



INDEPENDENT  
MARKET  
OPERATOR

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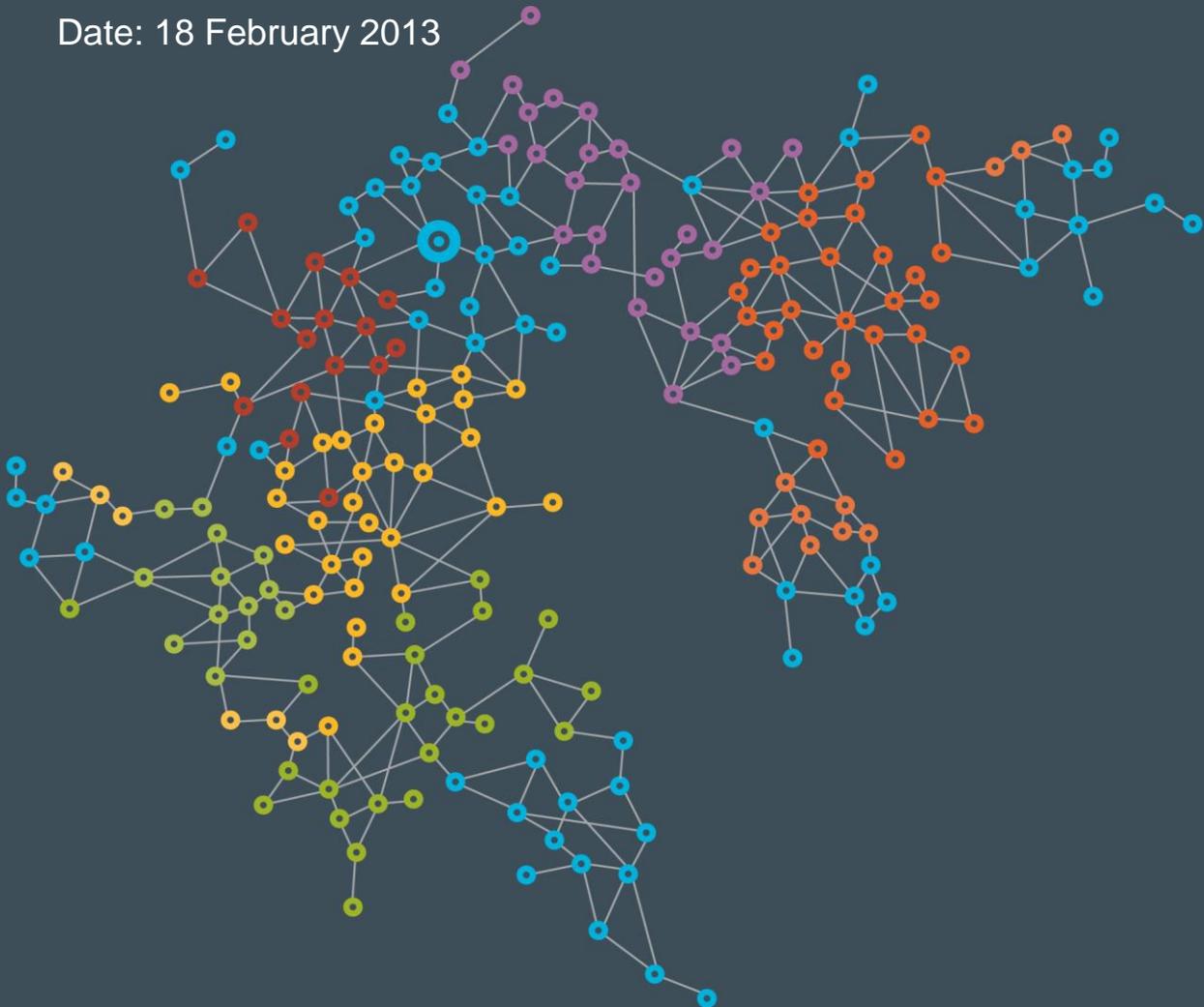
# Draft Rule Change Report

## Title: Five-yearly Review of the Planning Criterion

RC\_2012\_21  
Standard Rule Change Process

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Date: 18 February 2013



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## Executive Summary

### ***Proposed amendments***

The IMO developed this Rule Change Proposal to implement the recommendations resulting from the 5-yearly review of the Planning Criterion, which was completed on 2 November 2012. The IMO's recommendations were that:

- the form of the current Planning Criterion be retained;
- the reserve margin be lowered from 8.2% to 7.6%; and
- the unserved energy component of the Planning Criterion be retained due its role in the determination of the Availability Curve.

