Independent Market Operator

ERA Submission Proposal for Allowable Revenue 1 July 2007 to 30 June 2010

November 2006

TABLE OF CONTENTS

EXI	ECUTIVE SUMMARY	
1.	INTRODUCTION	2
2.	BACKGROUND	4
3.	IMO BUDGET BACKGROUND AND OVERVIEW	
4.	OPERATING BUDGET 2007/08 – 2009/10	8
5.	BENCHMARKING COSTS	13
APF	PENDIX 1 – Operational Plan 2006	15
APF	PENDIX 2 – Market Fees for 2006/07	16

Independent Market Operator

ABN 95 221 850 093

Level 22, The Forrest Centre 221 St George's Terrace, Perth WA 6000

PO Box 7096, Cloisters Square, Perth WA 6850

Tel. (08) 9254 4300 Fax. (08) 9254 4399

Email: imo@imowa.com.au Website: www.imowa.com.a

EXECUTIVE SUMMARY

In accordance with the Wholesale Electricity Market Rules, the IMO must seek approval of its Allowable Revenue from the ERA.

The purpose of this submission is to seek approval of the IMO's Allowable Revenue for the Review Period, 1 July 2007 to 30 June 2010.

This is the first time the IMO has been required to seek approval of its Allowable Revenue from the ERA. Prior to this the Minister for Energy has determined the IMO Budget.

The IMO is seeking Allowable Revenue in 2007/08 of \$10.351 million; in 2008/09 the request is for \$10.542 million and in 2009/10, \$10.209 million.

The IMO's request for Allowable Revenue declines over the period in nominal terms and declines each year in real terms. The IMO Market Fee estimate declines even more sharply, based on current electricity demand forecasts.

Expenditure (\$909's)	2007/03	2007/09	2002/40
Market Operations	6,445	6,405	5,727
Market Administration	2,992	3,012	3,211
System Planning	913	1,125	1,271
Allowable Revenue	10,351	10,542	10,209
IMO Market Fee Estimate (\$/MWh)	0.329	0.312	0.291

The IMO will continue to strive to be a prudent provider of services, operating efficiently and seeking to achieve the lowest practicably sustainable costs of delivery, in accordance with the Market Rules whilst effectively promoting the wholesale market objectives.

1. INTRODUCTION

In accordance with clause 2.22.3 of the *Wholesale Electricity Market Rules*, the Independent Market Operator (IMO) must seek approval of its Allowable Revenue from the Economic Regulation Authority (ERA) for the Review Period, for each of the services listed in clause 2.22.1.

The purpose of this submission is to provide relevant information to the ERA for it to assess and approve the IMO's Allowable Revenue for the Review Period, 1 July 2007 to 30 June 2010, by 31 March 2007.

This is the first IMO Operating Budget to be presented to the ERA for approval and input into the calculation of Market Fees.

The Electricity Industry Act sets out the objectives of the Wholesale Electricity Market:

- To promote the economically efficient, safe and reliable production and supply of electricity and related services in the SWIS.
- To encourage competition between generators and retailers in the SWIS, including through 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.
- To encourage the taking of measures to manage the amount of electricity used and when it is used.

In terms of the IMO's Allowable Revenue, the pertinent market objectives are the need to minimise the long-term cost of electricity supplied to customers from the South West Interconnected System and to promote economically efficient production and supply of electricity and related services.

The IMO has developed strategic objectives to facilitate the achievements of the market objectives. The IMO strategic objectives are:

Operational Effectiveness and Efficiency

- Market Systems and processes have strong integrity and operate effectively and efficiently.
- Generation and demand side management capacity is sufficient to meet demand.

Market Development

Evolution of the market is appropriate and is managed effectively.

Customer and Stakeholder Satisfaction

The IMO is recognised as effectively managing relations and communications in support of the Market.

Financial Responsibility

Market costs are minimised and funds are used effectively.

As a consequence, the IMO strives to be a prudent provider of services, operating efficiently and seeking to achieve the lowest practicable sustainable costs of service delivery, in accordance with the Market Rules while effectively promoting the wholesale market objectives.

