

2017 ANNUAL RESERVES REPORT

For the year ended 30 June 2017

1. RESERVES AND RESOURCES

This Annual Reserves Report provides an update on the reserves and resources of Origin Energy Limited (Origin) and its share of Australia Pacific LNG (APLNG), as at 30 June 2017. It also identifies the reserves and resources for Lattice Energy (the conventional upstream business that Origin intends to divest via a dual track IPO / trade sale process). The data is compared with and reconciled to the position at 30 June 2016.

1.1 Highlights

APLNG

- Activity during Financial Year (FY) 2017 focused on increasing near term production ahead of the two-train lenders' test contributing to:
 - a strong production result with Origin's share of APLNG production increasing by 72 PJe to 229 PJe
 - an increase in Origin's share of proven reserves (1P) of 389 PJe before production as a result of development drilling. After production 1P increased by 160 PJe to 2,819 PJe.
- Following completion of the operational phase of the two-train lenders' test, APLNG is now focused on exploration and appraisal activities to identify and mature resources to reserves.

Lattice Energy

- The completion of the Halladale / Speculant project during August 2016 contributed to a 20 PJ increase in annual production to 95 PJe relative to FY 2016.
- Proved plus probable (2P) reserves decreased by 113 PJe to 835 PJe primarily reflecting production.
- Stage 2 of the Waitsia Gas Project continues to progress with FID on the 100 TJ/day project anticipated by the end of FY2018.

1.2 2P Reserves

Table 1: Origin 2P reserves (by area)

Reserves (2P) by area (PJe)	2P 30/06/16	Acquisition/ Divestment	New Booking /Discovery	Revisions/ Extensions	Production	2P 30/06/17
Australia Pacific LNG						
Surat/Bowen (Unconventional)	5,073	-	-	(141)	(229)	4,704
Other						
Ironbark (Unconventional)	256	-	-	(7)	-	249
Lattice Energy						
Otway Basin (Thylacine, Geographe)	177	-	-	4	(26)	156
Otway Basin (HBWS) ¹	78	-	-	(14)	(22)	42
Bass Basin	50	-	-	7	(8)	48
SA Cooper Basin	149	-	-	(18)	(10)	120
SWQ Cooper Basin	35	-	-	2	(6)	31
Perth Basin (Operated) ²	23	-	-	3	(3)	23
Perth Basin (Non Operated) ³	232	-	-	2	(1)	233
NZ Onshore Taranaki	-	-	-	0	(0)	-
NZ Offshore Taranaki (Kupe)	204	-	-	(3)	(18)	184
<i>Sub Total (Lattice Energy)</i>	<i>948</i>	<i>-</i>	<i>-</i>	<i>(18)</i>	<i>(95)</i>	<i>836</i>
Total	6,277	-	-	(166)	(323)	5,788

Notes (1) HBWS: Halladale, Black Watch, Speculant (2) Operated: Beharra Spring Terrace, Redback Terrace (3) Non Operated: Waitsia

RESERVES AND RESOURCES FOR THE YEAR ENDED 30 JUNE 2017

Summary of 2P Reserves Movement

Proved plus probable (2P) reserves decreased by 489 PJe to a total of 5,788 PJe, when compared to 30 June 2016. The key changes in 2P reserves include:

- 323 PJe decrease due to production
- 166 PJe net decreases resulting from revisions / extensions mostly associated with APLNG

The revisions / extensions of 166 PJe of 2P reserves included movements in the following areas:

- APLNG decreased by 141 PJe primarily due to reduced recovery estimates in low permeability areas.
- Cooper decreased 17 PJe due to field development revisions.
- Ironbark (unconventional) decreased by 7 PJe due to updated regional permeability mapping.
- Otway Basin decreased by 10 PJe due to lower than expected performance at Halladale Field partly offset by the successful Thylacine TA-1 well intervention which extended production.
- Bass Basin increased 7 PJe reflecting an updated reservoir model.

Additional notes

- At 30 June 2017, 86% of Origin 2P reserves are unconventional.
- The current Waitsia appraisal drilling results are being evaluated and are not included in this update.

