

# GENERATOR OPTIONAL FIRM ACCESS RIGHTS

## AUSTRALIAN ENERGY MARKET COMMISSION ANNOUNCES TERMS OF REFERENCE FOR DETAILED DESIGN WORK

On the 6 March 2014, the Australian Energy Market Commission (AEMC) released terms of reference to progress work on the Optional Firm Access (OFA) framework initially outlined in the Transmission Frameworks Review published in April 2013. If adopted, OFA would fundamentally alter the operation of the National Electricity Market (NEM). In this update, we briefly examine:

➤ Timeline including the next steps

---

➤ A practical example

---

➤ Potential benefits of OFA?

---

➤ Key implications

---

➤ How might OFA work?

---

➤ Key questions

---



## TIMELINE





# WHAT ARE THE POTENTIAL BENEFITS OF OFA FOR THE NEM?

## Potential benefits for the NEM include:

- **More efficient investment in new transmission through co-optimisation of the costs of transmission and generation.** OFA should assist generators and Transmission Network Service Providers (TNSPs) to co-optimize their investments. The purchase of firm rights by generators would provide a signal to TNSPs as to where additional transmission investment is necessary. The importance of co-optimising generation and transmission investment will take on greater importance if the trend toward new generation being renewable continues. However, new transmission investment would still be dependent upon passing the RIT-T and the ability of the TNSP to receive adequate compensation through its revenue regulation.
- **More efficient investment in generation through greater certainty regarding access and co-optimisation of the costs of transmission and generation.** It is currently difficult or impossible for generators to obtain certainty that they will have access to sufficient transmission capacity. Although clause 5.4A of the NER refers to compensation being paid to generators who are constrained off, we are not aware of connection agreements which confer such benefits on generators to any material degree. OFA would facilitate the provision by TNSPs of firm financial access. The cost of such access would reflect, to a degree, the cost of the transmission capacity.
- **More efficient dispatch of generation.** Currently, disorderly bidding (i.e. multiple generators bidding capacity at -\$1000/MWh when prices are high and constraints binding) occurs relatively often. This may be inefficient because higher cost generation may be dispatched in preference to lower cost generation. OFA should reduce the incidence of disorderly bidding because firms would be incentivised to bid closer to their short run marginal cost. In particular, non-firm generators would face the prospect of incurring a loss from being dispatched if they bid below their SRMC.
- **More efficient use of the transmission system.** TNSPs are not currently incentivised to optimise the availability of their network at times of maximum demand. OFA could provide for TNSPs to compensate generators that are constrained off as a result of transmission outages.
- **Reduced price volatility.** OFA may reduce price volatility by reducing the impact of constraints and thus incentivising generators to bid closer to their SRMC, even during times of network constraint. Consumers may fear that OFA will result in higher spot prices for reasons including the potential for TNSPs to make payments under the TNSP incentive scheme, the reduced incentives for non-firm generators to bid low, the increased complexity faced by all participants in the market and the potential increase in transmission capacity. However, the impact on the spot price would be determined by the interaction of a number of factors including potentially lower financing costs for generators. In addition, OFA may ultimately operate in tandem with the Rule Change initiated by the AER on 13 February 2014 designed to prevent generators using ramp rates and dispatch inflexibilities for commercial purposes.
- **Facilitating inter-regional trade.** OFA may facilitate greater inter-regional hedging between generators and retailers by offering firmer interregional hedging products. The importance of inter-regional hedging varies from one region to another. The trend toward vertical integration of generation and retail diminishes the importance of the hedging market for vertically integrated participants. However, in regions where there is only a small amount of generation not controlled by a retailer, inter-regional trade may be critical to facilitating retail competition.

# ➤ HOW MIGHT OFA WORK?

The OFA proposal contemplates the following:

- Generators could buy from TNSPs firm financial rights to transmission capacity (FFA Rights).
- A generator with FFA Rights (firm generator) that was constrained off would receive a payment from a generator without FFA Rights (non-firm generator) that was dispatched in its place, being the difference between the RRP and the price bid by the firm generator for each MW constrained off.
- The price of FFA Rights would be determined by an access pricing model based broadly on the long run incremental cost of conferring such rights. The precise model is yet to be specified.
- TNSPs would receive money for selling FFA Rights. Those funds would be taken into account in determining a TNSP's revenue requirement. TNSPs would be responsible for managing:
  - **Reliability standards:** As is currently the case, TNSPs would ensure that the shared network had sufficient capacity to meet demand (in accordance with the reliability standards); and
  - **Firm access:** TNSPs would need to ensure that the capacity in congested parts of the network was equal to or greater than the quantity of firm rights that had been purchased.

