Economic Regulation Authority

Assessment of Allowable Revenue - System Management

Final

30 March 2006

STAMFORDS

Advisors · Consultants

Perth:
216 St Georges Terrace
Perth Western Australia 6000
GPO Box 2753 Perth
Western Australia 6001
Telephone (08) 9476 3144
Facsimile (08) 9322 1022

Sydney:
MLC Centre
Martin Place Sydney
New South Wales 2000
Telephone (02) 9238 6881
Facsimile (02) 9238 7633

Melbourne:
Level 2, 520 Collins Street
Melbourne Victoria 3000
Telephone (03) 8371 5660
Facsimile (03) 8371 5650

Table of Contents

1 Scope

Stamfords Advisors Consultants ("Stamfords") has been engaged by the Economic Regulation Authority ("the Authority") to provide an assessment of the application for allowable revenue for System Management of the Wholesale Electricity Market ("the Market").

This advice is in accordance with the Authority's requirement, under the Wholesale Electricity Market Amending Rules (December 2006) ("Market Rules"), to determine the appropriate revenue to be recovered by System Management ("Allowable Revenue").

On 30 November 2006, System Management submitted Allowable Revenue applications to the Authority for approval in accordance with clauses 2.23.3(c) of the Market Rules.

To assess the appropriateness of the Allowable Revenue application, Stamfords conducted an analysis of System Management's applications. Further, Stamfords has benchmarked System Management against similar operatives in other jurisdiction in accordance with clause 2.22.12(c).

Stamfords has also considered public submissions made by Alinta Sales Pty Ltd ("Alinta") and the Electricity Retail Corporation trading as Synergy ("Synergy") in accordance with clause 2.23.3(b) of the Market Rules.

A summary of Stamfords proposed amendments and recommendations regarding System Management's Allowable Revenue application are provided in section 8 of this report.

2 Background

2.1 Deregulation of the Western Australian Electricity Industry

The operation and regulation of the Western Australian electricity industry is governed by the Electricity Industry Act 2004 ("Act").

Pursuant to section 122(1) of the Act, the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* ("Regulations") provide for the establishment of a wholesale electricity market in relation to the wholesale supply of electricity in the South West Interconnected System ("SWIS").

Regulation 5 of the Regulations provides for the establishment of the Market Rules, relating to the operation of the SWIS.

The Market commenced on 21 September 2006, pursuant to regulation 6(3) of Regulations and clause 1.8.2 of the Market Rules.

The objectives of the Market, as stated in clause 1.2.1 of the Market Rules, are:

- to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the SWIS;
- to encourage competition among generators and retailers in the SWIS, including by facilitating efficient entry of new competitors;
- to avoid discrimination in the Market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
- to minimise the long-term cost of electricity supplied to customers from the SWIS; and
- to encourage the taking of measures to manage the amount of electricity used and when it is used.

2.2 Establishment and Functions of System Management

The Regulations provide for the Market Rules to confer on an entity the function of operating the SWIS in a secure and reliable manner (regulation 13(1)).

Pursuant to regulation 13(1), the Market Rules confer this function on the Electricity Networks Corporation, acting through the segregated business unit known as System Management (clause 2.2.1).

Clause 2.2.2 of the Market Rules sets out System Management's other functions in relation to the Market, as follows:

- to procure adequate Ancillary Services where the Electricity Generation Corporation cannot meet the Ancillary Service Requirements;
- to assist the IMO in the processing of applications for participation and for the registration, deregistration and transfer of facilities;
- to develop Market Procedures, and amendments and replacements for them, where required by these Market Rules;
- to release information required to be released by these Market Rules;
- to monitor Rule Participants' compliance with Market Rules relating to dispatch and Power System Security and Power System Reliability; and
- to carry out any other functions or responsibilities conferred, and perform any obligations imposed, on it under these Market Rules.

3 Allowable Revenue Requirements

The revenue earned by System Management is specifically outlined in the Market Rules to be revenue that can be recovered from Market Participants for the conduct of System Management services.

