



Quarterly Compliance Report:

National Electricity and Gas Laws

July - September 2016

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Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: (03) 9290 1444

Fax: (03) 9290 1457

Email: AERinquiry@aer.gov.au

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Executive summary

The Quarterly Compliance Report (QCR) outlines the Australian Energy Regulator's (AER) compliance monitoring and enforcement activity under the National Electricity Law (Electricity Law) and the National Gas Law (Gas Law), including the rules and regulations which sit under those laws. It reflects the importance of compliance to the efficient operation of gas and electricity markets for the benefit of consumers, market participants and large energy users. The AER reports compliance outcomes to provide transparency in these markets, while promoting good industry practice.

This QCR covers the period 1 July 2016 to 30 September 2016 (the September 2016 quarter) for gas and electricity markets.

Gas

This report includes information on the Natural Gas Services Bulletin Board (the Bulletin Board). The Bulletin Board is an important component of the AER's compliance monitoring in 2016. Amendments to the National Gas Rules imposed new reporting requirements on gas market participants, from 6 October 2016.

During the September quarter, the AER approached the operators of Bulletin Board facilities to examine their readiness to comply with the new reporting requirements. This QCR outlines the AER's findings and provides an overview of the reporting by operators of Bulletin Board registered facilities. It includes an appraisal of participant compliance during the first two weeks of commencement of the new rules.

This QCR also highlights the recurrence of over forecasting trends in the Sydney Short Term Trading Market (STTM) and presents some analysis of high over forecast demand across winter (notably during July).

Electricity

This QCR highlights the AER's on-going work in relation to generator rebidding, including the Bidding in Good Faith (also known as or False or Misleading) and Generator Ramp Rate rule changes that came into effect on 1 July 2016. The AER is making amendments to its Rebidding and Technical Parameters Guideline and is consulting stakeholders with a view to publishing a final Guideline in early 2017.

This QCR also covers the conclusion of the AER's technical audit of Origin Energy's compliance program for Uranquinty Power Station, concerning its Generator Performance Standards (GPS). Overall we are satisfied that Origin's approach to technical compliance for Uranquinty is consistent with the requirements of clause 4.15 of the Electricity Rules. We note that the AER's work has highlighted an issue around the intellectual property held by Original Equipment Manufacturers, which may constrain a participant's GPS testing and compliance monitoring activities. We remind participants of their ultimate responsibilities in this area.

This report also notes the AER's work with AEMO on supply/demand forecasting in the National Electricity Market (NEM), specifically in relation to AEMO's Medium Term Projected Assessment of System Adequacy (MTPASA). This follows high electricity spot prices in South Australia on 7 July 2016, and scheduled network outages that reduced the capacity of the Heywood interconnector on this day.

Black System Event in South Australia

On the afternoon of 28 September, South Australia experienced a state wide power outage (referred to as a black system). The outage was triggered by a severe storm damaging transmission electricity assets. Power was progressively restored to the majority of the state, with all load back online by 18:25 AEST on 29 September (excluding that supplied by damaged infrastructure to parts of the state). AEMO suspended the market during the black out, and this suspension was extended by South Australian government direction until 22:30 AEST on 11 October.

The event in South Australia has triggered a number of investigations and reviews. The market operator (AEMO) is required to conduct an investigation into the black system events, pursuant to various obligations in the Electricity Rules. The Essential Services Commission of South Australia (ESCOSA) is also conducting a review of whether South Australian participants complied with the terms of state based electricity licence requirements.

More broadly, the South Australian Government has initiated a review to investigate the event and the adequacy of the State's prevention, preparedness, response and recovery plans, while the COAG Energy Council has asked the Chief Scientist to bring together a number of current initiatives to develop a national reform blueprint to maintain energy security and reliability in the NEM.

The AER is the national enforcement agency responsible for ensuring that registered participants, including AEMO, comply with the requirements of the Electricity Rules. We have commenced an assessment of compliance levels during the black system event and the subsequent period of market suspension. The review covers a range of issues including, but not limited to, plant compliance with performance requirements, participant compliance with AEMO directions and/or instructions and the overall management of the power system and market in line with the Electricity Rules. The outcome of the AER's investigation will be the subject of a public report. We expect to establish a preliminary view of compliance levels, during the black system event, by the end of the year.

The AER is working collaboratively with industry participants, AEMO, ESCOSA and the other review bodies and agencies on their respective tasks.

Background

The AER is responsible for monitoring compliance and enforcement under legislation and rules governing Australia's wholesale energy markets, including those applying to network service providers (NSPs). Section 15 of the Electricity Law and section 27 of the Gas Law set out our functions and powers, which include:

- monitoring compliance by energy industry participants¹ and other persons
- investigating breaches, or possible breaches, of provisions of the legislative instruments under our jurisdiction.

Consistent with our statement of approach,² we aim to promote high levels of compliance, and seek to build a culture of compliance in the energy industry. A culture of compliance will:

- reduce the risk of industry participants breaching their regulatory obligations
- assist in ensuring industry participants can engage confidently in efficient energy markets.

As part of this process, we undertake an ongoing compliance risk assessment of the Electricity and Gas Rules to identify appropriate focus areas and monitoring/compliance mechanisms. These mechanisms include our strategic compliance projects, audits, reporting requirements, market monitoring, and targeted compliance reviews.

In selecting the areas for review, we adopt the following principles:

- consideration of risk (the greater the risk, the higher the priority)
- a commitment to ensuring that both systemic issues and those with the potential for isolated but significant impact are addressed.