Table 2: Origin 2P reserves (by product and development type)

Reserves (2P) by product/development	Gas	LPG	Condensate	Oil	Total (PJe)		Total (PJe)
	(PJ)	(KT)	(kbbbl)	(kbbbl)	Developed	Undeveloped	
Australia Pacific LNG							
Surat/Bowen (Unconventional)	4,704	-	-	-	2,387	2,317	4,704
Other							
Ironbark (Unconventional)	249	-	-	-	-	249	249
Lattice Energy							
Otway Basin (Thylacine, Geographe)	132	262	1,935	-	80	75	156
Otway Basin (HBWS) ¹	37	49	414	-	31	10	42
Bass Basin	36	101	1,197	-	48	-	48
SA Cooper Basin	93	196	1,448	1,527	86	34	120
SWQ Cooper Basin	25	49	359	385	21	10	31
Perth Basin (Operated) ²	23	-	16	-	18	5	23
Perth Basin (Non Operated) ³	232	-	94	-	45	188	233
NZ Onshore Taranaki	-	-	-	-	-	-	-
NZ Offshore Taranaki (Kupe)	133	571	4,194	-	95	88	184
<i>Sub Total (Lattice Energy)</i>	<i>712</i>	<i>1,230</i>	<i>9,658</i>	<i>1,912</i>	<i>425</i>	<i>411</i>	<i>836</i>
Total	5,664	1,230	9,658	1,912	2,812	2,976	5,788

Notes (1) HBWS: Halladale, Black Watch, Speculant (2) Operated: Beharra Spring Terrace, Redback Terrace (3) Non Operated: Waitsia

Table 3: Origin 2P reserve changes (by product)

Reserves (2P) by product	Gas	LPG	Condensate	Oil	Total
	(PJ)	(KT)	(kbbbl)	(kbbbl)	(PJe)
2P 30/06/16	6,133	1,394	11,411	2,287	6,277
Acquisition/divestment	-	-	-	-	-
New bookings/discoveries	-	-	-	-	-
Revisions/extensions	(163)	(21)	(272)	(64)	(166)
Production	(306)	(143)	(1,482)	(311)	(323)
2P 30/06/17	5,664	1,230	9,658	1,912	5,788
Change	(469)	(164)	(1,754)	(375)	(489)
Change (percentage)	(8)	(12)	(15)	(16)	(8)

RESERVES AND RESOURCES FOR THE YEAR ENDED 30 JUNE 2017

1.3 1P Reserves

Proved (1P) reserves increased by 110 PJe (after production) to a total of 3,271 PJe, when compared to previous reporting period. Approximately 86% of 1P reserves are unconventional.

Table 4: Origin 1P reserves (by area)

Reserves (1P) by area (PJe)	1P 30/06/16	Acquisition/ Divestment	New Booking /Discovery	Revisions/ Extensions	Production	1P 30/06/17
Australia Pacific LNG						
Surat/Bowen (Unconventional)	2,659	-	-	389	(229)	2,819
Other						
Ironbark (Unconventional)	-	-	-	-	-	-
Lattice Energy						
Otway Basin (Thylacine, Geographe)	127	-	-	(11)	(26)	91
Otway Basin (HBWS) ¹	47	-	-	(6)	(22)	19
Bass Basin	39	-	-	(0)	(8)	31
SA Cooper Basin	64	-	-	(2)	(10)	51
SWQ Cooper Basin	16	-	-	4	(6)	14
Perth Basin (Operated) ²	9	-	-	2	(3)	8
Perth Basin (Non Operated) ³	57	-	-	64	(1)	120
NZ Onshore Taranaki	-	-	-	0	(0)	-
NZ Offshore Taranaki (Kupe)	143	-	-	(8)	(18)	117
<i>Sub Total (Lattice Energy)</i>	<i>502</i>	<i>-</i>	<i>-</i>	<i>45</i>	<i>(95)</i>	<i>452</i>
Total	3,160	-	-	434	(323)	3,271

Notes (1) HBWS: Halladale, Black Watch, Speculant (2) Operated: Beharra Spring Terrace, Redback Terrace (3) Non Operated: Waitsia