Under clause 2.23.3 of the Market Rules, System Management must seek the approval from the Authority of its Allowable Revenue for the 3 year period 2007/08 to 2009/10 ("Review Period"), for the following services:

- system operation services, including all of System Management's functions and obligations under these Market Rules except the provision of Ancillary Services; and
- System Management's functions and obligations under these Market Rules in relation to the provision of Ancillary Services (clause 2.23.1).

This report pertains to System Management's Allowable Revenue in respect of system operation services.

A key consideration of the Authority, in determining the Allowable Revenue of System Management for the above period, is the requirement under the Market Rules (clause 2.23.12(b)) that:

"the Allowable Revenue must include only costs which would be incurred by a prudent provider of the services described [above] …, acting efficiently, in accordance with good electricity industry practice, seeking to achieve the lowest practicably sustainable cost of delivering the services described [above] in accordance with these Market Rules, while effectively promoting the Wholesale Market Objectives."

Stamfords considers the above requirement to be a high threshold for cost-efficient service delivery in the performance of System Management's prescribed services and functions. This threshold, and in particular the requirement that the Allowable Revenue only include costs incurred by a provider "seeking to achieve the lowest practicably sustainable cost of delivering the services", forms the basis for this analysis and the Allowable Revenue Determination.

However, Stamfords notes the difficulties associated with the forecasting of costs, and hence Allowable Revenue, in the first Review Period, given the limited historical cost information available due to the recent commencement of the Market. Such issues have been considered in the assessment of Allowable Revenue. It is evident that the second Review Period will provide an opportunity for comparison with the first three years of Market operation and, accordingly, an enhanced capacity to assess the efficiency of System Management's service provision.

Allowable Revenue must be sufficient to cover the forward looking costs of providing System Management's services and performing its functions and obligations under the Market Rules in accordance with the following principles (clause 2.23.12(a)):

(a) recurring expenditure requirements and payments are recovered in the year of the expenditure;

(b) capital expenditures are to be recovered through the depreciation and amortisation of the assets acquired by the capital expenditure in a manner that is consistent with generally accepted accounting principles;

(c) costs incurred by System Management that are related to market establishment, as designated by the Minister, are to be recovered over a period determined by the Minister from Energy Market Commencement; and

(d) notwithstanding paragraphs (a), (b) and (c), expenditure incurred, and depreciation and amortisation charged, in relation to any Declared Market Project are to be recovered over the period determined for that Declared Market Project.

This assessment considers each of the above items (a to d) separately.

The Market Rules (clause 2.23.12(c)) also require that:

"…where possible, the Economic Regulation Authority should benchmark the Allowable Revenue against the costs of providing similar services in other jurisdictions."

The results of this benchmarking analysis are also set out in section 7 of this report.

4 Determination Process

The determination process is set out in clause 2.23.3 of the Market Rules, as follows:

- System Management must submit a proposal for its Allowable Revenue for the period 2007/08 to 2009/10 by 30 November 2006;
- the Authority must undertake a public consultation process in approving the Allowable Revenue for System Management for the Review Period, which must include publishing an issues paper and issuing an invitation for public submissions; and
- the Authority must determine the Allowable Revenue of System Management for the Review Period, for each of the services described in clause 2.22.1 of the Market Rules, by 31 March 2007.

System Management submitted its proposal for Allowable Revenue on 30 November 2006.

4.1 Public Submissions

The Authority undertook a public consultation process as required, including publishing an issues paper and issuing an invitation for public submissions on 21 December 2007. Public submissions in respect of the determination of System Management's Allowable Revenue were received from:

- Alinta; and
- Synergy.

An additional three submissions were also received from System Management, as part of the public submission process.

Alinta's submission identified the following issues for consideration with respect to System Management's application for system operating services revenue:

- Alinta noted the increased forecast employment cost escalation applied to System Management's application (6% annual growth) as opposed to the IMO's application (4% annual growth). Alinta suggested a similar growth be expected for both System Management and the IMO. Stamfords viewed the proposed employment cost escalation as acceptable.

- Alinta suggested the annual escalation in legal costs, of 10%, is excessive in respect of CPI movement. Stamfords viewed the proposed legal cost escalation as acceptable.
- Alinta queried the nature of the self-insurance costs included in System Management's application. System Management subsequently provided further information regarding such costs in the application dated 12 March 2007. Stamfords has recommended a review of such costs which is detailed in section 8.
- Alinta recommended that the Authority consider an economic incentive scheme for System Management to promote operational efficiency. While such is noted to be outside of the scope of this determination, Stamfords has taken this recommendation into consideration.

