OMV New Zealand Limited

Application for Clearance of a Business Acquisition Under Section 66 of the Commerce Act 1986

Proposed Acquisition by OMV New Zealand Limited of Shares in Shell Exploration NZ Limited, Shell Taranaki Limited, Shell New Zealand (2011) Limited, and Energy Infrastructure Limited

15 June 2018



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Part A: Executive Summary

 OMV New Zealand Limited (OMV) is applying for clearance from the Commerce Commission to acquire 100% of the shares in Shell Exploration NZ Limited (SENZL), Energy Infrastructure Limited (EIL), Shell Taranaki Limited (Shell Taranaki), and Shell New Zealand (2011) Limited (Shell 2011) (together referred to as the Shell Companies). Shell Investments NZ Limited (SINZL) is currently the owner and vendor of all of the shares in the Shell Companies.

The Parties

- 2. OMV is a New Zealand incorporated wholly owned subsidiary of OMV Aktiengesellschaft. OMV Aktiengesellschaft is an Austrian incorporated company engaged in producing and marketing oil, gas, and innovative energy and high-end petrochemical solutions. OMV Aktiengesellschaft is one of Austria's largest listed companies.
- 3. SINZL and the Shell Companies are wholly owned subsidiaries of Royal Dutch Shell plc. The latter is a multinational British-Dutch oil and gas company headquartered in the Netherlands and incorporated in the United Kingdom. It has a primary listing on the London Stock Exchange and is a constituent of the FTSE 100 Index. It has secondary listings on Euronext Amsterdam and the New York Stock Exchange.

The Transaction

- **4.** Under the proposed share purchase transaction (the **Proposed Transaction**), OMV will acquire the following assets from Shell:
 - **4.1** a 48% participating interest in the joint venture relating to the Pohokura gas field (**Pohokura JV**) held by SENZL;
 - 4.2 an 83.75% participating interest in the joint venture relating to the Maui gas field (being the part of the Maui mining permit down to 12,000 feet subsea) (Maui JV) that 83.75% participating interest is held by Energy Petroleum Holdings Limited (EPHL) as to 18.75%, Energy Petroleum Taranaki Limited (EPTL) as to 38.75%, Taranaki Offshore Petroleum Company of New Zealand (TOPCO) as to 6.25%, and Energy Petroleum Investments Limited (EPIL) as to 20%. EPHL, EPTL and TOPCO are wholly owned subsidiaries of SENZL and EPIL is a wholly owned subsidiary of Shell 2011. Together, EPHL, EPTL, TOPCO and EPIL are known as the Shell MMCs;
 - **4.3** a 77.50% interest in the joint venture relating to the part of the Maui mining permit below 12,000 feet subsea (**Maui Deep**) that 77.50% interest is held by SENZL as to 27.50% and TOPCO as to 50.00%. Maui Deep is separate to the Maui JV, but part of the same mining permit for a different section. There is no production or other activity at Maui Deep at present. There are no existing discoveries in Maui Deep, and no current plans for exploration of Maui Deep;
 - **4.4** interests in various onshore infrastructure assets associated with the transportation and storage of petroleum products (both for the Pohokura and Maui JVs and for third parties); and
 - **4.5** Shell Taranaki which operates the Maui natural gas production assets, is contracted to operate the Pohokura gas production assets, and which

operates the associated storage tanks and pipelines for the Maui/Pohokura JVs.

5. OMV already holds a share interest of 26% in the Pohokura JV, an interest of 10% in the Maui JV, an interest of 10% in Maui Deep, and an interest in some of the onshore infrastructure assets. As a result of the Proposed Transaction, OMV will hold (directly or via wholly owned subsidiaries) a participating interest of 74% in the Pohokura JV, a participating interest of 93.75% in the Maui JV and a participating interest of 87.50% in Maui Deep.

Affected Markets

- 6. OMV considers that the relevant markets for consideration in this application are:
 - 6.1 a national market for the production and wholesale supply of natural gas (the Natural Gas Market);
 - 6.2 a national market for the production and wholesale supply of LPG (the LPG Market);
 - 6.3 a regional Taranaki market for the storage of liquids; and
 - **6.4** "point to point" markets in Taranaki for the transportation of liquids via pipelines to/from the Omata and Paritutu storage tanks.
- 7. The Commission has previously found that there are separate product dimensions for each of natural gas, LPG, and oil/condensate. While OMV reserves its position on whether there is a wider energy dimension, it is content to adopt the Commission's approach for the purposes of this application.
- 8. In relation to the relevant functional levels of the natural gas market, the High Court and subsequently Court of Appeal have found that the production and wholesale functional levels should be considered together in relation to the dispute over the offtake arrangements at the Pohokura gas field.¹ OMV has adopted that approach in this application for each of natural gas and LPG.
- **9.** OMV and the Shell Companies are not involved in the transmission or retail functional levels relating to natural gas, LPG or oil/condensate. OMV, Shell and Todd Energy sold their interests in the Maui transmission pipeline running from Taranaki to Huntly to First Gas in 2016. However there is overlap between OMV and Shell in relation to the Omata and Paritutu storage tanks, and transportation through some limited pipelines to/from those tanks. As a result storage and transportation will each also be relevant functional levels for consideration in the analysis below.
- **10.** The natural gas and LPG markets are national in geographic scope. In relation to storage, the Commission has previously defined separate markets for the storage of different types of petrol on a regional basis by terminal location in the *Z* Energy *Limited and Chevron New Zealand* decision.² For transportation, the Commission has in the past looked at smaller length pipelines situated in Taranaki as part of its 2004 Gas Control Inquiry.³ Accordingly OMV has adopted in this application a regional Taranaki market for storage, and "point to point" markets for transportation of liquids to/from the Omata and Paritutu Tank Farms within Taranaki.

¹ Todd Pohokura Limited v Shell Exploration NZ Limited and OMV New Zealand Limited [2015] NZCA 71.

² Z Energy Limited and Chevron New Zealand [2016] NZCC 10 at [82]-[85].

³ Commerce Commission, Gas Control Inquiry Final Report, 29 November 2004, Part 19.

- **11.** There are three further markets which OMV does not consider raise material competition issues, and which are therefore not referred to in any detail in the application. These are:
 - **11.1** <u>Market for the Production/Wholesale of Oil-Condensate:</u> The Commission has found in the past in relation to this market that the supply and price of oil is determined by international market conditions, and not by market conditions relevant to production within New Zealand. This remains the case today, particularly given that the bulk of New Zealand's domestic production of oil/condensate is exported rather than used domestically. Given this, the Proposed Transaction will not lessen competition in the market for oil and condensate production at the international level, and that market is not considered in any detail in the application.</u>
 - **11.2** <u>Market for the Operation of Natural Gas Fields & Associated Assets:</u> OMV is acquiring Shell's 100% interest in Shell Taranaki which operates the Maui and Pohokura production assets and the associated pipelines/tanks owned by the Maui/Pohokura JVs. However this does not give rise to any competition issues since OMV is simply stepping into Shell's existing position at Shell Taranaki, and Shell Taranaki does not operate at any other fields apart from Maui and Pohokura.
 - 11.3 Market for the Exploration of Oil & Gas: OMV is not acquiring interests in any exploration permits owned by the Shell Companies as part of the Proposed Transaction. As a result, clearance is not sought in relation to an acquisition affecting exploration. For completeness, OMV has separately acquired Shell's share of one exploration permit relating to the That separate acquisition does not raise any Great South Basin. competition issues in a market for exploration. There is an initial issue as to whether that market is national (as previously found by the Commission),⁴ or regional/global (as found by the European Commission).⁵ OMV's experience in practice is that the market would be regional/global – in particular when OMV itself is considering exploration opportunities, this is assessed on a global basis and the merits of exploration in New Zealand will be weighed against those in other parts of the globe. That issue aside, even if there is a national New Zealand market for gas exploration, Shell only had (through Shell GSB Limited (Shell GSB) (as operator)) a 60.98% interest in one exploration permit (PEP 50119) in the Great South Basin. In the context of the overall New Zealand exploration market, that interest in one permit is small. In any event, exploration permits have no proven reserves or contingent resources - they offer only the chance to make a commercial find.

Counterfactual

12. The Proposed Transaction is the result of a competitive tender process run by Shell. Therefore OMV considers that, if it did not acquire the Shell Companies, the counterfactual would likely involve the acquisition of the Shell Companies by another purchaser who participated in the competitive tender process and reached a late stage of that process. These alternative purchasers are likely to be either a New Zealand based oil and gas company; an offshore oil and gas company; or an

⁴ *Decision 443* at [64].

⁵ Case IV/M.1532 – BP Amoco/Arco, 29 September 1999 at [16]; Case No COMP/M.3052 – ENI/Fortum Gas, 23 January 2003 at [13]; Case No COMP/M.4545 – Statoil/Hydro, 3 May 2007 at [7]; Case No COMP/M.5585 – Centrica/Venture Production, 21 August 2009 at [9].

offshore purchaser outside the oil/gas industry assisting an oil and gas company (whether NZ-based or offshore) to acquire the assets jointly.

Industry Context

- **13.** OMV's increased participating interest in the Maui field will be in the context of a declining/end of life field rather than a new field. The worst case scenario (with no further successful exploration or enhancement of existing deliverability or reserves) would see Maui depleted by 2023, while the best case would be that it runs to the current end of permit life of 2036. As a result, OMV's position in the Natural Gas Market will only reduce over time (and potentially in the short term).
- 14. In relation to Pohokura, the relevant market conditions are substantially different when compared with those applying when the Commission last considered Pohokura in terms of the joint marketing authorisation in 2002/2003. At the time of the latter, the Pohokura field had over 50% of available reserves. Gas from the Kupe, Turangi and Mangahewa fields (in which OMV has no involvement) was not yet available. In contrast, the reserves position now is quite different in that there is production from these other fields/suppliers that was not previously available. In addition, Pohokura is expected to come off plateau in the next 1-2 years, and will gradually decline towards its end of field life from then. This means that the production of gas from Pohokura is significantly reduced from the previous high percentage levels and will continue to reduce over time, consistent with the fact that Pohokura now only has 28.5% of remaining 2P reserves as at 1 January 2018. This is reflected in the market shares referred to below.

No Substantial Lessening of Competition in the Natural Gas Market

Existing Competition

- **15.** The combined OMV/Shell share of 2P (i.e. proven and probable) reserves as at January 2018 is 28.3% (with OMV's pre-acquisition share being only 8.2% and Shell's 20.1%).⁶ These shares overstate OMV's (and Shell's) actual reserves market share in the Natural Gas Market since they just represent the position of producers, and do not set out the combined position of producers and wholesalers as required by the Courts.
- **16.** These combined shares are outside the Commission's relevant concentration indicator threshold for the Natural Gas Market of 20%. Nevertheless, the actual combined shares of OMV/Shell in the Natural Gas Market will be less than 28.3% (given that figure just relates to producers) and closer to the 20% threshold. In addition, the amount of aggregation from the acquisition is small (only 8.2% based on the 2P reserves figures for producers alone), and the bulk of the combined OMV/Shell market share post-acquisition simply reflects Shell's existing position in the market.
- 17. Consistent with the comments on the industry context above, the reserves market shares of Shell and OMV have been declining over recent times as the Maui field nears the end of its life, and as the Pohokura field comes off plateau. The Pohokura field's reserves have recently been reassessed under the December 2017 Annual

⁶ The source of the reserves share data in this application for producers is MBIE's data for natural gas and LPG fields as at 1 January 2018. 2P reserves and shares have been referred to previously by the Commission (for instance, in *Decision 411* at [52] and *Decision 443* at [62]). They are also used by the Gas Industry Company to determine the relative position of producers with one another (eg *The NZ Gas Story*, 6th Edition, December 2017 at p70).

Review of Petroleum Reserves (**ARPR**) process with MBIE as being at least 20% smaller than those previously estimated and published for December 2016.

- **18.** Post-acquisition OMV will continue to face strong constraints from other market participants. These will include Todd, Greymouth and Beach Energy (previously Origin) on the production side, and large wholesalers such as Genesis. Todd and Greymouth are the first and third largest producers of natural gas by 2P reserves at present, and this will remain the case post-acquisition. Looking at the 2P reserves producer share figures, Todd's share of 37.4% is well above OMV's post-acquisition share of 28.3%, and Greymouth will also be a substantial competitor with a 19.4% share.
- **19.** The position is even more marked when 2P + 2C (i.e. best estimate of contingent) reserves/resources share figures are considered just for producers, where Todd would be the largest participant post-acquisition with a 50.9% share (compared with OMV's post-acquisition share of 26.4%), primarily as a result of the contingent resources of gas in Todd's wholly owned Kapuni field. Greymouth would also be a large participant with a 14% share and Beach Energy would have 4%.
- **20.** Todd and Greymouth in particular will hold the bulk of uncommitted (i.e. uncontracted) gas reserves going forward from 2019 ([

]), with Genesis holding around []. OMV's own holdings of uncommitted gas post acquisition will be small in comparison ([

J⁷). Accordingly this will not be a case where those seeking to acquire present uncommitted gas from a producer will only have the option of negotiating with OMV post-acquisition.

- 21. A comparison of OMV and Shell's existing shares of 2P reserves against those of Todd and Greymouth shows that the proposed acquisition is in fact a merger of the second (Shell) and fourth (OMV) largest producers of natural gas by 2P reserves with Todd and Greymouth being the first and third largest producers by reserves at present (and Greymouth having close to Shell's pre-acquisition share of reserves). It is not an acquisition involving a merger of two of the three largest producers by reserves. Moreover, while the three leading producers by reserves pre-acquisition all have market shares in the range of 19.4-37.4%, OMV's 8.2% share is much smaller than that of the other three.
- 22. Even if market shares are approached on the basis of actual production / forecast production on an annual basis rather than 2P reserves, the overall picture is of OMV as the fourth largest producer in terms of current production facing declining market share post-acquisition, together with strong competition from Todd, Greymouth and others. The combined gas production market share of Shell/OMV in 2018 is currently assessed by OMV to be [¹⁸, compared with Todd at [1 and Greymouth at [] (the projected figures in 2019 post-acquisition are [] for OMV, [] for Todd and [] for Greymouth). This compares with OMV's forecast production share post-acquisition in 2023 of [1, with Todd by then]. In other words, the production shares] and Greymouth having [having [are converging on the 2P reserves shares, as one would expect.
- **23.** The acquisition will not prejudice Todd's position within the Maui and Pohokura fields compared with the counterfactual. Dealing with each in turn:

⁷ [

^{].} The figures reported are rounded, but the calculations are based on unrounded

numbers.
 With this combined production figure being split between Shell with [] and OMV with [].

23.1 For Maui, OMV's current participating interest is only 10% so in reality OMV is simply stepping into Shell's existing position at this field. [

];

23.2 For Pohokura, some fundamental decisions ([

]) require unanimity. Todd also has a fundamental right to its 26% share of all production which is entrenched in the JV Agreement and cannot be altered without all parties' agreement. In addition, Todd also has its own pipelines from Pohokura to the Mangahewa production station, and from there to the Maui pipeline and Omata Tank Farm – so there is no restriction on Todd's ability to export gas from Pohokura.

Potential Competition

- 24. OMV considers that existing market participants face limited barriers to expanding production from current fields in the short term, and such expanded production is likely. Out of the total 2C gas resources of 1,875.7PJ, 1,192PJ (or 63.5%) are owned 100% by Todd (with 852.6PJ at Kapuni, 208.4PJ at Mangahewa, and 131PJ at Karewa). These resources could start coming to the market over the next 12-24 months, represent over 50% of current 2P reserves, and are more than double the size of the 2C resources at Pohokura and Maui (leaving aside the fact that Todd will also have its share of the 2C resources is Greymouth with around 112.6PJ of 2C resources at Kowhai and Turangi, both held 100% by Greymouth. There is no constraint that OMV is aware of on Greymouth's ability to increase production of these reserves.
- **25.** In terms of other parties who are planning drilling at present, [

]:

25.1 [

J.⁹ This is planned for the fourth quarter of 2018. The joint venture holding the exploration permit for this onshore field is comprised of Mitsui E&P Australia Pty Limited (**Mitsui**) 37.5%; AWE Holdings NZ Limited (**AWE**) 12.5% (Operator); New Zealand Oil & Gas Limited (**NZOG**) 25%; and O.G. Oil and Gas Limited (**OGOG**) 25%. OGOG is the largest shareholder in NZOG. The Chief Executive of NZOG has stated publicly that there is "an expectation of a gas condensate discovery" when the well is drilled this year;¹⁰

25.2

[

]. WestSide itself states that "WestSide is pursuing the Development upside across the fields including the redevelopment of the Kauri gas and Rimu light oil fields,

⁹ Independent report by Woodward Partners dated 13 April 2018, at p8.

¹⁰ https://www.nzog.com/news/new-zealand-oil-and-gas-farms-in-to-25-of-kohatukai/.

further development of Manutahi oil field and associated exploration targets across all the RKM areas".11 This is an onshore field;12

25.3 Γ

].¹³ Tamarind stated on 6 March 2018 that:¹⁴

].

Tamarind is intending to commence a drilling project in the Tui Oil Field in early 2019. It will involve drilling 2 to 4 sidetrack wells from the existing wells. We are currently developing an Impact Assessment for the drilling project and intend to lodge an application for marine consent to the Environmental Protection Authority (EPA) in early March 2018.

Countervailing Buyer Power

A significant percentage of gas production supply from Maui and Pohokura is 26.] (and potentially longer). This limits OMV's contracted through to [ability to increase prices in the short term post-acquisition. These contracts also provide an effective "floor" for the level of production required at Maui and Pohokura (Todd of course being entitled to its share of that production at Maui and Pohokura). Over the longer term, as noted in the 2P + 2C market share figures above, OMV's market share will be reducing which will further limit its ability to increase prices. When customers do come off contract, they have the ability to switch suppliers which acts as a constraint on price increases for natural gas. This gives large customers (and competitors) such as Methanex, Genesis, Vector and Contact countervailing buyer power. Importantly, when customers do come off contract, Todd and Greymouth will hold the bulk of uncommitted (i.e. uncontracted) gas reserves going forward from 2019. The Proposed Transaction therefore will not enable OMV post-acquisition to increase prices for uncommitted gas without constraint.

Efficiencies

27. In this case, OMV has strong incentives to maintain and/or increase gas production. In terms of gas production, its only producing fields are the Maui and Pohokura fields, which results in productive efficiency by allowing better use of existing capacity and by reducing costs. From OMV's perspective, further drilling at Maui is required to extend the field's life and defer abandonment. Since Maui is in late field life (OMV's only significant]),

remaining reserves are in Pohokura, so it needs Pohokura to keep producing. [

No Substantial Lessening of Competition in the LPG Market

- 28. No material issues arise in relation to the LPG Market since:
 - 28.1 OMV's share of the LPG Market by 2P reserves by producer is minimal (at 1%). Shell's share itself is only 8%. The merged company postacquisition will have a combined market share of 9% which is well within the Commission's concentration indicator threshold of 20%. Note that

¹¹ https://www.westsidecorporation.com/new-zealand.

Independent report by Woodward Partners dated 13 April 2018, at p8. 12

Independent report by Woodward Partners dated 13 April 2018, at p7. 13

¹⁴ https://www.tamarindresources.com/latest-news.

these figures are just for producers – once wholesaler figures are included OMV/Shell's combined market share is likely to drop further since [

]. Further, these figures do not include LPG extracted at Kapuni in the Vector processing facility, and LPG extracted by Todd from Pohokura gas at the Mangahewa facility;

- **28.2** Given the market shares are so low, and the amount of aggregation is only 1%, the acquisition of the Shell Companies' LPG production assets will not substantially lessen competition in this market. This is because OMV will in reality only be stepping into the existing market position of Shell;
- **28.3** In addition, OMV will be constrained from seeking to increase prices for LPG post-acquisition by the market leaders Beach Energy and Genesis, both of whom have 42% and 38% market share respectively by 2P reserves.

No Substantial Lessening of Competition in Markets for Other Assets

29. Outside of the core Maui and Pohokura assets, there will not be any lessening of competition from OMV's acquisition of miscellaneous storage, pipeline and loading arm assets.