In carrying out our monitoring functions, we aim for:

- cost effectiveness for energy industry participants and the AER
- transparency (subject to confidentiality requirements).

While most obligations under the Electricity and Gas Rules do not require registered participants to establish specific compliance programs, we take into account a participant's compliance framework when determining our response to potential breaches. In assessing compliance culture, we consider whether compliance programs and processes are effectively applied, up-to-date and tested regularly.

¹ Entities registered by AEMO under Chapter 2 of the Electricity Rules or in accordance with Part 15A of the Gas Rules.

² The Statement of Approach is published on the [AER's website](#). In April 2014, the AER released a combined Enforcement and Compliance Statement of Approach covering our functions under the Gas Law, Electricity Law and National Energy Retail Law. The document reflects the consistent approach taken by the AER to enforcing the energy laws across all markets.

1 Gas

We are responsible for monitoring, investigating and enforcing compliance with the Gas Law and Rules, including but not limited to the STTM, the Bulletin Board, the Victorian gas market and the Gas Supply Hub (GSH)

This part of the report provides an update on investigations, compliance matters and projects in the gas markets.

1.1 Natural Gas Services Bulletin Board

In December 2015, the Australian Energy Market Commission (AEMC) released its final rule determination to improve information provided to the east coast gas market via the Natural Gas Services Bulletin Board. The *National Gas Amendment (Enhanced Information for Gas Transmission Pipeline Capacity Trading) Rule 2015* required registered Gas Bulletin Board Facilities to commence providing additional information, for publication on the Bulletin Board, from 6 October 2016. The Bulletin Board requirements are set out in Chapter 7 of the Gas Law and Part 18 of the Gas Rules.

New information required from pipeline operators, storage facilities and production facilities includes:

- detailed facility information; and
- medium term capacity outlooks.

New information required from pipeline operators includes:

- information on Bulletin Board shippers that have contracted capacity;
- secondary trade data³;
- 12 month outlooks on uncontracted primary pipeline capacity;
- actual receipts and deliveries of gas from the pipeline to each demand and/or production zone; and
- actual daily receipts and deliveries of gas for each receipt or delivery point.

New information required from storage providers includes:

- 12 month outlooks of uncontracted storage capacity;
- the actual daily quantity of natural gas held in storage; and
- nominated and forecast storage injections and withdrawals (daily and during the day if information changes).

1.1.1 Bulletin Board Monitoring

The AER has continued to focus on Bulletin Board reporting in 2016. This work took on renewed emphasis during the September quarter, with the impending commencement of the

³ Pipeline operators to provide secondary capacity trading information from their trading platforms.

new reporting requirements. In advance of October 6, the AER approached gas market participants to examine their preparedness to report.

The new reporting requirements follow the introduction of a new Bulletin Board demand zone at Wallumbilla on 1 June 2016. The introduction of this zone has captured more facilities under the reporting framework, including transmission pipelines that ship gas between Wallumbilla and the liquefied natural gas (LNG) export facilities at Gladstone and Curtis Island (introduced as demand zones on 16 and 26 October 2015 respectively). This has broadened the scope of the AER's engagement to include the operators of transmission pipelines, storage facilities and production facilities associated with the LNG export industry. Facilities that did not formerly report to the Bulletin Board have been captured through the introduction of the new zones and the new reporting requirements that took effect from October 6.