Synergy's submission noted the risks and uncertainty associated with the first Review Period and proposed no further recommendations to the Authority.

The issues identified in the above public submissions have been considered as a part of the Allowable Revenue determination process.

5 Assessment of Forward Looking Costs

5.1 Summary of Application

System Management's application, received 30 November 2006, outlined the forecast expenditure for the period 2007/08 – 2009/10, for which System Management seeks to recover revenue. System Management proposed the following Allowable Revenue Structure relating to system operating services. The Allowable Revenue and costs relating to System Management's application, listed in the following sections, refer to nominal values.

Amount	2007/08	2008/09	2009/10
Allowable Revenue	$5,292,000	$5,711,000	$5,112,000

Pursuant to clause 2.23.12(a) of the Market Rules, the Allowable Revenue must be sufficient to cover the forward looking costs of providing market functions, as discussed in section 3 of this report.

In support of the Allowable Revenue desired, System Management supplied a proposed expenditure statement for the period, as detailed in the table below.

Expenditure	2007/08	2008/09	2009/10
Labour costs	$2,890,000	$3,063,000	$3,247,000
Functional costs	$350,000	$300,000	$320,000
Legal costs	$300,000	$330,000	$363,000
Self-insurance costs	$500,000	$500,000	$500,000
IT costs	$1,252,000	$1,518,000	$682,000
Total Expenditure	**$5,292,000**	**$5,711,000**	**$5,112,000**

An assessment of the appropriateness of forward looking costs are discussed and detailed below.

5.2 Services and Functions

Clause 2.23.12(a) of the Market Rules states that Allowable Revenue must be sufficient to cover the forward looking costs of services described in clause 2.23.1.

The following table illustrates the relationship between the services (clause 2.23.1) and functions (clauses 2.2.1 and 2.2.2) provided by System Management.

Market Rules Reference	Services	Market Rules Reference	Functions
2.23.1(a)	System Operation Services	2.2.1	Operate the SWIS in a secure and reliable manner.
		2.2.2(b)	Assist the IMO in the processing of applications for participation and for the registration, deregistration and transfer of facilities.
		2.2.2(c)	Develop Market Procedures, and amendments/replacements, where required by the Market Rules.
		2.2.2(d)	Release information as required under the Market Rules.
		2.2.2(e)	Monitor Rule Participants' compliance with the Market Rules relating to dispatch and Power System Security and Power System Reliability.
		2.2.2(f)	Carry out any other functions/responsibilities conferred, and perform any obligations imposed, on it under the Market Rules.
2.23.1(b)	Ancillary Services	2.2.2(a)	Procure adequate Ancillary Services where the Electricity Generation Corporation cannot meet the Ancillary Service Requirements.

Consistent with the Market Rules, System Management has separately identified in its application the costs pertaining to the performance of the aforementioned services.

As stated in its application and confirmed in consultation with System Management, the services described in the Market Rules comprise only part of System Management's activities. System Management performs market functions as obligated under the Market Rules and in addition performs network functions, as a part of Western Power.

System Management's application states that it is staffed by approximately 156 FTEs. However, the application states that just 19.1 FTEs are required to perform System Management's functions under the Market Rules.

System Management has stated that the costs submitted relate specifically to market functions as opposed to network functions, which are recovered by other means. As further verification, System Management provided a breakdown of FTEs and recurrent costs confirming the proportion of costs relating to market functions.

Accordingly, analysis of System Management's operational structure has determined that System Management has shown reasonable evidence of the separation of costs relating to the performance of its functions under the Market Rules, and that the costs included in its Allowable Revenue application pertain only to its market related functions.

5.3 Recurrent Costs

Clause 2.23.12(a)(i) of the Market Rules requires that any recurring expenditure requirements are to be recovered in the year of the expenditure. This means that all expenses are to be matched to the revenue for the period.

System Management's application sets out the total costs of providing the services required under the Market Rules for each year of the Review Period, as shown in section 5.1. It is these costs for which System Management seeks to obtain matching Allowable Revenue.

