewed, updated where necessary and integrated so that documents are all made part of a working risk management system which is subject to management overview.	<ul style="list-style-type: none"> Carry out a review of the risk management system. Amend the risk management procedure to include regular reviewing of risks. 	Station Manager	August 2015
6	1.9	C3 Plans are regularly reviewed and updated.	<ul style="list-style-type: none"> The AMS document states that the Asset Life Plan is to be reviewed as part of the yearly business planning process and as part of a review of the production over the preceding 12 months, however there was no documentary evidence that a formal review had taken place since the issue date of the Asset Life Plan (July 2008) or during the Review period (the Review has noted that the Asset Life Plan was reviewed after the Review period, in September 2014). In general events may occur during the life of the plant that cannot be fully predicted. In addition the operation of the plant is subject to external factors which affect the operating regime which, in turn affects the life and maintenance requirements of the plant. This necessitates a 	6/2014 Document the process of review and updating of the asset management plan (AMP). The AMP needs to be reviewed and updated at regular intervals.	<ul style="list-style-type: none"> AMP to document the annual review process. This will be added to the station compliance calendar and become part of the annual budget planning process. 	Station Manager	September 2015

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			review of the plant performance and operation at regular intervals, as well of a review of the strategies in place for the plant operation. External factors such as client demand, carbon policies, and environmental constraints can affect the use of the plant. The demand of external and internal change need to be addressed in reviews which need to be demonstrated formally so that a trail is available of strategy development. The reviews need to be carried out at regular intervals, say on an annual basis, due to the increased speed of change that is taking place.				
-	2.1	C2 Risk management is applied to prioritise maintenance tasks.	▶ While the Operator Services Agreement (OSA) provides some high level directives on asset acquisition the process of project evaluation is not documented.	Refer to Recommendation 4/2014 at EC1.6	• See management action item 4/2014 at EC1.6	Chief Operating Officer	August 2015
7	2.1 Cont		▶ A spare Cooling Water (CW) pump motor was included in the budget 2013-14 as a DCS Spare Parts List line item for Critical Spares (as per Budget 31 August 2013) as no spare had been purchased previously.	7/2014 While the case for the CW Pump Motor appears sound, there should be evidence of justification of the costs.	• NPK to present and document for approval, the capex expenditure justification paper and the associated NPV to management.	Station Manager	February 2015

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			<ul style="list-style-type: none"> ▶ The increase in the line items was entered in the Budget and the cause identified however a full justification/case for the item was not noted 				
-	2.2	C/NR Evaluations include all life-cycle costs.	<ul style="list-style-type: none"> ▶ Not applicable during the Review period however no documented procedure was evident showing the inclusion of life cycle cost evaluations in new asset project assessment. 	Recommendation as per 4/2014, EC1.6	<ul style="list-style-type: none"> • See management action item 4/2014 at EC1.6 	Chief Operation Officer	August 2015
8	3.1	B1 Logical security access controls appear adequate, such as passwords.	Whilst there are processes in place for the review of plant performance, these processes are not clearly identified in the AMP documentation (or in procedures).	8/2014 Whilst there are processes in place for the review of plant performance, these processes are not clearly identified in the AMP documentation (or in procedures). There should be a definition of the systematic monitoring and review of asset performance and a definition of the replacement/ disposal process in the AMP documentation and in procedures.	<ul style="list-style-type: none"> • NPK to include this review process including asset disposal and replacement in the Asset Management Plan. 	Station Manager	November 2015
-	3.3	B1 Disposal alternatives are evaluated.	<ul style="list-style-type: none"> ▶ Refer to EC3.1 for finding on documentation of disposal process. 	Refer to recommendation 8/2014 at EC3.1	<ul style="list-style-type: none"> • See management action item 8/2014 at EC3.1 	Station Manager	November 2015
-	3.4	B2 There is a replacement strategy for assets.	<ul style="list-style-type: none"> ▶ The replacement strategy should be subject to a systematic review within the AMP review. This was not evident during the Review period and has been noted under EC3.1. 	Refer to recommendation 8/2014 at EC3.1	<ul style="list-style-type: none"> • See management action item 8/2014 at EC3.1 	Station Manager	November 2015