The IMO proposes to amend clause 4.5.9 of the Market Rules to lower the reserve margin from 8.2% to 7.6%.

### ***Consultation***

The Pre Rule Change Proposal was discussed at the Market Advisory Committee (MAC) at its 14 November 2012 meeting. The MAC supported the submission of the proposal into the formal Rule Change process.

The Rule Change Proposal was submitted on 20 November 2012 and the first submission period was held between 21 November 2012 and 18 January 2013. Submissions were received from Alinta, Community Electricity and Perth Energy. Community Electricity supported the Rule Change Proposal on the grounds that it implemented the outcome of the Planning Criterion review. Alinta noted that the combined effect of other work streams on the Reserve Capacity Price needed to be considered. Alinta also reiterated its support for an overarching review of the Wholesale Electricity Market. Perth Energy did not support the Rule Change Proposal, citing the isolated nature of the South West interconnected system (SWIS) and recent history around multiple concurrent generator outages.

### ***Assessment against Wholesale Market Objectives***

The IMO has assessed that the proposed amendments better achieve Wholesale Market Objectives (a) and (d).

### ***Practicality and cost of implementation***

The IMO has not identified any costs or practicality issues with the implementation of this Rule Change Proposal.

### ***The IMO proposed decision***

The IMO's proposed decision is to accept the Rule Change Proposal.

### ***Next steps***

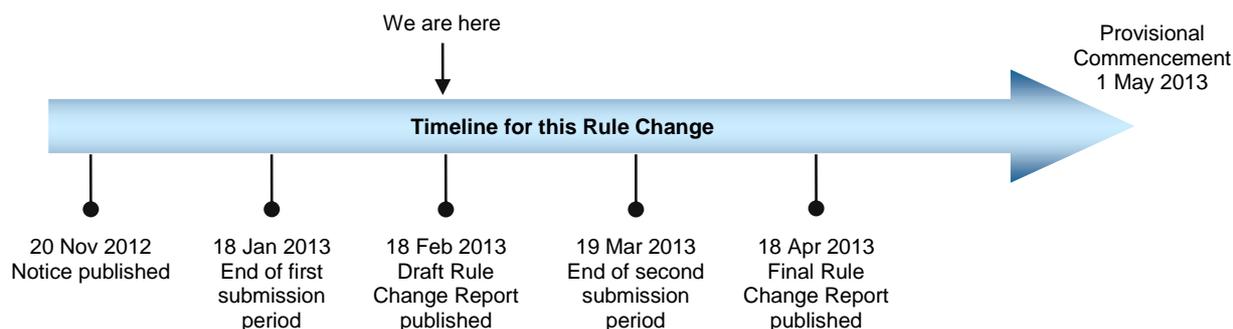
The IMO now invites interested stakeholders to make submissions on this Draft Rule Change Report by **5:00 PM on Tuesday, 19 March 2013**.

## 1. Rule Change Process and Timetable

On 20 November 2012 the IMO submitted a Rule Change Proposal regarding amendments to clause 4.5.9 of the Wholesale Electricity Market (WEM) Rules (Market Rules).

This proposal is being processed using the Standard Rule Change Process, described in section 2.7 of the Market Rules.

The key dates in processing this Rule Change Proposal are:



*Please note that the commencement date is provisional and may be subject to change in the Final Rule Change Report.*

## 2. Call for Second Round Submissions

The IMO invites interested stakeholders to make submissions on this Draft Rule Change Report. The submission period is 20 Business Days from the publication date of this report. Submissions must be delivered to the IMO by **5:00 PM on Tuesday, 19 March 2013**.