Hence, Stamfords is of the opinion that System Management's application is consistent with cause 2.23.12(a)(i).

Individual recurrent cost items were examined in detail to ensure expenses are recorded in the appropriate period. This analysis is detailed throughout the remainder of this report.

5.4 Capital Expenditure

Clause 2.23.12(a)(ii) of the Market Rules states that capital expenditures are to be recovered through depreciation and amortisation, consistent with generally accepted accounting principles.

The Market Rules provide no definition of "generally accepted accounting principles". The determination has relied upon the pronouncements and standards of the Australian Accounting Standards Board ("AASB") as prescribed by section 334 of the *Corporations Act 2001 (Cth)* as the relevant accepted accounting principles applicable to the determination.

Specifically, the following relevant Australian Equivalent International Reporting Standards have been utilised for the purposes of assessing the appropriateness of the depreciation and amortisation of assets claimed:

- AASB 116: Property, Plant and Equipment;
- AASB 136: Impairment of Assets; and
- AASB 138: Intangible Assets.

As evidenced in the expenditure statement summarised in section 5.1, System Management is seeking Allowable Revenue for the following amounts of depreciation.

Expenditure	2007/08	2008/09	2009/10
Depreciation (IT costs)	$152,000	$408,000	$562,000

An assessment of the depreciation claimed has identified that the depreciation largely relates to IT systems development costs. System Management's 'Phase 1 capital recovery' cost item is addressed separately in the following section under 'Market Establishment Costs'.

System Management's IT program of works is summarised in the table below.

Expenditure	2007/08	2008/09	2009/10
NOIW	$465,000	-	-
PASA Upgrade	$95,000	-	-
ELB Finalisation	$100,000	-	-
Dispatch Planning Modelling Tool	-	$270,000	-
Market Rule / System Changes	$100,000	$250,000	-
Contingencies	-	-	$250,000
Total Costs	**$760,000**	**$520,000**	**$250,000**

System Management state's that all such costs have been calculated in accordance with the Western Power IT&T estimation process and using the published Western Power IT&T resource rates.

Based on the information contained in System Management's application, Stamfords has reviewed the above program of works and considers them to be reasonable in relation to the services and functions System Management is required to perform under the Market Rules.

The systems are understood to be developed and not purchased as external software.

The recognition of the systems development costs as an asset (intangible asset) is consistent with AASB 138. As it is likely that future economic benefits will flow to the organisation via Allowable Revenue, and that the cost of the asset can be measured reliably due to the historic cost accounting, Stamfords is of the view that the assets have been appropriately recognised for Allowable Revenue purposes.

As such, System Management has proposed to depreciate the capitalised cost of applications development. System Management has made an assessment that the systems development costs have a finite life, and thus the capitalised development costs should be amortised over the useful life of the asset recognised. The assessment of the useful life and method of amortisation is prescribed in the relevant standard as an accounting policy decision for System Management.

Stamfords has assessed that the generally accepted accounting principles have been applied, however, the assessment is not reviewing the appropriateness of accounting policy decisions within the relevant standards prescribed. Notwithstanding this, System Management has sought depreciation (correctly classified as amortisation) based on a useful life of applications development cost of 2.5 years. System Management states that this is consistent with Western Power's software capitalisation and depreciation policy.

Whilst Stamfords does not believe that such a policy decision is within the scope of the determination, System Management should consider the appropriateness of the useful life estimation based on the pronouncements in the relevant standards and the expectations for future systems needs.

Stamfords considers the depreciation as detailed in the table above, to be allowable in accordance with clause 2.23.12(a)(ii).

5.5 Market Establishment Costs

Clause 2.23.12(a)(iii) states that costs related to market establishment, as designated by the Minister, are to be recovered over a period determined by the Minister.

System Management's application states that it incurred costs of $2.5 million related to market establishment ('Phase 1 capital recovery'). System Management's proposed recovery of these establishment costs, as contained in its application, are set out in the table below.

Expenditure	2007/08	2008/09	2009/10
Phase 1 Capital Recovery (Proposed Recovery)	$1,000,000	$1,000,000	-

In approving System Management's 2006/07 budget, the Minister for Energy, consistent with clause 2.23.12(a)(iii), approved the $2.5 million Phase 1 costs as costs related to market establishment and determined that they be recovered over a period of five years.

