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### **Submission on Petroleum Reserves Reporting**

NZOG (New Zealand Oil & Gas Ltd) welcomes the opportunity to comment on the Government's New Zealand Petroleum Reserves options paper.

### Summary

- There appears to be some inconsistency in both the provision of petroleum reserves data and in how the data is collated.
- PRMS provides the widely accepted industry benchmark for reserves reporting and companies should be required to provide an assurance that their reserves calculations have been done in accordance with PRMS.
- NZOG would support an increase in penalties for deliberate mis-reporting and failure to adhere to PRMS.
- Calculating reserves is inherently uncertain and regular reserves revisions are necessary and desirable.
- P90 and P50 reserves numbers should be disclosed. Collating and disclosing P10 numbers or contingent resource numbers would provide meaningless and potentially misleading data.
- NZOG's strong preference is for Option 1a the use of external petroleum engineers to conduct audits. NZOG does not support Options 2 or 3.

Detailed comments follow, referenced against the questions posed in the options paper.

# Q1: Can upstream producers confirm that the reserves information reported to Crown Minerals are derived using the Petroleum Resources Management System?

NZOG confirms that to the extent of its involvement in oil and gas operations in New Zealand (currently the Tui and Kupe fields) that the reserves figures agreed to and regularly published by the joint venture partners are in accordance with the Petroleum Resources Management System (PRMS), sponsored by the Society of Petroleum Engineers. NZOG therefore assumes that the reserves information provided by the Operators of the Tui and Kupe fields to Crown Minerals is in accordance with PRMS.

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NZOG does note, however, that the numbers provided are not always accurately reported or collated by Crown Minerals. NZOG understands that Origin Energy will provide some detail in its submission on this particular issue. There is an urgent need for up-skilling within Crown Minerals to ensure data is correctly recorded and databases correctly maintained.

**Q2:** Has the status quo legislative and reporting regime been accurately described? NZOG supports the suggestion that the guidelines published in the PRMS represent the benchmark for good oilfield practices for reserves reporting. For the avoidance of doubt, the reporting regime should include a specific reference to a requirement for reserves reporting to be consistent with PRMS.

## Q3: Have the problems/issues with the existing legislative and reporting regime been adequately described?

#### Q4: Are there any additional problems/issues which have not been identified?

There may well be some perceptions that reserves reporting lacks in accuracy and precision. NZOG attributes many of these perceptions to a lack of understanding of the processes and methodologies used in the reserves determination process and its subsequent reporting.

Reserves revisions are a result of regular analytical assessments of a variety of factors such as production, drilling/test results, performance additions, studies and economic limit tests, to only name a few.

For example, a significant change in the oil price (as seen in recent years) will likely alter the economic cut-off for production from a field – and thus necessitate a change in the remaining reserves.

There is inherent uncertainty in reserves calculations. There seems to be an underlying assumption in the discussion document that changes to reserves are a bad thing. In fact, regular revisions are a necessity.

The Tui area oil fields were assessed, pre-production, as having 2P reserves of 27.9 million barrels. Field performance and production levels that were higher than forecast led to this reserves number being upgraded several times on the basis of new information. The initial 2P reserves are currently estimated to have been 50.5 mmbbls.

2P reserves for the Kupe field were increased by 11% in July 2010 following a detailed reserves review that integrated new petrophysical, fluid sample and well test information with full field static and dynamic reservoir models.

The regulator needs to allow sufficient time for robust assessments and reviews to be carried out by the field operators and owners, and not require an early determination of reserves numbers to meet some reporting deadline. A thorough reserves assessment including detailed integrated subsurface studies can take up to a year to complete.

### Q5: Do you have any comments on the proposed objectives?

NZOG is in support of objectives 1 and 2. By referring to the PRMS, which is also the minimum reporting standard for publicly listed companies and their disclosure obligations, we are of the view that the necessary framework to provide clear and consistent reserves figures to Crown Minerals is already in place.

NZOG believes that by disclosing P90 and P50 reserves figures a sufficiently wide spectrum of numbers would be provided to the public.

Determination of P10 reserves figures usually receives less focus than proven (P90) or proven plus probable (P50) reserves figures and, hence, is inherently more speculative. Aggregation of P10 numbers across a number of fields if not done correctly (probabilistic addition vs. deterministic addition) results in meaningless and potentially misleading data.

## Q6: Do you have any comments on the review of international reserves reporting regimes?

The paper confirms that there is no consistent international standard with the exception that 2P reserves (or on a P50 level) are always reported.

Q7: Do you have any comments on Option 1, particularly around where additional resources would be best applied (external consultants, GNS Sciences Ltd or MED)? Q8: Do you have any comments on the extent to which Option 2 would meet the stated objectives?

Q9: Do you have any comments on the extent to which Option 3 would meet the stated objectives?

NZOG supports Option 1a – the use of external petroleum engineers to conduct audits.

Crown Minerals should have access to qualified auditors, rather than employing individuals on a full-time basis, or using GNS. NZOG suggests using the services of reputable independent reserves auditors (e.g. Ryder Scott, De Golyer & MacNaughton) that specialise in reserves certification. NZOG believes that this approach would provide the most cost effective solution for Crown Minerals and the industry, while ensuring that New Zealand follows international best practice.

NZOG does not support Options 2 or 3. The costs and complexities of the Norwegian model are clearly not justified for a sector as small as the one in New Zealand.

NZOG also disagrees with overlaying MED's "preferred" UK model in New Zealand. This approach would not provide any benefit commensurate with the increased costs.

As discussed earlier in this submission, NZOG sees no value, and indeed some danger, in reporting P10 (possible) reserves figures. That concern also extends to the reporting of contingent resources.

Contingent resources are highly speculative. In many cases, little work has been done to validate the numbers. This is entirely justifiable. For example, if a discovery is small and would require an oil price in excess of US\$200 a barrel to be commercial, a company should not be required to spend money simply to come up with a number for Government reporting requirements.

With regard to the identified concern in the discussion document that reported reserves could differ from what is thought reasonable by Crown Minerals, the most logical and simple solution is to require companies to confirm that their reported numbers meet the requirements of the PRMS. NZOG again notes that as a listed public company, it is already required by listing rules to meet the PRMS standards.

NZOG would support an increase in penalties for deliberate mis-reporting and failure to adhere to PRMS.

## Q10: Do you agree/disagree and/or have any comments on the analysis of options undertaken?

MED has taken a quite simplistic view on a number of important matters, which warrant a more detailed review of possible options. However, the core issue seems to be a concern that reserves are not always accurately reported. The solution to this identified problem is to require companies to provide an assurance that their reserves calculations have been done in accordance with PRMS, to use external auditors to review as and when necessary, and to have appropriate penalties for non-compliance.

Yours sincerely

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