2. BACKGROUND

The Wholesale Electricity Market Rules state that the IMO will publish a Market Fee rate that will generate revenue equal to the Allowable Revenue required to perform the stipulated market functions. This calculation will need to take into account the predicted generation and consumption of electricity by Market Participants.

The IMO is required to charge a Market Fee in accordance with clause 2.24 of the Market Rules to recover costs of:

- IMO functions;
- System Management's system operation functions; and
- The Economic Regulation Authority's (ERA) wholesale market related functions.

The IMO's Allowable Revenue is defined as the revenue that may be recovered through fees to meet the costs of providing IMO's services to the market. Normally, the fee rate is to be set at a level that the IMO estimates will earn revenue equal to the relevant Allowable Revenue determined by ERA.

In addition to the Market Fees, the IMO is able to set application fees for registration of Participants and facilities.

In June 2006, the Minister for Energy approved the IMO's budget for 2006/07 as part of the IMO's Operational Plan (2006) (see Appendix 1). Net expenditure of \$8.679 million was approved for 2006/07.

In August 2006, the Market Fee was established at the rate of \$0.413 per MVVh for 2006/07 to meet IMO, System Management and ERA Revenue Requirements. This included the recovery of expenditure of \$7.336 million by the IMO. The Minister for Energy had approved IMO expenditure of \$8.679 million in 2006/07 but this was discounted for fee recovery purposes to reflect the commencement of trading of wholesale electricity in the Short Term Electricity Market (STEM) at the end of September rather than July. (Appendix 2 provides further detail).

Leading up to the start of the market, the IMO's focus was on developing and implementing the Wholesale Electricity Market system needed to operate the market, as well as the establishment of the IMO as an entity, including the recruitment of staff and the development of corporate systems, policies and procedures.

Some aspects of the Market Rules commenced prior to the start of electricity trading in September 2006. System capacity components of the rules commenced in January 2005, for the first Reserve Capacity Cycle (October 2007 to October 2008). This included:

- Conducting long term generation planning;
- Registration of Market Participants and related facilities; and
- Operating the Reserve Capacity Mechanism.

Since the commencement of trading of energy in the Wholesale Electricity Market in September 2006, the IMO has undertaken activity specifically relating to Market Operations and Market Administration including:

- Collecting bilateral contract submissions;
- Operating the Short Term Electricity Market;
- Conducting Market Settlement, weekly and monthly; and
- Monitoring compliance with Market Rules.

It is anticipated that in late 2006 the IMO will take over responsibility for:

- Maintaining and developing the Market Rules; and
- Considering and evaluating changes proposed to Market Rules.

It is the financial impact of all of these activities, which are essential to the operation of the Wholesale Electricity Market that is captured in the IMO's Operating Budget for the years 2007/08 to 2009/10 contained in this submission.

3. IMO BUDGET BACKGROUND AND OVERVIEW

3.1 Budget History

The IMO's expenses for 2005/06 were \$2.636 million and \$0.687 million in 2004/05 (7 months). It is expected that expenditure in 2006/07 will be around \$8.694 million.

This build up in expenditure reflects the establishment of the IMO and subsequent development and commencement of various aspects of the Wholesale Electricity Market.

As noted above, initial functions were largely related to the Reserve Capacity process with the final component of the market, electricity trading in the STEM and balancing market, commencing in September 2006

During 2004/05 and 2005/06, the IMO received funding from government with the expectation that the IMO would become self-funding from Market Fees upon commencement of trading in the market.

However, costs associated with the development and implementation of the requisite market IT systems that underpin and operate the Wholesale Electricity Market including system development, testing, market trials and independent certification of the system were to be recovered over time from Participants (consistent with the principle of recovering market costs from Market Participants).

As a consequence, these costs and associated borrowing costs were capitalised until the commencement of the market from which time depreciation and interest charges were expensed.

The first "full year" operation of the IMO will be in 2007/08.

3.2 Budget Forecasts

These are early days in the establishment and development of the Wholesale Electricity Market, which brings a certain inevitable element of uncertainty into forecasts of expenditure over the next three years. As experience with market operations is developed, it is anticipated that the IMO's budgeting competency and systems will become more refined.