<u>Storage</u>

- **30.** <u>Two tanks and associated assets at the Paritutu Tank Farm (owned by the Maui</u> <u>JV</u>) - These tanks will continue to be owned by the Maui JV. Post-acquisition, OMV will just have a higher percentage interest in them, reflecting its higher share of production. Todd will continue to have its existing access rights. In addition Todd has its own three tanks at Paritutu (previously Kapuni assets) which it has the option of using. Todd will continue to hold the lease for the site, and will operate the facility post-acquisition. No third parties use this facility. In any event, there is an issue as to whether the two tanks concerned are part of the storage market as they are simply inputs into the Maui JV, just like the wells themselves.
- 31. Omata Tank Farm (owned by Shell, through EIL). This includes 3 tanks at the Omata Tank Farm (owned by EIL). There is also 1 tank (T-3500) owned by the Maui JV, and other tanks owned by third parties (who have lease arrangements) The three EIL owned tanks were previously owned by Shell. OMV will simply step into Shell's shoes for these tanks, and there is no aggregation. In terms of the T-3500 tank, this will continue to be owned by the Maui JV, and OMV will just have a higher percentage interest in it reflecting its higher share of production, with Todd retaining its existing access rights as a member of the Maui JV. There are extensive contractual arrangements between EIL and industry players for use of the Omata Tank Farm, and these will continue post-acquisition. In addition there is another tank farm held by Beach Energy alongside the Omata Tank Farm which third parties can also potentially use.

Pipelines

32. <u>The 040 liquids export pipeline from the Pohokura Production Station to the Omata</u> <u>Tank Farm (currently jointly owned []] by Shell and OMV</u> - OMV will own the entire pipeline. However, there is no competition issue as Todd has its own offtake pipeline from Pohokura. Shell/OMV currently offer third party access to this pipeline and OMV will continue to do so on the same basis post-acquisition.

- **33.** <u>Shell's interest in the liquids pipeline from the Maui Production Station to the</u> <u>Paritutu Tank Farm (owned by the Maui JV)</u> - This will continue to be owned by the Maui JV, and OMV will just have a higher percentage interest in it. Todd's share of liquids automatically gets access to this pipeline. This pipeline only transports liquids from Maui, and not from third party fields.
- 34. <u>The liquids pipeline running from the Omata Tank Farm, connecting with the</u> <u>Paritutu Tank Farm, to the Port of New Plymouth (owned by Shell, through EIL)</u> -This is a new asset for OMV; previously it was owned by Shell. There is no competition issue as OMV simply steps into Shell's shoes. Access to this pipeline is given to all parties who use the Omata Tank Farm, and this will continue under the existing access arrangements going forward. In any event there is a separate pipeline owned by Todd (being part of the Kapuni assets) that runs from Paritutu to the Port. Beach Energy also has its own pipeline to the Port.
- **35.** There is a fourth pipeline which OMV is acquiring an increased stake in under the Proposed Transaction, namely the 032 gas export pipeline from the Pohokura Production Station to the Maui gas pipeline (currently jointly owned [] by Shell and OMV). OMV will own the entire pipeline post-acquisition. Unlike the other pipelines above, OMV does not consider this pipeline is part of a separate "point to point" market since this pipeline just runs from the Pohokura Production Station to the Maui gas pipeline. Hence it simply forms part of the Pohokura production assets, and falls for consideration within the Natural Gas Market. In any event, Todd has its own separate export gas pipeline from Pohokura.

Loading Arm

36. <u>The loading arm at the Port of New Plymouth (jointly owned by Todd and Shell)</u> - OMV takes over Shell's stake, so the loading arm will be jointly owned by OMV and Todd post-acquisition, rather than Shell and Todd as is the case currently. There is no competition issue as OMV simply steps into Shell's shoes, and access to third parties will continue under the existing contractual arrangements already in place.

Conclusion

37. For the above reasons, OMV submits that the proposed acquisition will not have the effect of substantially lessening competition in any market in New Zealand.

Part B: The Parties

Acquiring Party

- **38.** The acquirer is OMV New Zealand Limited (**Applicant** or **OMV**), or any of its interconnected bodies corporate.
- **39.** This notice is given by:

OMV New Zealand Limited Level 20, Majestic Centre 100 Willis Street PO Box 2621 Wellington 6140 Telephone: (04) 910 2500

Website: www.omv.com

Attention: Patrick Teagle Head of Commercial and Legal Telephone: [] Email: []

40. All correspondence and notices in respect of this application should be directed in the first instance to:

Simpson Grierson Lumley Centre 88 Shortland Street Private Bag 92518 Auckland 1010

Attention: James Craig / Nina Blomfield Telephone: (09) 977 5125 Mobile: (021) 497 713 Email: james.craig@simpsongrierson.com nina.blomfield@simpsongrierson.com

Selling Party

41. The shares being sold are in Shell Exploration NZ Limited (**SENZL**), Energy Infrastructure Limited (**EIL**), Shell Taranaki Limited (**Shell Taranaki**), and Shell New Zealand (2011) Limited (**Shell 2011**) (together referred to as the **Shell Companies**). Their contact details are:

Level 10 2 Hunter Street Wellington 6011 New Zealand Telephone: (04) 471 4519

Website: www.shell.co.nz

Attention: Peter Lorbeer Position: Associate Counsel Telephone: +61 (8) 9338 6657 Email: peter.lorbeer@shell.com **42.** All correspondence and notices to the Shell Companies in respect of this application should be directed in the first instance to:

Chapman Tripp Level 17 10 Customhouse Quay PO Box 993 Wellington 6140

Attention: Neil Anderson / Sophie Harker Telephone: (04) 498 6313 Mobile: (027) 278 9494 Email: <u>neil.anderson@chapmantripp.com</u> <u>sophie.harker@chapmantripp.com</u>

Part C: Transaction Details

Overview of Proposed Transaction

- 43. OMV New Zealand Limited (OMV) is applying for clearance from the Commerce Commission to acquire 100% of the shares in Shell Exploration NZ Limited (SENZL), Energy Infrastructure Limited (EIL), Shell Taranaki Limited (Shell Taranaki), and Shell New Zealand (2011) Limited (Shell 2011) (together referred to as the Shell Companies). Shell Investments NZ Limited (SINZL) is currently the owner and vendor of all of the shares in the Shell Companies.
- **44.** Under the proposed share purchase transaction, OMV will acquire the following assets from SINZL:
 - **44.1** a 48% participating interest in the joint venture relating to the Pohokura gas field (**Pohokura JV**) held by SENZL;
 - 44.2 an 83.75% participating interest in the joint venture relating to the Maui gas field (being the part of the Maui mining permit down to 12,000 feet subsea) (Maui JV) that 83.75% participating interest is held by Energy Petroleum Holdings Limited (EPHL) as to 18.75%, Energy Petroleum Taranaki Limited (EPTL) as to 38.75%, Taranaki Offshore Petroleum Company of New Zealand (TOPCO) as to 6.25%, and Energy Petroleum Investments Limited (EPIL) as to 20%. EPHL, EPTL and TOPCO are wholly owned subsidiaries of SENZL and EPIL is a wholly owned subsidiary of Shell 2011. Together, EPHL, EPTL, TOPCO and EPIL are known as the Shell MMCs;
 - **44.3** a 77.50% interest in the joint venture relating to the part of the Maui mining permit below 12,000 feet subsea (**Maui Deep**) that 77.50% interest is held by SENZL as to 27.50% and TOPCO as to 50.00%. Maui Deep is separate to the Maui JV, but part of the same mining permit for a different section. There is no production or other activity at Maui Deep at present;
 - **44.4** interests in various onshore infrastructure assets associated with the transportation and storage of petroleum products for the Pohokura and Maui JVs, being:
 - **44.4.1** a 100% interest in three tanks at the Omata Tank Farm;
 - **44.4.2** an 83.75% interest in one tank (T3500) at the Omata Tank Farm;
 - **44.4.3** an 83.75% interest in two of the five tanks at the Paritutu Tank Farm;
 - **44.4.4** an 83.75% interest in the Maui Production Station to Paritutu Tank Farm liquids pipeline;
 - **44.4.5** a **[**] interest in the EPJV Pipelines (being the 032 gas export pipeline from the Pohokura Production Station to the Maui gas pipeline, and the 040 liquids export pipeline for the export of gas and condensate from the Pohokura Production Station to the Omata Tank Farm);
 - **44.4.6** a 100% interest in the Omata Tank Farm (connecting with the Paritutu Tank Farm) to Port Taranaki export liquids Pipeline; and

- **44.4.7** a 50% interest in the loading arm situated at Newton King Wharf, Taranaki; and
- **44.5** the upstream oil services business of Shell Taranaki. In August 2017, Shell completed its acquisition of Todd Energy's share of Shell Taranaki, and in return sold its share of Kapuni to Todd Energy which now operates the Kapuni field. Shell Taranaki (on behalf of SENZL) operates the Maui and Pohokura natural gas assets and the tank farms.
- **45.** The various associated interests that are included in the Proposed Transaction are shown in the following diagram:¹⁵

Tanks farm assets and product flows Assets Production and product flows Assets Production and product flows Pipelines Tank farms End customers Egend: Maui Partitulu Fartitulu Tank farms End customers Egend: Liquids Maui Partitulu Partitulu Tank farms End customers End customers End customer Maui Partitulu Tank farms Capacity: Maul tanks, 2 x 10,600m ³ Capacity: Maul tanks, 2 x 10,600m ³ Capacity: Maul tanks, 2 x 10,600m ³ Maul owned Maul owned Maul owned Maul owned Capacity: 31,600m ³ End customer Oversplit Potokura Ordpeline Osa pipeline Osa pipeline Osa pipeline Customer Customer Out pipeline Out pipeline Out pipeline Out pipeline Out pipeline Out pipeline Out pipeline	Exhibit 6.1			
Assets Production and processing stations Pipelines Tark farms End customers	Tanks farm assets and product flows	10	8	
Capacity: 2 x 12,250 m ³ & 1 x 26,200m ³	Assets Production and processing stations Pipelines Maui Maui Production 4 processing station Production 4 processing station Production 4 processing station Output Cod pipeline Output Cod pipeline	Tank farms Paritut root s to mata ne T3500 Maul own Capacity: Omata ElL Cal	End customers End customer Partiutu Tank Farm - K Mau-owned tanks Capacity: Maul tanks, 2 ed 31,600m ³ End customer Customer pacty: 2 x 12,250 m ³ & 1 x 25,20	Legend: Extracts Specified gas Liquids apuni and 2 x 10,600m ³ Overspill agreement

Rationale for the Proposed Transaction

46. The acquisition of the Shell Companies provides a range of strategic benefits from OMV's perspective. These include:

46.1 [

46.2 [

];

];

¹⁵ Shell Information Memorandum, May 2017, page 84.

46.3	[
];		
46.4	[
];
46.5	[];
46.6	[1.			
			ן,			
46.7	[]; and	
46.8	I					
		. I.				

Transaction Documents

- **47.** On 15 March 2018 SINZL and OMV entered into a binding sale and purchase agreement in respect of the Proposed Transaction (**SPA**). A copy of the SPA is attached at **Appendix 1**.
- 48. [
- 49. [

].

].

No Other Competition Agencies Being Notified

50. The Proposed Transaction is solely a New Zealand transaction. No other offshore competition agencies are being notified regarding the Proposed Transaction.

Separate Relevant Transactions

51. In a separate but relevant transaction, on 16 March 2018 OMV acquired Shell GSB, a wholly owned subsidiary of SINZL whose only asset is a 60.98% participating interest in Petroleum Exploration Permit 50119 for the Great South Basin. The permit commenced on 11 July 2007 and expires on 11 July 2022. Prior to the transaction, the permit holders were Shell GSB with a 60.98% interest, OMV 21.95% and Mitsui 17.07%.

Part D: Horizontal Overlap

Activities of the Parties to the Transaction

<u> OMV</u>

- 52. OMV is a New Zealand incorporated wholly owned subsidiary of OMV Aktiengesellschaft. OMV Aktiengesellschaft is an Austrian incorporated company engaged in producing and marketing oil and gas, innovative energy and high-end petrochemical solutions. OMV Aktiengesellschaft is one of Austria's largest listed companies with sales of €19 billion and a workforce of around 22,500 employees in 2016.
- **53.** OMV began operating in New Zealand after acquiring a 30% share in the Maari oil field following the purchase of Cultus Petroleum of Australia in 1999. It has since expanded into a range of other assets through subsequent acquisitions. These include shares in the Maui and Pohokura gas fields. Relevant transactions in which OMV has been involved since it first came to New Zealand in 1999 include:

Date	Transaction
September 1999	OMV acquired 30% of the Maari field through the acquisition of Cultus Petroleum
20 September 2002	OMV acquired an additional 49% of the Maari field from SENZL
20 September 2002	OMV acquired a 10% interest in the Maui Licence from SENZL, including a 10% interest in the Maui Pipeline
2002	OMV acquired a 35.86% interest in the Pohokura Permit as part of the broader acquisition of the global upstream interests of Preussag Energie
2002 (Effective 1 January 2003)	OMV sold a 9.86% interest in Pohokura to Todd Energy
13 January 2003	OMV disposed of 10% of its interest in Maari to Horizon Oil (Marabella Enterprises)
June 2016	OMV sold its interest in the Maui Pipeline to First Gas

- 54. OMV's New Zealand existing interests before the Proposed Transaction involve:
 - **54.1** a 10% participating interest in the Maui JV which produces natural gas, LPG and oil/condensate;
 - **54.2** a 26% participating interest in the Pohokura JV which produces natural gas, LPG and oil/condensate;
 - **54.3** a 69% participating interest in the Maari field (which just produces oil/condensate and does not contain natural gas) Shell is not a participant in that field;
 - **54.4** associated interests in various infrastructure assets serving the Maui and Pohokura JVs. These are:
 - **54.4.1** for assets already owned by the Maui JV:

- (a) a 10% interest in one tank (T3500) at the Omata Tank Farm;
- (b) a 10% interest in two of the five tanks at the Paritutu Tank Farm;
- (c) a 10% interest in the Maui Production Station to Paritutu Tank Farm liquids pipeline;
- **54.4.2** a **[**] interest in the EPJV pipelines (being the 032 gas export pipeline and the 040 liquids export pipeline for the export of gas and condensate from the Pohokura Production Station);
- **54.5** interests in seven offshore exploration permits (none of which have yet struck oil/condensate or natural gas):
 - **54.5.1** an 82.93% interest in PEP 50119 in the Great South Basin for condensate, gas, LPG, oil and petroleum (with Mitsui having a 17.07% interest);
 - **54.5.2** a 70% interest in PEP 51906 (as operator) in the Taranaki Basin for condensate, natural gas, LPG, oil and petroleum (with Sapura Exploration and Production (NZ) SDN. BHD. (**Sapura**) having a 30% interest);
 - **54.5.3** a 70% interest in PEP 57073 (as operator) in the East Coast Basin for condensate, natural gas, LPG, oil and petroleum (with Statoil New Zealand B.V. having a 30% interest);
 - **54.5.4** a 70% interest in PEP 57075 (as operator) in the Taranaki Basin for condensate, natural gas, LPG, oil and petroleum (with Sapura having a 30% interest);
 - **54.5.5** a 40% interest in PEP 60091, PEP 60092 and PEP 60093 (as operator) in the Taranaki Basin for conventional petroleum (with Mitsui having a 30% interest, and Sapura having a 30% interest).
- **55.** A map showing the location of OMV's current working interests in these exploration permits is set out in **Appendix 7**. Further information relating to OMV and its business can be found at <u>https://www.omv.com</u>.

<u>Shell</u>

- **56.** The Shell Companies are wholly owned subsidiaries of Royal Dutch Shell Plc. The latter is a multinational British-Dutch oil and gas company headquartered in the Netherlands and incorporated in the United Kingdom. It has a primary listing on the London Stock Exchange and is a constituent of the FTSE 100 Index. It has secondary listings on Euronext Amsterdam and the New York Stock Exchange.
- **57.** Shell has been operating in New Zealand for more than 100 years. For the past 60 or so of those years, its focus has been on natural gas production and it has been involved in developing and operating the major natural gas fields in New Zealand. Shell announced a review of its New Zealand assets in December 2015, and has taken steps to reduce its interests in New Zealand following that review.

- **58.** The primary activities of the Shell Companies in New Zealand at present include exploration for, and production of, oil/condensate, natural gas and LPG together with the operation of those fields. This includes significant participating interests in the Maui and Pohokura JVs. As noted above, it also owns Shell Taranaki which operates the Maui and Pohokura natural gas assets and associated tank farms.
- **59.** Shell also had in the past:
 - **59.1** a 50% participating interest in the Kapuni joint venture which Shell sold to Todd in 2017;
 - **59.2** (through Shell GSB) a 60.98% interest in the exploration permit PEP 50119 in the Great South Basin for condensate, gas, LPG, oil and petroleum (with Mitsui and OMV as noted above); and
 - **59.3** interests in the downstream petroleum sector (including the operation of Shell branded petrol stations; the production and distribution of marine and aviation fuels, lubricants, petrochemicals and detergents; and equity investments in the New Zealand Refining Company). These latter interests have all been acquired by Z Energy Limited, and are no longer held by the Shell Companies.¹⁶
- **60.** The Proposed Transaction represents the divestment of Shell's remaining business operations in New Zealand, following which Shell will be left with a minimal and non-material presence in New Zealand (and no presence in the upstream sector).
- **61.** Further information relating to the Shell Companies and their business can be found at <u>https://www.shell.co.nz</u>.

Relevant Overlaps Between the Parties

- **62.** The Proposed Transaction will give rise to overlap between OMV and the Shell Companies in relation to the production and supply of natural gas, LPG, oil/condensate, the Omata and Paritutu Tank Farms and pipelines to/from those tank farms.
- **63.** Expanding on the overlaps created by the Proposed Transaction:
 - **63.1** SENZL holds a 48% participating interest in the Pohokura JV. Following completion of the Proposed Transaction (and including the existing 26% interest already held by OMV), OMV would hold a 74% direct and indirect (via SENZL) interest in the Pohokura JV;
 - **63.2** Prior to completion of the Proposed Transaction, the Shell MMCs hold an 83.75% participating interest in the Maui JV. Following completion of the Proposed Transaction (and as a result of OMV's existing 10% interest), OMV would have a combined direct and indirect interest in the Maui JV of 93.75%;
 - **63.3** Prior to completion of the Proposed Transaction, SENZL and TOPCO hold a 77.50% participating interest in Maui Deep. Following completion of the Proposed Transaction (and as a result of OMV's existing 10% interest), OMV would have a combined direct and indirect interest in Maui Deep of 87.50%; and

¹⁶ Refer to <u>https://z.co.nz/about-z/who-is-z-energy/</u>.

- **63.4** Overlaps for some of the pipelines and storage tanks in particular:
 - **63.4.1** The 032 gas export pipeline from the Pohokura Production Station to the Maui gas pipeline, and the 040 liquids export pipeline from the Pohokura Production Station to the Omata Tank Farm. These are currently jointly owned by Shell and OMV through the EPJV, and will be owned entirely by OMV post acquisition;
 - **63.4.2** The liquids pipeline from the Maui Production Station to the Paritutu Tank Farm. This is owned by the Maui JV so post acquisition OMV will have a higher percentage share ownership of this pipeline, with the other remaining owner being Todd;
 - **63.4.3** Two tanks and associated assets at the Paritutu Tank Farm. These tanks are owned by the Maui JV so post-acquisition OMV will have a higher percentage share ownership of these tanks, with the other remaining owner being Todd;
 - **63.4.4** One tank at the Omata Tank Farm (the T-3500 tank). This is owned by the Maui JV so post-acquisition OMV will have a higher percentage share ownership of this tank, with the other remaining owner being Todd. (OMV will also be acquiring three further tanks at the Omata Tank Farm (excluding the T-3500 tank), which are currently 100% owned by Shell through EIL.)
- 64. There is no overlap between Shell and OMV in relation to:
 - **64.1** Shell Taranaki which operates the Maui and Pohokura natural gas assets and associated tank farms. It is already owned 100% by the Shell companies, and OMV will be assuming Shell's existing ownership position;
 - **64.2** (As noted above) three further tanks at the Omata Tank Farm (excluding the T-3500 tank) which are currently 100% owned by Shell through EIL, and so OMV will be assuming Shell's existing ownership position;
 - **64.3** The liquids pipeline running from the Omata Tank Farm, connecting with the Paritutu Tank Farm, to Port Taranaki. This is currently 100% owned by Shell, through EIL. As a result OMV will simply be stepping into Shell's shoes for this pipeline as a result of the acquisition. In any event there is a separate pipeline owned by Todd (being part of the Kapuni assets) that runs from Paritutu to the Port;
 - 64.4 The loading arm at Port Taranaki. This is currently jointly owned by Todd and Shell [], and OMV has no ownership stake in it. OMV will take Shell's stake, so it will be jointly owned by OMV and Todd, rather than Shell and Todd. Again, OMV will simply step into Shell's shoes, and Todd's position will remain the same. Access to third parties will continue under the existing contractual arrangements already in place. Operation of the loading arm will be carried out by a contracted third party. As a result, OMV does not deal further with the loading arm in this application.