Notwithstanding the determination by the Minister pursuant to clause 2.23.12(a)(iii), System Management now seeks to recover such costs over a 2.5 year period. System Management's application holds that this is consistent with clause 2.23.12(a)(ii), which states that capital expenditure is to be recovered through depreciation and amortisation in a manner consistent with generally accepted accounting principles.

The application of clause 2.23.12(a)(ii) has been discussed in the previous section of this report. However, Stamfords is of the opinion that System Management is not permitted to recover the $2.5 million in market establishment costs under clause 2.23.12(a)(ii). Pursuant to clause 2.23.12(a)(iii), such costs have been designated as market establishment costs by the Minister, who has also determined that such costs are to be recovered over a 5 year period. The Market Rules do not make provision for System Management to reclassify such costs under clause 2.23.12(a)(ii).

Hence, the recoverable portion of the $2.5 million market establishment costs during the Review Period is set out in the following table.

Expenditure	2007/08	2008/09	2009/10
Phase 1 Capital Recovery (Allowable Revenue)	$500,000	$500,000	$500,000

5.6 Declared Market Project

A Declared Market Project is a project that has been approved by the Authority and satisfies clause 2.22.13. Expenditure incurred and depreciation and amortisation charged in relation to a Declared Market Project can be recovered in System Management's allowable revenue under clause 2.23.12(a)(iv) of the Market Rules.

Stamfords is not aware of any Declared Market Projects relating to System Management in this regard.

6 Analysis of Cost Structure

Stamfords has conducted a detailed analysis of the proposed expenditure for the Review Period, as set out in section 5.1.

Submitted costs have been analysed in accordance with clause 2.23.12(b) of the Market Rules, to ensure that the Allowable Revenue reflects the prudent provision of services, in an efficient manner with the lowest practicably sustainable cost.

6.1 Employee Expenses

System Management's application provides for the following employee related expenses over the period. The following table sets out the forecast employee costs (including on-costs) and corresponding FTEs across the Review Period.

Expenditure	2007/08	2008/09	2009/10
Employee Costs	xx	xx	xx
Forecasted FTEs	xx	xx	xx
Average Cost per FTE	**xx**	**xx**	**xx**

Dollar figures subject to confidentiality

As shown in the table above, nil growth in the number of FTEs is forecast over the Review Period. The forecast average cost per FTE, as shown above, is $151,000 in 2007/08.

Stamfords conducted benchmarking analysis with respect to the appropriateness of employment costs per FTE. This analysis included an assessment of employment costs for relevant industries, including engineering, information and communications technology, and other professional services.

The analysis demonstrated that the forecast employment expenses are within the mid to high range present in the marketplace. This appears inconsistent with the requirements in the Market Rules (clause 2.23.12(b)) that cost structures be within the lowest practicably sustainable costs delivering the services.

Notwithstanding this, the determination has noted that the establishment of System Management's workforce was required and System Management sought to employ highly specialised personnel. This is compounded by the availability of such personnel in the Western Australian market.

Stamfords is of the opinion that, whilst such costs are currently allowable, future determinations will examine this area closely to ensure that System Management's workforce remuneration structure is consistently aligned with the requirements of the Allowable Revenue framework.

Labour costs were escalated at a rate of 6% per annum for the period 2007/08 to 2009/10. This correlates to the Labour Price Index[1] for the electricity, water and gas industry. This figure provides sufficient substantiation of the reasonableness in the escalation rate of 6%.

As shown in the table above, System Management has forecasted that 19.1 FTEs will be required to perform the services set out in clause 2.23.1 of the Market Rules. System Management has provided information detailing the number and job description of such FTEs.

System Management's application reasonably defines each labour category's roles and responsibilities in providing the services required as defined in clause 2.23.1 of the Market Rules.

On-costs of 30% have been calculated, consistent with the relevant accounting standards (AASB 1028 and 119).

Such on-costs include superannuation, compensated absences, payroll tax, and workers compensation. A review of benchmark employment costs provides an indication that the proposed on-cost rate is reasonable.