1.1.2 Exemptions

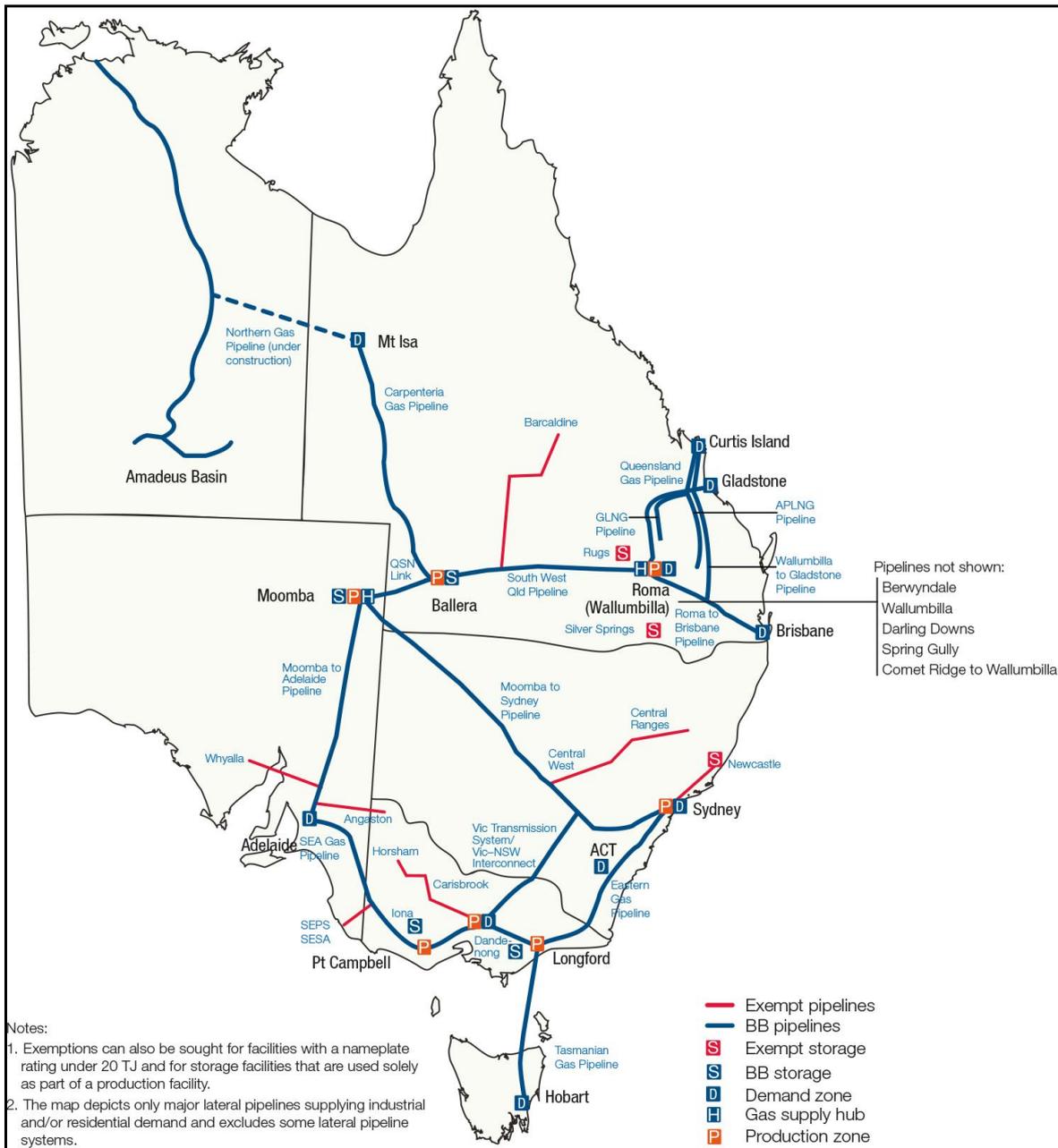
Market participants may seek exemptions from their obligation to report according to exemption criteria outlined in the Gas Rules. AEMO is responsible for granting exemptions and has outlined its exemption application process in the *Natural Gas Bulletin Board Procedures*.

The AER does not have a formal role in the exemption application process unless a participant contests an AEMO decision and seeks to progress matters under the dispute resolution processes outlined in the Gas Rules. Participants sometimes seek the view of the AER on exemption applications, and did so during an industry consultation process that was initiated by the AER in advance of October 6. In such cases, it is the AER's role to examine an exemption application in the context of compliance with the Gas Rules.

Reporting exemptions currently apply to a number of transmission pipelines, storage facilities and production facilities. This is principally the result of the zonal model used for Bulletin Board reporting, which is based on gas flows between production and demand zones. Under this model, exemptions may apply to transmission pipelines that do not transport gas between zones; and to storage facilities and production facilities that are not directly connected to these pipelines. Accordingly, various lateral pipelines and storage and production facilities do not appear on the Bulletin Board.

Figure 1 depicts the east coast gas grid and the zonal model used for Bulletin Board reporting. Key facilities that are currently exempt from reporting are identified.

Figure 1: Natural Gas Services Bulletin Board (October 2016)



1.1.3 Compliance with new requirements

Gas market participants were identified as being in varying states of preparedness in advance of October 6. While most participants expected to be fully compliant, some were underprepared and sought a temporary exemption or transitional arrangements. This has contributed to inconsistencies across the reporting landscape. In addition to receiving exemptions on the requirement to report, participants have sought to report under interim arrangements or alternative reporting methodologies.

Several gas market participants were identified by the AER as not ready to report from the commencement date. While some participants declared difficulty in implementing reporting systems by the due date, others sought alternative reporting arrangements due to specific circumstances.

Issues specific to Victorian reporting

Under Victorian arrangements, APA's Dandenong LNG storage facility receives scheduling data by fax from AEMO. APA must then manually upload this data into its systems and to the Bulletin Board. No compliance issues were identified in relation to Dandenong LNG storage but APA has indicated that the arrangement could become onerous with more ad hoc reporting. Given the introduction of more detailed reporting requirements (including intra-day reporting of nomination changes) the AER will continue to monitor this arrangement for data accuracy. The AER is working with AEMO and APA to identify whether AEMO has information that could be available to APA to facilitate automation of APA's reporting.⁴

APLNG

APLNG cited some difficulty implementing automated reporting by October 6. It will report manually for a short period while it puts automated systems in place. APLNG expects to be fully compliant with the new rules during this interim period.

Lochard Energy

Lochard Energy operates the Iona Underground Gas Storage facility at Port Campbell in Victoria. The Iona facility is part of the Port Campbell production zone and is directly connected to Bulletin Board pipelines. From October 6, such facilities are required to report (daily) their aggregated injections and withdrawals for that gas day, along with 7 day forecasts of their injections and withdrawals, and timely updates on changes to this information (Rule 169C).

Lochard is currently transitioning away from manual systems for reporting the Iona storage facility, and cannot guarantee fully meeting the requirements of Rule 169C until its reporting systems are automated. According to Lochard, this is principally because it is difficult to provide timely updates on all gas days, over a 24 hour period, using manual systems.

The AER has accepted interim arrangements for the Iona storage facility (i.e. additional reporting directed at partial compliance with Rule 169C) until Lochard's systems are automated. The AER will monitor Lochard's progress toward full compliance through receipt of progress reports from Lochard in collaboration with AEMO.