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			<p>Audit, at times the Performance Audit timing is not synchronised with the AMS Review.</p> <ul style="list-style-type: none"> ▶ There should be identification of the process for maintaining the currency of the "Compliance Calendar". ▶ One Environmental incident report was raised during February 2013: the annual audit on the ministerial statement 698 was not submitted to the Office of Environmental Protection Authority (OEPA) by the due date. The Audit had been completed by an external consultant before the due date of April 1 2012, but the Audit report was subsequently submitted to the OEPA in February 2013 when the OEPA contacted NPK due to an administrative error. 				
-	6.1	B1 Maintenance policies and procedures are documented and linked to service levels required.	<ul style="list-style-type: none"> ▶ Up to date documentation and review of maintenance strategies, which is expected in an AMP, is not available. This finding has been documented in EC1.1 and EC1.2 	Refer to recommendation at items EC1.1 and EC1.2	<ul style="list-style-type: none"> • See actions relating to EC1.1 & EC1.2 	Station Manager	September 2015
13	6.3	B1 Maintenance plans (emergency,	<ul style="list-style-type: none"> ▶ The Review noted that the maintenance procedures do not cover the management of 	13/2014 Maintenance procedures should be reviewed and updated to address forced outages.	<ul style="list-style-type: none"> • Amend current maintenance management procedure to include 	Station Manager	April 2015

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		corrective and preventative) are documented and completed on schedule.	forced outages.		forced outages.		
14, 15	7.1	B1 Adequate system documentation for users and IT operators.	<ul style="list-style-type: none"> ▶ Remaining AMS documentation is stored in the DMS however at present there are no controls on document management such as revision control. A basic set of instructions were provided in e-mails when the DMS started, with instructions on where to file documents and how to use it, however the operation of the DMS is still relatively informal. 	<p>14/2014 Complete the development of the Document Management System and ensure that controls are implemented for the management of documentation.</p> <p>15/2014 Ensure that, as appropriate, document in draft or under review are finalised and approved.</p>	<ul style="list-style-type: none"> • Develop and approve document management procedures to cover the control of hard and soft copies. • Complete the implementation of the DMS and implement document controls. 	<p>Station Manager</p> <p>Station Manager</p>	<p>August 2015</p> <p>August 2015</p>
16	7.3	B1 Logical security access controls appear adequate, such as passwords.	<ul style="list-style-type: none"> ▶ Control of access to AMIS including responsibility for authorisations and process is not documented. 	<p>16/2014 Control of access to AMIS including responsibility and process should be documented.</p>	<ul style="list-style-type: none"> • NPK to produce a suite of Procedures to cover IT Management & Security 	IT General Manager	August 2015
17	7.5	C1 Data backup procedures appear adequate and backups are tested.	<ul style="list-style-type: none"> ▶ There was no evidence to show that backups are tested; the backup procedure was not documented. 	<p>17/2014 Document the Asset Management System data backup and backup testing procedures. Ensure there is verification and evidence of back up integrity.</p>	<ul style="list-style-type: none"> • NPK to produce Procedures to cover IT routine backup, data protection and disaster recovery plan. 	IT General Manager	August 2015

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18, 19, 20	8.1	B3 Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system.	<ul style="list-style-type: none"> ▶ The general intent of the Risk Management Policy (RMP) and Risk Management Guideline (RMG) has been applied in practice however, while there is evidence that the policies are understood there is no formal evidence that this has been maintained. ▶ In particular the Review noted that there was no formal application of the formal requirements of the RMP and RMG over recent years and of the asset risk analysis since 2010, even though sound practices have been maintained at an operational level. 	<p>18/2014 Undertake a review of the Risk Management Policy and Risk Management Guideline to ensure they are current and up to date.</p> <p>19/2014 Review the accountabilities and requirements of the Risk Management Policy and Risk Management Guideline to ensure they have been complied with. Evidence of ongoing compliance to be subsequently maintained.</p> <p>20/2014 Regular staff training on risk management requirements to be undertaken with appropriate records being maintained.</p>	<ul style="list-style-type: none"> • NPK to carry out a management review of the complete risk management system including roles and responsibilities. • Schedule risk management training and include in the training register for the future. 	<p>Chief Operating Officer</p> <p>Station Manager</p>	<p>August 2015</p> <p>August 2015</p>
21, 22, 23	8.2	B3 Risks are documented in a risk register and treatment plans are actioned and monitored.	<ul style="list-style-type: none"> ▶ Risk registers were established at the commencement of operations in 2008 however have not been subsequently reviewed or updated, a review is now warranted. ▶ Where appropriate, risk treatment plans were put in place at the same time as the risk registers were established. While these plans involved an initial amount of action and monitoring there is no evidence that this has occurred on a 	<p>21/2014 Undertake a review of the risk management process to ensure that it is relevant to the current plant operation and that it can be implemented.</p> <p>22/2014 Undertake a review of all risk registers and risk treatment plans to ensure all identified risks remain current, no new risks have emerged and all appropriate risk treatment plans are in place, actioned and regularly monitored.</p> <p>23/2014 Undertake a review of the financial impact scale used in the risk</p>	<ul style="list-style-type: none"> • NPK to carry out a management review of the complete risk management system. • NPK to review and consolidate all EHS & Operational risks into one risk register. • NPK to review and if required amend the financial impact scale 	<p>Station Manager</p> <p>Station Manager</p> <p>Chief Operating Officer</p>	<p>August 2015</p> <p>August 2015</p> <p>September 2015</p>