The IMO prefers to receive submissions by email (using the submission form available on the Market Web Site: <http://www.imowa.com.au/rule-changes>) to: [market.development@imowa.com.au](mailto:market.development@imowa.com.au)

Submissions may also be sent to the IMO by fax or post, addressed to:

### Independent Market Operator

Attn: Group Manager, Market Development & System Capacity  
PO Box 7096  
Cloisters Square, PERTH, WA 6850  
Fax: (08) 9254 4399

## 3. Proposed Amendments

### 3.1. The Rule Change Proposal

The Planning Criterion sets the minimum acceptable level of generation and Demand Side Management (DSM) capacity, known as the Reserve Capacity Requirement, in the South West interconnected system (SWIS).

The current Planning Criterion, defined in clause 4.5.9 of the Market Rules, requires sufficient

generation and DSM capacity to:

- meet the 10% Probability of Exceedence (PoE) peak demand plus an allowance of 8.2% to cover unplanned Facility Outages, while maintaining capacity for frequency keeping and Intermittent Loads (the Defined Scenario); and
- limit expected energy shortfalls to 0.002% of annual energy consumption.

Clause 4.5.15 of the Market Rules requires the IMO to conduct a review of the Planning Criterion and the process by which it forecasts SWIS peak demand at least once in every five year period. The last review was completed in 2007. The IMO engaged Market Reform, an independent consultant, to undertake the review in 2012. The IMO published Market Reform's draft report and an invitation for stakeholders to provide submissions on 16 August 2012. A public workshop was held on 31 August 2012, and a public submission period was held from 16 August to 11 September 2012.

Following consideration of submissions from stakeholders, the IMO published a final report on 2 November 2012. The IMO's recommendations were that:

- the form of the current Planning Criterion be retained;
- the reserve margin be lowered from 8.2% to 7.6%; and
- the unserved energy component of the Planning Criterion be retained due its role in the determination of the Availability Curve.

Documents relating to the 5-yearly Planning Criterion review are available on the Market Web Site: <http://www.imowa.com.au/rcreviews>.

Following the completion of the Planning Criterion Review, the IMO developed this Rule Change Proposal to implement the recommendation of lowering the reserve margin from 8.2% to 7.6%.

For full details of the Rule Change Proposal please refer to the Market Web Site: [http://www.imowa.com.au/rc\\_2012\\_21](http://www.imowa.com.au/rc_2012_21)

### **3.2. The IMO's Initial Assessment of the Rule Change Proposal**

The IMO decided to progress the proposal on the basis that Rule Participants should be given an opportunity to provide submissions as part of the rule change process.

## **4. Consultation**

### **4.1. The Market Advisory Committee**

The Pre Rule Change Proposal was discussed at the Market Advisory Committee (MAC) at its 14 November 2012 meeting. The following comments and questions were raised from MAC members:

- Mr Stephen MacLean queried whether more detail could be provided on how the 10% PoE was calculated. Mr Greg Ruthven noted that Synergy had raised this issue in its submission on the 5-yearly review of SWIS Forecasting Processes and added that the consultant's report for that review would be updated with further information on the PoE methodology.
- Mr MacLean suggested that the reference to the required percentage of reserve margin could be taken out of the Market Rules and put into the relevant Market Procedure because the percentage may be expected to change over time and was the sort of detail that should

be retained in a Market Procedure. Ms Jacinda Papps noted that the heads of power in the Market Rules might need to be changed to facilitate this. The Chair noted that the IMO will consider whether it would be appropriate to move the reference into the Market Procedure. The IMO has further considered that the percentage of the reserve margin should be retained in the Market Rules as it is not subject to frequent changes. Since it is the subject of a 5-yearly review, a change to the reserve margin, if recommended in future reviews, should remain the subject of a well-considered Rule Change Proposal.

The MAC agreed that the Rule Change Proposal should be submitted into the formal process.

Further details are available in the MAC meeting minutes available on the Market Web Site: [http://www.imowa.com.au/MAC\\_55](http://www.imowa.com.au/MAC_55)

#### 4.2. Submissions received during the first submission period

The first submission period for this Rule Change Proposal was held between 21 November 2012 and 18 January 2013. The first submission period was extended by 10 days to account for Christmas holidays. Submissions were received from Alinta, Community Electricity and Perth Energy.