Santos GLNG

Santos GLNG produces gas within the Roma production zone and operates the Comet Ridge to Wallumbilla Pipeline (CRWP) and the GLNG Gas Transmission Pipeline (GTP). The CRWP and GTP are both Bulletin Board pipelines and connect to create a major transmission flow-path through the Roma production zone. From Roma, the CRWP runs south to the Wallumbilla gas supply hub and the GTP runs north to Santos GLNG's export facilities at Curtis Island. This represents a transmission flow-path between three Bulletin Board zones.

⁴ Whilst participants do not require automated reporting systems to be compliant from October 6, the more detailed nature of the reporting will make compliance more onerous if participants continue to report using manual systems.

The new obligations require reporting of receipt and delivery point data for the Roma production zone. However, the metering of this data is problematic due to Roma's involved network of lateral pipelines. The network integrates the CRWP and GTP with Santos GLNG's production and storage facilities within the Roma zone. This network configuration complicates the ability to report receipt and delivery point data for the CRWP and GTP such that gas flows, between the respective zones, are accurately measured.

Given the idiosyncrasies associated with the Roma production zone, Santos GLNG proposed an alternative reporting arrangement. This includes data reporting not required by the Gas Rules. This approach is intended to enable AEMO to build a mass balance of gas flows to and from the Roma production zone.

Santos GLNG discussed its proposed data reporting arrangement in detail with AEMO and the AER in advance of October 6. AEMO and the AER accepted the arrangement, with the understanding that it does not strictly comply with the Gas Rules. The AER will monitor Santos GLNG's reporting and confer with AEMO to verify the accuracy of data over time. The AER will also consider Santos GLNG's circumstances in response to industry feedback.

1.1.4 Observations and Future Reporting

The AER has monitored the initial reporting of Bulletin Board participants (during the two weeks that followed commencement of the new requirements) and considers that the additional data has enhanced the scope and utility of information provided to the market. AEMO has indicated that data submission errors have occurred, but are expected, as participants adjust to the new requirements. Where errors have occurred they appear to have been promptly rectified.

The AER will continue to monitor participant reporting, for compliance and accuracy, in forthcoming months.

Although new Bulletin Board data has improved the transparency of the east coast wholesale gas market, the reporting arrangements continue to incorporate various exemptions, as well as interim reporting arrangements and alternative reporting methodologies. This creates information gaps that the AER will consider as part of its feedback to future Bulletin Board reform processes.

Facilities that could lose their current exemption status under the AEMC's stage 2 recommendations from its 2016 gas market review report⁵ include smaller volume lateral pipelines and currently exempt storage facilities (as shown in Figure 1). These facilities may be required to report detailed activity data from October 2018. Accordingly, gas market participants may be required to transition from any current arrangement within 18 months.

Finally, the AER takes this opportunity to highlight one area of information which neither the recent Bulletin Board changes nor the AEMC's stage 2 recommendations appear to address; that is, when pipelines are also substantively used as a storage facility. The Tasmanian Gas Pipeline (TGP) is advertising a gas storage facility for the Victorian (or Tasmanian) market,

⁵ Stage 2 Final Report, East Coast Wholesale Gas Market and Pipeline Frameworks Review.

which is in such volumes that it significantly utilises capacity that may otherwise be available for transportation (as opposed to being a small ancillary service). Storage of this type is not captured by the current reporting framework for pipelines. In the absence of data on a pipeline's uncontracted storage capacity being available in conjunction with information on its uncontracted transportation capacity, there appears to be no clear indication of overall spare pipeline capacity.

1.2 Short Term Trading Market

1.2.1 Sydney STTM Demand Forecasting Errors

Demand forecasts are the primary input for scheduling and form the basis for calculating ex-ante prices in the STTM. Poor demand forecasting leads to inefficiencies in dispatch whereby the ex-ante price is set on the basis of a higher or lower quantity of gas than is required. It can lead to higher Market Operator Service (MOS) payments in the STTM, whereby large amounts of gas are required to address the imbalance caused by inaccurate forecasts.

The Gas Rules⁶ require each STTM trading participant, who expects to withdraw quantities of natural gas from a hub on a gas day, to submit in good faith, ex ante bids or price taker bids (and any revisions to those bids) that reflect the participant's best estimate of the volume it expects to withdraw on that gas day. These bids in effect reflect each participant's demand forecast.

In 2012, the AER commenced a project in response to ongoing occurrences of inaccurate demand forecasts from a number of STTM participants. A particular concern was the uneven distribution, or bias of under and over forecasting of demand. We were also concerned by large avoidable demand forecast errors; for example, those caused by system errors.

Accordingly, throughout 2013, we developed metrics for each STTM hub to identify patterns in demand forecasting errors. We contacted participants regarding forecasting performance, addressing areas of concern and any relevant system changes which could minimise these errors. Our previous monitoring of forecasting metrics and MOS trends, following these exchanges, identified reductions to trends in over forecasting bias and lower MOS balancing gas requirements over 2013/14.