Required Documents/Information

65. We provide in **Appendices 1-6**:

- **65.1** a copy of, or link to, the most recent annual report, audited financial statements and management accounts for the relevant business unit(s);
- **65.2** each party's total sales revenues, volumes, capacity and excess capacity figures;
- **65.3** the names and contact details for the parties' main competitors, and any trade or industry associations in which one or both of the merging parties participate; and
- **65.4** the names and contact details for each party's key customers, and the revenue earned from each in the last financial year.

Part E: Market Definition

Overview of Relevant Markets

- 66. Consistent with how the relevant markets have been analysed previously by the Commission and the Courts, OMV has proceeded on the basis that the key relevant markets for the purposes of this clearance application are:
 - **66.1** a national market for the production and wholesale supply of natural gas;
 - 66.2 a national market for the production and wholesale supply of LPG;
 - 66.3 a regional Taranaki market for storage of liquids; and
 - **66.4** "point to point" markets in Taranaki for the transportation of liquids via pipelines to/from the Omata and Paritutu storage tanks.
- **67.** We expand on the relevant dimensions for these markets below.
- **68.** For completeness, in the discussion below we also briefly refer to the market for the production and wholesale of oil/condensate, the market for the operation of natural gas fields and associated assets, and the market for exploration for oil/condensate and natural gas together with the reasons why no competition issues will arise in those markets.

Product Dimension – Natural Gas, LPG and Oil/Condensate

69. The New Zealand Courts and the Commission have consistently found that there are separate product markets for each of gas,¹⁷ LPG,¹⁸ and oil/condensate.¹⁹ While OMV reserves its position on whether there is in fact a wider energy dimension under which gas and oil etc are substitutable with other sources of energy such as electricity,²⁰ it is content to adopt the Commission's approach for the purposes of this application.

Functional Levels

- **70.** In *Decision 330*, the Commission identified the following functional levels of the natural gas market (which would apply equally to LPG and oil/condensate):²¹
 - Prospecting;
 - Exploration;
 - Production;
 - Transmission;
 - Distribution;
 - Wholesaling; and
 - Retailing.
- 17 Commerce Commission Decision 581: OMV New Zealand Limited, Shell Exploration New Zealand Limited, Shell (Petroleum Mining) Company Limited, and Todd (Petroleum Mining Company Limited 2 June 2006 at [99]-[102]; Commerce Commission Decision 411: Shell Overseas Holdings Limited and Fletcher Challenge Energy 17 November 2000 at [27].
- 18 Commerce Commission Decision 323: Rockgas Ltd and Energy Supply Ltd 24 April 1998; Decision 411 at [37]; Commerce Commission Decision 408: Shell Exploration Company BV and Fletcher Challenge Energy 12 October 2000 at [65].
- 19 Decision 408 at [70]-[71].
- 20 As previously considered for instance in Decision 505, 1 September 2003, at [240]-[244].
- 21 Commerce Commission Decision 330: Natural Gas Corporation of New Zealand Limited and Powerco Limited 11 November 1998 at [51]. Refer also to Decision 408 at [43].

- **71.** In relation to the production functional level, the Commission has previously concluded that there are separate functional levels for the production (and first point of sale) of natural gas compared with the wholesaling of natural gas.²² The production (and first point of sale) functional level encompasses transactions between the producers of gas and their first point of sale customers. These customers include:²³
 - 71.1 Resellers such as Contact, Nova, Vector and Genesis;
 - **71.2** Electricity generators such as Contact and Genesis;
 - 71.3 Petrochemical manufacturers such as Ballance and Methanex; and
 - 71.4 Large industrial consumers.
- **72.** On the other hand, the wholesale level encompasses transactions between parties, such as those described above, and large end users such as large industrials or retailers.²⁴
- **73.** In *Decision 411*, the Commission explained the reason for this distinction between production and wholesale functional levels as follows:

[29] The applicant has argued in its submission in support of the current application that producers are clearly a substitute in demand for wholesale customers in the event that the wholesalers seek to increase price. Thus the industry should be analysed in the context of the conjoined market.

[30] The Commission accepts that there are occasions when producers and wholesalers compete for the same customers. There are other occasions when they do not. Producers generally enter supply commitments with those who require substantial quantities of gas over a long term. Electricity generators and the petrochemical industry are examples of gas users who would normally look to producers for long-term supply contracts. It is only on rare occasions (such as recently when wholesalers, such as NGC and Contact, were faced with Maui take-or-pay deficits and the forthcoming depletion of the Maui field) when they are able to onsell gas to other major users. On the other hand, producers do not usually have the resources and infrastructure necessary to market profitably to retailers and industrial and commercial customers who typically make up the customer base of wholesalers.

[31] The Commission is of the view that there is not such a degree of substitutability on the demand side that producers and wholesalers should necessarily be placed within the one market. On the supply side, the characteristics of producers and wholesalers are, of course, quite different.

- **74.** However, when the High Court and subsequently Court of Appeal considered the functional level of the market in relation to the dispute over the offtake arrangements at the Pohokura gas field, those Courts concluded that there was no distinction between the wholesale and production levels of the market and they should be considered together as one market.
- **75.** The High Court's reason for this finding was that:²⁵

... producers of gas compete in its sale with wholesale traders in gas, such as Contact Energy and Vector. Wholesale traders are not producers, but can compete with producers in re-selling gas they acquire at a "first point of sale".

²² Decision 505 at [246]; Decision 408 at [47]-[49].

²³ Decision 505 at [247]-[248].

²⁴ Decision 505 at [247]-[248].

²⁵ Todd Pohokura Ltd v Shell Exploration NZ Ltd, High Court Wellington, CIV 2006-485-1600, 13 July 2010 at [315].

76. The Court of Appeal upheld this finding and stated:²⁶

[194] It follows that, although producers control quantities of gas produced, a significant proportion of the gas is contracted and committed to wholesalers. The nature of these contracts means that the wholesalers can, to a material extent, control the quantity of gas in the market at any one time and the entities to whom and on what terms that gas is on-sold. Wholesalers have the capacity to respond to incentives and change their output, contracting behaviour, sales strategies and internal use of gas. Producers and wholesalers also compete side-by-side to sell the balance of gas quantities not contracted to large wholesalers.

[195] We therefore consider there was ample evidence justifying the High Court's conclusion that the market in which field owners produce and then sell gas extends to the activities of major wholesalers of gas, including at least Contact and Vector, given their access to substantial volumes of gas and ability to compete with producers for sales of that gas to third parties. We would go further and find that the market also includes Nova.

[196] It is artificial to confine the analysis of the competitive consequences of the Pohokura constraints to the effect on producers. A more accurate picture is obtained by assessing the response of producers and wholesalers taken together.

- **77.** Similarly, OMV considers that the effect of the Proposed Transaction should be considered in a combined market for the production and wholesale supply of natural gas in the present case.
- **78.** The Commission has in the past identified separate functional levels for the production, wholesaling, distribution and retail of LPG.²⁷ However, there is no reason to distinguish the Courts' findings that production and wholesale should be considered together for natural gas from applying equally to LPG (and oil/condensate). For that reason OMV also considers that the effect of the Proposed Transaction should be considered in a combined market for the production and wholesale supply of LPG and oil/condensate in the present case.
- **79.** OMV and the Shell Companies are not involved in the transmission or retail functional levels relating to natural gas, LPG or oil/condensate. OMV, Shell and Todd sold their interests in the Maui transmission pipeline running from Taranaki to Huntly to First Gas in 2016 (as expanded on in the next section). As a result we do not deal with these functional levels further in this application.
- **80.** However there is overlap between OMV and Shell in relation to each of storage tanks and transportation through pipelines. As a result storage and transportation will both also be relevant functional levels for consideration in the analysis below.
- **81.** To the extent that there is a separate functional level for the operation of natural gas fields and associated assets, OMV is acquiring Shell's 100% interest in Shell Taranaki which operates the Maui and Pohokura production assets and the associated pipelines/tanks owned by the Maui/Pohokura JVs. However this does not give rise to any competition issues since OMV is simply stepping into Shell's existing position at Shell Taranaki, and Shell Taranaki does not operate at any other fields apart from Maui and Pohokura.²⁸ In addition, Shell Taranaki just passes through costs and is not operated to make a profit. It cannot unilaterally increase costs to the Maui or Pohokura JVs (i.e. the costs of Shell Taranaki are governed by the joint venture operating agreements for the Maui and Pohokura joint ventures).

27 Decision 408 at [66].

²⁶ Todd Pohokura Limited v Shell Exploration NZ Limited and OMV New Zealand Limited [2015] NZCA 71.

²⁸ For instance, Shell Taranaki does not operate at the separate Maari field where OMV has an interest, and this will remain the case post-acquisition.

As a result, there will be no cost increases to Todd, and we do not deal with the operational functional level further in the analysis below.

Geographic Dimension – Natural Gas and LPG

82. The Commission has found that the natural gas production market and the LPG production market are national in scope.²⁹ The High Court, in the context of the Pohokura dispute, took a slightly different approach:³⁰

[349] Natural gas is delivered to consumers by pipeline. It is common ground that the geographical extent of the market is defined by the extent of the pipeline network. That is confined to a majority of the major centres in the North Island. Hence, although it is commonly referred to as the "New Zealand" natural gas market, a more accurate description would be the North Island market.

83. For present purposes OMV has proceeded on the basis of there being New Zealand markets for the supply of each of natural gas and LPG, albeit that a more accurate description would be the North Island market in the case of natural gas.

Geographic Dimension – Storage and Transportation by Pipeline

- **84.** In relation to storage, the Commission has previously defined separate markets for the storage of different types of petrol on a regional basis by terminal location in the *Z* Energy Limited and Chevron New Zealand decision.³¹
- **85.** For transportation, the Commission looked at smaller length pipelines situated in Taranaki as part of its 2004 Gas Control Inquiry.³²
- **86.** Accordingly in this application OMV has adopted a regional Taranaki market for considering storage, and "point to point" markets in Taranaki for the transportation of liquids via pipelines to/from the Omata and Paritutu storage tanks.

Time Dimension

- **87.** In the past the Commission has found it appropriate to adopt a time dimension to the relevant gas market to take into account the dominant nature of the Maui gas field and the expectation that the depletion of Maui would likely lead to significant changes to the market.³³
- **88.** In 2003 the Commission determined that it was no longer appropriate to consider discrete time periods. However, the Commission noted that it is important to adopt a "forward-looking approach":³⁴

[253] The Commission recognises that the depletion of Maui is now likely to occur earlier than had previously been indicated and it appears that this has already been factored into the market. Thus the depletion of Maui, when it occurs, is unlikely to result in a stark change in the nature of the market.

[254] However, it is reasonable to assume that there will be important changes over time in both the supply and demand side as new fields are discovered and developed and large gas users arrive or depart. It is not possible to predict these changes with any precision but each of these changes could have an important effect on the market.

- 31 Z Energy Limited and Chevron New Zealand [2016] NZCC 10 at [82]-[85].
- 32 Commerce Commission, Gas Control Inquiry Final Report, 29 November 2004, Part 19.
- 33 Decision 411 at [33]-[35]; Decision 408 at [69].
- 34 Decision 505.

²⁹ Decision 411 at [41].

³⁰ Todd Pohokura Limited v Shell Exploration NZ Limited and OMV New Zealand Limited HC Wellington CIV-2006-485-1600, 13 July 2010.

[255] In relation to the current Application, the Commission has decided that it is not appropriate to adopt discrete markets for different time periods. However it has adopted a forward-looking approach to the market and has taken into consideration identifiable future changes. It has considered likely market circumstances over the anticipated full life of the Pohokura field.

89. OMV is content to adopt that approach in this application.

Miscellaneous Other Market Issues

Oil/Condensate

90. The Commission found in *Decision 408* in relation to the market for oil and condensate production that:³⁵

[70] ... the Commission does not consider that the proposed acquisition would result in any change in the present competitive situation in the oil production market. This is because the supply and price of oil is determined by international market conditions, and not by market conditions relevant to production within New Zealand.

91. Similarly, in *Decision 443* the Commission also commented:³⁶

[46] ... Furthermore, the Commission does not consider, in any event, that the proposed acquisition would result in any change in the present competitive situation in the oil production market. This is because the supply and price of oil is determined by international market conditions, and not by market conditions relevant to production within New Zealand.

- **92.** This remains the case today, particularly given that indigenously produced crude oil only accounts for approximately one quarter of all crude oil supply with the other three quarters being imported.³⁷ Moreover, the great bulk of New Zealand's domestic production of oil/condensate is exported rather than used domestically.
- **93.** Given this, we do not consider further in the application whether the acquisition will lead to a substantial lessening of competition in the oil/condensate production/wholesale market. The Proposed Transaction will not impact on the determination of the price for oil/condensate.

Exploration

- **94.** OMV is not acquiring interests in any exploration permits owned by the Shell Companies as part of the Proposed Transaction. As a result, clearance is not sought in relation to an acquisition affecting exploration. As noted above, OMV has separately acquired Shell's share of one exploration permit relating to the Great South Basin. For completeness, we briefly set out below why that separate acquisition does not raise any competition issues.
- **95.** The Commission has previously found that there is a national market for gas exploration.³⁸

³⁵ Decision 408 at [70].

³⁶ Commerce Commission Decision 443: Shell Overseas Holdings Limited and The Owner of the TAWN Fields 26 October 2001 at [46].

³⁷ MBIE, Energy in New Zealand, page 22.

³⁸ Decision 443 at [64].

96. This contrasts with a number of decisions of the European Commission where it considered that the geographic market for exploration was either European Economic Area wide or worldwide in scope.³⁹ In particular, it has stated:⁴⁰

8. Exploration i.e. the finding of new hydrocarbon reserves constitutes a separate product market. In terms of market definition no distinction is to be made between the exploration for oil on the one hand and exploration for natural gas on the other as the contents of underground reservoirs cannot be known at the stage of exploration.

9. The exploration market is defined as worldwide in scope as the companies engaged in exploration do not tend to limit their activities to a particular geographical area.

- 97. These comments of the European Commission reflect OMV's experience in practice – in particular when OMV itself is considering exploration opportunities, this is assessed on a global basis and the merits of exploration in New Zealand will be weighed against those in other parts of the globe. Clearly, there will be no impact on competition in any regional/global exploration markets from the acquisition of Shell's interest in the GSB permit.
- **98.** This difference in approach to market definition between New Zealand and Europe should not be a problem, provided that the Commission has due regard to exploration activity outside New Zealand as a constraint on the New Zealand market. That issue aside, even within a national New Zealand market for gas exploration, Shell only had (through Shell GSB (as operator)) a 60.98% interest in one exploration permit (PEP 50119) in the Great South Basin. In the context of the overall New Zealand exploration market, that interest in one permit is small. The great majority of offshore acreage for exploration permits is held by the Crown.
- **99.** Using the land area covered by petroleum exploration permits in which each exploration company has an interest as a rough proxy for market shares for exploration,⁴¹ OMV's assessment of the "market shares" is as follows:⁴²



- 40 Case No COMP/M.5585 Centrica/Venture Production, 21 August 2009 at [8]-[9].
- 41 As the Commission did at [89] in *Decision 443*.
- 42 Note these figures are just for the 100,000 km² actually licensed. The NZ Government holds a greater amount of acreage which is not licensed.

³⁹ Case IV/M.1532 – BP Amoco/Arco, 29 September 1999 at [16]; Case No COMP/M.3052 – EN//Fortum Gas, 23 January 2003 at [13]; Case No COMP/M.4545 – Statoil/Hydro, 3 May 2007 at [7]; Case No COMP/M.5585 – Centrica/Venture Production, 21 August 2009 at [9].

- **100.** This shows that the acquisition of Shell's share in the GSB exploration permit increases OMV's percentage share of exploration permits by land area from around 15% to around 25%. This is in the context of a non-concentrated market where the CR3 post-acquisition is only 53% without even taking into account the acreage held by the NZ Government (although note the Government's announcement on 12 April 2018 regarding no further offshore exploration permits being offered as expanded on below). Accordingly, if landholdings are taken as a proxy for market share, then this acquisition is well within the Commission's concentration indicators.
- **101.** In any event, exploration permits have no proven reserves or contingent resources they offer only the chance to make a commercial find. This was recognised by the Commission in *Decision 443* when it commented that:⁴³

However, land area holdings are not an accurate measure of the likely success of the exploration of those areas and, therefore, of the true worth of any land area and the associated PEPs. The fact that a PEP covers a large land area does not indicate that it is likely to be more successful than a smaller PEP and indeed the reverse is more likely. The high grade permits are those in Taranaki which are for very small areas. **The larger PEPs are in areas such as the Southern Basin, which have no production and are regarded as frontier areas**. [emphasis added]

102. As a result, since land area holdings are not an accurate measure of the likely success of the exploration of those areas, OMV's increased share of landholdings overstates its likely actual share of an exploration market.

Conclusion on Relevant Market Definitions

- **103.** OMV therefore considers that the relevant markets for consideration in this clearance application regarding the Proposed Transaction are:
 - **103.1** a national market for the production and wholesale supply of natural gas;
 - **103.2** a national market for the production and wholesale supply of LPG;
 - 103.3 a regional Taranaki market for storage of liquids; and
 - **103.4** "point to point" markets in Taranaki for the transportation of liquids via pipelines to/from the Omata and Paritutu storage tanks.

Part F: Counterfactual

- **104.** The Proposed Transaction is the result of a competitive tender process run by Shell. Therefore OMV considers that, if it did not acquire the Shell Companies, the counterfactual would involve the acquisition of the Shell Companies by another purchaser who participated in the competitive tender process and reached a late stage of that process. These alternative purchasers are likely to be either:
 - **104.1** a New Zealand based oil and gas company;
 - **104.2** an offshore oil and gas company; or
 - **104.3** an offshore purchaser outside the oil/gas industry assisting an oil and gas company (whether NZ-based or offshore) to acquire the assets jointly.
- **105.** OMV does not know who the other parties are who participated in the competitive tender process. Therefore the likely alternative buyers will need to be confirmed with Shell.
- **106.** Subject to that confirmation, OMV notes the following on the likely counterfactual:
 - **106.1** In relation to the likelihood of a New Zealand based oil and gas company acquiring the Shell Companies, Todd or Greymouth are the only New Zealand based entities that could realistically have the scale/expertise to acquire the Shell assets. However an acquisition by Todd or Greymouth would raise more competition issues in the relevant markets than an acquisition by OMV as a result of their greater size (as expanded on below). Apart from Todd or Greymouth, OMV is not aware of another existing New Zealand based oil and gas company having the scale to acquire the Shell Companies;
 - **106.2** Similarly OMV is not aware of an offshore oil and gas company who would be likely to acquire the Shell Companies;
 - **106.3** Following their investment, any potential New Zealand or offshore based purchaser would likely seek to preserve the life of both the Pohokura and Maui fields. However, OMV maintains that no other likely purchaser is as well-equipped as it is to succeed in this regard given its long-standing experience with both fields. This would be particularly the case with an offshore purchaser outside the oil/gas industry;
 - 106.4 In the absence of a viable purchaser for the Shell Companies, Shell could possibly continue to operate its interests in the Pohokura and Maui JVs.
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Part G: The Industry

Natural Gas & LPG Industry Overview

107. New Zealand's primary energy demand amounts to over 900PJ a year.⁴⁴ In 2016, gas (including LPG) contributed 195.8PJ, or 21.6% of the country's primary energy needs. In volume terms, the contribution of gas was 2.9% up on the 190.2PJ in the previous year, reflecting increased gas use for methanol production. The composition of New Zealand's primary energy supply is shown below.⁴⁵



Primary Energy Supply 2016 (908PJ)

Source: 2017 Energy in New Zealand

- Gas includes LPG

- Other Renewables include wind, solar, biomass, and biogas

Gas Industry

Gas Industry Structure

108. New Zealand has a conventional gas industry structure, with an upstream exploration and production sector, and a downstream sector comprising high pressure (transmission) and lower pressure (distribution) transportation, and wholesale and retail markets. Some large users, notably power stations, petrochemical producers, dairy factories and timber processing plants, are supplied directly from the high pressure transmission pipelines.⁴⁶ The relevant structure is set out in the diagram below:⁴⁷

45 GIC 2017 Report at p6.

46 GIC 2017 Report at p9.

^{44 &}quot;The New Zealand Gas Story", Sixth Edition, December 2017, published by the Gas Industry Company Limited (GIC 2017 Report) at p6.

⁴⁷ GIC 2017 Report at p11.

Industry Structure



109. The current application for clearance just relates to the upstream Natural Gas Market and associated storage tanks and pipelines.

Industry Participants

110. The relevant industry participants and their operational interests as summarised by the Gas Industry Company in 2017 are set out below:⁴⁸

⁴⁸ GIC 2017 Report, at p12.