# ➤ A PRACTICAL EXAMPLE

This diagram shows a payment from 'non-firm generator' (G2) to a 'firm generator' (G3) following:

- G3 being constrained off as a result of a constrained line; and
- G2 being dispatched in place of G3 as a result of its lower bid.



## KEY IMPLICATIONS

- **TNSPs would face increased risk.** The OFA proposal seeks to incentivise TNSPs to ensure that their networks are available at important times. The proposed mechanism involves TNSPs compensating firm generators for losses arising from transmission outages. This would potentially expose TNSPs to the spot price during periods when their network is experiencing an outage (subject to a cap).
- **Firm generators could reduce their risk (for a fee).** OFA would largely remove the risk to generators of not being dispatched because of binding constraints.
- **Non-firm generators would face reduced revenue during constraints.** Specifically, firm generators may be able to capture part of any revenue earned by non-firm generators during times of constraint.
- **Changes in the price of electricity.** In the short term factors suggesting increased electricity spot prices include the potential for TNSPs to make payments under the TNSP incentive scheme, the reduced incentives for non-firm generators to bid low, the increased complexity faced by all participants in the market and the potential increase in transmission capacity. In the long term, OFA should result in efficiencies arising from efficient investment in generation and transmission.
- **Likely increase in the quantity of transmission assets.** TNSPs would be required to comply with both the existing reliability standards and the new firm access standards. In consequence, it seems likely that OFA would result in a short term increase in transmission assets.
- **Shifting of costs from TNSPs to generators.** Under OFA, the direct cost of parts of the transmission network would be transferred from TNSPs to generators. Ultimately, these costs are likely to be passed on to consumers.

## KEY QUESTIONS FOR GENERATORS

- **What is the access price?** The current proposal does not provide any significant detail regarding the manner in which the access price would be determined. That formula would have significant ramifications for the impact of the scheme. Key questions include:
  - Would the price vary depending on the duration of access sought. For example a generator seeking access for 2 years compared with 40 years?
  - Would two generators receive different access prices if they obtained firm access one after the other. If so, would it be preferable to buy first or second?
  - Could a generator renegotiate the price or quantity of firm access if the firm access price changes over time? For example, what will happen if the demand assumptions underlying a long term firm access agreement turn out to be much higher than the actual demand?
- Would group access procurement risk breaching the anti-competitive provisions of the *Competition and Consumer Act 2010* (Cth)?
- **What is each generator's initial grant of long term firm access.** The OFA contemplates allocation of 'free' firm rights for a large number of years on a basis such as historical usage. The way in which this allocation occurs could have a significant impact on generators. Key question include:
  - What will be the basis for the allocation of initial firm access rights?
  - Would an approach based on historical usage advantage base load generators over peaking generators?

- Will generators need to purchase firm access immediately to protect hedge positions and revenues?
- **What are firm access rights?** For example:
  - What are the normal operating conditions (ie the conditions during which firm access applies)?
  - Do access rights relate to the generator or to particular flow gates? This may be important if a generator is constrained off at two separate flow gates in the same dispatch interval?
- **Will all generators need to purchase firm access?** If some generators are non-firm, will firm generators be incentivised to bid below their marginal cost during congestion in order to obtain larger access settlements from non-firm generators. How would such conduct impact non-firm generators?
- **Would short term firm access be preferable to long term firm access?** How much spare capacity exists on transmission lines? Would this be used by TNSPs to offer short term firm access? If so, would short term firm access be preferable to long term firm access?
- **How will the initial allocation of inter-regional access be determined?** OFA contemplates an initial grant of rights to inter-regional firm access but does not make clear the basis for this grant of rights? What effect will those rights have during periods of counter price flows?
- **How are payments funded for interregional access?** Is there a risk that a non-firm generator whose dispatch causes a constraint on an interconnector could make a loss from being dispatched even though it bid above its SRMC?