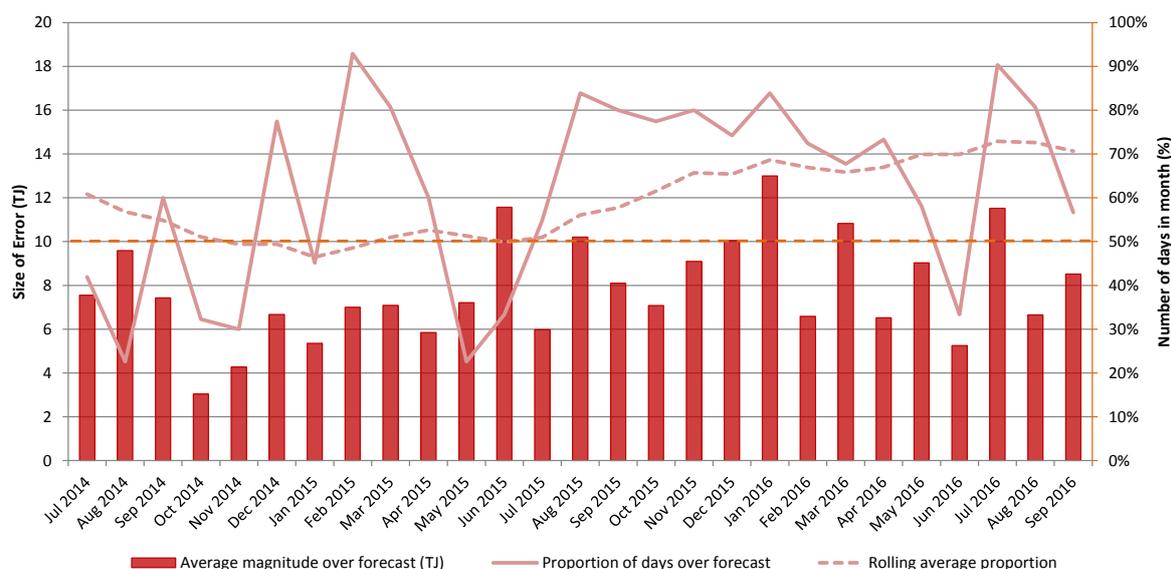
More recently, our June 2016 *Quarterly Compliance Report* identified a recurrence of the over forecasting trend in the Sydney hub from mid-2015. This has resulted in the long-term average proportion of over forecast days, each month, climbing past 70 per cent⁷. Despite a reduction during the month of June, there was a high proportion of over forecast demand in the Sydney hub over June and July 2016 (notably, in July) driving this increase.

As set out below in Figure 2, the level of over forecast demand in July averaged around 11.5 TJ per day across 90 per cent of the gas days in that month. The over forecasting trend remained above 80 per cent for the month of August.

⁶ Rule 410(1)

⁷ The rolling average proportion, for the Sydney hub, over the previous 12 months.

Figure 2: Sydney Hub forecasting performance metric (since July 2014)



The highest contributions to the aggregate error in the Sydney STTM were made by the hub’s three largest participants. These participants over forecast their demand across 17 per cent, 84 per cent and 90 per cent of the days in July (their average daily error quantities were up to 8.2 per cent of each participant’s actual demand, while the highest over forecast errors on individual days in July ranged between 10-16 per cent of total demand across the three participants). The AER’s July and August Significant Price Variation (SPV) report⁸ noted that poor July forecasting significantly contributed to the highest level of balancing gas payments in Sydney on record.

The AER has received initial comments from a number of participants submitting demand forecasts for the Sydney STTM hub. There has been some contention that apparent poor forecasts may be impacted by changes to allocation data throughout revised settlement runs, including revisions 9 months later. These revisions may influence the proportional split of gas allocations between hub participants. The AER will continue to assess these claims in detail, along with the degree to which short-term forecasting is being monitored to the required standard under the Gas Rules⁹. The AER will also analyse the demand forecasting of participants against long range data and will meet with market participants to gain more insight. As shown in figure 2, over forecasting is now a long term trend for the Sydney hub¹⁰.

Any compliance matters which may arise from our investigations will be reported in upcoming QCRs.

1.2.2 Significant Price Variations over winter 2016

The AER identified 11 Significant Price Variations (SPVs) across the STTM’s three hubs (Adelaide, Sydney and Brisbane) during July and August 26. No compliance issues have

⁸ <https://www.aer.gov.au/wholesale-markets/market-performance>

⁹ Part 20, Rule 498 of the Gas Rules

¹⁰ Allocations at hub level do not change between settlement revisions.

been identified but the AER is analysing the SPV events and will publish a report in accordance with its obligation under the Gas Rules.

The July and August forecasting error trends, for the Sydney hub, will be covered in the upcoming SPV report. Analysis included in the report will highlight the significant MOS requirements and increased service costs (over July and August) and how these were associated with demand forecasting errors (among other factors).

We note that the AER endeavours to publish its SPV reports for gas and \$5000/MWh reports for electricity in a timely manner. Whilst the AER is required to publish these reports within given timeframes (as required by the Gas Rules and Electricity Rules), the significant lead times are indicative of the complexity of the research and analysis involved. The AER sometimes makes full use of these timeframes to ensure that these reports are accurate, comprehensive and reflective of consultations with market participants.

1.2.3 Allocations Data Submissions - APA Group

A compliance matter arose on 8 July, with respect to price outcomes at the Brisbane hub. APA Group failed to provide AEMO with gas allocations for the Roma to Brisbane Pipeline (for the previous day) by the required cut-off time (the allocation data is used to determine prices for the Brisbane hub for the previous day). AEMO extended the cut-off time but was required to use a provisional price until APA Group submitted its allocations later in the day. The provisional and delayed prices were ultimately the same and there was no market impact.

AEMO's STTM event notice attributes the incident to an IT systems error, namely a data-entry oversight. Whilst such mistakes may arise from time-to-time, the AER stresses the importance of accurate allocations data to avoid providing misleading price information to market participants and to preserve confidence in market settlement processes. All participants should regularly review their IT systems and periodically re-train operations staff.