Alinta's submission was silent on offering or withholding support for the Rule Change Proposal. However, Alinta highlighted the importance of continuing to consider the overall impact of different work streams on the Reserve Capacity Price (RCP) and supported an overarching review of the market design.

Community Electricity supported the Rule Change Proposal on the grounds that it implemented the recommendation of the 5-yearly Planning Criterion Review. In particular, Community Electricity supported the following principles:

- i. that the level of reserve margin should be fit-for-purpose without unnecessarily increasing the total system cost; and
- ii. that the level of reserve margin is unrelated to separate developments in respect of the Reserve Capacity Mechanism Review and the procedure for determining the Maximum Reserve Capacity Price (and by extension the Reserve Capacity Price).

Perth Energy did not support the Rule Change Proposal on the grounds that it was not prudent to relax the Planning Criterion given the isolated nature of the SWIS and the recent history of multiple concurrent generator outages.

Submitter	Wholesale Market Objective Assessment
Alinta	None provided
Community Electricity	Furthers (a) and (d) (and achieves a proper balance between them) and is consistent with the remaining Wholesale Market Objectives
Perth Energy	Considers net effect is likely to negatively impact on Wholesale Market Objectives (a) and (d).

A copy of all submissions in full received during the first submission period is available on the Market Web Site: [http://www.imowa.com.au/rc\\_2012\\_21](http://www.imowa.com.au/rc_2012_21)

#### **4.3. The IMO's response to submissions received during the first submission period**

The IMO's response to each of the issues identified during the first submission period is presented in the table over the page:

	Submitter	Comment/Change Requested	IMO's Response
1.	Alinta	<p>Alinta notes that the following work streams would potentially have a direct or indirect impact on the RCP:</p> <ul style="list-style-type: none"> <li>• the outcomes of the Reserve Capacity Mechanism Working Group's consideration of the RCP;</li> <li>• the outcomes of the annual Maximum Reserve Capacity Price (MRCP) review; and</li> <li>• the Economic Regulation Authority's upcoming review of the methodology for determining the MRCP under clause 2.26.3 of the Market Rules.</li> </ul> <p>Alinta notes that the proposed amendment to the reserve margin would only likely result in a 0.54% reduction on average in the RCP and the combined outcomes of all other work streams also needed to be considered.</p>	<p>This Rule Change Proposal seeks to set the Reserve Capacity Requirement at the optimal (least cost) level that was determined by Market Reform in its report.</p> <p>The IMO notes Alinta's comment regarding the various work streams that may impact on the RCP. However, the IMO considers it appropriate to proceed with this Rule Change Proposal to deliver the most economically efficient Reserve Capacity Requirement.</p>
2.	Alinta	<p>Alinta also calls for an overarching review of the WEM, cautioning that a piece-meal approach may overlook the potential overlap of issues being considered by various work streams and the interdependencies between features of the current market design.</p> <p>Alinta supports conducting a broad review of the effectiveness of the current design of the WEM with a particular focus on the following areas:</p> <ul style="list-style-type: none"> <li>• removing unnecessary costs in the WEM; and</li> <li>• ensuring appropriate incentives are provided to investors in generation facilities.</li> </ul>	<p>The IMO was required by the Market Rules to undertake this review during 2012. Clause 4.5.15 of the Market Rules requires the IMO to review the Planning Criterion at least once in every five year period. The last review was concluded in November 2007.</p> <p>The IMO notes Alinta's concerns but considers that the determination of an appropriate Planning Criterion can be assessed independently of other work streams. The IMO notes that the Market Rules Evolution Plan is an appropriate mechanism for reviewing different aspects of the WEM. Further, the IMO also considers that a broad review of the effectiveness of the current market design is the subject matter of the Economic Regulation Authority's review and is outside the scope of the IMO's mandate.</p>