## KEY QUESTIONS FOR TNSPs

- **Will significant additional capacity be required?** OFA would require TNSPs to comply with standards (ie reliability standards and the newly created firm access standard). This could require significant additional capacity. How much additional capacity may be a function of the price of firm access.
- **How will TNSPs fund the upfront cost of additional capacity?** New transmission capacity may be funded by generators or TNSPs. If the latter, will TNSPs be able to re-open their revenue determination to obtain funding for upfront costs arising from an unexpected grant of firm access during a regulatory period?
- **Is the risk level acceptable?** OFA contemplates an incentive scheme under which TNSPs compensate firm generators that are constrained off because of an outage. Such compensation would expose TNSPs to the wholesale spot price (to a degree to be determined). Will this be significant for businesses that have not previously faced such exposure?
- The level of risk will be dependent upon factors including the definition of normal operating conditions (ie when firm access must be provide) the incentive sharing scheme and any cap on that scheme.
- **How will alignment of revenue resets impact TNSPs?** Aligning TNSP revenue resets across all NEM regions will have various impacts including that issues will be resolved for all TNSPs at once rather than consecutively.
- **How will the RIT-T operate.** It is contemplated that the RIT-T will exclude consideration of the costs and benefits to generators. Will potential costs and benefits (including risks) to the TNSP constructing the augmentation be taken into account?
- **How will inter-regional firm access be valued?** OFA contemplates valuing long term firm access rights using long term incremental cost but does not specify how factors relevant to that cost will be determined including the base line cost that forms the starting point for such a calculation.

## KEY QUESTIONS INDUSTRY BODIES AND GOVERNMENT

- **AEMO:** The OFA proposal suggests that AEMO may take on a national transmission planning role involving the provision of advice to TNSPs and the AER and the preparation of demand forecasts. Does this role provide adequate scope for AEMO to play an effective role in the development of the NEM?
- **AER:** Will the RIT-T be effective in preventing TNSPs and generators from constructing more transmission assets than are efficient, taking into account sunk costs in generation?
- **AER:** Will it be more efficient for the AER to undertake all TNSP revenue determinations at the same time (as opposed to the current staggered determinations)? Will this increase the likelihood of determinations being appealed?
- **AER:** Would the contemplated shift in responsibility for the planning and procuring of transmission network augmentations in Victoria from AEMO to TNSPs make the AER's role in determining revenue requirements for those TNSPs more difficult?
- **AER:** How will the AER adjust revenue determinations to take account of TNSP investment necessitated by the grant of firm access?
- **Victorian Government:** Will the owners of the transmission network in Victoria (ie TNSPs including SP Ausnet) be given responsibility for making decisions regarding investment in that network (ie to meet reliability obligations and firm access obligations)? This would represent a significant shift from the existing model in which transmission asset ownership has been separated from transmission investment decision making (as planning and procurement of transmission augmentations is currently undertaken by AEMO)?

## KEY QUESTIONS FOR RETAILERS

- **Will interregional hedging become more viable?** There are currently significant difficulties associated with inter-regional hedges because price separation between regions is not always reflected in settlement residue auction units (for example, counter price flows, which can occur because of disorderly bidding, involve price separation between regions but SRA units have zero value because the flow is not in the expected direction). The OFA proposal is intended to allow retailers to purchase firm capacity on inter-connectors in order that the holder of the access product will be compensated for any price separation, irrespective of the direction of the flow on the interconnector. Will the firm inter-regional access product allow retailers to effectively enter into hedge contracts with generators in other NEM regions?
- **Will retailers costs be affected?** The TFR suggests that OFA will reduce wholesale spot price volatility. Is this reduced volatility likely to eventuate and, if so, will the price of hedge contracts fall in consequence?
- **Will the average wholesale spot price be affected in the short term?** If so, will this impact the profitability of retailers in that period?
- **How will the market for inter-regional firm access operate?** OFA contemplates firm rights that can be acquired by retailers. However, the detail of this market remains to be determined including questions such as whether retailers with firm access rights would receive the same payment as generators with firm access rights despite the retailers not being constrained off and, if so, whether the payment relates to the bidding strategy of a generator which may or may not be vertically integrated with the retailer?

# MORE INFORMATION

If you would like to discuss the issues raised in further detail, please contact:



**Simon Uthmeyer**  
Partner  
T +61 3 9274 5470  
simon.uthmeyer@dlapiper.com



**Alec White**  
Senior Associate  
T + 61 3 9274 5144  
alec.white@dlapiper.com

[www.dlapiper.com](http://www.dlapiper.com)

DLA Piper is a global law firm operating through various separate and distinct legal entities.  
Further details of these entities can be found at [www.dlapiper.com](http://www.dlapiper.com)  
Copyright © 2014 DLA Piper. All rights reserved. | APR14 | 2736296