Stamfords concludes the employee costs proposed by System Management appear reasonable given the information provided.

6.2 Functional Costs

System Management's submitted total functional costs are shown in the following table.

Expenditure	2007/08	2008/09	2009/10
Total Functional costs	**$350,000**	**$300,000**	**$320,000**

In comparison to actual costs for the five month period ended February 2007, forecast functional costs across the Review Period appear reasonable. The increased costs in 2007/08, attributable to the commencement of the Market and considering the specialty consultancy services required, are acceptable.

[1] ABS Cat No. 6345.0 Labour Price Index December 2006

6.3 Uncertain Cost Estimates

System Management has made provision within a number of its expenditure statement line items for items that are estimated expenditure.

The provision for such expenditure items is a valid management decision and provides for the development of the organisation to provide its market functions.

If actual expenditure on these items does not equal to the amount forecast, or they do not recur, an impact on Allowable Revenue should be evidenced.

Clause 2.23.7 of the Market Rules states that any underspending from Allowable Revenue will be carried over to the following year. Correspondingly, the IMO has the obligation to advise the Minister to approve the relevant budget for the System Management in accordance with clause 2.23.9.

Therefore, Stamfords is of the opinion that the Authority recommends that, in the Minister's approval of the relevant System Management budgets, an assessment be made of the utilisation of the estimated amounts for items such as self-insurance and legal costs. If, in the approval process for the 2008/09 and 2009/10 budgets, the analysis determines that the estimated amounts are not being fully utilised, the Authority should recommend that the total budget be reduced by the estimated amounts not utilised, and the Allowable Revenue be adjusted accordingly in accordance with clause 2.23.7.

This recommendation is due to the newness of the operating environment created by the Market commencing operation on 21 September 2006 and the lack of historic information being present to enable historic performance to be recognised. Future determinations will have the benefit of historic financial performance to utilise in the assessment process.

6.4 Legal Costs

System Management has forecast legal costs for 2007/08 at $300,000 and annual growth of 10% over the review period.

Legal costs for the five month period ended February 2007 totalled $72,100 and a further $13,200 is committed as at the date of provision of such information by System Management. While such costs are substantially lower than the submitted forecasts, it is reasonable to expect legal costs to increase sharply with time following the commencement of the Market.

Given the recent commencement and the nature of the Market, it is reasonable to expect adequate provision be made for legal costs. Accordingly, the forecast legal costs and annual escalation included in System Management's application are assessed to be consistent with good industry practice.

6.5 IT Costs

IT costs predominantly comprise capital costs, which is recovered through the depreciation and amortisation allowance.

Actual annualised IT expenditure in 2006/07 totalled $76,811. Accordingly, the forecast IT related operating expenditure of $100,000 in 2007/08, listed in System Management's application, appears reasonable.

6.6 Self-Insurance Costs

System Management is subject to a prescribed maximum penalty as defined in Regulation 52(2) of the *Electricity Industry (Wholesale Electricity Market Regulations) 2004*. The prescribed maximum is capped at $100,000 per instance and $10 million for every 12 month period.

System Management has taken the management decision to self insure the exposure on the basis of being able to meet five claims per annum or $500,000. This is the amount proposed in the Allowable Revenue application.

Stamfords views the selection of the amount as an arbitrary figure and recommends that System Management engage consultants to conduct an actuarial review of the potential loss and then consider the appropriateness of self-insurance versus third party insurance.

Following the conduct of the review of the potential liability, the Minister in approving System Management's budget, should review the outcome and insurance strategy. This should then be reflected in the amendment to the already determined Allowable Revenue amount in accordance with clause 2.23.7 for the following year.

Thus, at this stage, no amendment is recommended to be made to the Allowable Revenue for self-insurance. However, it is advised that the Authority recommend to the IMO to advise the Minister to review System Management's budget, in regard to self-insurance costs, following the completion of the analysis.

7 Benchmarking

Under clause 2.23.12(c) the Authority is required to benchmark System Management's Allowable Revenue, where possible, against the costs of providing similar services in other jurisdictions.

The benchmarking process involved identifying entities that exist in other jurisdictions performing similar services to System Management, as identified in clause 2.23.1 of the Market Rules.

