

Gas Day Harmonisation

Transition Plan - Arrow Energy

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1. Purpose

This Transition Plan details the approach Arrow Energy will take to transition its Natural Gas Facilities to the Standard Gas Day and addresses the requirement under the National Gas Rules for a Transition Plan to be published.

2. Arrow Energy Contacts

Name - Title	Contact Details
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3. Natural Gas Facilities

3.1 Daandine CGPF

Owner	Arrow CSG (Australia) Pty Ltd & Arrow (Daandine) Pty Ltd
Operator	Arrow CSG (Australia) Pty Ltd & Arrow (Daandine) Pty Ltd
Part 26 Facility Type	Gas Production Facility
Part 24 Facility	No – not a pipeline
Connection Point/s	Braemar 2 Pipeline (MIRN: N/A) Braemar 1 Pipeline (MIRN: N/A)

3.2 Moranbah CGPF

Owner	AGL Energy Limited, CH4 Pty Ltd & Arrow CSG (ATP364) Pty Ltd
Operator	CH4 Operations Pty Ltd
Part 26 Facility Type	Gas Production Facility
Part 24 Facility	No – not a pipeline
Connection Point/s	North Queensland Gas Pipeline (MIRN: N/A)

3.3 Tipton West CGPF

Owner	APT Petroleum Pipeline Holdings Pty Ltd
Operator	Arrow (Tipton) Pty Ltd, Arrow (Tipton Two) Pty Ltd, Arrow CSG (Australia) Pty Ltd
Part 26 Facility Type	Gas Production Facility
Part 24 Facility	No – not a pipeline
Connection Point/s	Condamine to Braemar Pipeline ¹ (MIRN: N/A)

¹ Not an Arrow owned gas meter. Configuration changes to be made by counterpart.

3.4 NewGen Braemar 2 Pipeline

Owner	Arrow Braemar 2 Pty Ltd and Arrow Southern Generation Pty Ltd
Operator	Arrow Braemar 2 Pty Ltd and Arrow Southern Generation Pty Ltd
Part 26 Facility Type	Natural Gas Pipeline
Part 24 Facility	No - AER exemption granted
Connection Point/s	Daandine CGPF (MIRN: N/A) NewGen Braemar2 Power Station ² Braemar 1 Pipeline (MIRN: N/A) Wambo Exit Delivery Stream (MIRN: N/A) Wambo Entry Delivery Stream (MIRN: N/A) Jordan ³ (MIRN: N/A) Kenya ³ (MIRN: N/A) Windibri ³ (MIRN: N/A)

4. Transition Arrangements

Arrangements made for transition to use of standard gas day:	<ul style="list-style-type: none"> GDH transition project established & commenced Suitable contractor engaged for required technical works (SCADA/metering etc.) Technical configuration changes to be rolled-out through Q3 2019. Actual meter changes to occur on GD30 Sep'19 Site support established for GD01 Oct'19 Contractual counterparts to be engaged through Jun/Jul'19 Customer billing changes to be made with consideration to agreed contract changes It is expected that no change to meter data reports will be required but delivery totals reported against GD30 Sep'19 will reflect the shorter 22 hour gas day Gas data continuity methodologies to be reviewed through Q319
Arrangements made for transition to use of standard nomination cut-off time:	<ul style="list-style-type: none"> Arrow does not operate Part 24 facilities or auction facilities Internal processes will be adjusted to adhere to the standard nomination cut-off time for services provided by Part 24 facilities and auction facilities
Arrangements made for transition to use of auction service nomination cut-off time:	<ul style="list-style-type: none"> Arrow does not operate auction facilities Internal processes will be adjusted to adhere to the auction service nomination cut-off time for services provided by auction facilities
Adoption of AEMO GDH Transition Plan General Principles:	<ol style="list-style-type: none"> Adopted Adopted Adopted Adopted Adopted N/A <ol style="list-style-type: none"> Connection point meter conversions to take place on GD30 September N/A

² No gas meter exists at this connection point.

³ Not an Arrow owned gas meter. Configuration changes to be made by counterpart.

	<p>c) See 5 Method of Completion of Meter Conversions below</p> <p>d) Adopted</p> <p>e) Contractor to support estimation should meters configuration changes fail through transition to standard gas day</p> <p>7. N/A</p> <p>8. Adopted</p> <p>9. Adopted</p> <p>10. Adopted, with the exception of instances where the intention was to align a 'timing' to an external market event/mechanism (e.g. the 12:30 release of Pre-Dispatch in the NEM)</p> <p>11. Adopted</p> <p>12. No MHQ or MDQ impacts are expected</p>
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5. Method of Completion of Meter Conversions

To facilitate the transition of the connection point meters to the standard gas day, existing Today and Yesterday totaliser tags will be reconfigure from a 'roll-over' time of 8am to 6am through use of custom scripts to be developed and deployed to infrastructure through Q3 2019.

The key change is adjusting relevant remote terminal units (RTU) and flow computers to a 6am gas day at a time after 8am on 30th of September – allowing flows to roll-over each day at 6am in perpetuity from 1st of October 2019.

A suitable 3rd party has been subcontracted to perform the required technical works. The work scope includes:

1. Offline code review for execution capability;
2. Survey of existing metering station logic and as built-status;
3. Performing modifications to change from gas day 30 September to gas day 01 October at 6am on 1st of October, rendering gas day 30 September a 22 hour day
 - a. Factory acceptance test - demonstration that code changes and data simulation provide required functionality;
 - b. Meter verification and validations post modification;
 - c. JSEA's and all associated site works to perform changes; and
 - d. Providing as build code post installation
4. Site mobilisation of specialist subcontractor for code downloads; and
5. Site support on the ground on gas day 01 October 2019

6. References

AEMO Gas Day Harmonisation Transition Plan	http://www.aemo.com.au/-/media/Files/Stakeholder_Consultation/Consultations/Gas_Consultations/2019/GDH-Transition-Plan---Final.pdf
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