



**BG GROUP**

# **BG's takeover offer of Origin Energy**

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Good morning ladies and gentlemen, and welcome.

BG Group announced this morning that it intends to make an off-market takeover bid for all of Origin's ordinary shares at an offer price of \$15.50 cash per share.

The purpose of today's presentation is to outline the terms of our offer and why it is attractive to Origin shareholders.

Origin's Board had, itself agreed that this proposal should be put to Origin's shareholders, only to reverse that decision two days later.

Since then, we have given careful consideration to the two issues raised by Origin when BG's initial proposal was rejected; and, having reflected, remain confident our current offer is compelling. We have therefore decided to put that offer directly to Origin shareholders.

After the presentation, our CFO Ashley Almanza and I will take your questions.

Our views can be summarised in the following key messages:

- First, BG's 72% premium, all cash offer of \$15.50 per share represents full and fair value for Origin shareholders, with no future risk.
- Second, BG's offer values Origin at a significant premium to relevant indices
- Third, Origin's suggestion that its CSG assets could be valued at \$16 billion, fundamentally overstates the value of those assets
- Fourth, the Santos-Petronas deal, claimed by Origin to re-value its CSG business, does not provide an appropriate valuation metric.
- Fifth, around 70% of Origin's recent 5500 petajoule reserves increase seems to be driven by a new reserves estimating methodology, applied in the wake of BG's initial proposal.
- Sixth, Origin's well density is far below that of its peers and insufficient wells appear to have been drilled to give confidence in the reserves step-change.

- Seventh, Origin's joint-venture alternative to BG's offer, is undefined, lags competitor schemes, and carries significant risk for shareholders; risks not removed by introducing a partner; and first revenues are not likely before 2015 or 2016, at the earliest.
- Finally, today, Origin doesn't have the reserves to underpin its LNG alternative.

BG believes that Origin shareholders are entitled to more detailed information supporting Origin's valuation claims, the step change in Origin's reserves, as well as more detailed explanations of the value and risks inherent in Origin's proposed alternatives.

OK - Let's start by having a look at the key elements of BG's offer.

BG's offer is an all-cash offer of \$15.50 per share, less any dividend or other distribution to

shareholders.

The offer represents full and fair value for Origin and importantly fully values all parts of the Origin business. Today we'll be focusing on CSG, but it is worth remembering that BG plans to invest in all of Origin's businesses in Australia, including power generation and retail, yielding a secure outlook for Australian employees and customers alike.

For Origin's shareholders, our offer is for cash, and should be contrasted with the substantial risks shareholders would bear over many years, if Origin pursues an LNG project.

At \$15.50 per share, BG's offer represents a premium of 72% to the undisturbed 90 day VWAP and 48% to the last undisturbed price – a substantial premium.

And at BG's offer price, Origin is valued at more than 31 times 2008 earnings, representing a very substantial premium to relevant indices, as shown in this graph.

The key conditions of BG's offer include:

- A minimum acceptance of 50.1%;

- The necessary government and regulatory approvals;
- No material acquisitions or disposals by Origin; and
- BG Group shareholder approval.

All the conditions of our offer are set out in full in the announcement which we issued earlier, copies of which are available here today.

Now, Origin, in its press release dated the 30th of May 2008, cited two reasons for withdrawing its support for BG's proposal:

- Breaking news of a deal between Santos and Petronas, which Origin considered re-valued the company's CSG reserves; and
- A new CSG reserves report.

The combination of these factors led Origin to suggest that their CSG business alone is worth \$16 billion; a value "significantly in excess of BG's offer for the entire company".

BG believes that this fundamentally overstates the value of the CSG assets, and we would like to set out for you, why we think this is the case.

Let's therefore consider first, the Santos-Petronas deal, and then Origin's new CSG reserves report.

On the 29th of May, Santos announced that Petronas had agreed to purchase a 40% stake in their integrated CSG to LNG project, with an upfront payment of 2 billion US dollars. This led Origin to promote a headline price of \$1.65 a gigajoule for its 3P CSG reserves.

However, consider these points:

- First: Petronas paid US\$2 billion for a 40% interest in an established, integrated, three to four million tonnes per annum LNG scheme, including an interest in the reserves it takes to feed it, which amount to some 5500 petajoules gross.
- Second: we would expect Petronas to extract value all along the LNG supply

chain, and their consideration needs to be broken down in that way. In other words Petronas wasn't just buying feed gas.

