

24 November 2015

Dr Stephen King  
 Chairman  
 Economic Regulation Authority  
 Level 4, Albert Facey House  
 469 Wellington Street  
 PERTH WA 6000

Dear Stephen

### Determination of Cost\_LR Ancillary Service Parameters

Clause 3.13.3B(a) of the *Wholesale Electricity Market Rules (Market Rules)* requires that by 30 November 2015, System Management submit a proposal for “Cost\_LR” to the Economic Regulation Authority (ERA) for the Review Period 1 July 2016 to 30 June 2019.

The proposed value for Cost\_LR must be sufficient to cover the costs of providing Load Rejection Reserve Ancillary Service (L) and System Restart Ancillary Service (R) over the Review Period.

System Management proposes the following values for Cost\_LR for the Review Period:

**Table 1: Cost\_LR for Review Period 1 July 2016 to 30 June 2019**

	2016/17 (\$ `000)	2017/18 (\$ `000)	2018/19 (\$ `000)
Load Rejection Reserve (L)	0	0	0
System Restart (R)*	929	3,273	3,355

\* The values for R are indicative for the reasons set out further below.

#### Load Rejection Reserve Ancillary Service (L)

Load Rejection Reserve Ancillary Service is defined in clause 3.9.6 of the Market Rules:

*Load Rejection Reserve Service is the service of holding capacity associated with a Scheduled Generator or Dispatchable Load in reserve so that:*

- (a) *the Scheduled Generator can reduce output rapidly; or*
- (b) *the Dispatchable Load can increase consumption rapidly,*

*in response to a sudden decrease in SWIS load.*

A Load Rejection Reserve Ancillary Service allows the system frequency to be maintained within acceptable limits should there be an instantaneous loss of system load, which may occur should a significant part of the network separate from the main system or a voltage dip cause automatic disconnection of customer equipment. This service is normally only activated a few times per year.

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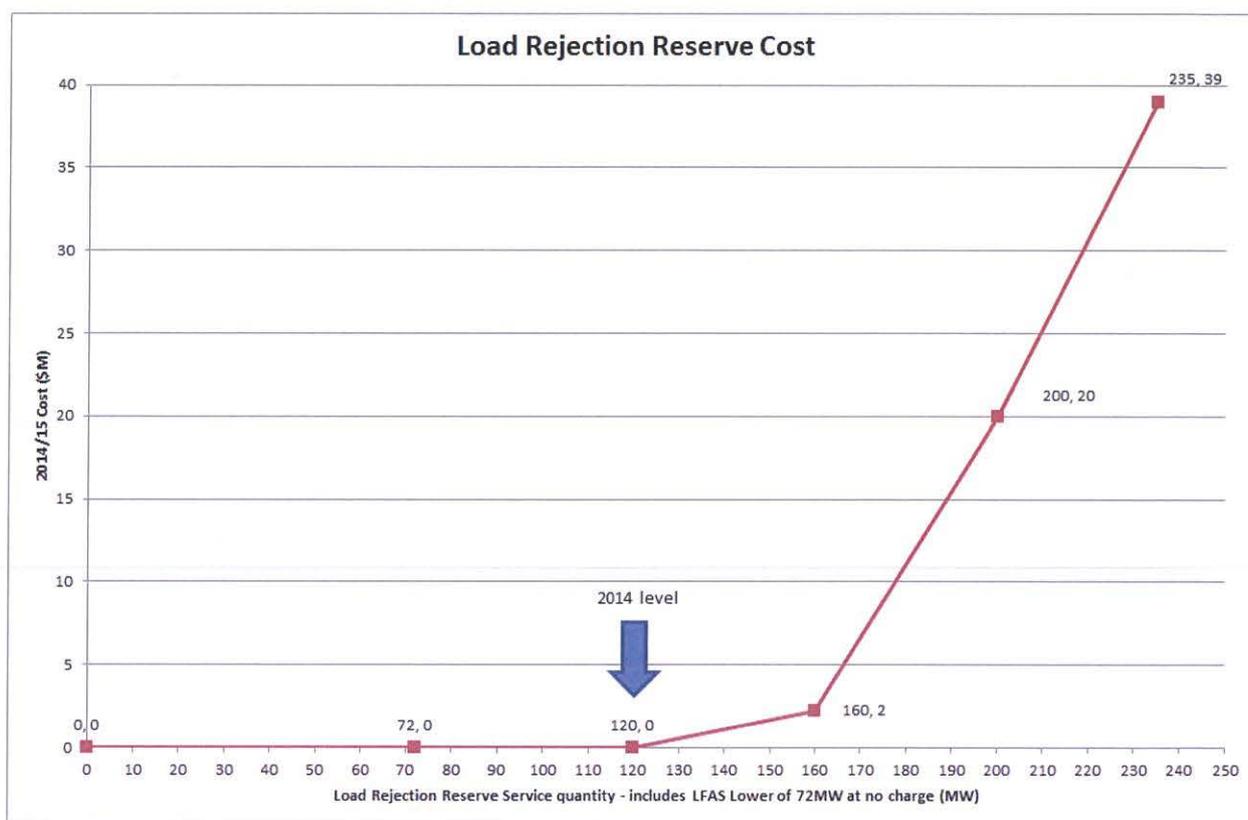
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This service is maintained by shutting down generators as load decreases (and starting as load increases) to ensure that the remaining generators are sufficiently above their minimum loadings.