1.3 Victorian Gas Market

1.3.1 Longford Gas Plant Outage

On 1 October 2016, a Significant Price Variation (SPV) occurred in Victoria's Declared Wholesale Gas Market (DWGM). The SPV followed an unscheduled outage at the Longford gas plant at 4:26AM. Total production ceased across Longford's three independent plants, requiring AEMO to issue a "declaration of threat to system security" in Victoria. Scheduled prices on the day, ranged between \$9.99/GJ and \$33.75/GJ and approximately \$3.1 million in ancillary payments were generated across the market. AEMO subsequently published a market intervention report on 14 October.

In accordance with its obligations under the Gas Rules, the AER will publish a report on the Victorian SPV event. No compliance issues have been identified at this stage but questions have been raised concerning the timeliness of the information provided to both AEMO and the market. This includes notifications on the outage and subsequent notices on plant re-start schedules. The AER will examine these issues further and any findings will be published as part of the SPV report.

1.3.2 Demand Forecasting in Victoria

The Gas Rules¹¹ require each Victorian Declared Wholesale Gas Market (DWGM) trading participant, who expects to withdraw quantities of natural gas from the DWGM on a gas day, to submit, in good faith, demand quantities which represent the participant's best estimate of the quantity it expects to withdraw, in each hour, of the relevant scheduling horizon.

The AER has identified a DWGM participant that displayed a consistent over forecasting bias which we believe did not meet the required standard under part 19 of the Gas Rules. The participant's demand forecast consistently exceeded its actual demand by more than 20 per cent. While the level of demand for the participant was relatively low, the potential to impact price outcomes over the winter period, during a period of inelastic supply, was exacerbated.

The participant was contacted and subsequent correspondence sought commitments, including the revision of its forecasting methodology and monitoring systems, to detect forecasting errors. The participant has since given assurances to the AER regarding these requests and is reviewing the performance of its systems.

1.4 Gas Supply Hub

1.4.1 Wallumbilla Single Market Product (optional hub services)

The Wallumbilla Compression Product (optional hub services) for the Wallumbilla Gas Supply Hub Exchange (Wallumbilla Exchange) commenced from 26 October 2016. The Hub Service trading product was implemented as part of the transition to a single (commodity) gas product at the Wallumbilla Exchange, which is expected to go live in March 2017. Currently, the Wallumbilla Exchange's liquidity is spread across three points at the QGP, SWQP and RBP (see figure 1 above).

From October, the hub service will be traded at the Wallumbilla hub on the Wallumbilla Exchange, where market participants can access compression and redirection services (and, in the case of compression, where the hub owner or existing contracted shippers may have spare compression for sale). Trades can take the form of a location swap, where the seller takes receipt of gas at a low pressure location and then delivers the gas to a high pressure location (via a bare transfer, line pack adjustment or flow offset).

We understand that, in preparation for the new hub service, the low pressure notional point will be available by the end of October and shippers and the APA are progressing contract amendments

In accordance with its requirements under the Gas Rules, the AER will monitor trading on the exchange with a view to ensuring that members are compliant with their market conduct obligations.

¹¹ Rule 213(2)(a)

1.4.2 The Moomba Hub

While there has been a number of offers and some bidding for gas at the recently introduced Moomba hub, there have been no participant transactions facilitating trading of the spread product¹² or gas at Moomba.

1.5 Retail Market Procedures

Under the Gas Law, AEMO has the ability to make procedures regulating a retail gas market (Retail Market Procedures).¹³ There are four sets of Retail Market Procedures covering Queensland, Victoria, New South Wales and the ACT and South Australia respectively. The procedures impose a number of obligations on participants including in relation to the provision of metering data, the Gas Interface Protocol, customer transfer processes and settlements. Section 91MB of the Gas Law requires compliance with the Retail Market Procedures.

In the event that AEMO has reasonable grounds to suspect a breach of the Retail Market Procedures, it is required under the Gas Law to determine if the breach is material. If AEMO decides the breach is material, AEMO must publish the decision and the reasons for it on its website. AEMO may direct the person suspected of the breach to rectify it or to take specified measures to ensure future compliance (or both). AEMO may also decide to refer the breach to the AER. The obligation to comply with AEMO's direction is a civil penalty provision.

This quarter, AEMO reported the following immaterial breaches of the Retail Market Procedures:

- AEMO's, Jemena Gas Networks' (Jemena) and ActewAGL Distribution's delay on 2 and 3 May 2016 in providing various required files and reports. The late delivery of data occurred at the time of a major system and process transformation following the commencement of the new NSW and ACT retail market arrangements (NARGP¹⁴), which went live on Monday 2 May 2016.
- A failure by various retailers including ActewAGL Retail, AGL Energy, Energy Australia, Lumo Energy, Red Energy and TRU Energy¹⁵, to advise AEMO of some new connection requests prior to the start of the new NSW and ACT market arrangements. All those Meter Installation Registration Numbers (MIRNs) have now been registered in AEMO's Gas Retail Market Business System (GRMBS).
- AEMO's delay, on 16 May 2016, in providing the STTM Network Allocation Data (NAD) file for the NSW and ACT Gas Retail Market. This delay occurred due to two large Basic Meter Reading Data (BSCMR) files having commenced processing prior to the start of the daily calculation process. AEMO has taken a series of actions to ensure the timely submission of relevant files to avoid delay of the daily calculation process.