At this point, some aspects of the IMO's budget are difficult to forecast due to unknown factors. In particular, the number and complexity of compliance investigations as well as, disputes and appeals regarding operational and settlement matters are uncertain. Similarly, the extent of Participants' desire for Market Rule changes, particularly those which will have a significant impact on IT system costs, is a variable which will influence the IMO's Operating Budget over the next three years.

Accordingly, some cost forecasts contained within this submission are "best estimates" based on initial experience in the National Electricity Market and the IMO's expectations, given its experience over the last 12-18 months.

However, other costs such as Employee Benefits Expenses, Accommodation and many daily Supplies and Services costs are relatively known and straightforward to forecast, based on the IMO's current experience and expectations.

Regardless of budget forecasts, IMO expenditure will always be undertaken on a prudent basis to enable it to achieve its strategic objective of financial responsibility.

It is also noted that IMO's expenditure in excess or less than Allowable Revenue, as determined by the ERA, will in general have a consequent and corresponding impact on the following year's budgeted revenue. That is, return or recovery of excess or under recovery of expenditure respectively, to Market Participants in the subsequent year.

4. OPERATING BUDGET 2007/08 - 2009/10

4.1 Budget Structure

The IMO cost structure and budget forecasts reflect that it is essentially a small professionally staffed organisation and is predominately an information and communication technology driven organisation. It is also strongly reliant on the outsourcing of specialist services such as IT support services, legal, economic, accounting, energy and engineering professional services, to ensure highest quality input at an efficient cost.

The IMO's cost structure is roughly one-third Employee Expenses and Accommodation, one-third Supplies and Services (including contract services) and one-third capital costs (Depreciation and Borrowings).

Expenditure in this submission has been broken down into cost categories, consistent with the standard format required by the Auditor General for the IMO's Financial Statements.

Employee Benefits Expenses include salaries, superannuation and other on-costs. Supplies and Services is a broad cost category, including corporate services such as accounting, human resources, records management, supplies, insurance, travel and training as well as consultant expenditure (legal, accounting, engineering, economic energy etc) and outsourced IT costs to undertake the services provided by the IMO. Depreciation, Borrowing and Accommodation costs are largely self-explanatory.

Interest revenue is interest received on the IMO's own account. Interest on Participants security deposits is not included as receipts given that they are equally offset by payments to Participants.

Expenditure (\$1000)	2005007	2007/08	ezonimi Server	Z0109/40
Employee Benefits Expense	2,842	3,133	3,370	3,505
Supplies and Services	3,084	3,589	3,470	3,661
Depreciation	2,101	2,924	3,124	2,559
Accommodation	261	265	273	282
Borrowing Costs	405	455	321	220
Total Expenditure	8,693	10,366	10,558	10,227
Total Expend less Depreciation (Real)	na	7,442	7,217	7,226
Interest Revenue	(15)	(16)	(16)	(18)
ALLOWABLE REVENUE	8,678	10,351	10,542	10,209
ALLOWABLE REVENUE (Real)	na	10,351	10,235	9,622
IMO Market Fees Est (\$/MWh)	0.307	0.329	0.312	0.291

4.2 Aggregate Budget Outlook

The table shown on the previous page summarises the IMO's forecast expenditure and Allowable Revenue for the financial years 2007/08 to 2009/10, and the budget for 2006/07.

Across the review period (2007/08 to 2009/10), Total Expenditure and Allowable Revenue falls slightly. Allowable Revenue declines in real terms each year of the review period. Total Expenditure less Depreciation, also declines in real terms over the period.

Expenditure increases in 2007/08 in comparison to 2006/07, by around \$1.673 million largely due inclusion of full year Depreciation and Employee Costs and a rise in the cost of Supplies and Services in the 2007/08 cost base.

The main driver of the rise in the cost of Supplies and Services is increased IT support costs and consultancy costs in 2007/08.

Many expenses have been maintained in real terms (CPI assumed to be 3%). Other items such as Supplies and Services, Accommodation and Depreciation and Borrowing costs have been adjusted for known or likely future cost impacts over the review period.

