



Roundtable for Unconventional Gas Projects in South Australia

Exhibition Hall, National Wine Centre

Thursday, 14 March 2013

Minutes

Attendees: See attached attendee register

Apologies: See attached apologies listing

Minutes: Yolanda López (DMITRE); Elke Goddard (DMITRE)

Breakout Session 1: Investment Attraction – *Paper #2*

Discussion commenced: 10.55am

Discussion Leaders: David Cockshell (DMITRE) and Elinor Alexander (DMITRE)

1. Implement fit-for-purpose terms (in years) and conditions for exploration, retention and production licenses.

On Tuesday 12 March 2013 Cabinet signed off on a new regulation (implemented today) under the Petroleum Act which created a change to licenses regarding spec. surveys – this is relevant to industry and community.

John M: We need to look at the science of what shall be done more responsibly to solve problems

DC: Investment return – due to confidentiality restrictions, spec. survey results are confidential for a period from 8 – 15 years. Therefore, recently, no one has appeared interested in obtaining certain licenses. We need to make this viable for particular exercises as returns to shareholders is the key outcome.

The total time needed to make changes to the spec. survey process would be approximately 6 – 8 months. We would need to look at a list of 40 / 50 different aspects within the Act that relate to regulation, the result would depend on the outcomes from conversations with industry.

EA: Acreage management – exploration retention in exploration licenses – 5 year terms for each license – if the discoveries are economic.

Due to the technical and economical challenges with retention licenses, a longer term is sought.

EA: The Cooper Basin has recently had expiry of long standing licenses. As companies are exploring they are beginning to drop licenses but now seeing the unconventional potential of the basin, **Elinor would like people's views on acreage management**. EA asked the following questions to be considered:

- How do you get people the tenure and economic incentive in order for people to produce?
- How do we manage acreage within SA? Do we turn over to longer held licenses?

Companies need 3 TCF to justify liquefaction in order to put in pipelines. This is when looking at sandstone above the shale as this is where the gas is (where companies are looking). Where would be the end point location for this pipe, Whyalla? Also, how do we get there? Currently the acreage is owned by multiple people, we need them to talk or have a few major players come together. The pipes would have to be quite large which incurs cost plus plant costs etc.

DC: We need joint venturing of joint ventures – downstream supply and deliverability.

??: Currently, to get this done, companies are getting other people to move in. In Queensland PetroChina were able to provide the cheapest pipeline.

EA: The Moomba to Adelaide pipeline (the infrastructure) is owned by a third party. The market will need to operate

?? : A \$300m pipeline can be built by the Chinese for \$80m, from a shareholders point of view it would be an easy decision. Possible action item would be how to get the financiers together. The Queensland state government failed, SA needs to do better.

Australia needs to make the cost per metre more competitive, we need to top handle the difficulty regarding natural gas.

How do the financiers get together with regards to the competitors? Industry is not going to finance until you actually talk to each other. Should this be the Government's responsibility to facilitate? Should the government get into a free market?

People know what is in the basin and will be looking / talking about sandstone, tight gas and shale.

After the initial steps are taken, **then the financiers need to get the money to the companies**. Will this cause any implication to the license tenure?

How do you write a feasible study when 5 years is too short? Perhaps 30 years would be more beneficial / practical.

JEF: Actual recovery per area is in the mature phase of the license. We need to get around the postage stamp size areas and work out how we get recovery from the small areas as well?

Lead up period includes many wells therefore can we increase the Cooper Basin's productivity to 10BCF? Attract investors to combine the smaller sized areas and take the next steps. We need a longer license time in order to stop people land banking and to get enough acreage.

Manage the banking side of things – at the moment retention licenses are 5 years. In order to get around this issue, fallow acreage may be a solution. Move to a retention license with a work program in order to monetise it.

With regard to the smaller areas in the key parts of the basin, should we handle these areas differently?

JEF: All should be based on recovery factor.

Cooper basin is managed by competitive tenure programs.

