



30 July 2010

## Origin Energy 2010 Annual Reserves Report

This Annual Reserves Report provides an update on the hydrocarbon reserves of Origin Energy Limited ("Origin") and its subsidiaries as at 30 June 2010. It provides comparisons with and reconciliations to reserves as reported at 30 June 2009.

The Proved plus Probable ("2P") reserves attributable to Origin across its areas of interest at 30 June 2010 totalled 6,207 petajoules equivalent (PJe), an increase of 1,723 PJe or 38% from 30 June 2009.

The overall increase of 1,723 PJe included additions and revisions totalling 1,827 PJe together with production of 104 PJe. This represents a reserve to production replacement ratio in aggregate of over 1700%.

The following table provides reconciliation to the reserves reported at 30 June 2010 to the reserves reported at 30 June 2009.

Table 1: Summary of Origin's 2P reserves by area

Origin 2P Reserves by Region (PJe)	2P Reserves 30-Jun-09	Net additions and revisions	Production	2P reserves 30-Jun-10
<b>Australia Pacific LNG</b>				
Coal Seam Gas / Denison	3,633	1,474	(36)	5,071
<b>Cooper Basin</b>				
SA Cooper Basin	148	8	(11)	144
SWQ Cooper Basin	49	17	(9)	57
<b>Other onshore Australia</b>				
Western Australia	13	9	(3)	19
Conventional Surat Basin	26	(1)	(4)	21
<b>Offshore Australia</b>				
Otway Basin - Offshore	220	301	(23)	497
Bass Basin	169	-	(7)	162
<b>New Zealand</b>				
Offshore Taranaki (Kupe)	194	21	(9)	207
Onshore Taranaki	32	(2)	(2)	28
<b>Total</b>	<b>4,484</b>	<b>1,827</b>	<b>(104)</b>	<b>6,207</b>

During the year 2P reserves in areas held by Australia Pacific LNG (APLNG) increased by 40% or 2,878 PJe net of production to 10,143 PJe at 30 June 2010. This increase includes the net impact of exploration and appraisal drilling activities, production pilots, technical assessments and the optimisation of field development plans. Origin has a 50% interest in the APLNG Joint Venture and therefore has an effective interest of 5,071 PJe in these reserves.



Other increases in reserves were recorded in the following areas:

- Offshore Otway Basin - net increase of 277 PJe increase: Origin increased its equity interest in the Otway Gas Project from 30.75% to 67.23% adding 252 PJe. In addition technical studies regarding plant turn down performance resulted in an upward revision of 48 PJe (net to Origin). Taking into account production net to Origin of 23 PJe, Origin's reserves in this area increased by 277 PJe.
- Offshore Taranaki Basin (Kupe Gas Project) - net increase of 13 PJe: a review of technical information from development wells, early production data and detailed reservoir modelling resulted in an increase in initial reserves for the Kupe field of around 43 PJe driven mainly by a 27 per cent increase in reserves of condensate or light crude oil. Origin's share of this increase in initial reserves was around 21 PJe, including approximately 2 million barrels of light oil. After production Origin's year end reserves increased by 13 PJe.
- Western Australia - net increase of 6 PJe: a decrease in reserves associated with the Hovea and Jingemina oil fields (-428 kbbls or -2.5 PJe) was more than offset by an increase of 11.4 PJe in gas and liquids reserves following successful exploration and appraisal drilling in the Redback / Redback South area down-dip from the Beharra Springs gas field.
- Cooper Basin - net increase of 5 PJe: a number of individual field studies undertaken by the Operator led to a net increase in 2P reserves of 5 PJe.

Overall decreases in reserves occurred in the Bass, Surat and onshore Taranaki basins. Reserves in the Bass Basin decreased in line with production of 7 PJe, while a 1 PJe revision in the Surat Basin resulted in a net 5 PJe reduction in reserves after production. A review of oil and gas field performance in the onshore Taranaki Basin has led to downward revisions totalling 2 PJe, or 4 PJe inclusive of production.

Table 2 below provides details of Origin's 2P reserves by product as at 30 June 2010.

Origin 2P Reserves by Product 30/06/2010	Gas (PJ)	LPG (kT)	Condensate (kbbls)	Oil (kbbls)	TOTAL (PJe)
<b>Australia Pacific LNG</b>					
Coal Seam Gas / Denison	5,071	-	25	-	5,071
<b>Cooper Basin</b>					
SA Cooper Basin	109	244	1,613	2,454	144
SWQ Cooper Basin	47	72	604	527	57
<b>Other onshore Australia</b>					
Western Australia	17	-	13	301	19
Conventional Surat Basin	17	33	192	188	21
<b>Offshore Australia</b>					
Otway Basin - Offshore	425	781	6,204	-	497
Bass Basin	117	365	4,448	349	162
<b>New Zealand</b>					
Offshore Taranaki (Kupe)	132	541	8,799	-	207
Onshore Taranaki	16	31	91	1,830	28
<b>Total</b>	<b>5,952</b>	<b>2,066</b>	<b>21,989</b>	<b>5,648</b>	<b>6,207</b>



## Appendix 1: Reserves and Resources held through APLNG

The reserves data presented for APLNG represents an independent assessment by the internationally recognised petroleum consultant Netherland, Sewell & Associates, Inc (“NSAI”). NSAI has prepared this assessment of reserves and resources based on technical, commercial and operational information provided by Origin on behalf of APLNG. The assessment includes coal seam gas (CSG) reserves held across a number of areas and conventional gas reserves in the Denison Trough area.

Table 3 below records reserves and resources for the APLNG Joint Venture, while Table 4 records Origin’s interest in these hydrocarbon accumulations.