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			<p>regular ongoing basis.</p> <ul style="list-style-type: none"> As an observation it is noted that, within the risk evaluation matrix, the financial impact scale applicable to the differing levels of consequence/severity is considered too low for an operation with NPK's attributes. As a result, risks of all types are being assessed at a higher level of consequence than would normally be expected for this industry. 	<p>evaluation model to ensure it is aligned with industry norms.</p>	<p>used in the risk evaluation model.</p>		
24	8.3	B3 The probability and consequences of asset failure are regularly assessed.	<ul style="list-style-type: none"> Probability and consequences of asset failure were assessed when the initial risk registers were established in 2008 and were further reviewed in 2010. No further systematic reviews were found for the entire plant. 	24/2014 Implement a process for ensuring the probability and consequences of asset failure are regularly assessed and maintain a record of such assessments having been made.	<ul style="list-style-type: none"> NPK to complete and implement maintenance/engineering asset strategy plans including FMECA. 	Station Manager	October 2015
25	9.1	B1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks.	<ul style="list-style-type: none"> No Contingency/Business Continuity Plans are in place to cover higher risks such as loss of gas supplies, loss of IT infrastructure, loss of office facilities. 	25/2014 Address the need for higher level Contingency Plans/ Business Continuity Plans and implement as necessary.	<ul style="list-style-type: none"> NPK to develop and roll out Business Continuity Plan 	Chief Operating Officer	October 2015
26	10.1	B1 The financial plan states the financial objectives and strategies and actions to achieve the	<ul style="list-style-type: none"> The financial outcomes contained in the Annual Budget can reasonably be taken to be the financial objectives. However whilst the 	26/2014 Within the Annual Budget clearly define and articulate the operating strategies that will be implemented in order to achieve financial objectives. This should be linked to	<ul style="list-style-type: none"> Budget planning process to include commentary and guidance concerning operating strategies. 	Chief Operating Officer	November 2015

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		objectives.	assumptions contained in the Annual Budget set out the assumed level of contract generation that will actually be required, the residual generation that will be made available to the market and the plant operating parameters to achieve this, they do not define specific plant operating strategies or actions that will be implemented as part of this process. For example, in the absence of stated strategies and actions, the pursuit of current year financial outcomes as per the Annual Budget may be to the long-term detriment of the plant. Whilst there is no evidence of this occurring in practice a broader and more clearly articulated approach to operating strategy would be beneficial.	the AMP planning process.			
27	10.4	B2 The financial plan provides firm predictions on income for the next five years and reasonable indicative predictions beyond this period.	▶ The Annual Budget does not include any detail on the basis of how the year 2-5 projections have been determined and it is considered appropriate for this to be included in future budget documents.	27/2014 Within the Annual Budget clearly define and articulate the assumptions applying to longer-term revenue projections in order that the level of reasonableness applicable to them can be determined.	<ul style="list-style-type: none"> Present detailed commentary assumptions within the budget plan providing clear explanations for decision. 	NPK Financial Controller	July 2015
28	10.6	A1 Significant variances in	▶ Variance reporting was considered to be of a high quality however could be	28/2014 (OFI) Variance commentary in monthly Finance Management reports should identify corrective	<ul style="list-style-type: none"> NPK to include in future reports. 	NPK Financial Controller	May 2015

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		ensure that the asset management plan and the asset management system described therein are kept current.	subject to review, there has been no formal review of the AMS or of the AMP during the Review period. There was no evidence that a structured review of the AMS has been carried out at regular intervals.	plan (AMP). 32/2014 Carry out a formal review of the AMS and the AMP. Update the AMS and the AMP as per review findings. (Refer to EC 1.1 for additional recommendation; a review of the above may also require a review and update of the Asset Life Plan).	<ul style="list-style-type: none"> NPK to implement management reviews of the AMS and AMP. 	Chief Operating Officer	September 2015
33	12.2	B2 Independent reviews (e.g. internal audit) are performed of the asset management system.	<ul style="list-style-type: none"> An independent review of the AMS was completed in August 2011 as part of the requirements of the licence. No other independent reviews were evident for the Review period. 	33/2014 (OFI) The asset management system review process should include independent reviews.	<ul style="list-style-type: none"> NPK to include and implement internal audits in the review process. 	Station Manager	October 2015