These estimates of Allowable Revenue result in Market Fees falling in nominal and real terms over the three-year review period, with the decline accelerated by the expected growth in electricity generation and consumption over the next few years (see table above).

If the wholesale price of electricity is assumed to be in the order of \$60 - \$80 per MWh then IMO market fees add around one half of one percent to the price of energy.

The Market Rules require that the IMO's Allowable Revenue requirement be broken down as follows:

Expenditure (\$'000)	20157/1015	2.0(8)3/(0)3/	
Market Operations	6,445	6,405	5,727
System Planning	2,992	3,012	3,211
Market Administration	913	1,125	1,271
ALLOWABLE REVENUE	10,351	10,542	10,209

Most costs are directly attributable to one of these three service areas. Where costs are not directly attributable (e.g. some corporate costs) they have been allocated on the basis of suitable indicator (usually employee numbers).

The following provides more insight into the nature and trends in the IMO's main expenditure items.

4.3 Employee Benefits Expense

An independent Board of three Directors appointed by and responsible to the Minister for Energy governs the IMO. The Minister determines Board remuneration. The IMO anticipates that it will continue to be a small professional organisation and in 2007/08 has budgeted for 18 staff members.

Around 50% of IMO staff have been recruited from the electricity sector, 25% from the private sector more generally and 25% from the public sector. It has been difficult to recruit staff in such a tight labour market in Western Australia, particularly given our requirement for very strong analytical and conceptual skills.

Compared to the IMO Operational Plan (2006), two additional staff members have been budgeted for over the review period; as a consequence, Employee Expenses are marginally higher.

Given the vital role of skilled and professional staff to the effective and efficient operation of the IMO, it has had to offer competitive salaries and will need to continue to do so, to retain staff. Employee costs are anticipated to generally increase by 4% per annum over the next few years.

4.4 Supplies and Services

As indicated above, the Supplies and Services expenditure category includes a wide range of cost items.

Supplies and Services (\$1000)	2007/035	2007/00	2416124612	2009/40
Corporate	690	662	679	719
IT Support	77	688	683	704
Market Operations Services*	550	820	721	621
Market Administration Services*	775	1,120	1,131	1,252
System Capacity Services*	139	299	256	365
Total	2,231	3,589	3,470	3,661

^{*} includes legal, engineering, accounting, economics, energy and other consulting services

Supplies and Services costs in 2007/08 are expected to increase from the \$2.231 million expected in the IMO Operational Plan to \$3.589 million (a rise of \$1.358 million) and expenditure around this level is expected to continue in 2008/09 and 2009/10. It is also noted that expenditure on Supplies and Services in 2006/07 is expected to be \$3.084 million, in part reflecting some initial start up costs.

This increase in forecast Supplies and Services costs over the review period reflects the recent experience of the IMO particularly in regard to expected IT Support expenditure and consulting services required by Market Operations, Market Administration, Administration and System Capacity.

The IMO is an information and communications technology driven organisation. Experience particularly since market commencement has highlighted the consequences of this for the IMO's cost structure. The IMO's IT environment is relatively complex, primarily because the wholesale electricity market structure encompasses market registration, administration, operations and settlement in a high availability infrastructure environment.

As a consequence, a range of differing IT skill sets is required to support this technology base. The approach that has been taken by the IMO to resource IT needs is a combination of 'in-house staff' performing regular tasks and occasional project work whilst using contract staff with the requisite skills required for advanced

^{** 2007/08} estimates in Operational Plan (2006)

work. The IMO will initially rely heavily on outsourced resources to provide further time to gain the necessary experience to assess the reality of day-to-day operations.

A major factor underpinning the IMO's IT infrastructure support costs is the need for the IT Systems to be available 24 hours a day, 7days a week as well as address risk management issues.

As a consequence, IT Support costs have increased from the very low base expected in the IMO Operational Plan (2006) to \$688,000 in 2007/08.

A further area where the IMO's more recent experience has provided an insight to future costs, is in regard to consultancy services which will be required to assist with dispute management, contract negotiation, rule changes and rule compliance.