Table 5: Origin 1P reserves (by product and development type)

Reserves (1P) by product	Gas	LPG	Condensate	Oil	Total (PJe)		Total (PJe)
	(PJ)	(KT)	(kbbbl)	(kbbbl)	Developed	Undeveloped	
Australia Pacific LNG							
Surat/Bowen (Unconventional)	2,819	-	-	-	2,387	432	2,819
Other							
Ironbark (Unconventional)	-	-	-	-	-	-	-
Lattice Energy							
Otway Basin (Thylacine, Geographe)	76	157	1,163	-	53	38	91
Otway Basin (HBWS) ¹	17	24	198	-	19	-	19
Bass Basin	23	66	750	-	31	-	31
SA Cooper Basin	40	83	572	776	37	14	51
SWQ Cooper Basin	11	25	158	124	10	4	14
Perth Basin (Operated) ²	8	-	8	-	8	-	8
Perth Basin (Non Operated) ³	120	-	48	-	34	86	120
NZ Onshore Taranaki	-	-	-	-	-	-	-
NZ Offshore Taranaki (Kupe)	83	355	3,195	-	78	40	117
<i>Sub Total (Lattice Energy)</i>	<i>379</i>	<i>709</i>	<i>6,093</i>	<i>899</i>	<i>271</i>	<i>181</i>	<i>452</i>
Total	3,198	709	6,093	899	2,658	613	3,271

Notes (1) HBWS: Halladale, Black Watch, Speculant (2) Operated: Beharra Spring Terrace, Redback Terrace (3) Non Operated: Waitsia

RESERVES AND RESOURCES FOR THE YEAR ENDED 30 JUNE 2017

Table 6: Origin 1P reserve changes (by product)

Reserves (1P) by product	Gas (PJ)	LPG (KT)	Condensate (kbbbl)	Oil (kbbbl)	Total (PJe)
1P 30/06/16	3,067	899	8,083	877	3,160
Acquisition/divestment	-	-	-	-	-
New bookings/discoveries	-	-	-	-	-
Revisions/extensions	437	(47)	(508)	333	434
Production	(306)	(143)	(1,482)	(311)	(323)
1P 30/06/17	3,198	709	6,093	899	3,271
Change	131	(190)	(1,990)	23	111
Change (percentage)	4	(21)	(25)	3	4

1.4 3P and 2C Contingent Resources for Lattice Energy

The following tables summarize the 3P reserve estimate and the 2C contingent resource estimate for the Lattice Energy assets as at 30 June 2017:

Table 7: Lattice Energy 3P reserves (by area & product)

Reserves / resource classification (PJe)	Gas (PJ)	LPG (KT)	Condensate (kbbbl)	Oil (kbbbl)	3P (PJe)
Otway Basin (Thylacine, Geographe)	180	347	2,565	-	211
Otway Basin (HBWS) ¹	52	69	586	-	59
Bass Basin	45	123	1,481	-	59
Bonaparte Basin	-	-	-	-	-
SA Cooper Basin	154	375	2,844	3,070	206
SWQ Cooper Basin	45	92	726	505	57
Perth Basin (Operated) ²	31	-	25	-	31
Perth Basin (Non Operated) ³	353	-	143	-	354
NZ Onshore Taranaki	-	-	-	-	-
NZ Offshore Taranaki (Kupe)	165	709	5,036	-	227
Total	1,026	1,715	13,406	3,575	1,204

Notes (1) HBWS: Halladale, Black Watch, Speculant (2) Operated: Beharra Spring Terrace, Redback Terrace (3) Non Operated: Waitsia, Senecio, Synaphea, Irwin

Table 8: Lattice Energy 2C contingent resources (by area & product)