	Submitter	Comment/Change Requested	IMO's Response
3.	Perth Energy	In light of the isolated nature of the SWIS and the recent history of multiple concurrent generator outages it is not prudent to relax the Planning Criterion as proposed by the IMO. Perth Energy would ideally like to see the Planning Criterion strengthened to cater for the concurrent loss of two generator units. Such a change would allow the system to cope with concurrent outages in future, when the current large capacity cushion has diminished and no longer provides "free" insurance for such events.	The IMO notes that this concern was addressed in the final report of the 5-yearly Planning Criterion review. Market Reform recommended that the Planning Criterion continue to be determined as a margin above the 10% PoE peak demand forecast. This would ensure that the margin continues to grow as the SWIS demand grows. Market Reform's analysis has sought to provide a sound economic framework to determine the Planning Criterion, by determining the optimal reserve margin at which the marginal cost of provision of reserve matches the value of customer reliability.
4.	Perth Energy	Perth Energy does not believe that the analysis presented by Market Reform provides a compelling case for amending the uplift factor from 8.2% to 7.6%. The report presents a number of potential optimum values ranging from 7.12% to 8.93%. Given the sensitivity of the point estimate to the assumptions made in conducting the analysis, Perth Energy considers an uplift factor somewhere closer to the middle of the range to be more appropriate. The current uplift factor of 8.2% is only marginally different to the midpoint of the range and should therefore be retained.	Market Reform's recommendation was based on the Base case, which considered 10% PoE peak demand, expected economic growth and actual outage rates. Market Reform noted in its report that "the optimal reserve margin for the Base Case provides a balanced view of reserve capacity". The additional scenarios provided in Market Reform's report did not represent a balanced range. For example, they did not consider low demand growth. Consequently, the IMO considers it inappropriate to set the reserve margin at the mid-point of the scenarios presented in Market Reform's report. The remaining scenarios are intended to provide additional information on the sensitivity of the reserve margin to key parameters such as demand growth and outage rates.

	Submitter	Comment/Change Requested	IMO's Response
5.	Perth Energy	<p>No detail has been provided in making the determination that would support the view that the proposed change will lead to a better achievement of Wholesale Market Objective (a). There appears to be no discussion in the IMO's final report, nor in this Rule Change Proposal on what the potential positive economic benefits would be if the reserve margin was lowered. In addition there appears to be no analysis on comparing and contrasting these benefits with the potential negative security and economic related consequences of experiencing a multiple, concurrent generator outage at a time of system peak when no additional "free" capacity cushion exists.</p> <p>Perth Energy believes that a change to the Market Rules should only be made when there is a demonstrated overall positive impact on the ability of achieving the Market Objectives. Where a potential rule change has both positive and negative impacts on one or more Market Objectives, the IMO should satisfy itself that the positive impacts clearly outweigh any negative impacts before making a decision to implement a proposed rule change. In light of this, Perth Energy does not believe a robust case for change has been presented for RC_2012_21.</p>	<p>Market Reform presented a cost-benefit assessment of the Planning Criterion in section 4.3 of its report and concluded that there were substantial cost savings to be gained by reducing the reserve margin to an optimum level below 8.2%. This analysis included consideration of the costs of involuntary Load shedding.</p> <p>The IMO considers that in setting the Planning Criterion at the proposed level, the right balance has been achieved between keeping the market safe and reliable and economic efficiency.</p>

	Submitter	Comment/Change Requested	IMO's Response
6.	Perth Energy	<p>Perth Energy has been concerned for some time with the SWIS relying on a growing reserve margin based on unreliable capacity such as DSM and very old plant which has failed consistently to satisfy the certification conditions under the Market Rules. This reserve margin is fragile. In addition, the constant changes to the RCP derivation methodology have caused a loss of confidence in the generation investment market, deterring proponents from considering new investments. Perth Energy believes that it may take several years for the consequences of these changes to become apparent. In light of this Perth Energy believes that it is highly imprudent to implement any further changes which will have an impact on the reserve margin. Perth Energy recommends that the IMO err on the side of caution and not pursue this Rule Change Proposal at the current time. Rather, Perth Energy considers it to be more prudent for the IMO to review the necessity for this change in 12 to 24 months' time.</p>	<p>The IMO considers that the analysis presented by Market Reform has made a strong case for lowering the reserve margin thereby producing overall net system benefits while accounting for shortfall events.</p> <p>The IMO is of the opinion that the implementation of the proposed change is relevant in the current context of the SWIS and the expected changes to the market over the next five years. The IMO also notes that the Planning Criterion review will be undertaken again in five years time allowing for the long term effects of the proposed change to be evaluated.</p>

#### 4.4. Public Forums and Workshops

During the Planning Criterion review, a public workshop was held on 31 August 2012. Documents relating to the workshop are available on the Market Web Site: <http://www.imowa.com.au/rcreviews>. However, no public forums or workshops were held with regard to this Rule Change Proposal.