MAJOR FIELDS % Production	McKee Mangahewa 1.0 11.6	Maui Kupe 17.5 13.8	Kapuni 5.8	Ngatoro 1.0	Kowhai Tu 2.6	rangi Radnor 4.1 0.0	Pohokura 36.8	Rimu/Kauri 0.3	Cheal Side 0.4 winder 0.1
PRODUCERRS *Operator	Todd Taranaki (100% *Todd Energy	Shell Origin 83.75% Energy 50% OMV 10% Genes Energy 6.25% Mitsu 4% *Shell *Origi	n * Todd y Energy 100%		Greymouth 100%	h	Shell 48% OMV 26% Todd Energy 26% *Shell	WestSide 100% *WestSide	TAG Oil 100% *Cheal Petroleum
		Taranaki	Energy				Taranaki		
WHOLESALERS		/ector	Nov (par Cor	a Energy Contact Energy t of Todd boration)		Nova Energy Contact Energy Greymouth Petrol (part of Todd Corporation)		outh Petroleum	
TRNANSMITTERS (high pressure)	First Gas								
DISTRIBUTORS (lower pressure)	Vector	Vector First Gas Powerco		s Powerco		Gast	Net	No (part of T	wa Energy odd Corporation
RETAILERS	Genesis Energy Energy Online (part of Genesis)	Nova Energy (part of Todd Corporation)	Contact Energy	Trustpower	OnGas (part of Vector)	Mercury	Greymouth Gas	Pulse Energy	Switch Utilities
CONSUMERS	Electricity Ger Contact Er Genesis Pr Nova Ene	herators lergy wwer rgy	Large Con from tr Met Ballance Agri Ni Oji Fibre S D Tas	arge Consumers supplied directly from transmission pipelines Methanex (methanol) ance Agri-Nutrients (ammonia/urea) New Zealand Steel Oji Fibre Solutions (pulp & paper) Fonterra Degussa Peroxide Tasman Pulp & Paper			1		

111. As expanded on below, in addition to the wholesalers above, OMV considers that Genesis Energy also operates at the wholesale level.

Production and Reserves

- **112.** New Zealand relies on indigenous production for its natural gas needs. Buying natural gas from the international market is currently not an option. Although equipped to import and export LPG, New Zealand has no LNG importation capability and, as an isolated island nation, cannot tap into other countries' natural gas resources through cross-border pipelines.⁴⁹
- **113.** The Taranaki region remains the central focus for providing the country's gas reserves, through new exploration and reserves enhancement on existing fields. Gas is currently produced from 15 fields. Two offshore fields, Tui and Maari/Manaia, are not connected to the domestic gas market and the small amount of gas they

⁴⁹ GIC 2017 Report at p57.

produce – approximately 1PJ and 6PJ a year respectively – is either flared or used for operational purposes.⁵⁰ The location of the relevant Taranaki fields can be seen in the following map:





50 GIC 2017 Report at p58. In the case of the Maari/Manaia field in which OMV has an interest, [

]. As a result, while marked in the map below as an oil/gas field, Maari is operated in practice as an oil field. The Tui field also operates as an oil field (OMV does not have an interest in Tui).

114. As at 2016, the gross natural gas production by field was as follows:⁵¹



Gross Natural Gas Production By Field 2016 (221 PJ)

Source: 2017 Energy in New Zealand

Includes gas reinjected (12.1PJ), LPG extracted (6.1PJ), gas flared (5.7PJ) and production losses/own use (5.1PJ). Net Production, excluding these factors = 192PJ

- Gas produced from the Maari and Tui fields is flared or used for operational purposes. - Ngatoro includes production from the Goldie field. Gas from the Moturoa wells is used for operational purposes.

- Other includes Cheal, Copper Moki, Rimu, Sidewinder, and Waihapa wells.

- **115.** In 2016, at least, the Pohokura and Maui fields made up over half of New Zealand's gas production (i.e. 54.8%) at that time.
- **116.** That position has since changed with current gas production by field for 2018 and 2019 projected to be:

Field	2018	2019
Pohokura	[]52	[]
Maui	[]	[]
Mangahewa	[]	[]
Kupe	[]	[]
Turangi	[]	[]
Kapuni	[]	[]
Kowhai	[]	[]
Ngatoro	[]	[]
McKee	[]	[]

- 117. This shows that the Maui and Pohokura fields are projected to make up around [] of New Zealand's gas production in 2018 and 2019. This represents a decline of around [] from the 2016 production figures. The 2018-2019 production shares for Maui and Pohokura are expected to decline further in subsequent years (as expanded on below).
- **118.** Further evidence of the decline in the position of the Maui and Pohokura gas fields in comparison with other fields can be seen when 2P (i.e. proved and probable)

⁵¹ GIC 2017 Report at p64.

⁵² Note the reduced percentage for Pohokura in 2018 reflects the pipeline outage for that year, which is assumed to have been fixed by 2019. This is expanded upon below.
remaining natural gas reserves are looked at by field as at 1 January 2018. The relevant figures are as follows: $^{\rm 53}$

	Remaining (2P) as at 2018	g Reserves 1 January
	-	Share
Field	PJ	Percentage
Maui	145.38	7.58%
Kapuni	86.85	4.5%
Pohokura	548.00	28.5%
Mangahewa	416.57	21.7%
Kupe	265.45	13.8%
Turangi	321.03	16.7%
МсКее	61.23	3.19%
Ngatoro	20.21	1%
Kowhai	31.14	1.62%
Others	21.58	1.12%
Total	1917.44	

- **119.** This shows that the Maui field, as it moves towards its end of its life, was only the fifth biggest field by remaining 2P natural gas reserves as at 1 January 2018. While Pohokura is currently the natural gas field with the largest 2P remaining reserves at 28.5% (compared with 37.5% as at 1 January 2017⁵⁴), the Mangahewa field at 21.7% is not far behind. As is evident in the 1 January 2018 figures above, there are significant natural gas reserves held by the Mangahewa, Turangi, and Kupe fields (none of which Shell or OMV have ownership stakes in).
- **120.** In addition to reported resources, contingent natural gas resources (i.e. potentially recoverable quantities from known accumulations which are not yet mature enough for commercial development) amount to around 1,875.7PJ as at 1 January 2018, comprising:⁵⁵

Field	2018 2C Resources (PJ)	Share
Kapuni	852.6	45.45%
Maui	229.8	12.25%
Pohokura	284	15.14%
Mangahewa	208.4	11.11%
Karewa	131.1	7%
Turangi	45.7	2.43%

⁵³ Refer to Gas tab in MBIE data at https://www.nzpam.govt.nz/about/news/release-of-petroleum-reserves-data/ ...

⁵⁴ GIC 2017 Report at p67.

⁵⁵ Refer to 2C Resources tab in MBIE data at <u>https://www.nzpam.govt.nz/about/news/release-of-petroleum-reserves-data/</u>.

Kupe	24.2	1.29%
Kowhai	66.9	3.56%
Ngatoro	26.7	1.42%

121. This shows that the 2C resources in Maui and Pohokura are dwarfed by the 2C resources held in Todd's 100% owned Kapuni field alone (let alone the 2C resources also held by Todd in the Mangahewa and Karewa fields).

Pohokura JV and Field

- **122.** The Pohokura JV is an unincorporated joint venture, formed for the purposes of exploring for, and producing, oil and gas from the Pohokura field, which is located approximately 7km off the Northern Taranaki Peninsula.
- **123.** The Pohokura JV is operated under Petroleum Mining Permit 38154, issued by the Crown under the Crown Minerals Act 1991 (the **Pohokura Permit**). The Pohokura Permit has a term that runs until 7 October 2036, which may be extended for a further 15 years.
- **124.** The field was discovered in 2000 and first production occurred in 2006. It is the largest field in New Zealand by remaining 2P reserves and accounted for around 28.5% of 2P gas reserves as at 1 January 2018 based on MBIE's data.
- **125.** The Pohokura development consists of five offshore production wells connected to an unmanned offshore platform and three extended-reach onshore production wells, all connected to the following onshore assets:
 - **125.1** The Pohokura Production Station (**PPS**) is located immediately west of the Methanex Motunui methanol production facility in Taranaki (on land owned by the Pohokura JV at Otaroa Road). The raw petroleum produced from the Pohokura field is piped to the PPS where it undergoes processing to separate it into saleable products:
 - **125.1.1** natural gas (which is then piped to the national reticulation system); and
 - **125.1.2** oil/condensate (which is exported, via pipeline, to the Omata/EIL and T3500 Tank Farms (which sit on land owned by EIL at Centennial Drive)).
 - **125.2** The PPS has two associated "wellsites" which are used for observation of the reservoir and reinjection of waste water:
 - **125.2.1** Pohokura West Wellsite which is located close to the coast, approximately 100m north-west of PPS, and is the location of the water disposal well; and
 - **125.2.2** Pohokura South Wellsite which is located next to the coast, approximately 2km east of PPS, and which is used for reservoir pressure.
- **126.** As is typical of significant New Zealand oil and gas ventures, the Pohokura JV operates as an unincorporated joint venture, with each participant entitled to a share of production (rather than profit). In this joint venture the parties separately sell their share of the gas and condensate production within New Zealand, in competition with other producers, including competing with the other Pohokura joint venture participants.

- **127.** The Pohokura JV is currently comprised of three substantive parties:
 - **127.1** SENZL, which holds a 48% participating interest and is also the operator of the field (i.e. it undertakes practical day to day operation of the venture);
 - **127.2** Todd Pohokura Limited, which is a wholly owned indirect subsidiary of the Todd Corporation and which holds a 26% participating interest; and
 - **127.3** OMV, which holds a 26% participating interest.
- **128.** The Pohokura JV is governed by the Pohokura Joint Venture Operating Agreement (**Pohokura JVOA**), a detailed joint venture agreement setting out the contractual rights of the Pohokura JV participants. This includes a specific decision-making structure, with different thresholds for different types of decisions.
- **129.** SENZL is the operator at Pohokura, but engages Shell Taranaki to provide a full suite of operator services (i.e. Shell Taranaki effectively conducts the day to day operation of the field).
- **130.** Decisions as to how hard the Pohokura field is run are effectively determined by a combination of:
 - **130.1** field deliverability and good industry practice;
 - 130.2 an annual joint venture decision as to total production available (TAP); and
 - 130.3 individual joint venturer/customer demand decisions.
- **131.** Overall deliverability is determined by the performance of the field, and the capacity of the wells and production facilities. During Pohokura's current plateau phase, maximum production levels are largely determined by the capacity limits of the Pohokura Production Station (as the field can deliver more gas and fluid than the facilities can process). As Pohokura continues to mature, field deliverability will reduce and become the key factor determining how much gas can be produced.
- **132.** Periodically, taking into account the above factors, the Operator of the joint venture produces an assessment of TAP. This takes into account expected plant/field availability (the Operator has a KPI to achieve 98% availability), and a plant load factor of 85%. Normally, TAP is set annually. During the plateau phase the Operator has produced a consistent TAP assessment of around 72PJ per annum. TAP is formally set by a decision of the Operator's assessment, and either approves it or approves an alternative). The setting of TAP is an operational decision, made under Article 5.9(A) of the Pohokura JVOA.
- **133.** Once TAP is set, this determines the maximum quantity of gas available to each of the joint venture participants over the year (subject to certain limited overlift/underlift protocols). In essence, each participant is entitled to its participating interest share of TAP, as provided for in Article 10.1 of the Pohokura JVOA (and in a practical sense, each participant is incentivised to take almost all of its share of TAP to avoid a situation where it has "underlifted"). On that basis, TAP sets a reasonable expectation as to what actual production will be across a year. On an individual daily basis, the nominations by each of the joint venturers (which are largely driven by nominations by their customers), determine exactly how hard the field is run.

134. On current projections, Pohokura is expected to be exhausted of economically accessible reserves by 2042 (this being the expected end of field life (**EOFL**)). The permit currently goes to 2036 but may be extended for up to 15 years. Using Pohokura's current infrastructure (i.e. wells and assets), it has produced on plateau from 2006 until 2018 at a rate of around 72PJ per annum. It is expected to come off plateau in the next 1-2 years, and will gradually decline towards the EOFL.

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- **140.** The Pohokura field is currently subject to a pipeline "outage" which has impacted production. The outage commenced on 7 March 2018, when a routine inspection of the pipeline (using the FUGRO TSM MV Southern Star survey vessel) discovered damage to the external casing of a section of the offshore production pipeline (i.e. the pipeline that brings all production from the offshore wells to the PPS). Following discovery of the damage, the joint venture ceased use of the pipeline, and the offshore wells were shut-in. The cause of the damage to the pipeline is still being investigated. A definitive root cause will not be known until the damaged section of line is retrieved and a detailed inspection is completed. The pipeline outage has meant that production from the offshore wells has ceased and cannot recommence until the damaged section of the pipeline has been repaired. Production from the onshore wells continues. [

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venture is still in the process of determining how to remedy the pipeline issue. The ability to recommence use of the pipeline will depend upon whether it is feasible to make temporary repairs, or whether the damaged section of the pipeline requires replacing. [

Maui JV and Field

- **141.** The Maui JV is an unincorporated joint venture, formed for the purposes of exploring for, and producing, oil and gas from the Maui field, which is located approximately 36km off the Western Taranaki Peninsula.
- **142.** The Maui JV is operated under Petroleum Mining Licence 381012, issued by the Crown under the Petroleum Act 1937 (the **Maui Licence**). The Maui Licence runs until 27 June 2036. There are contractual arrangements governing the different interests in two distinct strata covering the areas above and below the 12,000 foot level subsea. The Maui JV refers only to the area down to 12,000 feet subsea. Below that, in the Maui Deep, there is a separate joint venture, with different participants and participating interest shares. Maui Deep is part of the same mining permit, but has no production. There are no existing discoveries in Maui Deep, and no current plans for exploration of Maui Deep.
- **143.** Production first commenced from the northern part of the field (Maui-A) in 1979 followed by the southern part of the field (Maui-B) in 1993. It is the fifth largest gas field in New Zealand by remaining 2P reserves and accounted for around 7.58% of remaining 2P gas reserves as at 1 January 2018.
- **144.** The Maui development consists of 26 wells drilled from two offshore platforms (12 wells currently available to flow) with connection to the following onshore assets:
 - **144.1** The Maui Production Station (**MPS**) is located on Tai Road approximately 7km north of Opunake in South Taranaki (on land owned by the Maui JV). MPS processes well stream fluids from the offshore platforms to produce:
 - **144.1.1** natural gas (which is transferred to the gas transmission pipeline system);
 - **144.1.2** enhanced condensate and naphtha (both of which are exported via a pipeline to the Paritutu and Omata/EIL Tank Farms in New Plymouth and, from there, via tankers, to the point of sale); and
 - **144.1.3** LPG products (which are held onsite for further processing into separate streams of propane/butane before being exported).
 - **144.2** In order to store product prior to processing or export, the Maui JV maintains the following infrastructure:
 - **144.2.1** approximately 16,000m³ of condensate/naphtha storage and approximately 1,900 tonnes of LPG/propane/butane storage at MPS itself, some of which is owned by Liquigas;
 - **144.2.2** storage tanks for Maui condensate and naphtha at the Paritutu and Omata/EIL Tank Farms; and
 - **144.2.3** storage for approximately 1,000 tonnes of LPG/propane/butane at the Liquigas facilities at Port Taranaki (noting that this storage is not dedicated to Maui use).
- **145.** The Maui JV operates as an unincorporated joint venture, with each participant entitled to a share of production (rather than profit). Unlike Pohokura, the Maui JVOA provides for joint selling of production. Rather than each taking their own

share, the Maui JV jointly sells the gas. LPG and liquids are sold separately by each Maui JV participant.

- **146.** The Maui JV is currently comprised of three substantive parties:
 - 146.1 the Shell MMCs, which hold an 83.75% participating interest;
 - **146.2** Todd Petroleum Mining Company Limited, which is a wholly owned indirect subsidiary of the Todd Corporation and which holds a 6.25% participating interest; and
 - **146.3** OMV, which holds a 10% participating interest.

Together, the Shell MMCs, Todd Petroleum Mining Company Limited and OMV are known as the Maui Mining Companies or **MMCs**.

- **147.** In the Maui JV, a services company, Maui Development Limited (**MDL**), was established by the JV participants, with each participant taking an equity interest in MDL equal to their respective interests in the JV. MDL was established "for the purpose of carrying out the joint venture on behalf of the JV participants". MDL, as the services company, acts as agent for and on behalf of the JV participants, entering into contracts for the JV. MDL, the MMCs and Shell Taranaki are parties to a Contract of Employment (**COE**) under which MDL employs Shell Taranaki as operator. Shell Taranaki was until mid-2017 owned 50/50 by Shell and Todd, but Todd sold its interest to Shell as part of the Kapuni sale transaction.
- **148.** The Maui JV is governed by the Maui Joint Venture Operating Agreement (**Maui JVOA**), a detailed joint venture agreement setting out the contractual rights of the Maui JV participants. Under the Maui JVOA, instructions to the operator by the MMCs are given or made by the MMCs in accordance with the decision making provisions of the Maui JVOA and are transmitted to the operator through MDL.
- 149. The Maui field is currently in its decline phase. Accordingly, decisions as to how hard the field will run are largely determined by buyer nominations under the existing Maui contracts. Under those contracts, the buyer nominates its daily gas requirement, at a level between specified daily minimum and maximum quantities that are set out in the contract, and this determines exactly how hard the field is run. Reflecting the decline phase, there is limited flexibility in the range of nominations. and "normal" nominations will utilise almost all of the current level of deliverability for the field. If, taking into account nominations, there is additional deliverability in the field/wells⁵⁶, the Maui joint venture might determine to produce and sell additional gas. Given that current sales contracts already utilise almost all deliverability, any additional sales tend to be relatively small and occur on a spot basis. Limited spot sales are provided for under the ROFR arrangements with Contact and First Gas. Any such sales require a joint venture decision under clause 5.3 of the Maui Gas Contract (i.e. a majority decision, currently requiring the support of the Shell MMCs and either OMV or Todd).
- **150.** On current projections Maui is expected to be exhausted of easily accessible reserves by 2023 (this being the expected EOFL).

⁵⁶ By deliverability, we refer to the amount of gas that can be physically produced from the reservoir and the existing wells on a day. As is normal for a decline phase, the existing contracts utilise almost all of the field's deliverability, so there is very limited ability for the joint venture to produce gas over and above that required by its existing contract buyers.

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157. Unless the strategies set out above are successful, Maui is likely to be exhausted in (or around) 2023. [

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Other Fields

- 160. Aside from Pohokura and Maui, other natural gas fields in New Zealand include:57
 - **160.1** three significant fields, each with shares of remaining 2P reserves as at 1 January 2018 of 16.7% for Turangi, 13.8% for Kupe and 21.7% for Mangahewa; and

57 GIC 2017 Report at p67.

- 160.2 five smaller fields, each with shares of remaining 2P reserves as at 1 January 2018 of between 0.5% and 4.5% of total remaining 2P reserves – Kapuni, McKee, Kowhai, Ngatoro and Radnor (although note the comments above (and below) regarding Kapuni's large share of 2C resources).
- **161.** Neither Shell nor OMV have ownership stakes in these other fields.
- **162.** The onshore Mangahewa field is located approximately 20km north east of New Plymouth. Early exploration of the field began in 1961 and occurred again in the mid-1990s with permanent production commencing in 2001.⁵⁸ As set out above, as at 1 January 2018 Mangahewa had remaining 2P gas reserves of around 416.57PJ, and it was the second largest field in New Zealand.⁵⁹ Mangahewa is 100% owned by Todd. For more details about Mangahewa see: https://www.toddenergy.co.nz/operations/mckee-and-mangahewa/.
- **163.** The onshore Turangi field is located just north of the Mangahewa field. It was discovered in 2006 and a production facility was completed in 2007. It has remaining 2P reserves of 321.03PJ as at 1 January 2018, and is 100% owned by Greymouth.⁶⁰ As at 1 January 2018 it was the third largest field in New Zealand by remaining 2P gas reserves.
- **164.** The offshore Kupe field is located approximately 30km off the coast of Taranaki in 35 metres of water. It was discovered in 1986 but was not developed until 2007 and did not start producing until 2009, once the Maui field moved into a decline phase.⁶¹ As at 1 January 2018, the Kupe field is estimated to have remaining 2P reserves of 265.45PJ.⁶² Beach Energy holds a 50% interest in the field, with Genesis Energy holding 46% and NZOG holding the remaining 4%. As at 1 January 2018, it was the fourth largest field in New Zealand. For more details about Kupe see: https://www.nzog.com/producing-assets/kupe/.
- 165. The onshore Kapuni field is located approximately 65km south of New Plymouth and is the oldest producing gas field in New Zealand. While Kapuni's 2P reserves are only around 4.5% of total remaining 2P reserves, as noted above Kapuni has by far the largest volume of 2C resources (i.e. 852.6PJ), which is more than the 2C resources of the next four largest fields holding 2C resources combined. It is now fullv owned by Todd. For more details about Kapuni see: https://www.toddenergy.co.nz/operations/kapuni/.