Mechanisms are in place – longer term retention license we will need a work program – don't want it lying fallow re getting pipelines.

AG: Domestic gas obligations – Are there or are there not domestic gas obligations in SA?

EA: Currently unaware of any moves in SA, would say at this stage there aren't.

In SA we favour a free market, Government could set up a good regulatory framework and the free market will operate.

AG: Supports this decision – it's very encouraging.

???: See SA as a market – hard to bring that in to SA with stakeholders.

DC: Security and supply – there are key community expectation such as gas being available. There have been issues where supply has not been met.

JEF: Set more easements for pipelines across the states, people know the costs for building and this drives competition.

EA: Pipeline license – you can take out the preliminary pipeline license as there is licensing framework to do this. Then, look at the tenement map, there have been companies taken out of survey licenses to determine a corridor (whether a pipeline would be needed).

JEF: Two companies only end up owning, this is not very competitive.

???: If people think the pipelines are becoming uncompetitive then it can be regulated.

BG: On a Federal level, there are a number of pipelines where the contracting is seen as an impediment.

Number of pipelines headroom contracted but not used. Bulletin Boards are being set up – anti competitive behavior will need to be looked at by Government. Australia's total lack of gas storage buffer can be seen as an impediment. Gas storage is part of the pipeline in Canada. Need third party gas storage, Australia hasn't the market for that. Our market is too small.

Third party gas storage licenses created, post 2009 could not become a third party operator with Gas Storage License.

If you were able to get third party gas storage who would then pay a tariff for pipeline use it may be possible but at this stage we don't have a big enough market.

BG: There is a need for third party gas storage licenses.

??: Any licenses ran since 2009 – they must have a gas storage license – this will evolve over time.

JEF: The key role of Government is to implement infrastructure.

BG: The deed determines certain easements are not public. There is no clarity of the rules of easement, however this is currently being investigated. We will find out this info as why should people need to reinvent the rigmarole, the generic issues become transparent.

Action item: Deed to determine easement for transport not public – no transparency

JEF: Fibre optic cabling is now available throughout the state and available by the people. We must have this line along with the pipelines, we shouldn't have to get another license for this.

TG: *(Currently the Chair of Infrastructure Council of SA)*

Create infrastructure hubs. The Parsons Brinckerhoff study has been superseded. Deloitte have been commissioned to provide updated study. Have 5 main recommendations – The need to establish infrastructure hubs, the need to establish infrastructure corridors for rail, community, electricity, pipelines.

We need to assist miners. Need to translate desire for these corridors and integrate with recommendations. The study is available on the DMITRE website (RESIC), including the forward work.

We need to translate this desire for these corridors and combine with current work for planning work and pre-approval.

CS: What will slow down the industry from being successful? Competitors? We regulate ourselves, we recreate equipment and all of this slows down resources in the industry. It also makes it more expensive to conduct business in Australia. What are the things stopping us from opening free trade for suppliers? How can we deliver what's required in a 5 year term? We need to get the economic advantage as well.

BG: How do we work with the Federal Government to create easy visas? Do we send Australians overseas to get experience, and vice versa, or do we have enough resources to train local people?

CS: We currently take over one year to mobilize a rig at the moment – why do we over regulate ourselves?

BG: Ministers from SA and Queensland are on the move to meet.

3. Implement R&D to predict fractures in reservoir targets from geophysical information

SB: The Australian School of Petroleum (ASP) has been developing a Geofrac project (geology shale) to high grade positions for drilling, looking at more productive spots and opportunities to improve productivity. The ASP is a diverse school covering all areas including the sciences to financial aspects.

HAK: We need to prove we have the resources directed towards the research. We currently have the resources for productivity but we need something directed at the School of Petroleum for hiring and to convert to an application for Unconventional Gas. Sometimes we lack when proving sweet spots (people and technology).

