Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235
By: Online Rule Change lodgement at www.aemc.gov.au

5 December 2011

Dear Mr Pierce,

Proposed Rule Change to Scheduled Network Service Offers

International Power-GDF Suez Australia (IPRA) and Loy Yang Marketing Management Company (LYMMCo) requests that the Australian Energy Market Commission (AEMC) consider making the enclosed proposed Rule under section 91 of the National Electricity Law.

The proposed Rule would provide that suppliers of scheduled network services not be permitted to specify any negative price for their service.

There is also a related Rule change in the deletion of current Rule 3.8.6A(e), which is applicable only in the case of negative offer prices for scheduled network services, and consequently has no relevance if the proposed Rule change is made.

The attached Rule change proposal includes:

- a description of the proposed Rule
- a statement of the issues identifying the nature and scope of each problem
- a description of the proposed solution for each issue
- a discussion of how the proposed Rule would contribute to the achievement of the National Electricity Objective (NEO)
- an explanation of the expected benefits and costs of the change and the potential impacts
- a draft of the proposed Rule.

Should you have any enquiries regarding this matter please do not hesitate to contact Chris Deague on 03 9617 8331.

Yours sincerely,

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Director Strategy and Regulation
IPRA

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IPRA & LYMMCo Request for Rule Change:

Scheduled Network Service Offers

5 December 2011

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1 Introduction

International Power-GDF Suez Australia (IPRA) and Loy Yang Marketing Management Company (LYMMCo) requests that the Australian Energy Market Commission (AEMC) consider making the following proposed Rule under section 91 of the National Electricity Law.

IPRA and LYMMCo represent a major part of the private generation sector in the Australian National Electricity Market. As market participants, we depend on transparent and efficient market processes to achieve ongoing viability in the National Electricity Market.

2 Description of the proposed Rule

The proposed Rule would provide that Scheduled Network Service Providers not be permitted to specify any negative price for their scheduled network service.

There is also a related Rule change in the deletion of a current Rule, namely 3.8.6A(e), which is applicable only in the case of negative offer prices for scheduled network services, and consequently has no relevance if the Rule change is made.

3 Issues in relation to the current Rule

The Rules provide for bids and offers from Scheduled Generators, Semi-Scheduled Generators, and Scheduled Loads over a range of positive and negative prices.

In each case the prices offered are adjusted by a loss factor and in that adjusted form are subject to limitations. They must not exceed the market price cap nor be below the market price floor.

Offers for scheduled network services differ from these in that:

- they are not subject to a loss adjustment (instead there is an adjustment for losses in the supply/demand balances), and
- the prices while subject to an upper limit of the market price cap, are not subject to any lower limit.

We note in passing that the lack of a lower limit appears to be an error, and we suggest that this should be remedied irrespective of the success of this proposal. We believe that current practice by AEMO is to impose a lower limit of the market price floor for scheduled network services, but without support from the Rules.

We note that scheduled network service offers differ from all other types of bids or offers in that their effects are additive to the effects of other bids and offers.

The dispatch process searches for the dispatch outcome which maximises the value of trade. The process can be envisaged as one which systematically considers a potential increase in one generator coupled with a reduction in a competing generator, and then deciding whether this results in a higher value of trade.

This applies whether the competing generators are within a region or connected via a regulated interconnector, although across an interconnector competition is

impacted to some extent by the modelling of interconnector network losses in dispatch.

Similarly, scheduled loads compete with other scheduled loads and with generators for dispatch.

Likewise ancillary service offers compete with other ancillary service offers, and to some extent with energy market offers (because of the relationship between energy market dispatch and the availability of ancillary services for a generating unit).

In contrast, an offer for scheduled network services does not compete with other offers or bids in its own right, but becomes an additive element in some aspects of competitive dispatch. This is because in some cases an increase at one generator and a reduction in a competing generator will involve changes in the measured value of trade that involve not only the offers for the two generators but also an offer price for an intervening scheduled network service.

Because the effect of a scheduled network service offer is additive to another offer or bid, it can lead to outcomes where one competitor has an effective price which is not permitted by the Rules to a competing entity.

For example, the offer from one generator at the market floor price, when combined with a scheduled network service offer at a negative price, may lead to an effective price for one generator well below the market floor price while other competing generators are prohibited by the Rules from making an offer below this floor price.

Hence one or more generators are granted priority over other generators through the scheduled network service offering a negative price. This priority is compounded where the same participant that manages the scheduled network service offer price also owns generators that achieve a benefit that competing generators cannot overcome through their market offers.

While priority of some generators over others is seen from time to time in dispatch, this case is different because the priority is an artefact arising from the market Rules, rather than a requirement imposed by the physical nature of the network. This is highlighted by recognising that the generator priority would not arise if the scheduled network service were hypothetically replaced by a physically identical regulated interconnector.