Reserves / resource classification (PJe)	Gas (PJ)	LPG (KT)	Condensate (kbbbl)	Oil (kbbbl)	2C (PJe)
Otway Basin (Thylacine, Geographe)	94	157	1,201	-	108
Otway Basin (HBWS) ¹	29	50	375	-	34
Bass Basin	67	214	3,262	560	99
Bonaparte Basin	54	16	216	-	56
SA Cooper Basin	316	467	3,348	4,039	381
SWQ Cooper Basin	38	60	476	255	45
Perth Basin (Operated) ²	-	-	-	111	1
Perth Basin (Non Operated) ³	474	-	1,735	-	483
NZ Onshore Taranaki	-	-	-	-	-
NZ Offshore Taranaki (Kupe)	12	52	1,165	305	23
Total	1,084	1,015	11,777	5,270	1,229

Notes (1) HBWS: Halladale, Black Watch, Speculant (2) Operated: Beharra Spring Terrace, Redback Terrace (3) Non Operated: Waitsia, Senecio, Synaphea, Irwin

RESERVES AND RESOURCES
FOR THE YEAR ENDED 30 JUNE 2017

Additional Comments

Beetaloo

A material contingent resource announcement of 6.6 Tscf (gross) or 2.3 Tscf (net) for the Beetaloo Basin was provided on 15 February 2017 to the ASX: <http://www.asx.com.au/asxpdf/20170215/pdf/43g0qhh87j71bb.pdf>

Ironbark

Ironbark (unconventional) 3P reserves decreased by 77 PJe to 635 PJe and 2C increased by 3 PJe to 332 PJe. These changes are due to updated regional permeability mapping

Appendix A: APLNG Reserves and Resources

Netherland, Sewell & Associates, Inc. (NSAI) has audited and prepared a consolidated report of the reserves and resources held by APLNG. The reserves and resources estimates for each property in this report have either been independently prepared by NSAI or prepared by Origin and audited by NSAI. The reserves and resources data are based on technical, commercial and operational information provided by Origin on behalf of APLNG.

Table 9 provides 1P, 2P and 3P reserves and 2C resources for APLNG (100%) and Table 10 shows Origin's 37.5% interest in these APLNG reserves and resources.

Table 9: Reserves/resources held by APLNG (100% share)

Reserves / resource classification (PJe)	30/06/16	Acquisition/ Divestment	New Booking /Discovery	Production	Revisions/ Extensions	30/06/17
1P (proven)	7,089	-	-	(610)	1,037	7,518
2P (proven plus probable)	13,529	-	-	(610)	(375)	12,545
3P (proven plus probable plus possible)	14,935	-	-	(610)	(944)	13,382
2C (best estimate contingent resources)	3,026	-	-	-	930	3,956

Table 10: Reserves/resources held by Origin (37.5% in APLNG)

Reserves / resource classification (PJe)	30/06/16	Acquisition/ Divestment	New Booking /Discovery	Production	Revisions/ Extensions	30/06/17
1P (proven)	2,659	-	-	(229)	389	2,819
2P (proven plus probable)	5,073	-	-	(229)	(141)	4,704
3P (proven plus probable plus possible)	5,601	-	-	(229)	(354)	5,018
2C (best estimate contingent resources)	1,135	-	-	-	349	1,483

The 1,037 PJe increase in APLNG (100% share) 1P excluding production is due to development drilling.

The 375 PJe decrease in APLNG (100% share) 2P excluding production is due to downward revision of recovery in low permeability areas.

The 944 PJe decrease in APLNG (100% share) 3P excluding production is due to reclassification of 3P to 2C contingent resources and downward revision in recovery in low permeability areas.

The 930 PJe increase in APLNG (100% share) 2C is due to reclassification from reserves. There are a number of appraisal activities presently ongoing that if successful will convert some of the resources to reserves.

APLNG is now focused on exploration and appraisal activities to identify and mature resources to reserves with active exploration and appraisal drilling, technology trials and cost saving initiatives.

Appendix B: Notes Relating to this Report

a. Methodology regarding Reserves and Resources

The Reserves Report has been prepared to be consistent with the Petroleum Resources Management System (PRMS) 2007 published by Society of Petroleum Engineers (SPE). This document may be found at the SPE website: spe.org/industry/docs/Petroleum_Resources_Management_System_2007.pdf. Additionally, this Reserves Report has been prepared to be consistent with the ASX reporting guidelines. For all assets Origin reports reserves and resources consistent with SPE guidelines as follows: proved reserves (1P); proved plus probable reserves (2P); proved plus probable plus possible reserves (3P); best estimate contingent resource (2C). Reserves must be discovered, recoverable, commercial and remaining.