Transmission

- **166.** Transmission pipeline systems are used to transport gas at high pressure from production stations in Taranaki to delivery points that supply the gas either to end-users or to local area gas distribution networks at a lower pressure.⁶³
- **167.** There are currently two transmission pipeline systems: the Maui pipeline (which runs for 309km from Oaonui in southwest Taranaki to Huntly and is mostly 750mm in diameter), and another pipeline system radiating from various points to the Maui pipeline north and south (which runs for 2,196kms delivering gas throughout the North Island and is mostly 155mm to 220mm in diameter). These pipelines are both

59 Refer to latest MBIE reserves figures as at 1 January 2018; and GIC 2017 Report at p70.

61 https://www.nzog.com/producing-assets/kupe/

⁵⁸ https://www.toddenergy.co.nz/operations/mckee-and-mangahewa/

⁶⁰ Refer to latest MBIE reserves figures as at 1 January 2018; and GIC 2017 Report at p70.

⁶² Refer to latest MBIE reserves figures as at 1 January 2018; and GIC 2017 Report at p70.

⁶³ GIC 2017 Report at p88.

owned by First Gas⁶⁴ and are subject to open access arrangements. A new code and pricing structure for these pipelines were due to come into effect on 1 October 2018⁶⁵ – this is now more likely to be in 2019.

168. There are also smaller pipelines that are owned by the gas producers (and in some cases end-users) that connect to the two main pipeline systems. These private pipelines do not offer open access and are listed in Schedule 6 of the Commerce Act 1986 as being exempted from Part 4 of the Act on the basis that the pipeline owner does not have a substantial degree of power in the market in which the gas pipeline services are supplied.⁶⁶ The exempted pipelines include the 032 gas export pipeline currently owned by EIL and Petroleum Infrastructure Limited (an OMV subsidiary) from the Pohokura Production Station to the Maui Pipeline, which forms part of the Proposed Transaction:

Owner	Pipeline
Todd Taranaki Limited	McKee Production Station-Tikorangi gas pipelines.
Vector	Low Temperature Separator (LTS) pipeline (50km), originally used to supply non-specification, high CO2 content gas from Vector's Kapuni gas treatment plant to the Faull Road mixing station (where it was blended with Maui gas for providing a CO2-rich feedstock gas to Methanex). Now used as line pack storage.
Nova Energy Limited	All gas pipelines.
NZEC	Waihapa production station to New Plymouth (45km) (formerly owned by Origin Energy, and originally owned by Swift Energy New Zealand). Rimu production station to Mokoia mixing station (First Gas' south system) (1km).
Methanex	Bertrand Road to Waitara Valley methanol plant, via Faull Road mixing station. Tikorangi (Maui pipeline welded point) to Faull Road mixing station. Faull Road mixing station to Motunui plant (minor gas pipeline). Faull Road mixing station to Waitara Valley methanol plant main process gas pipeline.
TAG Oil	Sidewinder production station to the First Gas pipeline at Durham Road (3.5km)
Energy Infrastructure and Petroleum Infrastructure	Pipeline from the Maui pipeline to the Pohokura production station and the Methanex methanol plant.

Other (Non Open Access) Pipel

Nova Energy distribution pipelines are discussed in Section 9.2 Gas Distribution, Page 121

^{169.} The transmission network is restricted to the North Island:⁶⁷

⁶⁴ First Gas acquired the Maui pipeline in 2016.

⁶⁵ GIC 2017 Report at pp88-89.

⁶⁶ Commerce Act 1986, s 55A(6).

⁶⁷ GIC 2017 Report at p14.

Gas System Abstract



Note: Vector pipeline is now owned by First Gas; Southdown and Otahuhu power stations have closed

170. The smaller pipelines connecting the Maui and Pohokura production and processing stations with the Omata and Paritutu Tank Farms that are included in the Proposed Transaction are described in the overlaps between the parties section above.

Distribution

- **171.** Gas distribution networks feature intermediate and medium pressure pipelines as the backbone of the network, which supply larger users and feed into lower pressure pipes that supply smaller users. The market is well established and has four open network service providers (Vector, First Gas, Powerco and Gasnet) and one non-open access network owner (Nova Energy, part of the Todd Corporation).⁶⁰
- **172.** These providers enter into Network Service Agreements (or Use of System Agreements) with gas retailers or directly with larger end-users to provide them with distribution services.⁶⁹
- **173.** The location of the gas distribution networks in the North Island are:

⁶⁸ GIC 2017 Report at p118-119.

⁶⁹ GIC 2017 Report at p 120.

Gas Distribution Networks



174. These networks are not affected by the Proposed Transaction.

Wholesalers

- **175.** Wholesalers buy gas from producers to on-sell to gas retailers, large petrochemical manufacturers, electricity generators and major industrial customers. Gas producers also sell directly to large consumers and, where vertically integrated, to their own gas retail arms.⁷⁰
- **176.** *Energy in New Zealand* lists four gas wholesalers Vector, Nova Energy (Todd), Contact Energy and Greymouth. Each is vertically integrated to varying degrees

⁷⁰ GIC 2017 Report at p133-134.

through other levels of the supply chain. While there are a relatively small number of gas wholesalers, the Gas Industry Company has noted that:

"Competitive tendering occurs for gas supply, and participants have not raised specific concerns about difficulties in selling or buying gas as a commodity ... Changing market dynamics, including new sources of supply, have moved negotiation leverage from supplier to buyer."⁷¹

- **177.** Todd and Greymouth are also gas producers and retailers (Todd through its exploration and production subsidiary, Todd Energy, and its wholesale/retail subsidiary Nova Energy). Nova also owns private pipelines and is a consumer at its gas-fired McKee peaker plant. Vector is a distributor and retailer, and Contact is a retailer and gas-fired power station owner.
- **178.** Other producers selling gas to customers are Shell, OMV, Beach Energy, TAG Oil, and NZEC (the latter company having commenced operations at a number of small onshore Taranaki fields).
- **179.** Although not identified as a wholesaler in MBIE's *Energy in New Zealand* publication, OMV also considers that Genesis and Methanex operate at the wholesale level by virtue of their ability to on-sell gas (and Genesis in particular does have excess entitlement enabling it to operate as a wholesaler as expanded on in the next section). For instance the Gas Industry Company Report refers to Genesis as a wholesaler, noting that it has vertical ownership arrangements sourcing gas for its Huntly Power Station and retail operations under a contract for 100% of the gas from the Kupe field of which it is a joint venture partner.⁷²
- **180.** Until 2013, there was no formal multilateral market or centralised wholesale market mechanism in New Zealand. Informal short-term trading and gas swaps happened, including gas buyers wanting to manage take-or-pay exposures under their long-term contracts, and producers seeking an outlet for smaller parcels of gas from new discoveries.⁷³
- **181.** Two competing commercial wholesale gas spot markets were established in November 2013, although only one of them, emsTradepoint, is actively trading.⁷⁴ emsTradepoint is owned by emsTradepoint Limited, a wholly owned subsidiary of Transpower New Zealand Limited. It was developed to fill a gap in the industry prior to its establishment, it could be difficult to arrange simple short-term or spot trades.
- **182.** In the primary wholesale market, the contractual framework, commonly involving take-or-pay provisions, reflects the large investments made by producers and counterparty buyers, such as electricity generators and petrochemical producers, and serves to cover the field risks and financial positions of the parties.
- **183.** An example of the dominance of bilateral arrangements was the 10-year gas supply agreement in 2012 between Todd Energy and Methanex, which underwrites a combined capital investment of up to \$860 million. Under the arrangement Todd Energy further developed the Mangahewa field through additional drilling and production plant expansion, enabling Methanex's return to full methanol production.⁷⁵

⁷¹ GIC 2017 Report at p140.

⁷² GIC 2017 Report at p135.

⁷³ GIC 2017 Report at p135

⁷⁴ GIC 2017 Report at pp135, 139 and 171-175. Refer to http://www.emstradepoint.co.nz/about-us/.

⁷⁵ GIC 2017 Report at p135.

<u>Retailers</u>

184. There are 10 retail brands, owned by nine different retail companies, competing in the New Zealand gas retail market – Contact Energy, Genesis Energy, Energy Online (a subsidiary of Genesis), Greymouth Gas, Nova Gas, Mercury Energy, Trustpower Limited, Vector Gas, Pulse Energy and Switch Utilities. Of these, Greymouth Gas and Vector Gas supply only commercial and industrial users, and are the only two not also engaged in selling electricity.⁷⁶

<u>Customers</u>

185. The graph below sets out the split of gas use by consumer group as at 2016:⁷⁷



Gas Use by Consumer Group 2016 (191PJ)

Together, petrochemical feedstock and process gas use amounts to 97.3PJ, or 51.0 percent of total gas use.

- **186.** Most of the gas produced is used for conversion into petrochemical products and to generate the high heat required for electricity generation and industrial processes. As a result large users, representing less than 1% of total consumers, account for over 90% of gas consumption. In New Zealand residential consumers account for just 3.5 percent of total use.⁷⁸
- **187.** In terms of customers supplied by the gas retailers, they are segmented into industrial, commercial and residential consumers. Each has different characteristics:⁷⁹
 - **187.1** *Industrial*: Large users, often with internal energy management expertise. They generally work with their energy provider at a one-to-one level;

Source: 2017 Energy in New Zealand

⁷⁶ GIC 2017 Report at p141.

⁷⁷ GIC 2017 Report at p6.

⁷⁸ GIC 2017 Report at p8.

⁷⁹ GIC 2017 Report at p141.

- **187.2** *Commercial*: A wide range of businesses and community facilities. Retailers generally maintain direct account management relationships with these consumers, especially those at the volume upper end;
- **187.3** *Residential:* Households (also referred to as the 'mass market'). Apart from the monthly bill, complaints or issues, and periodic marketing communications, there is generally little contact between these customers and their retailers. The average household gas consumption in New Zealand is about 25 gigajoules (GJ) a year.
- **188.** The industrial sector of around 1,800 consumers used 28.2PJ of gas in 2016 (2015: 29.2PJ).
- 189. Feedstock and process gas requirements for petrochemical use have risen steadily from 43PJ in 2011 as Methanex progressively recommissioned previously mothballed units and returned to full three-train methanol production capability at its Motunui and Waitara Valley plants. Following the resolution of methanol plant mechanical issues which affected production levels in 2015, Methanex returned to full production capabilities in 2016, with a resulting 15.4 percent increase in gas used for petrochemical production. The 97.3PJ used in 2016 by the petrochemical manufacturing sector made up of 58.1PJ of feedstock gas and 39.2PJ of process gas was 13PJ higher than the 84.3PJ used in 2015.⁸⁰
- 190. Commercial and residential consumer groups respectively accounted for 8.1PJ and 6.4PJ of gas consumption in 2016 (2015: 8.8PJ and 6.8PJ respectively). Commercial sector consumers number about 14,000. In addition to a myriad of business consumers ranging from restaurants and hotels to horticultural greenhouses and dry cleaners they include community amenities like hospitals, public swimming pools and schools.⁸¹

LPG

LPG Industry Structure

- **191.** LPG, or liquid petroleum gas, is a mix of butane and propane. It is extracted from the petroleum wellstream as a by-product of natural gas production, which means the quantity of LPG produced depends directly on the level of natural gas production.⁸²
- **192.** The LPG industry in New Zealand includes producers, wholesalers, transmission and distribution, retailers, appliance retailers, gas fitters and automotive fitters.⁸³
- **193.** LPG provides the same quality advantages as natural gas. While it is generally not as cost-effective as natural gas in many North Island centres, it offers a competitive alternative in the South Island and parts of the North Island where there is no natural gas reticulation.⁸⁴

Industry Participants

194. The relevant industry participants and their operational interests as summarised by the Gas Industry Company for 2017 are as follows (although note that Beach Energy has recently acquired Origin's 50% interest in the Kupe Field as a result of

⁸⁰ GIC 2017 Report at p6.

⁸¹ GIC 2017 Report at p6.

⁸² Decision 308 at [61].

⁸³ https://www.liquigas.co.nz/about-lpg/

⁸⁴ GIC 2017 Report at p15.

its purchase of Lattice Energy, which prior to the acquisition was owned by Origin Energy):⁸⁵

Company	Field	% Interest	Remaining 2P LPG Reserves as at 1 January 2017	Reserves Ownership	Ownership of total LPG Reserves (%)
Origin	Kupe	50	61.2	30.6	43.7
Genesis	Кире	46	61.2	28.2	40.2
Shell	Maui	83.7	6.1	5.1	7.3
Todd	Mangahewa	100	2.8	2.8	5
	Maui	6.25	6.1	0.4	
				3.2	4.6
NZOG	Kupe	4	61.2	2.4	3.4
OMV	Maui	10	6.1	0.6	0.8

Remaining 2P I PG Gas Reserves Ownership	(70 1P.J	1)
	(10.110	1

Production and Reserves

- **195.** LPG is produced from both onshore and offshore gas fields in Taranaki. Maui used to be the biggest domestic producer, but this field has now been superseded by Kupe, which holds around 84% of New Zealand's 2P reserves of LPG as at 1 January 2018.
- **196.** Other current LPG fields are Kapuni, Waihapa and Mangahewa. LPG can also be imported as necessary from Australia, which exports some two million tonnes each year.⁸⁶
- **197.** The relevant LPG reserves held by the various fields as at 1 January 2018 are set out in the table below:⁸⁷

	Ren Reserve 1 Janu	naining s (2P) as at uary 2018	
Field	kt	РJ	Share
Maui	124.00	5.71	8.42%
Kupe	1142.46	57.04	84.11%
Mangahewa	103.07	5.05	7.44%
Rimu	0.00	0.00	
Total	1369.54	67.81	

85 GIC 2017 Report at p71.

⁸⁶ http://www.gasnz.org.nz/nz-gas-industry/lpg-industry

⁸⁷ Refer to MBIE data under the LPG tab at <u>https://www.nzpam.govt.nz/about/news/release-of-petroleum-reserves-data/</u>.

<u>Note</u>: These figures do not include LPG extracted at Kapuni in the Vector processing facility and LPG extracted by Todd from Pohokura gas at the Mangahewa facility.

198. These current LPG reserves as at 1 January 2018 compare with assessments of LPG reserves for previous years as set out below:

	2016	2017	PJ Change	% Change
Kupe	42.8	61.2	+18.4	+43.0
Maui	8.1	6.1	-2.0	-24.7
Mangahewa	3.2	2.8	-0.4	-12.5
Total	54.1	70.1	+16.0	+29.6

Remaining 2P LPG Gas Reserves (PJ – as at 1 January 2017)⁸⁸

Source: Energy in New Zealand

Distribution

- **199.** OMV is not involved in the distribution of LPG in New Zealand. There is currently only one distributor Liquigas Limited.⁸⁹
- **200.** Liquigas is based in New Plymouth and has a network of installations to supply LPG throughout New Zealand. It has an export depot at Port Taranaki, which is used exclusively to gather, store and export LPG by bulk LPG tankers. It also has import depots in Auckland, Christchurch and Dunedin, each of which have facilities for loading road tankers.⁹⁰

Wholesalers

201. There are currently five wholesalers – Contact Energy, Elgas, Genesis Energy, Nova Energy and Ongas.⁹¹ All of these wholesalers also sell LPG at a retail level.
[

<u>Retailers</u>

202. In addition to the five wholesalers, there are also 17 other retailers in the New Zealand LPG market.⁹²

Customers

203. LPG is available and used widely in both the North and South Island. New Zealanders use almost 170,000 tonnes of it a year and demand is growing at over 5% annually. LPG is primarily used for heating, water heating and cooking in homes and businesses. Its use in these applications now displaces approximately

⁸⁸ GIC 2017 Report at p71.

⁸⁹ http://www.gasnz.org.nz/lpg-association-of-new-zealand/lpga/find-a-member

⁹⁰ https://www.liquigas.co.nz/locations/

⁹¹ http://www.gasnz.org.nz/lpg-association-of-new-zealand/lpga/find-a-member

⁹² http://www.gasnz.org.nz/lpg-association-of-new-zealand/lpga/find-a-member

1,945GWh of electricity generation each year, which makes it an increasingly valuable energy asset. LPG is used as a 'process fuel' in industrial applications where it displaces less environmentally-friendly fuels like coal and fuel oil, and as a cleaner-burning vehicle fuel. It also powers the traditional barbecue and provides a heating and cooking source in boats and caravans.⁹³

Relevant Government Policy & Current Industry Trends

204. The current Government is working towards zero emissions by 2050. The Honourable Megan Woods, Minister for Energy and Resources, stated in her speech to the Petroleum Conference on 27 March 2018 that there were several points she wanted to make "crystal clear", namely:⁹⁴

One, no one is suggesting changing any existing permit or project.

Two, we are not talking about losing jobs or revenue that already exist or investments which have already been planned or committed to.

Three, no one is talking about shutting off our supply of fuels we need to keep our country and economy running strongly.

This Government is well aware of the huge importance of peaking to ensure security of electricity supply.

That's why our commitment around the pathway to 100% renewable energy by 2035 contains the phrase in a normal hydrological year.

And we know we have ten years or so of natural gas consented for drilling, and potentially many more years that could be discovered under existing exploration permits. Some of these permits run as late as 2046.

They are not under threat.

205. In a further media announcement by the Government on 12 April 2018, it was stated:⁹⁵

"There will be no further offshore oil and gas exploration permits granted," said Jacinda Ardern.

Minister Woods has announced that this year's block offer will be limited to onshore acreage in Taranaki alone.

"We are protecting existing exploration and mining rights. No current jobs will be affected by this as we are honouring all agreements with current permit holders.

"There are 31 oil and gas exploration permits currently active, 22 are offshore. These permits cover an area of 100,000 sq kms, nearly the size of the North Island, and run as far out as 2030 and could go an additional 40 years under a mining permit.

"Today we are providing certainty for industry and communities so they can plan for the future. We are making careful and considered changes over time and supporting communities with a managed transition. ...

"This decision does not affect current reserves or the potential finds from current exploration permits. As the industry itself admits, there is good potential for more to be found.

⁹³ http://www.gasnz.org.nz/nz-gas-industry/lpg-industry

⁹⁴ http://www.scoop.co.nz/stories/PA1803/S00293/hon-megan-woods-speech-to-the-petroleum-conference.htm .

^{95 &}lt;u>https://www.beehive.govt.nz/release/planning-future-no-new-offshore-oil-and-gas-exploration-permits.</u>

- **206.** These announcements do not affect the relevant markets in the present case since the decision does not impact on current reserves or the potential finds from current exploration permits.
- **207.** In terms of current industry trends, there is a considerable focus on emerging technologies in the energy sector. While many of these are related to electricity, participants in the gas industry are considering the role that gas will play in what has become a rapidly changing environment. Gas networks are a reliable and secure part of the North Island infrastructure, which have unused capacity. They are also seen to have a place as part of the integrated smart infrastructure networks of the future, for example, by providing gas back-up for off-grid residential and community energy when solar and wind energy are unreliable, and meeting high energy intensity needs.⁹⁶

Recent Merger Activity

208. Relevant recent merger activity in the oil/gas industry that OMV is aware of is set out below.

First Gas – Maui and Vector Pipelines (June 2016)

209. In or about June 2016, the Maui JV partners (or MMCs) sold the Maui Pipeline to First Gas for \$335 million. First Gas had previously assumed ownership of the Vector Pipeline through its acquisition of Vector Gas Limited in March 2016. For more information see: <u>http://firstgas.co.nz/media-release/acquisition-maui-pipeline/</u> and <u>https://www.vector.co.nz/news/sale-of-vector-gas-limited-to-first-state-funds</u>.

Tamarind – Tui Field - December 2016

- **210.** On 13 December 2016 Tamarind announced that it had acquired AWE's 57.5% interest in the Tui Area Oil Fields (i.e. the Tui, Amokura and Pateke fields) located off the coast of the Taranaki region of New Zealand. This included operatorship, assets and inventory as well as AWE's oil hedge book and a working capital cash balance of US\$10.8 million.⁹⁷
- <u>NZOG Kupe Field 2016/2017</u>
- **211.** NZOG sold its 15% interest in the Kupe field to Genesis Energy in 2016. It then acquired Mitsui's 4% interest in that field in 2017.⁹⁸

Todd/Shell - Kapuni Field (August 2017)

- **212.** On 1 August 2017, Todd Energy acquired Shell's 50% interest in the onshore Kapuni gas field meaning that Todd Energy now has a 100% interest in the Kapuni field.⁹⁹
- **213.** As part of the transaction, Shell acquired Todd Energy's 50% shareholding in Shell Todd Oil Services Limited. This meant that Shell became the 100% owner of the operating company, which was renamed Shell Taranaki. The loading arm at Port Taranaki previously owned by the Kapuni JV was transferred to Todd and EIL (Shell) 50% each, so both retained ownership. For more information see:

⁹⁶ GIC 2017 Report at p21-23.