3.1 Examples of negative offers for scheduled network service

The following examples relate to negative offers for northward flows on Basslink. These examples have been published by Hydro Tasmania in accordance with their Enhancements Compliance Plan[1].

Below we have highlighted three examples where a combination of negatively-priced generation offers and negatively-priced transmission offers has resulted in an effective priority of some generators over others. These examples are as described by the Generator (Hydro Tasmania) that controlled both the relevant generator offers and the relevant scheduled network service offers.

[1] Hydro Tasmania Enhancements Compliance Plan 2010 prepared in accordance with section 37 of the Electricity Supply Industry Act 1995

Example 1: Published by Hydro Tasmania on 25 October 2010:

"Hydro Tasmania instructed Basslink Pty Ltd to positively bid Basslink southward flows and to bid negative on Northward flows on two occasions on Friday 22nd October 2010, after constraint CA_SPS_3BD36B75_02 was binding and affecting Latrobe Valley while VIC price was higher than TAS price and TAS price was negative (as per Principle 3.2).

Exceptional market volatility caused the link bid to be removed and reinstated on several occassions:

original bid was submitted at 10:57 (for all periods including 12:00)

removed at 11:30 and reinstated at 11:37 (for all periods ending 16:00);

removed again at 11:56 and reinstated at 12:01(for all periods ending 16:00);

removed again at 13:25 and reinstated at 13:30 (for all period ending 16:00); and finally

removed at 14:25."

Example 2: Published by Hydro Tasmania on 3 February 2010:

"Hydro Tasmania instructed Basslink Pty Ltd to positively bid Basslink southward flows and to bid negative on Northward flows on Tuesday 2nd February 2010, after constraint V>>V-HYLY_1, was binding and affecting Latrobe Valley while VIC price was higher than TAS price and TAS price was negative (as per Principle 3.2).

The instruction was given at 12:37 for trading interval 13:00 (period ending). This bid was extended, on two occasions at 12:59 (for all periods ending 17:00) and again at 16:54 (for all periods ending 18:00). Link bid was removed at 17:23, after an unexpected change in market prices."

Example 3: Published by Hydro Tasmania on 4 February 2010:

"Hydro Tasmania instructed Basslink Pty Ltd to positively bid Basslink southward flows and to bid negative on Northward flows on two occasions on Wednesday 3rd February 2010, after constraint V>>V-HYLY_1 was binding and affecting Latrobe Valley while VIC price was higher than TAS price and TAS price was negative (as per Principle 3.2).

The first instruction was given at 12:32 for trading interval 13:00 (period ending). This second instruction was given at 13:37 (all trading intervals up to and including 17:00)."

The principles referred to by Hydro Tasmania in these examples are contained in their Enhancements Compliance Plan, which requires that Hydro Tasmania can only instruct Basslink to submit a negative offer price for northward flows where:

1. the Victorian spot price is higher than the Tasmanian Spot Price,
2. the Tasmanian price is negative, and
3. transmission constraints that affect the Latrobe Valley connection point starts to bind.

We note that both the first and the second conditions are both under the effective control of Hydro Tasmania, and hence the only independent circumstance necessary for negatively priced offers is the existence of congestion in the Victorian network leading to competition for dispatch between Tasmanian generators and some Victorian generators subject to this constraint.

4 Impact on Scheduled Network Service Providers

In preparing this proposed Rule change, we have given consideration to whether negative offer prices might be necessary to the legitimate business interests of scheduled network services. While the use of negative prices by a scheduled network service has been associated with forcing certain generator priority in dispatch, there could in theory be a case for maintaining this option if it were found to be necessary to the legitimate business interests of Scheduled Network Service Providers.

The Rules in relation to negative prices are mixed, allowing them for scheduled generators and for scheduled loads, but not for ancillary service providers. We will therefore examine these cases first, reviewing the reasons for these differences, before considering the case at issue.

In the case of scheduled generators, there are some generators that incur additional costs through use of auxiliary fuel to ensure stable combustion when output is reduced below certain levels. Also for some generators, there are substantial costs that result from a stop/start cycle of the generating unit. Furthermore, for some generators there are risks of damage during low load operation or a stop/start cycle which exceed the risks of continued higher-load operation.

These costs and risks cannot be expressed to the market except by the use of negative prices for output reductions below defined levels. Hence we conclude that for generators, the option to use negative offer prices is necessary for their legitimate business interests.