SB: This also relates to the supply of people – **it would be a good idea to make it attractive for a top name in the field from overseas (someone with a lot of experience from the US for example) to come over and educate.** However this person will need money to work with once here (to fund projects) and the salary to match.

Action item: Attract a top name academic from overseas.

TG: Senior executives from overseas stated that, 'the Unconventional resources business was still in an applied 'R&D phase.' We need to put in place an investment strategy whereby we sign operation agreements with key universities, specifically those who are doing all the research in the Unconventional field. Explore the idea of inviting visiting professors; get the ASP to tap into this avenue of education. Remember that the US doesn't believe they are at the R&D stage yet.

SB: ASP currently have informal relationships with international universities but still need to build / formalize these relationships. We need someone here to drive this project, ask ourselves, who should be taking this on?

JEF: Every university can't be the expert in every area. It is important that different faculties choose after all academia and industry need to work together and communicate in order to cover the different areas. There is a role for someone to work out how we formalize this situation – look at the best funded projects in Norway.

SB: We need to show what we are bringing to the table.

Action item: ASP to instigate meetings with Santos, Beach Energy etc

DC: Referred people to the list of recommendations which link to the discussion points at hand.

XLIX (49): Drilling Subsidies (10-15%) Re-mobilization subsidies (trialed in WA)

DC mentioned the DMITRE PACE program which involves drilling where you wouldn't normally or applying a different method you would normally.

JEF: Has this been subsidized for tax purposes? Remember companies need to make back what they spend.

NW: A current issue buried in Federal Parliament concerns the flow through for tax rebates for private individuals. Think about imputation credits / franking credits for shareholders – can they claim as a tax deduction?

EA: Referred to the Resource Industry Development Board which shares the concern that it will be hard to crack this issue.

TG: Suggested putting in more submissions.

JEF: This always stops at Treasury – no one wants to hear about it in Federal Government

??: This item is holding back investment.

DC: There is a lot of input from mining but so far this issue has not gone anywhere.

In summary, the first topic / issue is regarding pipelines. The gas find depends on the distance of the pipeline. The pipeline needs to be integrated as part of where you are going to explore in order to get a bankable investment and the number of parties getting the pipeline in.

The role of Government regarding infrastructure corridors is important. Financiers aren't going to finance an over capacity pipeline, there needs to be a role in Government to support that.

Closed: 12.05pm



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Breakout Session 2: Investment Attraction – Paper #2

Discussion commenced: 1.10pm

Discussion Leaders: David Cockshell (DMITRE) and Elinor Alexander (DMITRE)

4. Enhance transparency, availability and sharing of data and information. For example – create a www.fracfocusAustralia.org

DC referred to associated recommendations and chose to discuss:

LXV (Best Practice Protocol)

??: Operators in Queensland, in the Bowan Basin, are currently sharing (indirectly) through certification to use neurology and data for adjoining permits. This is to gain resource in the individual's own permit – a good place where industry has implemented action in permits.

Providing Geological data on a current basis, currently there is a two year waiting period until the data becomes available.

JEF: If the next block has more wells then the one next door the state and both parties benefit but the data doesn't change until the two year period is complete. We need collaborative agreement sharing which should be fast-tracked throughout the nation.

Agreement between license holders, currently the operators don't see the data from the next door block therefore there is no competitive advantage (when you do see that data). It would be good for all parties to get a larger amount of data to base decisions on during the period.

Works well for Coal Seam Gas and Unconventional Tight Shale Gas but it doesn't stop at the permit boundary. We should extend the well data across borders as this would be a business opportunity for a third party.

JEF: This helps solve the postage stamp sized blocks.

DC: Keep in mind the Cooper Basin permit sizes are getting smaller.

HAK: Is there a way of getting the data out of the two years?

EA: You need to negotiate with the operator as they can provide the confidentiality agreement. Government cannot provide this data on behalf of the operator under the Act.

DC: A role for Government could be that we will know the technical data that we approve. We could be in the position to be a middle man in the discussion without providing confidential information. Let us know the area / issue you are interested in and Government will direct you to which company you need to speak to.