⁹⁷ https://www.tamarindresources.com/latest-news/tamarind-acquires-tui-oil-field-in-new-zealand

⁹⁸ https://www.nzog.com/news/new-zealand-oil-and-gas-buys-mitsuis-4-of-kupe-for-35m

⁹⁹ https://www.shell.co.nz/media/2017-media-releases/shell-finalises-the-sale-of-kapuni-to-todd.html

https://www.shell.co.nz/media/2017-media-releases/shell-finalises-the-sale-of-kapuni-to-todd.html.

Beach/Lattice – Kupe Field (January 2018)

214. On or about 31 January 2018, Beach Energy (an oil and gas exploration company based in Adelaide, Australia and listed on the ASX) acquired Origin Energy's 50% interest in Kupe, which was held by Origin's subsidiary, Lattice Energy. The remaining parties in the Kupe JV continue to be Genesis (with a 46% share) and (with NZOG 4% share). For more information а see: https://www.originenergy.com.au/content/dam/origin/about/investorsmedia/170928%20ASX%20release%20Origin%20agrees%20to%20sell%20Lattic e%20Energy.pdf.

OMV/Sapura – Exploration Permits (March 2018)

215. In March 2018, OMV and Mitsui entered into farm-in agreements with Sapura (a global integrated oil and gas services company based in Malaysia) in respect of five exploration permits in the Taranaki Basin held by OMV and Mitsui. Sapura is a new entrant to the New Zealand market and now holds a 30% share in each of PEP 57075, PEP 51906, PEP 60091, PEP 60092 and PEP 60093. For more information see http://sapuraenergy.com/sapura-ep-farms-offshore-new-zealand/.

Horizon Oil/Todd Energy (2018)

216. Horizon Oil has acquired Todd Energy's 16% interest in the Maari and Manaia oil fields off the Taranaki Coast. Horizon Oil already owned a 10% stake in these fields. For more information see https://www.nbr.co.nz/node/214277.

Ahuroa Gas Storage/Gas Services NZ (2018)

217. Contact Energy is selling its Ahuroa Gas Storage plant for \$200 million to Gas Services NZ with a long term agreement to keep using it. For more information, please refer to <u>https://www.stuff.co.nz/business/100075040/contact-selling-gas-plant-dedicated-operator</u>.

Part H: Natural Gas Competition Assessment

- **218.** In this section, we deal with:
 - **218.1** The relevant market shares of the key participants in the Natural Gas Market;
 - **218.2** The constraints on the merged entity post-acquisition from existing competition we include in this section a discussion as to the reasons why Todd's position within the Maui and Pohokura fields will not be prejudiced;
 - **218.3** The constraints on the merged entity post-acquisition from potential competition;
 - **218.4** Countervailing power from major customers;
 - 218.5 Why the risk of coordination post-acquisition is low; and
 - **218.6** The efficiencies arising from the Proposed Transaction.

Market Shares

- **219.** We set out below OMV's market share assessment based on producer share by reserves. We then go on in this section to apply the Commission's concentration indicator thresholds, and also note how these shares compare with the position historically.
- **220.** For the reasons noted above, OMV maintains that the Natural Gas Market is a combined production/wholesale market. Therefore these shares below overstate OMV's (and Shell's) actual market share in the Natural Gas Market since they just represent the position of producers, and do not set out the combined position of producers and wholesalers as required by the Courts. However, it is difficult for OMV to provide an exact assessment of shares for a combined producer/wholesaler market since it is not privy to the relevant contracts held by competitors the Commission will be better placed to obtain this information directly from other market participants. Accordingly these producer shares of reserves provide a ceiling for the actual shares as a starting point.
- **221.** The shares are based on reserves held primarily on a 2P basis, although we also make reference to 2C (i.e. contingent) resources and production shares.
- 222. In terms of how these 2P and 2C classifications are derived, all companies operating in New Zealand are required to report their petroleum/gas reserves/resources to MBIE. In the case of reserve reporting, the relevant classification requirements are set out in the Petroleum Resources Management System (PRMS) produced by the Society of Petroleum Engineers. The PRMS sets out a resources classification framework that encompasses all quantities of petroleum/gas naturally occurring on or within the Earth's crust, discovered and undiscovered (recoverable and unrecoverable), plus those quantities already produced. Further, it includes all types of petroleum/gas whether considered "conventional" or "unconventional". The PRMS resources classification system defines the major recoverable resources classes: production, reserves, contingent

PRODUCTION • RESERVES COMMERCIAL ÷ 2P 1P 3P TOTAL PETROLEUM INITIALLY-IN-PLACE (PIIP) DISCOVERED PIIP Increasing Chance of Commerciality Proved Probable Possible CONTINGENT SUB-COMMERCIAL RESOURCES 5 1C 2C 3C ÷ : UNRECOVERABLE **UNDISCOVERED PIIP** PROSPECTIVE RESOURCES Low Best High Estimate Estimate Estimate 1 Ē UNRECOVERABLE Range of Uncertainty Not to scale

resources, and prospective resources, as well as unrecoverable petroleum/gas. The outcome is the classification table set out below:¹⁰⁰

- **223.** Discovered recoverable volumes (Contingent Resources) may be considered commercially producible, and therefore qualify as <u>Reserves</u>, if the entity claiming commerciality has demonstrated a firm intention to proceed with development and such intention is based upon all of the following criteria:¹⁰¹
 - **223.1** evidence to support a reasonable timetable for development (5 years is the recommended benchmark but a longer time frame could be applied where, for example, development of economic projects is deferred at the option of the producer for, among other things, market-related reasons, or to meet contractual or strategic objectives);
 - **223.2** a reasonable assessment of the future economics of such development projects meeting defined investment and operating criteria, including that extraction of the relevant gas will be commercially viable on the basis of (among other things) assumed future prices;

¹⁰⁰ Refer to the Society of Petroleum Engineers' PRMS guidelines at p2. Also "<u>http://www.mbie.govt.nz/info-services/sectors-industries/energy/previous-reviews-consultations/review-of-the-electricity-market-</u> 2020/decuments impact linear/(2027eclear/l/2027eclear/l/2020ecle

 ^{2009/}documents-image-library/New%20Zealand%20Petroleum%20-313%20kB%20PDF.pdf" at p28.
 Refer to <a href="http://www.mbie.govt.nz/info-services/sectors-industries/energy/previous-reviews-consultations/review-of-the-electricity-market-2009/documents-image-library/New%20Zealand%20Petroleum%20-313%20kB%20PDF.pdf" at p31.

- **223.3** a reasonable expectation that there will be a market for all or at least the expected sales quantities of production required to justify development;
- **223.4** evidence that the necessary production and transportation facilities are available or can be made available; and
- **223.5** evidence that legal, contractual, environmental and other social and economic concerns will allow for the actual implementation of the recovery project being evaluated.
- 224. In other words, Reserves (and in particular 2P reserves) meeting the criteria above are expected to be produced, even in the absence of any attempted price increase by the merged entity. Therefore they should be considered as being "in the market", keeping in mind that most gas is transacted in this market under long-term contracts.
- **225.** The Commission has used 2P reserves as a basis for determining market shares in the past, for instance:
 - **225.1** In *Decision 411* the Commission referred at [52] to "... approximate "proven and probable" (2P) gas reserves from information contained in the Energy Data File July 2000, and from information provided by the field owners". 2P reserves were then referred to when the Commission was assessing competition from various fields¹⁰²; and
 - **225.2** In *Decision 443* the Commission noted at [62]:

In the past the Commission, in its assessment of gas production markets, has taken into account all reserves which the field operators consider are proven and probable (known as "2P" reserves). These are reserves that the operator considers have greater than a 50% probability of being technically and economically producible.

- **226.** 2P reserves are used by the Gas Industry Company to determine the relative position of producers with one another.¹⁰³
- **227.** A reserves based approach to determining market shares is also consistent with the economics literature. For instance, Werden (2002, p82) notes that "[*i*]*n* exhaustible *resource industries, reserves are generally the best basis for assigning shares*...".¹⁰⁴ Werden refers to a US Supreme Court decision in which (uncommitted) reserves were used to measure market shares for coal production, because "*it was those reserves that coal producers could offer to utilities seeking new long-term contracts*" (p82).
- **228.** This accords with common sense. For instance, it would be meaningless for competition analysis purposes to report that a certain hypothetical firm with an exhaustible resource has (or had) 20% market share by production if its reserves would be completely exhausted within a short period of time in this situation the future market share of that firm is going to be nil within a short period, and it will not exercise any competitive constraint on its rivals.

¹⁰² For instance, at paras. 93, 96, and 144.

¹⁰³ eg GIC 2017 report, at p70.

¹⁰⁴ Gregory J. Werden (2002), "Assigning Market Shares", *Antitrust Law Journal*, pp70, 67-104.

- **229.** The levels of reserves referred to in the market share assessment below are based on MBIE's independent assessment of reserves as at 1 January 2018.¹⁰⁵
- **230.** The 1 January 2018 MBIE data reflects the most recent ARPR for Pohokura which has found a reduction in reserves from that previously estimated for the field. In particular, the ARPR for Pohokura states at p4:

This report describes the changes in ARPR17 resource volumes compared with ARPR16 for the Pohokura field, New Zealand.

The resource volumes have decreased across all resource classifications. The 2P expectation developed reserves have decreased by 133 PJ (20%) for gas and 0.66 mln m3 (24%) for condensate. The 2C expectation contingent reserves have decreased by 23 PJ (8%) for gas and 0.1 mln m3 (9%) for condensate.

The main reason for the resource volume decrease is the use of a new set of reservoir models, which now capture the observed field water production in well POB-02A. The ARPR16 forecasts were based on the 2013 vintage model. The ARPR17 submission is based on the recently completed reservoir model update, as described in this document.

231. The result of this is that the reserves market shares for OMV and Shell have reduced from those previously applying as at January 2017.¹⁰⁶

Producer Shares Based on Reserves

232. Against that background, the current <u>pre</u>-acquisition market shares just for natural gas producers based on remaining 2P reserves are as follows:



¹⁰⁵ Refer to MBIE's reserves data under the Gas tab at <u>https://www.nzpam.govt.nz/about/news/release-of-petroleum-reserves-data/</u>.

¹⁰⁶ For instance as set out in the GIC 2017 Report at pp69-70.

- **233.** From these market shares, it is evident that Todd has the highest 2P reserves market share as a producer at 37.4%, followed by Shell at 20.1% and Greymouth at 19.4% %. OMV is the fourth largest producer by reserves at 8.2%, only slightly more than Beach Energy at 6.9%. This chart highlights the fact that the proposed acquisition is of the second (Shell) and fourth (OMV) largest producers with Todd and Greymouth being the first and third largest producers by reserves at present. It is not an acquisition involving a merger of two of the three largest producers by reserves. Moreover, while the three leading producers all have pre-acquisition market shares in the range of 19.4-37.4%, OMV's 8.2% share is much smaller than that of the three main producers.
- **234.** Post-acquisition of the Shell Companies under the Proposed Transaction, the relevant market shares based on remaining 2P reserves will be as follows:



- **235.** Post-acquisition of the Shell Companies OMV will become the second largest producer by remaining 2P reserves with 28.3% share, with Todd remaining the largest producer by reserves at 37.4% share and Greymouth having 19.4% share. Beach and other participants will have just under a 15% share combined.
- **236.** The above producer market shares are based on remaining 2P reserves only. If both 2P and 2C reserves/resources are looked at together post-acquisition, then the position changes substantially as set out below:
 - **236.1** The pre-acquisition position for producer market shares based on 2P plus 2C reserves/resources is:



236.2 The post-acquisition position for producer market shares based on 2P plus 2C reserves/resources is:



- **237.** From this it can be seen that Todd has the largest post-acquisition market share based on 2P and 2C reserves/resources at 50.9%. OMV is next largest post acquisition at 26.4% followed by Greymouth at 14%. Beach and other participants will have just under a 9% share combined.
- **238.** The reason for this large increase in Todd's producer share based on a 2P plus 2C reserves/resources analysis is primarily due to the large contingent gas resources held by Todd in the Kapuni field (Todd having recently acquired Shell's share of

Kapuni so it now owns the field in its entirety) and the Mangahewa field. While those reserves are contingent, OMV's view is that it is likely that Todd will need to develop them in the short term and therefore they should be taken into account. This is due to the fact that the 2P reserves at Kapuni and Mangahewa will shortly be depleted and Todd will need to commence extracting 2C resources from those fields. OMV understands that Todd is already planning where to drill at Kapuni and Mangahewa to start drawing on these 2C resources. Further information on 2C resources and field drilling/development is provided in the potential competition section of the application below.

Application of Concentration Indicator Thresholds

- **239.** Based on the 2P reserves just for producers:
 - **239.1** The CR3 post-acquisition will be over the 70% threshold at 85.1%;
 - **239.2** The relevant concentration indicator threshold is therefore 20%, and OMV post-acquisition is outside that at 28.3%. Nevertheless, the actual combined shares of OMV/Shell in the Natural Gas Market will be less in reality than 28.3% (given that figure just relates to producers and does not include wholesalers) and closer to the 20% threshold. In addition, the amount of aggregation from the acquisition is small (i.e. only 8.2%), and the bulk of the combined OMV/Shell market share post-acquisition simply reflects Shell's existing position in the market.

Reduction in Shares Over Time

240. The share figures above confirm the findings of the Gas Industry Company that the Natural Gas Market has become less concentrated over time. The Gas Industry Company noted in its 2017 report:¹⁰⁷

The transition to multi-field gas supplies has resulted in some dilution of a historical concentration of reserves ownership in a small number of large producers. While original Maui and Kapuni producers Shell and Todd, and their Maui and Pohokura partner OMV remain core investors in New Zealand's gas sector, more recent explorer/producers – among them Greymouth Petroleum and Origin Energy - have established a firm position through the discovery and development of new resources. Adjustments to reserves assessments ... and reserves sales/purchases have brought ownership ranking changes, with Todd now holding the greatest interest in remaining natural gas reserves and Greymouth increasing its interests to over 20 percent.

241. It is worth noting that there has been change in these reserves market shares over time, illustrating the fact that Shell's market position has been declining as the Maui field has become depleted, Pohokura has come closer to the end of its plateau, and the amount of reserves at Pohokura has been revised downwards under the ARPR process. For instance, based on the Gas Industry Company's 2015 and 2016 reports, the market share figures for Shell and OMV in 2015 and 2016 just for 2P gas reserves held by producers (i.e. not producers/wholesalers combined) were substantially above Shell and OMV's current share of 2P remaining reserves of 20.1% and 8.2% respectively as at 1 January 2018. Correspondingly Todd, Greymouth, Beach and Genesis have all increased their shares over the same period, as set out in the table below:

	Mar 2015 ¹⁰⁸	Dec 2015 ¹⁰⁹	May 2016 ¹¹⁰	Jan 2018	
Shell	35.2	35.7	35.7	20.1	
Todd	30.1	26.6	26.6	37.4	
Greymouth	10.9	13.5	13.5	19.4	
OMV	11.8	12.2	12.2	8.2	
Origin/Beach	6.1	5.9	5.9	6.9	
Genesis	3.5	3.6	3.6	6.4	
NZOG	1.7	1.8	1.8	0.6	
Mitsui	0.4	0.5	0.5	0	
TAG	0.2	0.3	0.3	0.6	
Others				0.4	
TOTAL %	99.9	100.1	100.1	100	

Producer Shares Based on Production

- 242. Even if market shares are approached on the basis of production / forecast production on an annual basis rather than 2P reserves, the overall picture is of OMV facing declining market share post-acquisition together with strong competition from Todd, Greymouth and others.
- 243. The combined gas production market share of Shell/OMV in 2018 is currently assessed by OMV to be]¹¹¹, compared with Todd at [] and Greymouth at] (the projected figures in 2019 post acquisition are [] for OMV, [ſ 1 for] for Greymouth). OMV is currently the fourth largest producer in Todd and I terms of production, and substantially smaller than Shell and Todd. These figures compare with OMV's forecast production share in 2023 post acquisition of [], with Todd by then having] and Greymouth having [1. In other words, the production shares are converging on the 2P reserves shares, as one would expect.
- 244. [

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¹⁰⁸ The New Zealand Gas Story: The State and Performance of the New Zealand Gas Industry, 3rd Edition – March 2015, p 56.

¹⁰⁹ The New Zealand Gas Story: The State and Performance of the New Zealand Gas Industry, Fourth Edition – December 2015, p 58.

¹¹⁰ The New Zealand Gas Story: The State and Performance of the New Zealand Gas Industry, Fourth Edition – updated May 2016, p 64. The figures contained in The New Zealand Gas Story Fourth Edition – updated May 2016 were derived from the same source as those in The New Zealand Gas Story Fourth Edition issued in December 2015, listed as '*Compiled from 2015 Energy in New Zealand*'.

¹¹¹ With this combined production figure being split between Shell with [] and OMV with [].

Constraint from Existing Competitors

- 245. Post-acquisition OMV will continue to face strong constraints from other market participants, both producers and wholesalers. These will include Todd, Greymouth and Beach Energy on the production side, and large wholesalers such as Genesis and Methanex.
- **246.** This constraint will only increase over time. The worst case scenario (with no further successful exploration or enhancement of existing deliverability or reserves) would see Maui depleted by 2023, while the best case would be that it runs to the current end of permit life of 2036. As a result, OMV's increased participating interest in the Maui JV will be in a declining/end of life field rather than a new field.
- **247.** Similarly with Pohokura the relevant market conditions are substantially different when compared with those applying when the Commission last considered Pohokura in terms of the joint marketing authorisation in 2002/2003. At the time of the latter, Pohokura had the only significant tranche of available gas in the market, and had over 50% of available reserves. Gas from Kupe, Turangi and Mangahewa was not yet available. In contrast, the reserves position now is quite different in that there is production from these other fields/suppliers that was not previously available. In addition, Pohokura is expected to come off plateau in the next 1-2 years, and will gradually decline towards its end of field life from then. This means that the production of gas from Pohokura will be significantly reduced from the previous high percentage levels and will continue to reduce over time, consistent with the fact that Pohokura now only has 28.5% of remaining 2P reserves as at 1 January 2018.

Producers

248. In particular, Todd will remain a strong competitor going forward. Based on 2P remaining reserves, it will have a 37.4% share of reserves as a producer. It is the largest producer by reserves at present, and this will remain the case post-acquisition. As noted above, Todd's position is particularly strong once contingent resources are taken into account where its share for reserves/resources as a producer (i.e. 2P plus 2C) rises to around 50.9%.

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- **249.** Todd is 100% New Zealand owned. Its first exploration activities occurred in 1959 through a joint venture with BP and Shell that led to the discovery of the Kapuni field. Kapuni began production in 1970, and Todd's exploration success at Kapuni resulted in further exploration that identified the significant Maui field in 1969. Currently, Todd's key producing assets and its interests in those assets are Kapuni (100%), Maui (6.25%), McKee Mangahewa (100%) and Pohokura (26%).¹¹² For more information on Todd see <u>www.toddenergy.co.nz</u>.
- 250. Greymouth is also a major player. Based on 2P reserves it has a 19.4% share, and a 14% share of 2P plus 2C reserves/resources. It is the third largest producer by 2P reserves pre-acquisition, holding 2P remaining reserves only just below those of Shell. Like Todd, Greymouth is 100% New Zealand owned. It was established in 2000 and is an integrated oil and gas production and exploration company. Greymouth currently has a 100% interest in the Turangi, Kowhai, Ngatoro and Radnor fields.113 For more information on Greymouth see www.greymouthpetroleum.co.nz.
- **251.** As regards Beach Energy, it recently entered the New Zealand market through its acquisition of Origin Energy's business Lattice Energy.¹¹⁴ Beach Energy is an oil and gas exploration and production company formed in Australia in 1961.¹¹⁵ It now holds a 50% interest in the Kupe field, with Genesis Energy holding 46% and NZOG holding the remaining 4%. Based on 2P reserves it will have a 6.9% share of reserves as a producer. For more information on Beach Energy see www.beachenergy.com.au.
- **252.** Genesis Energy is also a significant producer. As noted above, through wholly owned subsidiaries, it has a 46% interest in the Kupe Joint Venture, which owns the Kupe oil and gas field that lies in the offshore Taranaki basin. The Kupe field was the fourth largest field by 2P reserves as at 1 January 2017. Based on 2P reserves Genesis will have a 6.4% share of reserves as a producer. For more information on Genesis see www.genesisenergy.co.nz/assets.
- **253.** Other relevant companies are:
 - **253.1** NZOG which holds a 4% share of the Kupe field, and an interest in the Kohatukai exploration permit as noted further below together with other exploration interests refer to https://www.nzog.com;
 - **253.2** TAG Oil which holds the Cheal and Sidewinder production fields, with the Puka, Supplejack and Cardiff pool discoveries under development refer to <u>https://www.tagoil.com/operations/;</u> and
 - **253.3** WestSide which owns the Rimu/Kauri/Manutahi fields refer to <u>https://www.westsidecorporation.com/new-zealand</u>.