¹² The spread product facilitates trading between Moomba and Wallumbilla

¹³ See sections 91M and 91MB of the National Gas Law

¹⁴ NSW/ACT Retail Gas Project

¹⁵ Now Energy Australia

- AEMO's delay, on 19, 20 and 28 May 2016; 2 and 15 June 2016; and 17 July 2016, in providing the STTM NAD file for the NSW and ACT Gas Retail Market. These incidents were caused by data processing factors, including a data allocation error (15 June) and a large number of estimated basic meter reads received by the GRMBS on these days; the latter leading to extended processing times. AEMO has manually corrected the error in its GRMBS (15 June event) and has advised that it will continue to identify improvements to its data handling system, including the continued implementation of workarounds to process large numbers of estimated basic meter reads.

In previous QCRs we reported on Jemena's material failure to provide metering data within timeframes specified under clause 21.1 of the NSW and ACT Retail Market Procedures¹⁶ between January to July 2015 and September 2015 to January 2016.¹⁷ We indicated that Jemena subsequently entered into a reporting arrangement with the AER which was due to expire in August 2016. In light of Jemena's recent performance and related issues, Jemena will continue to report to the AER and AEMO on a monthly basis until the AER is satisfied that this is no longer required.

¹⁶ Previous QCRs refer to clause 21.1 of version 14 of the NSW-ACT RMP. These requirements are now outlined under clause 3.5 of version 15 of the NSW-ACT RMP.

¹⁷ This matter had been referred to the AER by AEMO.

2 Electricity

We are responsible for monitoring, investigating and enforcing compliance under the Electricity Law and Rules. This part of the report provides an update on investigations, compliance matters and projects in the electricity market.

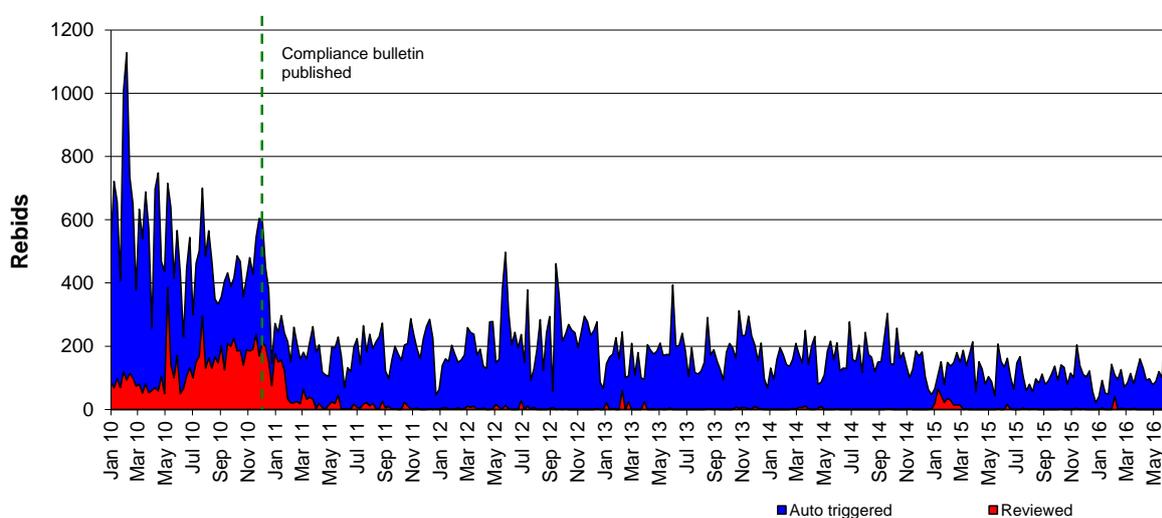
2.1 Rebidding

Scheduled generators and market participants operating in the NEM submit offers and bids for each half hour trading interval. The offers and bids include available capacity for up to 10 price bands, and can be varied through rebidding.¹⁸

According to the 'three stage process' introduced in late 2010 (updated in 2012),¹⁹ we will consider issuing an infringement notice if we issue three notifications within a six month period to generators who submit offer, bid and/or rebid information that does not meet the requirements of the Electricity Rules. The warning count for a participant is set to zero after six months of the first warning being issued.

As shown below in Figure 3, the number of rebids automatically triggered as requiring initial examination (indicated by the blue area) has fallen markedly since 2011.

Figure 3: Rebids auto-triggered and reviewed per week (adjusted²⁰)



¹⁸ Market participants must provide to AEMO, at the same time as a rebid is made, a brief, verifiable and specific reason for the rebid, plus the time at which the reason for the rebid occurred. Equivalent requirements apply where AEMO is advised, under clause 3.8.19 of the Electricity Rules, that a unit, service or load is inflexible. Clause 3.8.22A of the Electricity Rules requires that dispatch offers, dispatch bids and rebids are made in 'good faith'.

¹⁹ In June 2012, we published an updated [Compliance Bulletin No. 3](#) to make it clear that, for the purposes of administering the three stage process and issuing warnings, we will rely on the cumulative count of non-compliant bids for all generating units under the same portfolio. In other words, where a parent company employs a common trading team for the bidding of multiple generating units in its portfolio, irrespective of whether these generators are different registered participants, we will count any non-compliant bids by that trading team together.

²⁰ There was a significant increase in automatically triggered rebids from August to November 2014 when one participant's automated bidding system submitted rebids without including a time adduced which was subsequently corrected. This has been detailed in a [previous QCR](#). Figure 3 has been adjusted by removing the erroneous rebids.