The Market currently has a capacity of 16TWh and System Management at present employs 19.1 FTEs

Stamfords identified a number of Independent System Operators that performed functions similar to that of System Management. It is noted that most of the Independent System Operators identified perform both market operation functions and network operation functions. Three system operators were found to perform similar functions to System Management and are discussed below.

7.1 National Electricity Market Management Company

The National Electricity Market Management Company ("NEMMCO") is both the market operator of the National Electricity Market ("NEM") and operator of the power system that underpins NEM operation, within Australia.

The National Electricity Law defines the responsibilities of NEMMCO in fulfilling these roles, and statutory National Electricity Rules set down the regulatory and prudential framework within which the NEM must be operated.

NEMMCO is regulated by the Australian Energy Regulator and the Australian Energy Market Commission is the rule maker for the NEM.

NEMMCO's 2005/06 Annual Report stated that current market capacity is approximately 180TWh. NEMMCO operates a real-time market with a dispatch price issued every 5 minutes.

NEMMCO had 245 FTEs over the 2005/06 period and is expected to maintain this level over the 2006/07 year (2006/07 Statement of Corporate Intent). Forecast operating expenses are expected to be $59.51 million for 2006/07.

The expected fee charged (equivalent to the expected cost for the period is $0.35/MWh for 2006/07 increasing from $0.34/MWh in 2005/06.

Escalating NEMMCO's cost per MWh at a rate equivalent to CPI (4%) gives the forecast 2007/08 cost of $0.36/MWh.

7.2 Power System Operator

The Power System Operator ("PSO"), a division of the Economic Market Authority in Singapore, is responsible for ensuring the reliable supply of electricity to consumers and the secure operation of the power system.

The PSO controls the dispatch of generation facilities, co-ordinates outages and power system emergency planning and directs the operation of the high-voltage transmission system.

The PSO has an approved budget for 2007/08 of S$14.4 million (A$11 million). The PSO's administrative fee for the wholesale electricity market is forecast at S$0.188/MWh (A$0.144/MWh) based on an estimated energy trade of 75.6TWh.

7.3 Independent Electricity System Operator

Established through the Electricity Act of Ontario to operate the wholesale electricity market, the Independent Electricity System Operator ("IESO") also operates and maintains the reliability of the IESO-controlled grid, within Canada. The IESO oversees the development of the rules that govern the market and support the participants in their interactions in the market.

The IESO incorporates market operation and system operator roles. The IESO is responsible for the short term forecasts and assessments of electricity supply and demand, and operates a hybrid market that is regulated by the Ontario Electricity Board ("OEB"). The Ontario Power Authority is responsible for the medium and long term planning and ensuring an adequate supply of electricity in Ontario

The IESO is expected to maintain a market capacity of 163.3TWh in 2007. The IESO operates a real-time energy market and operating reserves market (incorporating 10 minute spinning reserve, 10 minute non-spinning reserve and 30 minute non-spinning reserve market). The IESO also operates the capacity reserve market and the energy forward market.

The IESO currently has 244 FTEs which is expected to remain stable over the next two years. Operating expenses are expected to be approximately C$140 million (A$143 million).

IESO's forecast cost per MWh is C$0.86 (A$0.88). The IESO's 2007-2009 Business Plan proposed a usage fee of C$0.82/MWh in 2007 (A$0.84/MWh).

Through the benchmarking process it is evident that no other market is identical to the WA Market. It is therefore extremely difficult to draw accurate comparisons between the Market and other jurisdictions. However, such benchmarking provides an understanding of the comparable services offered in other jurisdictions and a high level rough measure as to the efficiency of the services provided by System Management under the Market Rules.

7.4 Benchmarking Results

The table below shows the comparison of costs per MWh for each of the identified benchmarks and System Management for the 2007/08 financial year.

Item	System Management	NEMMCO	PSO	IESO
Market Capacity	16TWh	180TWh	76.6TWh	163.3TWh
FTEs	19	245	-	244
FTEs per TWh	1.19	1.44	-	1.49
Cost per MWh	$0.17	$0.36	$0.14	$0.88

Stamfords recognises the inherent deficiencies in benchmarking entities in other jurisdictions. These primarily are:

- the services provided by the market operators differ across jurisdictions;
- the larger markets are able to create efficiencies through economies of scale; and
- the IESO and NEMMCO cost per MWh and FTE per TWh include system operation services, which are covered by System Management.