These legal, economic, energy and technical consultancy costs are embedded in the Service Cost of Market Operations, Market Administration and System Capacity, Services in the above table. The rise in cost of services to these three areas account for \$775,000 of the increase in the cost of Supplies and Services compared to that included in the IMO Operational Plan (2006).

4.5. Depreciation and Borrowing Costs

Market Rule 2.22.12 indicates that in addition to recurring expenditure requirements, capital expenditure is to be recovered through depreciation and amortisation of capital assets (consistent with general accepted accounting principles).

The Market IT systems and other capitalised costs associated with establishing the Wholesale Electricity Market are expected to have a value of around \$8.460 million at 30 June 2007, which will form the basis of the IMO's depreciation expense over the review period.

The IMO's accounting policy is to depreciate computer equipment as well as software over three to five years. Generally the IMO depreciates IT hardware and associated software that form an integral part of the hardware over three years reflecting the expected life expectancy of such assets.

In the future, the IMO's capital costs will largely be driven by IT hardware replacement and market IT system changes stemming from Market Rule changes.

It is difficult to accurately predict the need for capital expenditure associated with system changes. However, it is anticipated that over the next three years that system changes and IT hardware costs will initially be relatively modest. Plant and equipment costs are expected to have a cyclical trend (given the significant acquisition of computing hardware in 2005/06 and 2006/07 which will be replaced after three years).

In 2009/10, it is anticipated that substantial system development costs could be incurred if Market Participants seek more significant evolution of the market design (for example, establishment of a competitive balancing market). Such expenditure would need to be subject to a thorough cost benefit analysis prior to any decision to proceed. The IMO may also determine that a major project is Declared Market Project as described it the Market Rules 2.22.13.

Major systems development expenditure has therefore been included in 2009/10. This is likely to involve a rewrite of substantial elements of the Market Rules and redevelopment of Market Systems (eg settlement and dispatch components).

No allowance has been made for any costs associated with full retail contestability. It is understood Government has a legislated requirement to review the introduction of full retail contestability in 2009.

BENCHMARKING COSTS

Benchmarking of the IMO against similar organisations would provide an insight into the efficient costs of the IMO. However, it is difficult to make appropriate comparisons due to the differing nature of market designs (complexity) and size (economics of scale) across the world as well as differing organisational structures and governance arrangements (for instance, many countries have combined market and system management arrangements). Nevertheless, the IMO would welcome the opportunity to consider benchmark comparisons that the ERA considers applicable.

An obvious entity to benchmark the IMO against is NEMMCo.

NEMMCo has the dual roles of Market Operator and System Operator. It was established in May 1996 to implement, administer and operate the wholesale National Electricity Market and in 1997 also took on the role of managing the security of the power system.

By way of comparison, the IMO is the Market Operator and also has responsibility for changes to the Market Rules and market development (undertaken by the Australian Energy Market Commission at the national level). System Management, a component of Western Power, is the system operator in Western Australia. The IMO and ERA have a shared market surveillance role that is the responsibility nationally of the Energy Regulation Authority.

The size and complexity of the NEM differs substantially from the Western Australian wholesale market. Notably, the NEM is a gross pool market and the WA market is a net pool. The NEM trades around 170,000 GWh of energy per year. Demand in the South Western Interconnected System is around 16,000 GWh per year.

The NEMMCo Statement of Corporate Intent (2006) indicates that its budget (excluding FRC cost) for 2007/08 is \$64.50 million with Market Fees of \$0.35 MWh. NEMMCo's fees are levied on a different basis to that in Western Australia.

The IMO's budget in 2007/08 of around \$10.351 million is about 16% of NEMMCo's. Indicatively, the IMO's Market Fee is likely to be \$0.329 MWh. In addition to the IMO costs, System Management and ERA costs also need to be taken into consideration. Economies of scale are clearly an issue in a comparison between NEMMCo and IMO costs.

In terms of budget structure, the following shows a comparison of the IMO and NEMMCo costs (derived from 2006 SCI) at the aggregate component level.