- Third: even if one wanted to express Petronas' total consideration, in terms of a notional price per gigajoule of feed gas, then BG estimates this price at approximately \$0.95 cents per gigajoule.
- Fourth: Origin of course has no LNG scheme to sell. Nor today does it have sufficient reserves to support an LNG scheme – because of domestic needs and certain other restrictions, which I will return to later.
- Fifth, if Origin could establish a LNG scheme, it would take time. So Petronas' notional \$0.95, would have to be discounted for that time; two to three years' delay would bring it down to around \$0.70 cents a gigajoule.

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The two transactions, together, therefore establish a benchmark value of around \$0.50 to \$0.70 a gigajoule for the first train of LNG; \$0.50 for supply only and \$0.70 for an integrated LNG scheme.

But before we begin applying the \$0.50 to \$0.70 to Origin's reserves, we ought to take a closer look at what's behind the recent step-change, and what other commitments and restrictions also apply to those reserves.

The second reason Origin cited for withdrawing support for BG's proposal was a new CSG reserves report.

Origin wrote to BG on the 28th of May, endorsing our proposal at \$15.50 per share. At this time Origin's Board had already received and considered the principal results of the new reserves report, and indeed had shown BG a copy of the draft of that report.

So, contrary to Origin's announcement, the reserves report could not have been a reason for withdrawing their support for BG's bid. Nevertheless, let's look at what's behind the step-change in reserves, beginning with a picture of how the reserves have developed in time.

The first thing to note from this slide is the acceleration in reserves additions and, in particular, the step change coinciding with BG's approach.

Now, Origin states in its reserves announcement that this significant increase in reserves, is related firstly to increased confidence in reserves estimating, and secondly Origin's exploration, appraisal and development activity. So, the first question we should ask is: how much of the reserves uplift has come from drilling activity?

Now, one has to look at drilling activity in relation to equity interest in each tenement. In other words, where you drill wells is as important as how many, when it comes to adding reserves. Origin have drilled very few wells on many of their higher-equity, operated blocks. In fact, only eight exploration and appraisal wells have been drilled by Origin as operator in the nine months to the 31st of March 2008. I will return to the significance of this in a moment.

But first, let's have a look at what QGC is doing. Recently, QGC announced an upgrade of its 3P reserves of almost 4200 petajoules from the drilling of 31.8 net wells. This means that 131 petajoules of 3P reserves were added for each exploration and appraisal well.

Let's look at the same calculation for Origin. It announced an upgrade of some 5500 petajoules from the drilling of 18.6 net wells. This means that 299 petajoules of 3P reserves were added for each of its wells.

Now, many of Origin's wells were in fact drilled by QGC, and we would therefore expect each of these wells to contribute the same 131 petajoules to Origin's reserves. This being the case, then the eight exploration and appraisal wells drilled and operated by Origin would

seem to have contributed about 530 petajoules of 3P reserves per well. And we're assuming in this illustration that the 1.7 wells drilled by Santos also delivered 131 petajoules per well.

So, 131 petajoules for each QGC well; and 530 petajoules for each Origin well. Now this is a huge difference. In fact, 530 petajoules per well is an impossibly high number, and suggests something other than drilling must be responsible for the increase in reserves.

In fact, BG has conducted its own detailed review, and we conclude that around 70% of the reserve additions appear to be coming from a change in reserves estimating methodology; a change that was applied following BG's initial proposal.

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To date, Origin has not disclosed details of any changes to its methodology.

Now, BG adopts the view of the Society of Petroleum Evaluation

Engineers, that it is essential to drill sufficient core and appraisal wells, and to demonstrate dewatering and reservoir production performance, as a basis for estimating CSG reserves.

And it is essential. Analysis of thousands of wells in the US, where this CSG industry is advanced, as well as experience to date in Eastern Australia, shows that dramatic production variations can and do regularly occur – some wells producing a million standard cubic feet per day and some just a thousand. Knowing how many of each type to expect is critical

And this is why QGC, for example, continues to drill high numbers of appraisal wells and conduct well testing using multi-well pilots, even in areas of relatively close proximity. This is good practice, indeed essential practice, when you are contemplating basing a multi-billion dollar export scheme on estimated reserves.

In BG's view, very significant risks are introduced when methodologies are employed which extrapolate reservoir conditions and

performance from one area to others, some quite distant, without the requisite level of drilling.

So, what about drilling as a whole on Origin's acreage? Earlier I said that Origin had drilled very few wells on many of its higher-equity, operated blocks. Let's take a look at how Origin's drilling performance compares with that of its competitors.