In the cost per MWh comparison across entities, System Management's costs appear reasonable. The PSO and System Management have been identified as having close operational similarities and the cost per MWh provides some measure of support for this.

It is evident from the benchmarking process that System Management is comparable to entities providing similar services in other jurisdictions. While there are risks associated with the benchmarking process, Stamfords is able to draw an overarching comparison between System Management and entities in other jurisdictions.

The benchmarking process provides sufficient confirmation that System Management's Allowable Revenue is consistent with clause 2.23.12(b) of the Market Rules, the performance of its required services and functions in an efficient manner, seeking to provide the lowest practicable cost of service delivery.

8 Proposed Amendments and Recommendations

Stamford's assessment of System Management's Allowable Revenue application included the following recommendations and proposed amendments to Allowable Revenue which are summarised below. Such advice is provided to the Authority in order to assist in their determination of System Management's Allowable Revenue for the Review Period, in accordance with Market Rules requirements.

8.1 Market Establishment Recovery

Clause 2.23.12(a)(iii) of the Market Rules states that costs related to market establishment, as designated by the Minister, are to be recovered over a period determined by the Minister. In approving System Management's 2006/07 budget, the Minister for Energy, consistent with clause 2.23.12(a)(iii), approved the $2.5 million Phase 1 costs as costs related to market establishment and determined that they be recovered over a period of five years.

Notwithstanding the determination by the Minister pursuant to clause 2.23.12(a)(iii), System Management now seeks to recover such costs over a 2.5 year period in accordance with clause 2.23.12(a)(ii), which states that capital expenditure is to be recovered through depreciation and amortisation in a manner consistent with generally accepted accounting principles.

Therefore, Stamfords recommends that:

- System Management is not permitted to recover the $2.5 million in market establishment costs under clause 2.23.12(a)(ii).
- Pursuant to clause 2.23.12(a)(iii), such costs have been designated as market establishment costs by the Minister, who has also determined that such costs are to be recovered over a 5 year period.
- The Market Rules do not make provision for System Management to reclassify such costs under clause 2.23.12(a)(ii), nor for the Authority to review or amend previous decisions of the Minister.

8.2 Self-Insurance Costs

System Management provided in its application for Allowable Revenue a provision for self-insurance of $500,000 per annum.

System Management is subject to a prescribed maximum penalty as defined in Regulation 52(2) of the *Electricity Industry (Wholesale Electricity Market Regulations) 2004*. The prescribed maximum is capped at $100,000 per instance and $10 million for every 12 month period.

Stamfords views the selection of an amount as an arbitrary figure and recommends that System Management engage consultants to conduct an actuarial review of the potential loss and then consider the appropriateness of self-insurance versus third party insurance.

Therefore, Stamfords recommends that:

- Following the conduct of the review of the potential liability, the Minister in approving System Management's budget, should review the outcome and insurance strategy.
- This should then be reflected in the amendment to the already determined Allowable Revenue amount in accordance with clause 2.23.7 for the following year.
- Thus, at this stage, the Authority should recommend to the Minister to review System Management's budget following the completion of the analysis.

8.3 Uncertain Cost Estimates

Estimates have been made for certain costs that are not readily forecastable, as discussed in section 6.3.

Clause 2.23.7 of the Market Rules states that any underspending from Allowable Revenue will be carried over to the following year. Correspondingly, the IMO has the obligation to advise the Minister to approve the relevant budget in accordance with clause 2.23.9.

Therefore, Stamfords recommends that:

- The Authority recommend to the Minister that, in the Minister's approval of the relevant System Management budgets, an assessment be made of the utilisation of the estimated amounts.
- If, in the approval process for the 2008/09 and 2009/10 budgets, the analysis determines that the estimated amounts are not being fully utilised, the Authority should recommend to the IMO and the Minister that the total budget be reduced by the estimated amounts not utilised, and the Allowable Revenue be adjusted accordingly in accordance with clause 2.23.7.