The conventional (non-CSG) reserves estimates are prepared by employees who are qualified petroleum reserves and resource evaluators working in each of our assets utilising an Origin approved Reserves and Resources Process. RISC Advisory (RISC) has performed an independent audit of Origin Energy's estimates of reserves and contingent resources for the Lattice Energy assets as listed in this report and believe these reserves and resources estimates to be reasonable and have been prepared in accordance with the standards, definitions and guidelines contained within the Petroleum Resources Management System (PRMS) and generally accepted petroleum engineering and evaluation principles as set out in the SPE Reserves Auditing Standards. RISC consents to being named in this report.

The CSG reserves and resources held within APLNG's properties have either been independently prepared by NSAI or prepared by Origin and audited by NSAI. An independent assessment of our CSG reserves and resources within ATP 788 (Ironbark) permit has been undertaken by NSAI.

Origin does not intend to report Prospective or Undiscovered Resources as defined by the SPE in any of its areas of interest on an ongoing basis.

b. Economic test for reserves

The assessment of reserves requires a commercial test to establish that reserves can be economically recovered. Within the commercial test, operating cost and capital cost estimates are combined with fiscal regimes and product pricing to confirm the economic viability of producing the reserves.

In the case of oil, condensate and LPG forward estimates of prices are used in line with the forward curves available through various international benchmarking agencies, appropriately adjusted for local market conditions.

Gas reserves are assessed against existing contractual arrangements, local market conditions, as appropriate. In the case of gas reserves where contracts are not in place a forward price scenario based on monetisation of the reserves through domestic markets has been used, including power generation opportunities, direct sales to LNG and other end users and utilisation of Origin's wholesale and retail channels to market.

For CSG reserves that are intended to supply the APLNG CSG to LNG project, the economic test is based on internal transfer prices based on the Residual Pricing Mechanism (RPM). The RPM mechanism is used within the Petroleum Resource Rent Tax (PRRT) regime to determine an appropriate transfer price for integrated gas to liquids projects.

RPM applies the same rate of return to the upstream and downstream businesses of the APLNG project, and divides residual profit equally between the businesses. The residual profit is a function of the upstream "cost plus" and the downstream "net back" prices. The residual price is exposed to changes in the supply/demand balance in the market through the oil price-linked LNG contract, as well as other market forces through the long term bond rate.

c. Reversionary Rights

The CSG interests that Australia Pacific LNG acquired from Tri-Star in 2002 are subject to reversionary rights. If triggered, these rights will require Australia Pacific LNG to transfer back to Tri-Star a 45% interest in those CSG interests for no additional consideration. Origin has assessed the potential impact of these reversionary rights based on economic tests consistent with the reserves and resources referable to the CSG interests and based on that assessment does not consider that the existence of these reversionary rights impacts the reserves and resources quoted in this report. Tri-Star has commenced proceedings against Australia Pacific LNG claiming that reversion has occurred. Australia Pacific LNG denies that reversion has occurred and is defending the claim.

d. Information regarding the preparation of this Reserves Report

The internationally recognised petroleum consultant NSAI has prepared assessments of the reserves and resources for the Ironbark asset. The CSG reserves and resources held within APLNG's properties have either been independently prepared by NSAI or prepared by Origin and audited by NSAI. All assessments are based on technical, commercial and operational data provided by Origin on behalf of APLNG.

The statements in this Report relating to reserves and resources as of 30 June 2017 for APLNG and the Ironbark asset are based on information in the NSAI reports dated 26 July 2017 and 5 July 2017, respectively. The data has been compiled by Mr. Dan Paul Smith, a full-time employee of NSAI. Mr. Dan Paul Smith has consented to the statements based on this information, and to the form and context in which these statements appear.

The statements in this Report relating to reserves and resources for other assets have been compiled by Andrew Mayers, a full-time employee of Origin. Andrew Mayers is a qualified reserves and resources evaluator and has consented to the form and context in which these statements appear.