Here, we'll show variations in well density across the whole acreage of a number of CSG operators. High figures represent high density of drilling, which gives greater reserves confidence; low numbers represent sparse drilling and hence lower confidence.

Here we can see the drilling performance of QGC. You will see that for QGC-operated acreage, around 95% of it has at least one well per 20,000 acres – in fact in many areas QGC has more than one well per 1,000 acres.

Contrast this with Origin's operations, where public information discloses that they have large areas with well densities in the range of one well in 20,000 to just one well in 160,000 acres. Very sparse appraisal well density. And this appears to be the case in more than 80% of Origin's operated acreage.

Comparison of the two curves shows that about 80% of Origin's operated acreage is significantly less well-appraised than QGC's.

So Origin appears to be behind, and in some cases well behind, when it comes to doing its appraisal drilling and gathering the data needed to provide confidence in reserve estimates.

And this trend of QGC providing greater validation of reserves than Origin, appears to continue today. While Origin operated its eight exploration and appraisal wells, QGC drilled more than 45 – almost six times as many.

Now, if we shade the area between these two curves it illustrates the degree to which Origin-operated acreage appears to be virtually unappraised relative to its competitors.

And this relatively unappraised state of Origin's acreage, has time and value implications in relation to firming-up reserves for an export scheme, which we will touch on later.

Now, let's turn to the question of Reversion Rights over Origin's reserves and resources.

About 30 of Origin's tenements are subject to reversion rights dating back five or six years. At payback, 45% of the reserves and production subject to those rights, revert to the previous owners. Meanwhile, Origin is carrying the previous owners on 45% of the costs.

*So Origin appears to be behind, and in some cases well behind, when it comes to doing its appraisal drilling and gathering the data needed to provide confidence in reserve estimates.*

Origin's Annual Report does not mention 'reversionary rights', notwithstanding Origin's recent statement that such reversionary interests apply to one third of their reserves. Indeed, this matter was only really brought to light following BG's announcement on 30 May.

Despite Origin's presentation of 19 June, it is our view that these potentially material obligations have still not been fully explained by Origin.

So, one third of Origin's reserves are subject to reversionary rights, but Origin states that it does not expect there to be any material change to its reserves entitlement as a result of these rights.

Now this presents something of a puzzle.

For there to be "no material change" to the reserves, must mean these reserves never achieve payback and therefore are, presumably, not economic. And if you look at the guidance of the Society of Petroleum Engineers, if the reserves are not economic, they are not reserves at all.

It seems to BG that the effects of the reversionary rights are potentially material, since they affect a third of the reserves and involve, for example, the Spring Gully and Fairview tenements, currently under development and in production. We believe it is important that these matters are clarified in

full to enable Origin's shareholders to make an informed decision on the impact of the reversionary rights, particularly in respect of the value of the alternative being currently pursued by Origin's management.

So, what conclusions has BG drawn on reserves?

- Origin has added the majority of its new reserves – in our view around 70 % of the recent 5500 petajoule step-increment - from changes in estimating methodology, applied following BG's initial proposal.
- Origin's well density is far below that of its peers and insufficient wells appear to have been drilled to give confidence in the reserves step-change.
- Origin appears to have attributed significant reserves to Origin-operated blocks, where there is a paucity of appraisal drilling or production testing data to support the reserves estimates.
- Substantial areas of Origin's operated acreage are today virtually unappraised. Material capital, and scarce human and equipment resources, and time, will be needed to prove up the scale and economic viability of the CSG potential in these areas.
- And finally, greater clarity is needed on reversion rights and their impact on value.

And all these matters, taken together, bear directly on the risk and the value of Origin's CSG assets. It would be helpful to shareholders if Origin disclosed full details of how its step-change in reserves was actually achieved, as well as further clarifying matters relating to reversionary rights.

Origin's alternative to BG's substantial premium, cash offer, appears to us to be an export JV, involving the sale of upstream interests.

As we have said, unlike Santos and Arrow, Origin does not have an existing LNG scheme, and there are immediate questions as to the practicality of creating another such scheme at Gladstone.

Origin's alternative will be a highly capital-intensive, very long-term investment

proposition, by an Origin which doesn't today have the skills and experience of managing international markets, or of implementing major LNG capital projects. And does Origin's balance sheet have the capacity to bear these material risks? An integrated project for a single train will cost at least US\$8 billion in 2008 prices.

Origin proposes to attract a joint venture partner with LNG experience to mitigate these risks. However, the number of companies having the requisite LNG marketing and development capabilities and experience are few, and having a partner per se doesn't guarantee the economic outcome.