### 5. The IMO's Draft Assessment

In preparing its Draft Rule Change Report, the IMO must assess the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3 of the Market Rules.

Clause 2.4.2 outlines that the IMO *“must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives”*.

Additionally, clause 2.4.3 states, when deciding whether to make Amending Rules, the IMO must have regard to the following:

- any applicable policy direction from the Minister regarding the development of the market;
- the practicality and cost of implementing the proposal;
- the views expressed in submissions and by the MAC; and
- any technical studies that the IMO considers necessary to assist in assessing the Rule Change Proposal.

The IMO notes that there has not been any applicable policy direction from the Minister in respect of this Rule Change Proposal. In conducting the Planning Criterion review, the IMO commissioned Market Reform to undertake an independent technical study following which this Rule Change Proposal was developed. A summary of the views expressed in submissions and by the MAC is available in section 4 of this report.

The IMO's assessment is outlined in the following sub-sections.

#### 5.1. Wholesale Market Objectives

The IMO considers that the Market Rules as a whole, if amended as presented in section 7, will not only be consistent with the Wholesale Market Objectives but also allow the Market Rules to better achieve Wholesale Market Objectives (a) and (d).

*(a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West Interconnected System:*

*(d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system:*

The IMO notes that alignment with the Wholesale Market Objectives requires a balance between *“reliable and safe production of electricity”* (objective (a)), *“economically efficient”* (objective (a)) and the objective to *“minimise the long-term cost of electricity”* (objective (d)).

The SWIS has changed materially since the Planning Criterion was last reviewed in 2007. The

recommended change to the reserve margin optimises the costs of capacity and unserved energy given the current SWIS context and the expected changes to the market over the next five years.

In doing so, the recommended change promotes an economically efficient and reliable level of reserve margin that seeks to minimise the total system cost.

Consequently, the IMO considers that the recommended change to the reserve margin would better achieve Wholesale Market Objectives (a) and (d).

The IMO also considers that the recommended change to the Planning Criterion is consistent with the other Wholesale Market Objectives.

## **5.2. Practicality and cost of implementation**

### **5.2.1. Cost:**

No additional costs associated with implementing the proposed change have been identified. The Rule Change Proposal will require minor changes to the Market Procedure for undertaking the Long Term PASA study to ensure that there is sufficient available capacity in each Capacity Year for the duration of the Long Term PASA Study Horizon. However, the cost of these changes falls within the IMO's normal operating budget.

### **5.2.2. Practicality:**

The IMO has not identified any issues with the practicality of implementation of the proposed amendments.

## **6. The IMO's Proposed Decision**

The IMO's proposed decision is to accept the Rule Change Proposal.

### **6.1. Reasons for the decision**

The IMO made its proposed decision on the basis that the Amending Rules:

- better achieve Wholesale Market Objectives (a) and (d);
- are consistent with the remaining Wholesale Market Objectives; and
- have the general support of the MAC.

## **7. Proposed Amending Rules**

The IMO proposes to implement the following amendments to the Market Rules (~~deleted text~~, added text):

- 4.5.9. The Planning Criterion to be used by the IMO in undertaking a Long Term PASA study is that there should be sufficient available capacity in each Capacity Year during the Long Term PASA Study Horizon to:

- (a) meet the forecast peak demand (including transmission losses and allowing for Intermittent Loads) supplied through the SWIS plus a reserve margin equal to the greater of:
  - i. ~~8.27.6~~ % of the forecast peak demand (including transmission losses and allowing for Intermittent Loads); and
  - ii. the maximum capacity, measured at 41°C, of the largest generating unit;while maintaining the Minimum Frequency Keeping Capacity for normal frequency control. The forecast peak demand should be calculated to a probability level that the forecast would not be expected to be exceeded in more than one year out of ten; and
- (b) limit expected energy shortfalls to 0.002% of annual energy consumption (including transmission losses).