RESERVES AND RESOURCES FOR THE YEAR ENDED 30 JUNE 2017

e. Rounding

Information on reserves is quoted in this report rounded to the nearest whole number. Some totals in tables in this report may not add due to rounding. Items that round to zero are represented by the number 0, while items that are actually zero are represented with a dash "-".

f. Abbreviations

bbl	barrel
Tscf	trillion standard cubic feet
CSG	coal seam gas
kbbbls	kilo barrels = 1,000 barrels
ktonnes	kilo tonnes = 1,000 tonnes
mmboe	million barrels of oil equivalent
PJ	petajoule = 1×10^{15} joules
PJe	petajoule equivalent

g. Conversion Factors for PJe

Crude oil	0.00583 PJ/kbbbls = 5.83 PJ / mmboe
Condensate	0.00541 PJ/kbbbls
LPG	0.0493 PJ/ktonnes
CSG	1.038 PJ/Bscf

h. Reference Point

Reference points for Origin's petroleum reserves and contingent resources are defined points within Origin's operations where normal exploration and production business ceases, and quantities of the produced product are measured under defined conditions prior to custody transfer. Fuel, flare and vent consumed to the reference points are excluded.

i. Preparing and Aggregating Petroleum Resources

Petroleum reserves and contingent resources are typically prepared by deterministic methods with the support from probabilistic methods. Petroleum reserves and contingent resources are aggregated by arithmetic summation by category and as a result, proved reserves may be a conservative estimate due to the portfolio effects of the arithmetic summation. Proved plus probable plus possible may be an optimistic estimate due to the same aforementioned reasons.

j. Methodology and Internal Controls

The reserves estimates undergo an assurance process to ensure that they are technically reasonable given the available data and have been prepared according to our reserves and resources process, which includes adherence to the PRMS Guidelines. The assurance process includes peer reviews of the technical and commercial assumptions. The annual reserves report is reviewed by management with the appropriate technical expertise, including Chief Petroleum Engineer and Integrated Gas General Managers.

k. Qualified Petroleum Reserves and Resources Evaluators

The material presented in this report is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of the listed qualified reserves and resources evaluators. These individuals have consented to the statements based on this information, and to the form and context in which these statements appear.

Name	Employer	Professional Organisation*
Andrew Mayers	Origin Energy (Chief Petroleum Engineer)	SPE, APEGA, RPEQ
Chung Chen	Origin Energy	SPE, EA, RPEQ
Samantha Phillips	Origin Energy	SPE, EA, APEGA, RPEQ
Ian Meynink	Origin Energy	SPE, EA, RPEQ
Rod Trubshaw	Origin Energy	SPE, RPEQ
Graham Sutherland	Origin Energy	SPE, EA, RPEQ
Simon Smith	Origin Energy	SPE, EA, RPEQ
Alistair Jones	Origin Energy	SPE, EA
Reneke van Soest	Origin Energy	SPE
Julie Moriarty	Origin Energy	SPE
Alexander Cote	Origin Energy	SPE, APEGA, EA
Sarah Bishop	Origin Energy (Lattice Energy)	SPE, EA, RPEQ
Alan Mourgues	Origin Energy (Lattice Energy)	SPE, EA, RPEQ
Petrina Weatherstone	Origin Energy (Lattice Energy)	SPE
Arvo Nagel	Origin Energy (Lattice Energy)	SPE
Pedro Paris	Origin Energy (Lattice Energy)	SPE
Jocelyn Young	Origin Energy (Lattice Energy)	SPE
David MacDougal	Origin Energy (Lattice Energy)	SPE
Nick Allen	Origin Energy (Lattice Energy)	SPE
Rowan Wilson	Origin Energy (Lattice Energy)	SPE

* SPE: Society of Petroleum Engineers; AAPG: American Association of Petroleum Geologists; APEGA: The Association of Professional Engineers and Geoscientists of Alberta; EA: Engineers of Australia; RPEQ: Board of Professional Engineers Queensland; RPEQ: Registered Professional Engineer of Queensland.