In the case of scheduled loads, it is possible that increasing consumption may result in additional costs to a customer (other than electricity costs). For example, a planned maintenance activity may need to be cancelled to increase consumption. However, if the electricity price were sufficiently negative, the customer would be willing to incur such costs and increase consumption. This legitimate business interest can be expressed to the market only through negative bid prices.

On the other hand, a provider of market ancillary services would not appear to incur any material costs if dispatch of that service were discontinued. At worst they may switch a control system into a different mode to avoid unit responsiveness that is no

longer being rewarded. We conclude that there is no legitimate business interest for suppliers of market ancillary services that would need negative prices for its expression, and hence we support the current provisions of the Rules, which do not allow negative prices in this case.

We now turn to the case of interest, Scheduled Network Service Providers. We believe that there is no reason to expect increased costs to be incurred through reduced level of dispatch of such equipment, or through a temporary cessation of its use. The only evident costs in the provision of a scheduled network service from an existing facility are the cost of electrical losses in the equipment that provides the service and the wear and tear of that equipment. Both these costs would naturally be expected to increase, not decrease with increased throughput, and hence not need negative prices for their representation to the market.

A further piece of evidence in support of this view for Basslink in particular is that the decision to bid negative prices for Basslink is taken by Hydro Tasmania, and are therefore not driven by Basslink's business interests.

This view is reinforced by the absence of negative prices by any of the three scheduled network service that have operated in the NEM, apart from negative prices that are evidently to gain dispatch priority.

A final piece of evidence is the absence of any technical or cost basis for negative offer prices on Basslink under the conditions imposed by the Tasmanian government.

We conclude that there is no legitimate business interest for any scheduled network service provider that requires that negative prices be available to them.

5 Description of the proposed solution for each issue

We contend that offers for scheduled network services should be subject to similar limitations as market ancillary service offers, which are subject to an upper limit of the market price cap, and a lower limit of zero.

We contend that the restriction on negative offer prices for scheduled network services is:

- necessary for the achievement of the National Electricity Objective, in avoiding undesirable dispatch outcomes that have been observed as a consequence of negatively-priced offers in particular circumstances, and
- consistent with the legitimate business interests of Scheduled Network Service Providers.

6 Costs and Benefits

This proposed Rule change could be implemented at no cost.

However, it would be desirable, although not essential for the AEMO validation process for scheduled network service offers to be altered to align with the new Rule.

We note that the existing Rules clause 3.8.6A(e) requires the current validation process to check that the absolute value of the most negative price in one direction

cannot exceed the price for the first price band in the opposite direction, after adjustment for losses.

If the proposed Rule is adopted, the new validation process would eliminate this complexity.

We therefore submit that the new validation Rule would be simpler to implement, validate and maintain.

While there would be a minor cost for this change the benefits, as noted above, lie in more complete competition in the spot market.

7 Contribution of proposed Rule change to the National Electricity Objective

The National Electricity Market relies in part on competition between generators in the spot market in order to contribute to the National Electricity Objective.

Hence anything that impedes or distorts effective competition in the spot market is likely to reduce the efficiency of the market. As the spot market outcomes have a direct influence over the financial contracts, inefficiencies in the spot market are likely to be reflected further as less efficient contract outcomes. The combined inefficiencies in the spot market and contracts are likely to adversely affect the achievement of the National Electricity Objective.

By design, competition in the spot market is subject to the physical characteristics of the transmission network that enables the market, with real network losses and real network flow limitations both having impacts on the outcome of competition.

However, the unintended priority of some generators over others that has been identified and described above does not arise from the physical characteristics of the network. Any such priority without a physical basis must lessen competition in the spot market and hence degrade the achievement of the National Electricity Objective.

In other words where a network service provider offer price is below zero, this is not representing a real cost. Any bids or offers that are not revealing a participant's true preferences create inefficient outcomes in the spot market, reducing economic efficiency and hence adversely affect the achievement of the National Electricity Objective.

The priority is an artefact of the Rules in that offers for scheduled network services are additive with certain bids or offers and hence negative values can be used to construct an artificial priority in dispatch. The elimination of such negative offers will thus eliminate this source of artificial priority in dispatch, enhancing competition.

We have examined the possibility that this Rule change proposal could have countervailing adverse effects on the national Electricity Objective by denying Scheduled Network Service Providers of the opportunity to express their legitimate business interests. We have concluded on the basis of both logic and evidence that there is no such countervailing effect.

8 Draft of proposed Rule

Delete Rule clause 3.8.6A(e):

~~(e) if negative prices are employed, the absolute value of the most negative price in one direction cannot exceed the price for the first *price band* in the opposite direction, after adjustment for losses;~~

Modify Rule clause 3.8.6A, as follows:

(i) prices specified in the *network dispatch offer* must not exceed the *market price cap* and must not be negative; and