Synergy currently provides Load Rejection Reserve Ancillary Service as part of its ancillary service obligations under the Market Rule 3.11.7A:

*Synergy must make its capacity to provide Ancillary Services from its Facilities available to System Management to a standard sufficient to enable System Management to meet its obligations in accordance with these Market Rules.*

System Management engaged a consultant to estimate the cost of Load Rejection Reserve Ancillary Service. The results were presented to the Market Advisory Committee at Meeting 74 on 13 August 2014<sup>1</sup>. The following graph provides the forecast annual cost for various levels of Load Rejection<sup>2</sup>.



At the time of preparation of this proposal there is no confirmed requirement of any need to increase the level of Load Rejection Reserve Ancillary Service from the 2014 level<sup>3</sup>. Consequently System Management has made no change to the allocation of zero for Load Rejection Reserve Ancillary Service (L) for the Review Period.

<sup>1</sup> Refer to Agenda Item 7b of 'Combined MAC 74 Papers' at <http://www.imowa.com.au/home/electricity/market-advisory-committee/2014/mac-74>

<sup>2</sup> SKM-Jacobs were engaged to conduct a study to determine the extra costs involved in providing Load Rejection Reserve Ancillary Services.

<sup>3</sup> Refer to section 4.4 of the 2015 Ancillary Services Report at <http://www.imowa.com.au/docs/default-source/System-Management-Reports/final-2015-ancillary-services-report-for-imo-website.pdf?sfvrsn=0>

Should future requirements for increased Load Rejection Reserve Ancillary Service be confirmed that require a change to the current level of L over the Review Period, System Management will seek to submit an updated Cost\_LR proposal in accordance with clause 3.13.3C(a) of the Market Rules.

### System Restart

System Restart Service is defined in clause 3.9.8 of the Market Rules:

*System Restart Service is the ability of a Registered Facility which is a generation system to start without requiring energy to be supplied from a Network to assist in the re-energisation of the SWIS in the event of system shut-down.*

The use of this service only occurs when there is a complete shutdown of the SWIS. Ideally it should almost never be called upon as this event may only occur once every 10 – 20 years. Should it happen however and the service fails the SWIS may be without power for several days.

System Management requires that there should be at least three generating stations that can start upon black system conditions and can energise the rest of the system. Three services are required to ensure that a service is available to cover one planned and one forced outage amongst the service providers to meet the desired reliability target.

In addition System Management has determined that the black start generators should not be at the same location to mitigate the risk of common failure in the same geographic or electrical area (sub-networks). Therefore the requirement for System Restart is based on having restart capability in each of the three electrical sub-networks being North Metropolitan, South Metropolitan and South Country.

Pursuant to clause 3.11.8A of the Market Rules System Management has entered into contractual arrangements with participants to provide System Restart Services. These are known as deeds of arrangement rather than typical contracts as System Management does not make payments to the Service Provider, but advises the IMO to make payments on its behalf.

Under these deeds, participants are remunerated based on an annual availability fee. Importantly, participants contracted to provide System Restart services will be remunerated no more than the monthly availability payment derived under the applicable deed, which is subject to downward adjustment based on availability provisions.

Of further note is that there is no System Restart provider in the South Country currently as previous attempts to procure a service in that area have been unsuccessful. A current procurement process is underway with potential prospects for this area.

System Management has the following contracted System Restart Services:

**Table 2: Current System Restart Services**

Market Participant	Facility/ies	Contract Expiry	Sub-Network Area
Synergy	KWINANA_GT1	30 June 2016	South Metro
Synergy	PINJAR_GT3 & PINJAR_GT5	30 June 2016	North Metro
Perth Energy	PERTHENERGY_KWINANA_GT1	30 June 2016	South Metro

Previous Cost\_LR proposals have been based on the above contracted arrangements which all expire on 30 June 2016. As mentioned above, a current procurement process is underway for System Restart Services beyond 30 June 2016. Indicative pricing has been received from

potential providers and System Management's proposed R values set out in Table 1 are based on this information allowing for an escalation rate of 2.5% per annum<sup>4</sup> over the Review Period. Further information regarding these calculations is set out in 'Confidential' Attachment A.

The ERA approved R parameter for System Restart for the 2015/16 year was \$533,484 (\$44,457 per month)<sup>5</sup>. Table 1 indicates a significant increase in this value for 2016/17. This reflects the indicative pricing referred to earlier and is subject to variation as negotiations for these contracts progress.

Table 1 also shows a significant increase in the R value from 2017/18 onwards. This step change is primarily due to the potential commencement of a service in the South Country sub-network area and the associated investment required for this service to be available. Again, this is reflective of indicative pricing and is subject to variation as the procurement process for this sub-network area progresses.

As indicated above, as final contracts and pricing for System Restart Services have not as yet been established for the period beyond 30 June 2016 there is reasonable risk that the indicative values for R provided in Table 1 will change. In this regard System Management intends to provide a revised Cost\_LR proposal with updated R values once the procurement processes have concluded.

Should the ERA require any further information please do not hesitate to contact Adrian Theseira on 9427 4257.

Yours sincerely



**Dean Sharafi**  
Head of Function, System Management

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<sup>4</sup> Based on Department of Treasury Consumer Price Index Forward Estimates - [http://www.treasury.wa.gov.au/Treasury/Economic\\_Data/Economic\\_Forecasts/](http://www.treasury.wa.gov.au/Treasury/Economic_Data/Economic_Forecasts/)

<sup>5</sup> Refer to ERA Cost\_LR determination at [https://www.erawa.com.au/cproot/11212/2/20130318%20-%20Determination%20of%20the%20Ancillary%20Service%20Cost\\_LR%20Parameter.pdf](https://www.erawa.com.au/cproot/11212/2/20130318%20-%20Determination%20of%20the%20Ancillary%20Service%20Cost_LR%20Parameter.pdf)