This quarter there were no warnings issued and one participant had their warning count reset to zero. We received 6 self-reporting notices from participants regarding errors in their rebids during the quarter, which we took no further action on.

2.2 Rebidding and Technical Parameters Guideline

The Bidding in Good Faith (also known as or False or Misleading) and Generator Ramp Rate rule changes came into effect on 1 July 2016. In response to these rule changes we are required to make consequential amendments to our Rebidding and Technical Parameters Guideline. As the first step in the consultation process, in late September we published a draft Guideline seeking stakeholder comment by 7 November. We received several submissions which we will take into account in drafting our next draft Guideline to be published in early December. The final revised Guideline will be published in early 2017.

We note that during this quarter there have been a number of high price events in energy and frequency control ancillary services. The behaviour of the participants during these events will be assessed in line with the new rules.

2.3 Technical compliance audits – Uranquinty Power Station

Under clause 4.15 (and, specifically, sub-clauses (b) and (c)) of the Electricity Rules, NEM participants responsible for Generators are required to establish and maintain a Generator Performance Standards (GPS) compliance program that is, among other things, consistent with the Template issued by the AEMC Reliability Panel and good electricity industry practice.

Since 2007, the AER has been verifying compliance with this obligation by conducting technical compliance audits. The AER has recently concluded its review of the GPS compliance program in place for the Uranquinty Power Station for which Origin Energy is responsible. Key findings and observations include that:

- the GPS framework in place is characterized by clear and logical linkages between technical requirements and the systems and processes, and
- Uranquinty's GPS compliance program contains relevant granular information and clearly assigns roles and responsibilities.

In terms of areas for improvement or best practice:

- all underpinning processes should be integrated in the overarching GPS framework;
- similarly, all GPS should be part of any risk assessment process in place.

Overall, the AER has found that, thanks to the type of GPS framework and internal expertise in place, Origin Energy appears to have adequate systems and procedures that are consistent with the requirements under the Electricity Rules and good electricity industry practice.

This technical audit also identified the issue of the intellectual property held by Original Equipment Manufacturers (OEM), which may constrain a participant's GPS testing and compliance monitoring activities. Participants in this position are reminded that, under the Electricity Rules, they are the entity ultimately responsible for compliance in this area. To the extent possible, Generators should therefore ensure that the OEM is aware of, and can assist with, all applicable obligations. Generators should otherwise consider devising—as Origin Energy has sought to do at Uranquinty Power Station—their own testing and compliance monitoring arrangements.

2.4 Projected Assessment of System Adequacy – Heywood Interconnector

On 13 September 2016, the AER published its report on prices above \$5000/MWh in South Australia on 7 July 2016. On the day, the electricity spot price in South Australia reached \$8879/MWh. Among the factors that contributed to the high spot price were scheduled network outages to complete augmentation works on the Heywood interconnector between Victoria and South Australia. The outages reduced South Australia's ability to import power and raised questions regarding the timing of scheduled network outages alongside other energy supply constraints. This included questions regarding the forecasting of supply/demand conditions in the NEM.

In its role as market operator, AEMO publishes a range of information to assist participants and other parties to make decisions about their participation in the market. This includes the Projected Assessment of System Adequacy (PASA), which forecasts supply/demand conditions in each region of the NEM over different timeframes. The medium term PASA (MTPASA) covers daily reserve conditions over the next two years. The MTPASA is published every week, with materially significant updates published in the interim.

In preparing and publishing the MTPASA, AEMO is required to include a range of information including peak demand forecasts, forecast contribution of non-scheduled generation, aggregate regional capacity (including generator availability, forecasts of output from semi-scheduled generators and energy constrained generation), reserve shortfalls and forecast interconnector flow capabilities with and without planned network outages as listed in the Network Outage Schedule (NOS).

PASA is predominantly used by participants and consumers as an indicator of future supply demand conditions; it is, in conjunction with other information available to the market, of increasing importance given the changing mix of generation technologies. While the intended purpose of MTPASA is about system adequacy (effectively power system security and reliability with and without network outages), some participants use PASA information to support risk/financial decisions.

In the AER's analysis of the events of 7 July 2016, we noted that while the major upgrade had been flagged to the market in systems such as the NOS, its impact on Heywood's operating capability was, at times, unclear. The AER has worked with AEMO to clarify the specifics of some of the information obligations for the PASA. AEMO has since adjusted its

approach to ensure that this mechanism can provide a clearer indication of system adequacy.

On 11 October 2016, the AER published a further two reports on prices above \$5000/MWh in South Australia on 13 and 14 July 2016. While planned network outages for augmentation works on the Heywood Interconnector were again a contributing factor, other factors have contributed to all three price events, including scheduled generation plant outages, under forecasting of the contribution of wind power, and changes to the generation mix in South Australia following closure of the Northern Power Station in May 2016.

2.5 Jurisdictional derogations

Chapter 9 derogations exempt Victorian smelter traders, New South Wales power traders and Queensland nominated generators (for the purposes of exempted generator agreements) from complying with the Electricity Rules to the extent there exists:

- any inconsistency between the Rules and a contractual requirement under the relevant agreement between the government and other entities
- any other specified exemption in the jurisdictional derogations.

Relevant participants must notify the AER at AERinquiry@aer.gov.au of any act or omission which partly or wholly constitutes non-compliance with the Electricity Rules.

No non-compliances were reported this quarter.