¹ /A (2007/63)	NEMMos	HMC
Employee Cost	50	30
Supplies and Services	35	34
Accommodation	2	3
Depreciation	10	30
Borrowing	3	4
Total Expenditure	100	100

A standout feature of NEMMCo's budget is the high proportion of Employee costs (50%). In part this is a consequence of NEMMCo's 24 hour, 7 day a week Systems Operations function. The IMO has a significant percentage of its budget in depreciation costs, which probably reflects the IMO's capital base is closer to the "current cost" of the IMO market system compared to NEMMCo's depreciated historical cost base.

Unfortunately, this comparison with NEMMCo does not provide much insight to benchmarking the IMO's costs. As indicated earlier, the IMO would appreciate the opportunity to comment on benchmark costs that the ERA considers appropriate

By way of other comparisons it is noted that the market system currently being developed in New Zealand is reportedly costing around \$NZ 50 million. The cost of the IMO's market system provided by the appointed contractor was about \$7 million. It is also understood that initial estimates for Ireland's Market Operator operational costs are 15 to 20 million pounds per annum.

.

APPENDIX 1 - Operational Plan 2006

Independent Market Operator

Income Statement (\$'000's)	30-Jun-06	30-Jun-07	30-Jun-08	30-Jun-09	30-Jun-10
REVENUE					
Revenue from operating activities		8,679	8,309	8,460	7,897
User charges and fees					
Revenue from outside operating activities					
Government Grants	2,942				
Interest Revenue	29	15	15	15	15
Total revenues from ordinary activities	2,971	8,694	8,324	8,475	7,912
EXPENSES					
Expenses from ordinary activities					
Employee expenses	1,031	2,842	2,999	3,149	3,306
Supplies and services	1,649	3,084	2,231	2,140	1,824
Depreciation expenses	176	2,101	2,481	2,656	2,199
Accommodation expenses	372	261	269	278	292
Borrowing Costs	0	405	343	254	290
Total expenses from ordinary activities	3,229	8,694	8,324	8,475	7,912
NET PROFIT	(257)	0	0	0	0
Total changes in equity other than those resulting					
from transactions with WA State Government as owners	(257)	0	0	0	0

APPENDIX 2 - Market Fees for 2006/07

Market Fees for 2006/07

In accordance with clause 2.24 of the Market Rules, after the Energy Market Commencement the IMO is required to charge Market Fees to recover the costs of:

- the IMO:
- System Management's wholesale market related functions, and
- Economic Regulatory Authority's wholesale market related functions.

The Market Fee rate for 2006/07 has been set at \$0.413 MWh.

This fee will apply to all energy, including that sold/bought under bilateral contracts, from the commencement of the market on 21 September 2006. In accordance with clause 9.13.1 of the Market Rules, the fee rate is based on spreading the total required revenue over both the total generation and the total consumption of electricity in the market.

Total 2006/07 Revenue to be Recovered through Market Fees

The total revenue to be recovered through Market Fees is as follows:

	Million
IMO Revenue Requirement	\$ 7.336
SM Revenue Requirement	\$ 2.213
ERA Revenue Requirement	\$ 0.319
Total Revenue to be Recovered through Market Fees	\$ 9.868

A revenue target for the IMO of \$8.694 million to be recovered through Market Fees has been approved by the Minister for Energy for 2006/07. The breakdown of this budget is as follows:

	Million
Market Operation	\$ 4.257
System Planning	\$ 0 947
Market Administration	\$ 3.475
Total Expenses	\$ 8.679

The IMO budget was based on the expectation that the Energy Market would commence in July 2006.

Therefore, expenses of \$1.358 million for July to September 2006 will not be recovered from market participants and the targeted revenue to be recovered from Market Fees is set at \$7.336 million.

Market Fees

Spreading the total revenue requirement over the projected energy supply and consumption of 23,870 GWh between September 2006 and June 2007 produces the following fee rates:

IMO Fee Rate	\$	0 307/MWh
System Management Fee Rate	\$	0 093/MWh
Economic Regulation Authority Fee Rate	Ş	0 013/MWh
Total Market Fee Rate	ŝ	0.413/MWh

1 August 2006