Wholesalers

254. As found by the Court of Appeal in *Todd v Shell* in relation to Pohokura, wholesalers exercise a substantial constraint on producers. The Court of Appeal stated:

... although producers control quantities of gas produced, a significant proportion of the gas is contracted and committed to wholesalers. The nature of these contracts means

¹¹² https://www.toddenergy.co.nz/about-us/history/ and GIC 2017 Report at p70.

¹¹³ GIC 2017 Report at p70.

¹¹⁴ http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11985480

¹¹⁵ http://www.beachenergy.com.au/irm/content/introduction-to-beach.aspx

that the wholesalers can, to a material extent, control the quantity of gas in the market at any one time and the entities to whom and on what terms that gas is on-sold. Wholesalers have the capacity to respond to incentives and change their output, contracting behaviour, sales strategies and internal use of gas. Producers and wholesalers also compete sideby-side to sell the balance of gas quantities not contracted to large wholesalers.¹¹⁶

255. In the present case, Genesis is a major wholesaler. As noted above, Genesis already holds a 46% interest in the Kupe field. Fifty percent of that field is held by Beach Energy which essentially sells its share of Kupe production to Genesis. The result of this is that Genesis effectively purchases all Kupe gas. It uses it in its Huntly power station. Some of the Huntly power station can operate on coal or gas, so Genesis will use the fuel that makes best economic sense taking into account its coal/gas take commitments and prices. Genesis can and does sell at a wholesale level to large industrials and Methanex. [

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- **256.** In terms of other wholesalers, Contact Energy is also significant. Under the 2004 settlement around Maui, the Maui MMCs committed to a set quantity for the residue of the Maui Gas Contract (that gas was delivered by June 2009). All gas in excess of that was able to be sold outside of the Maui Gas Contract (at market prices, as opposed to the low Maui Gas Contract price). However, Contact and NGC (now First Gas) both received a right of first refusal (**ROFR**) shared [] in relation to all Maui gas over all future gas sales. Effectively, when the Maui JV wants to sell gas, it has to offer it all first to Contact under the ROFR (it does not have to do so with First Gas since they are prevented from acting as a wholesaler as they operate the national transmission network). This gives Contact leverage since they can always step in on any proposed Maui sale and take the gas themselves, or seek to resell it.
- **257.** The relevant ROFR process followed by the Maui JV is set out in the ROFR Agreement, dated 31 May 2004. This covers both Term and Spot ROFR. Briefly expanding on this:
 - 257.1 Term ROFR - The Operator determines the quantity of gas reserves that may be available in excess of current contracts. The Operator (MDL) will approach the market for their future requirements. As the ROFR process requires the terms of any purchase offered to third parties must be no better than those offered to Contact, there is a need to engage with market participants ahead of the formal ROFR process to understand the main terms of a possible offer to ensure if it is not pre-empted then there will be a buyer available for the gas. Accordingly, there is normally some initial discussion between MDL and possible buyers as to what may fulfil the Buyer's needs. The draft agreement with all significant terms (eg. price, volume, take or pay, daily quantities and nominations etc) is then put to Contact, who have 40 days to be able to accept the offer on the terms provided. If it declines the offer, MDL can offer the gas to other (third) parties for a period of 90 days, on the same terms. Any contract with a third party must be executed within this 90 day period;
 - **257.2** <u>Spot ROFR -</u> Short term: the ROFR Agreement also provides for short term offers called "Spot ROFR" sales. For Spot ROFR, the general terms of Agreement are agreed and executed ahead of time, with possible

116 At [194].

buyers of gas. This executed Agreement covers all the general terms of supply except for the key terms of date(s) offered, volume and price. Spot ROFR offers then go out on a simple term sheet covering these key terms. Buyers will then approach Maui (MDL) when they have specific short term needs for gas (for periods from 1 day to 2-3 months). MDL will then put the Spot ROFR term sheet offer to Contact who have three hours to accept their share, accept 100% or decline. If gas is remaining after this it can be offered to third parties.

258. Vector is also relevant. It acquires gas from the Kapuni field. [

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259. OMV understands that Methanex generally purchases gas for its own use. However from time to time it also sells excess gas to third parties.

Constraints on Wholesale Gas Price

- **260.** Based on a global survey of wholesale gas prices, New Zealand's average wholesale gas price as reported by MBIE for 2016 was positioned towards the middle of surveyed countries, and the wholesale gas price in New Zealand was cheaper than recorded in Australia. New Zealand's domestic wholesale price was also considerably below the Asia Pacific regional price which was largely determined by oil indexed LNG pricing.¹¹⁷
- **261.** In particular, the wholesale gas price has been declining since 2010. The factors identified by the Gas Industry Company as the reason for this price reduction are:¹¹⁸
 - Contact Energy's Ahuroa storage facility which has provided flexibility by enabling Contact to store gas taken but not immediately used under its contracts, and to use it when required for gas-fired electricity peaking generation at Stratford.
 - increased gas reserves.
 - expiry of the first tranches of Pohokura gas and renegotiation of terms.
 - less demand from generators for gas as a combination of new geothermal, wind, and gas peaking plant displaced gas baseload generation – including the closures of Contact's Otahuhu B and Mercury's Southdown CCGT plants in 2015.
 - greater demand for gas by Methanex, on price terms that reflect the regional commodity price for methanol, rather than Producer Price Index (PPI) escalation.
- **262.** These factors will not be impacted by the Proposed Transaction. While the reestimation of the Pohokura field reserves has resulted in a reduction in overall gas reserves, this should be counteracted over time by the contingent resources coming into production as referred to above.
- **263.** Another relevant factor is the expansion of emsTradepoint as an emerging proxy for the wholesale gas commodity price. Since its establishment in October 2013, emsTradepoint's New Zealand gas market has grown to encompass 11 trading participants in the pool, and provided around 3.5% of gas sales in 2017.¹¹⁹ It is also

¹¹⁷ GIC 2017 Report at p167.

¹¹⁸ GIC 2017 Report at p170.

¹¹⁹ While 3.5% may not seem high, in *Decision 408* at [162] the Commission noted (in the context of uncommitted gas) that a less than 6% share of current gas production was still in absolute terms "*very significant*".

working on a delivery solution for parties who wish to trade gas on the screen, but who do not have shipping arrangements in place.¹²⁰

- **264.** emsTradepoint allows for easy short term trading between market participants. Producers such as OMV can use the platform to sell surplus gas from production (and can also purchase gas for trading purposes or to meet shortfalls in their supply commitments). End-users can also use the platform to sell surplus gas (eg. gas bought under longer term bilateral contracts) or to buy additional gas needed for operations. All trades are "physical" trades – i.e. gas physically changes hands.
- **265.** The platform allows participants to submit offers (to sell) and bids (to buy) gas, using certain pre-defined products (for daily, weekly or monthly volumes) that are available as "on-the-day" trades or as future trades (up to 24 months out). Bids and offers are anonymous. When a bid and offer are "matched" a trade is formed and emsTradepoint Limited acts as the central counterparty to both sides of that trade i.e. it "buys" the gas from the seller, and on-sells that gas to the buyer. This maintains anonymity and reduces counterparty credit risk. emsTradepoint charges fees for provision of the platform and market services.
- **266.** The platform operates on the basis of published market rules, that form a set of standard terms for each trade (<u>http://www.emstradepoint.co.nz/assets/Documents/Market-Rules/emsTradepoint-Market-Rules-Version-7.pdf</u>). All trades occur at a common point on the transmission network.
- **267.** The Gas Industry Company has noted emsTradepoint should help in future to act as a constraint on price. It states:¹²¹

With greater depth and liquidity developing in the spot market over time it is conceivable that emsTradepoint products might evolve to become proxy price markers for New Zealand gas on which to base gas price in gas sales agreements. This would help overcome some of the difficulties with longer-term contracts with locked-in price terms that are no longer reflective of the actual market conditions or value of gas. It would also remove a price risk for both parties in a supply agreement if gas price is more responsive to supply and demand characteristics through the term of the agreement.

The bilateral gas contracting market is still the dominant form for gas commodity trading, but the emerging market for monthly product strips is an early indication of the potential the market has to replace bespoke bilateral arrangements with a more flexible product. In particular with an active trading platform where surplus and deficit gas may be traded with multiple buyers and sellers the arguments for fixed-term bespoke arrangements become less compelling when compared with the greater flexibility of building a portfolio based on product strips and spot trading for daily or weekly differences. That such a contracting strategy has yet to have broader uptake may indicate caution by downstream participants waiting to see depth and liquidity in the traded market before doing so. This may take some time as the ability to switch contracting arrangements is also a function of parties' inability to change their purchasing arrangements where suppliers have negotiated exclusivity.

Nevertheless the trading platform is a potential disintermediator in the wholesale market allowing upstream producers to contract directly with the downstream market without the need for a wholesale aggregator. The ability to disintermediate will to a large extent also rely on developments in the gas transmission market, particularly the access regime, which is currently under review, and the associated range of transmission products and secondary market for them.

120 GIC 2017 Report at p171. Refer to <u>http://www.emstradepoint.co.nz/about-us/</u>. 121 GIC 2017 Report at p174.

In Decision 408 dated 12 October 2000, the Commission noted that:122 268.

> ... current uncommitted gas is an important element to the gas production market. It is this gas which potential new gas users must compete for, and it therefore provides much of the market dynamics.

269. The Commission found in Decision 408 that the amount of uncommitted gas in the overall market was likely to be around 12PJ per annum, being less than 6% of current production.¹²³ The issue for the merging parties Shell Exploration Company BV and Fletcher Challenge Energy in that decision was that they held that available uncommitted gas. As noted by the Commission:124

> Those seeking to acquire present uncommitted gas from a producer currently have the option of negotiating only with FCE and Shell (and their joint venture interests). That option would not be available should the proposed acquisition proceed.

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- 271. The first bar of the graph above depicts the status quo in 2018. The height of the bar reflects total 2P reserves as at January 2018. That bar is then segmented. The dark segment at the top, including the hashed sub-segment, reflects that part of the 2P reserves that is contracted (as at 2018, but many of these contracted quantities are drawn down over time). The other sub-segments reflect the uncommitted reserves of each producer.
- 272. NERA have assumed that [However, 1. as described earlier in the application, Genesis is a material wholesaler.

122 At [158]. 123 At [162].

124 At [161]. ¹²⁵ This graph is based on information provided by each of OMV and Shell separately to NERA on a confidential basis.

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273.	For eacl counter factual,	h of the years 2019 to 2025, the graph above contains two bars, one for the factual (denoted by "c") and one for the factual (denoted by "f"). Under the the graph assumes two critical changes between 2018 and 2019 onwards:							
	273.1	OMV's acquisition of Shell is effective from 2019; and							
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- **278.** The following key points are evident from NERA's analysis of uncommitted gas as set out in the graphs above:
 - **278.1** The amount of uncommitted gas in terms of PJ per annum is more than the 12 PJ figure that applied in *Decision 408* dated 12 October 2000. [
 -];
 - 278.2 Todd and Greymouth will hold the bulk of those uncommitted (i.e. uncontracted) gas reserves going forward from 2019 ([
 j), with Genesis holding around []. OMV's own holdings of uncommitted gas post acquisition will be small in comparison ([
 - ¹²⁶);
 - **278.3** Accordingly, based on the fact that Todd, Greymouth and Genesis have significant combined uncommitted gas reserves, this will not be a case where those seeking to acquire present uncommitted gas from a producer will only have the option of negotiating with OMV post-acquisition.

No Prejudice to Todd's Position Within the Maui and Pohokura Fields

- **279.** The acquisition will not prejudice Todd's position within the Maui and Pohokura fields, since its position will remain essentially the same as it is today. In summary:
 - **279.1** For Maui, OMV's current participating interest is only 10% so in reality OMV is simply stepping into Shell's existing position at this field. [

¹²⁶ [

numbers.

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279.2 For Pohokura, some fundamental decisions ([

]) require unanimity. Todd also has a fundamental right to its 26% share of all production which is entrenched in the JV Agreement and cannot be altered without all parties' agreement. In addition, Todd also has its own pipelines from Pohokura to the Mangahewa production station, and from there to the Maui pipeline and Omata Tank Farm - so there is no restriction on Todd's ability to export gas from Pohokura.

280. This is expanded on in more detail below for each field.

Maui

281. Maui is an unincorporated joint venture. The relationship between the parties is governed by the Maui JVOA. Unlike Pohokura, the Maui JVOA provides for joint selling of production. Rather than each taking their own share, the Maui JV jointly sells the gas, but LPG and liquids are sold separately.

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Pohokura

286. Pohokura is an unincorporated joint venture – each participant takes a share of production (commensurate to its participating interest) and sells it separately, and each participant meets a share of JV costs. The relationship between the parties is governed by the Pohokura JVOA.

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Constraints from Potential Competition

- **293.** OMV considers that existing market participants face limited barriers to expanding production from current fields in the short term, and such expanded production is likely to be significant in its extent and will take place in the short to medium term.
- **294.** The best guide to this is in the table of "Contingent Resources" published by MBIE. This shows the following contingent resources for gas as at 1 January 2018:¹²⁷

¹²⁷ Refer to the 2C resources tab in the "reserves" link on the MBIE website at https://www.nzpam.govt.nz/about/news/release-of-petroleum-reserves-data/.

Field	Gas (PJ)
Kapuni	852.6
Maui	229.8
Pohokura	284.0
Mangahewa	208.4
Turangi	45.7
Maari	4.1
Кире	24.2
Kowhai	66.9
Ngatoro	26.7
Cheal E	0.0
МсКее	0.0
Moturoa	2.2
Puka	0.0
Wingrove	
Karewa	131.1
Total	1875.7

- **295.** In the fields in the table above with significant current 2C resources, previous 2C and prospective resources have in the past been proved up to 2P reserves and production. Particular examples of this can be seen in the following:
 - **295.1** In previous drilling campaigns at the Maui field (two at Maui A and two at Maui B), around 50-100 PJ for each campaign were classed as 2C until the campaign was approved. These wells are now the production wells in Maui, with greater than 90% of remaining reserves;
 - **295.2** At Mangahewa, 2P reserves in 2010 were around 75-100 PJ. It is unclear what 2C resources were estimated at that time. That said, 2P reserves are now around 416.57 PJ for this field, with further 2C resources being around 208.4 PJ. In the last seven years, Mangahewa has produced around 140 PJ. Accordingly over this period greater than 300 PJ has been proved up from 2C and prospective resources to 2P reserves and production;
 - **295.3** Similarly at Turangi and Kowhai, in the last 10 years these fields have gone from prospective (appraisal) to produce around 120 PJ of gas and have 2P reserves greater than 350 PJ. These were "new" exploration permits in 2006.
- **296.** Out of the total 2C gas resources of 1,875.7PJ in the table above, 1,192PJ (or 63.5%) are owned 100% by Todd (with 852.6PJ at Kapuni, 208.4PJ at Mangahewa and 131PJ at Karewa). These resources could start coming to the market over the next 12-24 months, and represent over 50% of current 2P reserves. It is worth noting that Todd's 2C resources at Kapuni, Mangahewa and Karewa of 1,192PJ are more than double the size of the 2C resources held by Pohokura and Maui of

513.8PJ (leaving aside the fact that Todd also has its share of the 2C resources at Pohokura and Maui).

297. Todd is restarting its drilling programme at Mangahewa to bring more resources and deliverability there. This may be constrained by their processing plant at McKee/Mangahewa, but that was recently upgraded. OMV considers that further investment by Todd in drilling at Mangahewa is likely regardless of whether the price for natural gas increases or not. While Todd can produce the reserves it has from current wells, these will decline over time so in order to access more reserves faster it will need to carry out further drilling. In support of this, [

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298. At Kapuni, Shell acquired seismic data 12 months ago and OMV understands Todd is presently in the process of interpreting this with a plan to drill at Kapuni post Mangahewa – this would be in 6-18 months. Wells will take some two months to drill but the Kapuni treatment plant has significant spare capacity: currently producing at around 5-10 PJ pa, it can produce at 25+ PJ pa with all three trains going. Given the limited 2P reserves now available at Kapuni, Todd will need to develop these 2C resources.

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- **299.** With Mangahewa and Kapuni together Todd could add 20-30 PJ per annum of gas production over the period 2020-2022. Given the Government's announcement on 12 April 2018 that no further offshore exploration permits will be issued but onshore exploration permits will still be issued, there is a real incentive now for Todd to explore further at the onshore Mangahewa and Kapuni fields and the onshore area around them.
- **300.** The next biggest holder of 2C resources is Greymouth with around 112.6PJ of 2C resources at Kowhai and Turangi, held 100%. These 2C resources, together with its current 2P reserves of around 352 PJ, mean that Greymouth should be able to produce around 25-30 PJ per annum. Current projections are for around 10-20 PJ per annum actual production by Greymouth. This means that Greymouth therefore could substantially increase that volume of production. [

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- **301.** In the MBIE figures above, Kupe is given contingent resources of only 24.2 PJ. However, OMV is aware that there are discovered resources (likely around 100 PJ) in pools surrounding the central field area. These resources could be drilled and brought to production relatively quickly. OMV understands this is likely to be around 2020/21 and would extend the production plateau at Kupe.
- **302.** In terms of other parties, [

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¹²⁸ At p.8.

¹²⁹ At p.8.

¹³⁰ Independent report by Woodward Partners dated 13 April 2018, at p8.

¹³¹ Independent report by Woodward Partners dated 13 April 2018, at p8.

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1.132 This is planned for the fourth quarter of 2018. The joint venture holding the exploration permit for this onshore field is comprised of Mitsui 37.5%; AWE 12.5% (Operator); NZOG 25%; and OGOG 25%. OGOG is the largest shareholder in NZOG. The Chief Executive of NZOG has stated publicly that there is "an expectation of a gas condensate discovery" when the well is drilled this vear:133

302.2 [

1. WestSide itself states that "WestSide is pursuing" the Development upside across the fields including the redevelopment of the Kauri gas and Rimu light oil fields, further development of Manutahi oil field and associated exploration targets across all the RKM areas".¹³⁴ This is an onshore field:135

302.3 [

1.136 Tamarind stated on 6 March 2018 that:137

Tamarind is intending to commence a drilling project in the Tui Oil Field in early 2019. It will involve drilling 2 to 4 sidetrack wells from the existing wells. We are currently developing an Impact Assessment for the drilling project and intend to lodge an application for marine consent to the Environmental Protection Authority (EPA) in early March 2018.

302.4 TAG Oil,

1.138 TAG Oil holds

the Cardiff permit which could hold resources of around 50-100 PJ. This is similar in character to Kapuni, but does not have the processing facilities in place at present. It could produce new gas around 5 PJ pa if successful.

- 303. Other larger players holding exploration permits include Statoil and Chevron. Statoil and Chevron hold permits on the East Coast, which would take more than 10 years to develop.
- 304. In relation to new exploration entry, the Commission noted in Decision 581139 that "New entry into the petroleum exploration is subject to a licencing regime, but this regime is not considered a significant barrier to new exploration".
- 305. The Gas Industry Company has observed that large international newcomers to the New Zealand petroleum exploration scene in recent years have included the USbased Anadarko Petroleum and Chevron Corporation, India's Oil & Natural Gas Corporation, and Norway's Statoil. Other large international players, Apache Corporation and Brazil's Petrobras, conducted initial work in New Zealand in 2012/13 but have since departed New Zealand.140
- 306. The Government's recent 12 April 2018 policy announcement (referred to above) means there will be no new offshore oil and gas exploration permits issued under

¹³² Independent report by Woodward Partners dated 13 April 2018, at p8.

¹³³ https://www.nzog.com/news/new-zealand-oil-and-gas-farms-in-to-25-of-kohatukai/.

¹³⁴ https://www.westsidecorporation.com/new-zealand.