**Table 3: APLNG 100%**

Reserves and Contingent Resources attributable to areas held by APLNG 100% level (PJe)				
	Reserves at 30-Jun-09	Additions (Revisions)	Production	Reserves * at 30-Jun-10
2P Reserves	7,265	2,948	(71)	10,143
3P Reserves	12,626	2,043	(71)	14,598
Resources				
	at 30-Jun-09	Additions (Revisions)	Production	at 30-Jun-10
2C Resources	7,927	(3,082)	-	4,844
3C Resources	13,081	(1,603)	-	11,478

\* The 2P and 3P reserves estimates at 30 June 2010 in the table above include 44 PJe and 60 PJe respectively for conventional reserves in the Denison Trough. The balance represents CSG reserves.

**Table 4: Origin 50% interest in APLNG**

Reserves and Contingent Resources attributable to areas held by APLNG Origin interest (50%) (PJe)				
	Reserves at 30-Jun-09	Additions (Revisions)	Production	Reserves * at 30-Jun-10
2P Reserves	3,633	1,474	(36)	5,071
3P Reserves	6,313	1,022	(36)	7,299
Resources				
	at 30-Jun-09	Additions (Revisions)	Production	at 30-Jun-10
2C Resources	3,963	(1,541)	-	2,422
3C Resources	6,540	(801)	-	5,739

\* The 2P and 3P reserves estimates at 30 June 2010 in the table above include 22 PJe and 30 PJe respectively for conventional reserves in the Denison Trough. The balance represents CSG reserves.



## Appendix 2: ATP 788P (Ironbark)

On 7 August 2009 Origin completed the acquisition of a 100% interest in the CSG exploration permit ATP 788P (Ironbark) in Queensland. Since the acquisition further assessment of existing data has been undertaken, including a review of available data by NSAI. NSAI has estimated the Possible reserves attributable to the tenement as 1,003 PJ. An evaluation program has been planned for the permit and commenced in late May 2010. Evaluation of data from this ongoing appraisal program will need to be undertaken before 2P reserves can be booked in the permit.

## Appendix 3: Remarks Relating to the Construction of this Report

### Definitions of Reserves and Resources

The Reserves Statement has been prepared to be consistent with the Petroleum Resources Management System 2007 published by Society of Petroleum Engineers (SPE). This document may be found at the SPE website <http://www.spe.org/spe-app/spe/industry/reserves/prms.htm>

Origin follows Australian industry practice and focuses on reporting 2P reserves.

In the case of the APLNG Joint Venture an independent assessment is undertaken by external consultants NSAI and Origin provides estimates of four categories of reserves and resources consistent with the SPE guidelines, as follows:

- Proved plus Probable reserves (2P)
- Proved plus Probable plus Possible reserves (3P)
- Best Estimate (2C) Contingent resource
- High Estimate (3C) Contingent Resource

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.

This report does not include interests in known fields or accumulations for which additional technical work is required to allow an adequate assessment of reserves or resources.

Conventional discoveries that are not included in this report include Trefoil and Rockhopper in the Bass Basin, Halladale and Blackwatch in the offshore Otway Basin and Petrel in the Bonaparte Basin. Further technical evaluation of these discoveries is continuing and will need to be concluded before reserves can be booked in these areas.

### Economic test for reserves

The assessment of reserves requires a commercial test to establish that reserves can be economically recovered. Operating cost and capital cost estimates are combined with fiscal regimes and product pricing to confirm the economic viability of 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 or 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 end users and utilisation of Origin's wholesale and retail channels to market.

### **Reversionary Rights**

Origin's interests in exploration and production tenements (held directly or indirectly) may change from time to time and some of APLNG's CSG tenements are subject to commercial arrangements under which, after the recovery of acquisition, royalty, development and operating costs, plus an uplift on development and operating costs, a portion of some of the interests may revert to previous holders of the tenements. Origin has assessed the potential impact of reversionary rights associated with such interests based on the economic tests for reserves outlined in this report and based on that assessment does not consider that reversion will impact the reserves quoted within this report.

### **Information regarding the preparation of this Reserves Report**

The internationally recognised petroleum consultant Netherland, Sewell & Associates, Inc (NSAI) has prepared assessments of the reserves and resources for APLNG and the Ironbark asset based on technical, commercial and operational data provided by Origin.

The statements in this Report relating to reserves and resources for APLNG and the Ironbark asset at 30 June 2010 are based on information in the NSAI reports dated July 21, 2010 for these assets, compiled by Mr. John G. Hattner, a full-time employee of NSAI. Mr. John G. Hattner 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 qualified in accordance with ASX listing rule 5.11 and has consented to the form and context in which these statements appear.

### **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 "-".



## Abbreviations

barrels	an international measure of oil production. 1 barrel = 159 litres
Bscf	billion standard cubic feet
CSG	coal seam gas
GJ	gigajoule = $10^9$ joules
joule	A measure of energy
Kbbls	kilo barrels = 1,000 barrels
Ktonnes	kilo tonnes = 1,000 tonnes
mmboe	million barrels of oil equivalent
PJ	petajoule = $10^{15}$ joules
PJe	petajoule equivalent, a measure used to express the volume of different petroleum products on the basis of the energy contained in the product

## Conversion Factors

The following factors have been used in converting standard petroleum product measures to the energy measure of petajoules, with the results expressed as petajoules equivalent (PJe).

Crude oil	0.00583 PJ/kbbls : 5.83 PJ / mmboe
Condensate	0.00541 PJ/kbbls
LPG	0.0493 PJ/ktonnes
CSG	1.038 PJ/Bscf