TG: Regarding the two year period – a suggestion would be to put out a newsletter, indicating when the data has now been made public. This would be vital data for the public campaign which is currently under embargo. This needs to be communicated to the industry as it comes in, not overlooked. Data needs to also make its way to ASP, specifically where the basin needs to be looked at.

Action item: Make available a newsletter, indicating when data has been made public

DC: The newsletter could also alert research organisations and industry about which wells have become available.

EA: We could also get the Encounter-1 logs available for download, however, this may not be possible for all wells.

TG: We need to get a timeline available that clearly indicates the schedule for well completion reports. Add links to the report via the internet and collaborate how / what is going to happen with that information. This data should go into building a richer state but everyone needs to be aware.

The Government needs to understand where it sits. Is there a role for Government regarding the regional scene? Need to advise the Minister and the public about the resource including links with the ASP and Geofrac. Ensure we understand the resource and feed back this information to the large international investors in order to attract the global players.

Tino: What our area does is provide an outstanding amount of data currently.

In 1999 / 2000 (in the Cooper Basin) the Government worked to provide regional seismic horizon maps. We have now made a conscious decision that, currently, there isn't much we can do at present to attract investment.

EA: Make packaging easier for industry – access to data releases excluding confidential information.

HAK: Masters Students may be able to make public their research. Government could direct people via their website.

Production data is confidential for 6 months. Formation tests and sales data is provided monthly and released every 6 months.

EA: We are conscious not to create a burden on companies re. submitting more data than what is required under the Act.

Investigate the use of the data required, specifically what is recorded.

JEF: Perhaps the data should be provided every month.

NP: How we want to distribute the data is up to the Government.

DC: Potential water use – all production comes to Government.

Extended production data, Unconventional in particular: measure, disclose and engage.

TG: There will be more data than people want to be able to get.

Unconventional is so new and the early production declines rapidly. For the first couple of years it will be critical to know on a monthly basis.

JEF: Obtaining samples re. the base lines

Action item: EA to speak with DMITRE Engineers re. the possibility of obtaining samples

Item 5: Lift awareness of resources and reserve definitions and economics

DC referred to recommendation IV: *Bolster investor understanding of resources and reserve definitions*

This needs to start with some of the companies. CEOs repeatedly get confused between reserves and resources. Investors need a clear picture and understanding.

EA: ASX regulates offshore; afterwards, the media takes it over.

JEF: There is an ASX requirement but it needs to come from a certified reserve. Unsure how a roundtable can change it.

SB: Big debate at the moment is how the reserve is calculated at the moment.

DC: It is a question for relatively new Unconventional Gas section.

JEF: People aren't to know the amount of oil until it is acquired and now with new technology more is found.

This has nothing to do with the reporting. The problem arises when the enthusiastic CEOs give a presentation and reclassify 'reserves' and 'resources.' This is why we need to make sure a message is broadcast to ensure the definitions are clear.

TG: When talking about an Unconventional, part can go to the SPE guidelines, selected papers etc and these can be used as resources for people.

DMITRE should make a public resource online in order to educate the public. EA needs to be kept up to date, there should be a way for roundtable members to add suggestions and submit information.

Keep in mind, the companies looking to invest are public shareholders.

Look at Coal Seam Gas for example, when this started the numbers were so big people missed data. Unconventional is a shift regarding the flows and people who care about that are prepared to invest. It is different to geothermal.

HAK: DMITRE could put together an informative video about Unconventional in SA to be distributed to investors.

EA: This is something we can think about as far as public education goes.

DC: The ASX as well.

DC: Referred people to recommendations 26 and 27 – suggestions focusing on these two areas.

Each project is specific. Here's the economic rate generally, but certain projects fall under, there is no 'one size fits all' solution. There may be criteria for pipeline access, without putting a number on it, certain parameters are important.

SB: Can compare different portfolios.