Partnerships can bring other risks too, such as misalignment of objectives and the cultural fit of the participating organisations.

Let me just run through some of the reserves, project realisation and market risks in the Origin alternative:

Today, Origin's proved reserves, at 1300 petajoules, are insufficient to meet its domestic needs, which we estimate at more than 3000 petajoules from CSG. For Origin to sell reserves now to others, will increase the economic risks to its existing investments and businesses – and that could prove detrimental in the long run to its Australian interests and to its Australian customers.

So, first Origin must satisfy its domestic needs. Then it must take account of the fact that reversionary rights cover one third of its reserves. Just these requirements, according to our reserves estimates, leave few reserves for an LNG scheme.

To make Origin's JV alternative viable, they must prove-up and dedicate 5500 petajoules of supply; neither banks nor LNG customers are at all interested in 10% certainty 3P reserves.

So, BG's concludes that Origin doesn't have enough reserves today for its domestic needs, and to prove 5500 petajoules for an LNG scheme will be costly, and take years, given

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the unappraised status of most of Origin's licences.

Then there are the project implementation risks. Implementing projects of this scale successfully, even for established players, is not at all straight-forward. And there are the major uncertainties in the form of cost growth and schedule delays, especially in the current environment. Projects can go off the rails and when they do they can impair entirely the economics of the investment.

And Origin shareholders are unlikely to see any cash from the upstream asset sales – that cash, and much more, will be needed for investment, with the first revenues not likely before 2015 or 2016, at the earliest.

Then there is project lead time, which can easily extend by two or three years, destroying 20 to 30% of the Net Present Value. Not too hard to imagine – just have a look at what is happening elsewhere to other LNG projects.

Consider too what is happening in Global LNG markets.

Rapidly changing demand and rapidly changing supply, coming together, create significant uncertainties in supply-demand balance. This feeds through into pricing and economic uncertainties.

Will customers be ready to endorse CSG as a new long term supply source? Or will they seek some form of price discount to compensate for the risks they perceive inherent in something new? Here relationships and a portfolio of flexible LNG supply are crucial to managing the risks. BG's flexible LNG portfolio confers a distinct advantage, and can be used to manage these risks. But how will Origin fare and how long will they take to establish their arrangements?

Speed to market will be a crucial economic driver. Uncertainties will be significantly higher for those coming late. And these uncertainties will be compounded for those not having a proven low-cost structure, and may indeed prove insurmountable for those without LNG operations and project realisation skills.

So, sub-surface risks, project realisation risks, timing risk and LNG market risks – all need to

be considered by shareholders when weighing Origin's alternative against BG's clear value case.

Let me now bring this to a close by reiterating our key messages:

- First, BG's 72% premium, all cash offer of \$15.50 per share represents full and fair value for Origin shareholders.
- Second, BG's offer values Origin at a significant premium to relevant indices.
- Third, Origin's suggestion that its CSG assets could be valued at 16 billion dollars, fundamentally overstates the value of those assets.
- Fourth, the Santos-Petronas deal, claimed by Origin to re-value its CSG business, does not provide an appropriate valuation metric.
- Fifth, around 70% of Origin's recent 5500 petajoule reserves increase, seems to be driven by a new reserves estimating methodology, applied in the wake of BG's initial proposal.
- Sixth, Origin's well density is far below that of its peers and insufficient wells appear to have been drilled to give confidence in the reserves step-change.
- Seventh, Origin's joint-venture alternative to BG's offer, is undefined, lags competitor schemes, and carries significant risk for shareholders; risks not removed by introducing a partner; and first revenues are not likely before 2015 or 2016, at the earliest.
- Finally, today, Origin doesn't have the reserves to underpin its LNG alternative.

So, by now, you will perhaps be asking yourselves, with all these risks, why is BG interested in buying this company?

Well, BG believes strongly in the Integrated Energy model – creating value from reservoir right through to burner tip; and we have been successful with this strategy on a global scale.

We have the skills, the portfolio, the relationships and the balance sheet to manage all of the risks I have mentioned earlier. And most importantly we are realistic about the cost and the time that it will take to do this well.

We have established a strong partnership and project with QGC in the Queensland Curtis LNG venture at Gladstone. QGC is making excellent progress with proving our reserves to underpin that scheme.

All of these advantages, taken together, mean that BG is in a somewhat unique position to invest in, prove-up and accelerate the commercialisation of Origin's resources. And when we put that together with our mid and downstream plans in Australia, it allows BG to pay a full and fair premium for this company.

Ladies and Gentlemen, thank you for your attention.