TG: This recommendation is feasible in a general sense but there are multiple variables.

JEF: There aren't many other things you can do.

Regarding seismic production data, as blocks get smaller there are huge opportunities to get better quality data upfront. We can look at this tomorrow in the Rig session.

EA: It is the market place determines that determines this. It's not the same as regional TB guidelines.

RH: This doesn't need to be high priority. We need to lift awareness. The mechanics can be drafted in an easy to understand way. The ASX delivers an easy comprehensive talk for those struggling to understand the importance of it.

DC: Whether these are doable or not will be followed up.

JEF: Don't need to reinvent the wheel.

Information is available in the United States and Canada regarding hydraulic fracture 101s etc. We may need to simply provide links to the existing information.

6. Attract investment into exploration, development and production

DC: Referred to the corresponding recommendation:

Attract exploration / appraisal investment so widely and by so many independent Joint Ventures / companies so that supply-side competition keeps gas prices competitive

GB: How things in SA compare to other places who are struggling will immediately show. Australia has an advantage, we allow you to invest and play as a way to commercialise it however we don't put it together well enough to make it attractive enough.

EA: Within the Oceania region, the Fraser Institute Report doesn't give you the breakdown of the overall SA regime. We need to formalise this and use it as a promotional tool (get this upfront). We are underselling the fact that we are giving away data or selling it cheaply. Benchmarking and repackaging is the way to go as across the country there are some differences.

APPEA will champion to their members.

EA: we are trying to understand and build trends. Operators need to give feedback. We have pushed operators to get in contact with APPEA. The Minister and Premier need to get onto the implementation of the data.

People can contribute but the Government needs feedback to see how we're going.

MP: We need to give investors information regarding Unconventional Gas, in particular, here's the vehicle we can utilize. The idea is to get people to look at it and challenge it depending which way they are coming from. Nobody knows that the information is made public and available therefore it is important that people see how we work.

TG: Compile a list in a market cap or value in companies and ascertain level. Promote the fact that we have something of a global scale, investors will make money, and it's a good place to work, therefore, come and work with us.

DC: We currently do a focus view for SA but it may need to be more specific.

EA: Operators are trying to attract their partners to come in we need to make sure we have investor training in place in order to get the investing lined up and ready to go.

TG: We have an entire resource base and we need to keep a spotlight on it. Don't worry about what the resource covers only look at Unconventional.

SB: Supply of people – what is the desire for locally produced geoscientists and engineers? We need to think about how to produce / supply them, are free schools a possibility?

Closed: 2.10pm



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Day One Final Discussion and Close

Discussion Leader: Barry Goldstein (DMITRE)

Barry Goldstein lead the closing discussion as follows:

Regarding Joint Venture and transport, how do we demonstrate this to the public?

Open to all attendees, and each person is asked to emphasise items.

BW: Water, specifically collecting in central places:

- Cooper Creek and North
- Where the use is and where is practical
- Trends in Western Flank

PC: 125 recommendations

- Process to next stage
- Transport – rated 110?

BG: The ranking system will be superseded

- No. 2 idea we are going to run out of competence
- Spoken to Premier and Minister and key companies at APPEA. They will get together and meet with the intention of getting people to move to recovery places eg TAFE etc. This needs to be done within the next 12 to 18 months

Santos: Important to see action in the follow up. How do we facilitate this quickly?

- Email BAG and he will action ASAP

- Consultation needs to be open and transparent so nobody feels kept in the dark (no surprises)

BG: Our environmental objectives are about specific location and the time they start (a year before there's a focus on land), this then comes to be public consultation

- Conversations have been had including people who aren't in favour of these operations. The outcomes of the meeting were open and non-aggressive

Recommendations in red text are those discussed today.

Anyone who has additional recommendations please put them forth as this is a conversation which will continue.

Recap action items

- We will identify the fast-tracking that can be done
- Take on board the environmental concerns and our ability to maintain them

Closed: 4.12pm