¹³⁵ Independent report by Woodward Partners dated 13 April 2018, at p8. 136 Independent report by Woodward Partners dated 13 April 2018, at p7.

¹³⁷ https://www.tamarindresources.com/latest-news.

¹³⁸ Independent report by Woodward Partners dated 13 April 2018, at p8.

At [105].

¹⁴⁰ GIC 2017 Report at p60.

the present Government. However, there remains the ability for involvement in existing exploration permits that have already been issued, as well as onshore exploration. []:¹⁴¹

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307. Onshore reserves holdings are of course the major strength of Todd and Greymouth.

Countervailing Customer Power

- **308.** OMV's ability post-acquisition to increase prices to customers is constrained by long term supply contracts which are already in place. In addition, even once those contracts end, large customers such as Genesis, Methanex, Vector and Contact have countervailing buyer power. This is particularly the case with Methanex which purchases around 40-50% of available natural gas per annum. Similarly Genesis is the largest generator using natural gas.
- **309.** The Commission has previously recognised that a significant percentage of gas production supply is committed to long-term supply contracts which limits the ability of market participants to increase prices in the short term. For instance, in *Decision 581*¹⁴² the Commission stated:

Much of the gas in the production fields is committed to meeting existing supply contracts. In addition the great majority of the anticipated output of the Pohokura field (which has yet to commence production) until 2012 is committed to meeting supply contracts already entered into by Shell, OMV and Todd...

Much of the gas in the production fields is committed to meeting existing supply contracts. For instance:

- Maui legacy gas is committed to the Crown which in turn has contracts to supply that gas to NGC, Contact Energy and Methanex. These transactions are made at contract prices which are considered to be substantially below current market prices for gas;
- the sellers of Maui ROFR gas (Shell, OMV and Todd) may sell that gas at market prices but must first offer the gas to NGC, Contact Energy and Methanex;
- half the output of the Kapuni field is committed to NGC. The remaining half is sold separately by the field owners – Shell and Todd; and
- the great majority of the output of the Pohokura field until around 2012 is committed to meeting supply contracts already entered into separately by Shell, OMV and Todd.
- **310.** This has continued in practice. A significant percentage of OMV's gas production supply is contracted through to [

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310.1 [

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¹⁴¹ Independent report by Woodward Partners dated 13 April 2018, at p8. 142 At [104].

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	311.2	[].

- **312.** These long term contracts limit OMV's ability post-acquisition to increase prices. In addition, they provide an effective "floor" for the level of production required at Maui and Pohokura (Todd of course being entitled to its share of that production at Maui and Pohokura). Even once OMV comes off contract, as noted above the amount of uncommitted gas that OMV will have available compared in particular with Todd and Greymouth will be small (as set out in the NERA analysis of uncommitted gas above).
- **313.** When customers do come off contract, they have the ability to switch suppliers which acts as a constraint on price increases for natural gas. This was recognised by the Gas Industry Company in its December 2017 report:¹⁴³

Competitive tendering occurs for gas supply, and participants have not raised specific concerns about difficulties in selling or buying gas as a commodity ... Changing market dynamics, including new sources of supply, have moved negotiation leverage from supplier to buyer.

- **314.** Most long term contracts for the supply of natural gas result from some form of tender by either the supplier or the buyer (wholesaler or user). Following such a tender there will normally be a final negotiation to finalise certain contract details. There is strong competition in these tenders. For instance:
 - **314.1** Methanex approached the market in 2011/2012. Todd was ultimately successful in concluding an agreement with Methanex to supply 25 PJ pa for 10 years from 1 July 2012 (as noted in <u>https://toddcorporation.com/news/?start=28</u>);
 - **314.2** Ballance Agrinutrients produces urea fertiliser in Kapuni. The plant requires approx. 7 PJ pa. Ballance ran a competitive tender for gas supply in 2011-2012 for a term of three or more years. OMV understands this was won by Greymouth with the final term being eight years running until September 2020¹⁴⁴;

314.3 [

143 GIC 2017 Report at p140.

¹⁴⁴ Refer to <u>http://www.scoop.co.nz/stories/BU1207/S00145/future-secured-for-ballance-kapuni-ammonia-urea-plant.htm</u>

-];
- **314.4** Other companies which have run competitive tenders include Fonterra for its Hawera dairy plant and plants in the Waikato region (Te Rapa). In the past Todd together with Shell has supplied Hawera from Kapuni, and OMV believes Todd continue to supply the Hawera plant. OMV understands Vector currently supplies the Waikato plants, while Contact have done so previously.
- **315.** Recent examples of customers switching suppliers, or having shorter term agreements to allow switching, include:

315.1 Methanex [

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315.2 Contact [

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316. The other element which has brought choice to customers is the gas spot market which increased usage in the last two to three years. emsTradepoint's share of the supply of gas has risen substantially in recent years as indicated in the following graph:



317. Almost all the producers and the wholesalers participate on the gas spot market, [

]. As the market is anonymous,

verification of the level of participation can only be obtained from the market operator, Transpower.

318. Over the longer term, as noted in the 2P + 2C market share figures above, OMV's market share will be reducing which will further limit its ability to increase prices.

Conditions for Coordination Not Satisfied

- **319.** OMV believes that the following market conditions exist which render coordination unlikely:
 - **319.1** There is strong existing competition within the market(s) with Todd and Greymouth in particular on the production side and Genesis on the wholesale side. This will remain post-acquisition. There will not be a duopoly post-acquisition;
 - **319.2** The low barriers to expansion in particular mean that existing participants can expand to take market share away from any existing competitors who engage in co-ordinated market behaviour;
 - **319.3** Much of the gas produced is supplied subject to long term contracts entered into at different time periods. So sales can occur quite some distance apart in time, meaning that drivers of price might change materially between contracts. In addition, risk allocation and other aspects of the contracts can be quite bespoke and different from one another;
 - **319.4** The relevant pricing terms in contracts are kept confidential and are not transparent. As a result, there is no mechanism for market participants to impose/monitor coordination;
 - **319.5** The opportunity costs of the various producers and wholesalers in the Natural Gas Market can be quite heterogeneous at any particular point in time. For example, Genesis and Methanex will likely have quite different views about the value of gas when the electricity price is high but the methanol price is low. Also, where the storage options differ between players, then the opportunity cost of the gas will differ between them as well; and
 - **319.6** Customers are generally price conscious and have a high degree of countervailing power as noted above.

Efficiencies

320. OMV has strong incentives to maintain and/or increase gas production. In terms of gas production, its only producing fields are the Maui and Pohokura fields, which results in productive efficiency by allowing better use of existing capacity and by reducing costs. From OMV's perspective further drilling at Maui is required to extend the field's life and defer abandonment. Since Maui is in late field life ([]), OMV's only significant remaining

reserves are in Pohokura, so it needs Pohokura to keep producing.

Part I: LPG Competition Assessment

321. The relevant 2P LPG gas reserves ownership market shares for producers based on 1 January 2018 figures are as follows:¹⁴⁵



322. As is evident from these figures, OMV's share of the LPG Market is minimal (at 1%). Shell's share itself is only 8%. The merged company post-acquisition will have a combined market share of 9% which is well within the Commission's concentration indicator threshold of 20%. Note that these figures are just for producers – once wholesale figures are included OMV/Shell's combined market share is likely to drop further since [

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- **323.** Given the market shares are so low, and the amount of aggregation is only 1%, the acquisition of the Shell Companies' LPG production assets will not substantially lessen competition in this market. This is because OMV will in reality only be stepping into the existing market position of Shell.
- **324.** In addition, OMV will be constrained from seeking to increase prices for LPG postacquisition by the market leaders Beach Energy and Genesis, both of whom have 42% and 38% market share respectively by 2P reserves, as well as Todd with 8%.

¹⁴⁵ Refer to MBIE data under the LPG tab at "https://www.nzpam.govt.nz/about/news/release-of-petroleum-reservesdata/". These figures do not include LPG extracted at Kapuni in the Vector processing facility, and LPG extracted from Pohokura gas at the Mangahewa facility. Todd is the only extractor of LPG from Pohokura gas at the Mangahewa facility. Shell/OMV gas is exported direct to the Maui pipeline. As noted on Todd's website: "In late 2011 an LPG recovery plant (27,000 tonne/annum) was commissioned, which can run on imported Pohokura natural gas and/or McKee-Mangahewa natural gas".

Part J: Storage and Pipelines Competition Assessment

Storage

325. Under the Proposed Transaction, OMV would acquire Shell's interests in liquids storage tanks at the Paritutu Tank Farm and the Omata Tank Farm.

<u>Paritutu Tank Farm</u>

326. The Paritutu Tank Farm at the western end of New Plymouth comprises five tanks in total. Two of these tanks (T-704 and T-705), each with a capacity of 10,600m³, are owned by the MMCs under the Maui JV for the storage of Maui naphtha products. The remaining three tanks are wholly owned by Todd and used for the Kapuni field. [

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327. The Paritutu site location can be seen in the photograph below:¹⁴⁶



328. The relevant tanks are as follows:

¹⁴⁶ Sourced from Shell's Information Memorandum at p87.



- **329.** Shell currently holds an 83.75% interest in the T-704 and T-705 tanks by virtue of its interest in the Maui JV, with OMV and Todd holding the remaining 10% and 6.25% respectively. Following the acquisition, OMV would have a 93.75% interest in these two tanks reflecting its higher share of production and consequential need for greater storage capacity, with Todd continuing to hold 6.25%.
- **330.** Todd holds the lease for the land on which the Tank Farm is situated the land on which the T-704 and T-705 tanks are located is subject to a sublease from Todd. While Todd does not currently operate the overall Tank Farm, they will do so post-acquisition. OMV has and will continue to have its own access, but it does not (and will not) control access for others (except in terms of use of tanks where OMV has an ownership interest).
- **331.** The increase in OMV's participating interest in two of the five tanks at Paritutu will not lead to any substantial lessening of competition for the following reasons:
 - **331.1** There is an issue whether the two tanks concerned are part of the storage market they are simply inputs into the Maui JV, just like the wells themselves;
 - **331.2** In any event, Todd will continue to have its existing storage rights at the T-704 and T-705 tanks by virtue of its interest in the Maui JV. Product from the Maui JV is jointly sold. While Todd does not have any "separate" use rights for these two tanks, neither do Shell or OMV because the tanks are committed for use for the jointly owned Maui product. As such, at any given time 6.25% of the product stored there (and the excess capacity) relates to Todd's share of the Maui JV;

- **331.3** Even if issues did arise with storage in those tanks, Todd can also use the three Kapuni tanks that it already wholly owns at the site;
- **331.4** Todd will continue to hold the lease for the land and operate the Tank Farm; and
- **331.5** In terms of third parties, the only users of the tanks at Paritutu are the Maui and Kapuni JVs so no third parties require access.

<u>Omata Tank Farm</u>

- **332.** The Omata/EIL Tank Farm, 3km west of New Plymouth, comprises three tanks: two 12,250m³ tanks (T-101 and T-102) and one 26,200m³ tank (T-103). These tanks store Maui enhanced condensate, Mangahewa condensate and crude/oil that has been trucked and piped from various other fields, and Pohokura condensate from time to time.
- **333.** There is also a further 31,600m³ condensate storage tank (T-3500) adjacent to the Omata/EIL Tank Farm, which is mostly used for the storage of Pohokura condensate with some other products mixed in (creating the Pohokura Blend). It can also be used for other products such as Maui condensate.
- **334.** There are also other tanks owned by third parties (who have lease arrangements). These include Beach Energy which has two tanks, and Methanex which has two tanks (one of which they use themselves).
- **335.** The location of the tanks can be seen in the photograph below:

6.2.2 Tank farm locations

Exhibit 6.3 shows the Omata/EIL and T3500 sites located to the west of New Plymouth, on Centennial Drive. The tank farms are distinct and the greater site is shared with Methanex, Port Taranaki (leased to BP) and Origin. The sites share a common interconnected fire ring main and water draw off and storage. Omata/EIL and T3500 are on EIL owned land, with a significant amount of additional EIL owned farmland identified as potentially suitable for development (for example LPG storage).

Exhibit 6.3



Source: Shell

- **336.** The three Omata/EIL tanks are currently 100% owned by Shell. Therefore, there will not be any change in the level of competition post-acquisition as OMV will merely be stepping into Shell's position for these tanks and there is no aggregation.
- **337.** The T-3500 tank is owned by the MMCs under the Maui JV, and so Shell has an 83.75% interest, with OMV and Todd having the remaining 10% and 6.25% interests respectively. It is managed by EIL. Post-acquisition the T-3500 tank will continue to be owned by the MMCs with OMV's interest increasing to 93.75% reflecting its higher share of production and need for greater capacity. However, as mentioned above, as product from the Maui JV is jointly sold there will be no lessening of competition as Todd automatically gets access to this tank as part of the overall Maui JV. Todd also has access to the tanks at Paritutu as noted above.
- **338.** In relation to third party access, there are extensive contractual arrangements in place between EIL and industry players for use of the tanks (both EIL tanks and T3500). These include long term agreements with Greymouth, Todd, NZEC and other smaller producers. EIL effectively operates the tanks on an open access basis, using a common set of standard contract terms for third party storage. These contracts will continue under any change in ownership of EIL as a result of the Proposed Transaction.

]. Todd does not require a separate contract for its share of Maui product, as any storage of Maui product is on behalf of the whole Maui JV. These arrangements will continue post-acquisition. Third parties also have the option of approaching Beach Energy or Methanex to use their tanks at the site.

Substitutable Storage Tank Options

339. Todd has access to storage tanks at both Omata and Paritutu. Third parties can also store product at Beach Energy's or Methanex's tanks at Omata.

Pipelines

340. Under the Proposed Transaction, OMV would also acquire Shell's interests in several pipelines.

EPJV Pipeline: 040 Liquids Pipeline

- **341.** The 040 liquids export pipeline runs from the Pohokura Production Station to the Omata Tank Farm and transports condensate from the Pohokura field.
- **342.** Shell currently has a [] interest in this pipeline under the EPJV, with OMV] interest.
- **343.** The Proposed Transaction will result in OMV owning 100% of this pipeline. However, there will be no lessening of competition as this pipeline is already operated as a single pipeline, being owned jointly by OMV and Shell with all decisions being joint. OMV and Shell both contract jointly for transport on the pipeline (including for third parties). Therefore there is no reason to expect the pricing of the 040 pipeline to change under the factual.
- **344.** Access is offered to third parties on essentially the same basis as the contracted transport of Shell and OMV transport of liquids. Capacity is not reserved but, due to storage at the Pohokura Production Station for Pohokura condensate and at others' production stations, there is plenty of spare capacity with scheduling on a batch basis.

- **345.** Access to the 040 pipeline has been offered to two parties to date: Todd (for liquids from Pohokura) and Greymouth Petroleum. This is due to the fact that the pipeline runs from the Pohokura Production Station to the Omata Tank farm. Only those companies with production (permits) in the immediate vicinity would want to bring their product to the Pohokura Production Station, as other areas could simply truck their liquids directly to Omata or transport by other closer pipelines. Therefore the only two companies that may be interested are Todd (but they have their own export pipelines) or Greymouth (which holds the permits around the PPS).
- **346.** Greymouth currently has access to the 040 liquids pipeline under a long term access arrangement, and this will continue post-acquisition. [

]. Greymouth also

has the option of trucking liquids from its Turangi field to the Omata Tank Farm.

347. OMV has offered, and will continue to offer, the same access arrangements to any other third parties seeking to access this pipeline.

Liquids Pipeline from the Maui Production Station to the Paritutu Tank Farm

- **348.** The liquids pipeline from the Maui Production Station to the Paritutu Tank Farm is owned by the MMCs under the Maui JV, meaning that Shell holds 83.75%, OMV holds 10% and Todd holds 6.25%. It is an eight inch, 42km pipeline transporting Maui enhanced condensate and naphtha from the Maui Production Station to Paritutu. The pipeline also ties in to T3500 and Omata/EIL allowing Maui enhanced condensate and naphtha to be stored at T3500 and the Omata/EIL Tank Farm.
- **349.** Post-acquisition ownership of this pipeline will change to OMV holding 93.75% and Todd holding 6.25%. Having said that, there can be no lessening of competition as a result of the Proposed Transaction as Todd's existing share of liquids from the Maui field automatically gets access to this pipeline
- **350.** Third parties do not currently access this pipeline since there are no other producing fields nearby. Nevertheless if any third parties did seek access, OMV would look to provide this. Even if a third party asked for access, the Proposed Transaction would not affect pricing under both the counterfactual and factual the pipeline would be owned and run by the MMCs, the only difference being there would be one less MMC under the factual.

Liquids Pipeline from Omata Tank Farm (connecting with Paritutu Tank Farm) to Port Taranaki

- **351.** The liquids pipeline runs from the Omata Tank Farm, connects with the Paritutu Tank Farm and continues to the Port of New Plymouth. It is 3.5km long and transports condensate and crude oil from T3500 and from Omata/EIL to the Newton King Wharf at Port Taranaki.
- **352.** This pipeline is currently 100% owned by Shell (through EIL). The Proposed Transaction would see this pipeline held 100% by OMV.
- **353.** Notwithstanding this, there would be no lessening of competition as a result of the Proposed Transaction because:
 - **353.1** OMV will simply be stepping into Shell's position in terms of pipeline ownership;
 - **353.2** Todd has its own pipeline, which forms part of its assets for the Kapuni field, that runs from the Paritutu Tank Farm to the Port of Taranaki; and

353.3 Access to this pipeline is given to all parties who use the Omata Tank Farm, and this will continue under the existing access arrangements going forward. In any event there is a separate pipeline owned by Todd (being part of the Kapuni assets) that runs from Paritutu to the Port. Beach Energy also has its own pipeline to the Port.

Substitutable Pipeline Options

- **354.** Todd has its own pipeline, which forms part of its assets for the Kapuni field, that runs from the Paritutu Tank Farm to Port Taranaki. Todd also has its own pipelines from Pohokura to the Mangahewa production station, and from there to the Maui pipeline and Omata Tank Farm. From Omata a bypass could be constructed through to Paritutu.
- **355.** Other available pipeline options include New Zealand Energy Corporation's interest in the 49km oil sales pipeline from the Waihapa Production Station to the Omata Tank Farm, capable of transporting up to 15,500 bbl/d.¹⁴⁷ OMV understands that Greymouth uses this pipeline. Greymouth also has its own pipelines as part of the Ngatoro/Kaimiro fields.

EPJV Pipeline: 032 Gas Export Pipeline

- **356.** There is a fourth pipeline which OMV is acquiring an increased stake in under the Proposed Transaction, namely the 032 gas export pipeline from the Pohokura Production Station to the Maui gas pipeline (currently jointly owned [] by Shell and OMV). OMV will own the entire pipeline post acquisition. Unlike some of the other pipelines above, OMV does not consider this pipeline is part of a separate "point to point" market since this pipeline just runs from the Pohokura Production Station to the Maui gas pipeline. The only possible users are the Pohokura joint venture parties. Todd (the other Pohokura JV partner) has its own offtake pipeline from the Pohokura Production Station, and any other producer will need its own line from its own production station in any event. It is probably best to consider these pipelines as simply forming part of the Pohokura production assets, and no competition issue arises.
- **357.** We also note that the 032 pipeline is identified in Schedule 6 to the Commerce Act 1986 as a pipeline that is exempt from regulation under Part 4 of the Act. A pipeline is included in Schedule 6 if the pipeline owner does not have a substantial degree of market power in the market in which the gas pipeline services are supplied.¹⁴⁸

147 http://www.newzealandenergy.com/Operations/Taranaki-Basin/-TAWN-Permits/default.aspx 148 Commerce Act 1986, s 55A(6).

Part K: Confidentiality

- **358.** Both public and confidential versions of this clearance application have been provided to the Commission.
- **359.** Confidentiality is sought in respect of the information in the confidential version of this application that is highlighted in coloured shading. Confidentiality is sought for the purposes of section 9(2)(b) of the Official Information Act 1982 on the grounds that:
 - **359.1** the information is commercially sensitive and contains valuable information which is confidential to either or both of the merger parties; and
 - **359.2** disclosure of it is likely to prejudice unreasonably the commercial position of the merger parties.
- **360.** OMV requests that it be notified of any request made to the Commission under the Official Information Act for release of the confidential information, and that the Commission seeks its views (and those of Shell where applicable) as to whether the information remains confidential and commercially sensitive at the time responses to those requests are being considered.
- **361.** The above applies equally in respect of any additional information provided to the Commission that is expressed to be confidential.

Part L: Declaration

I, Patrick Teagle, have prepared, or supervised the preparation, of this notice seeking clearance.

To the best of my knowledge, I confirm that:

- all information specified by the Commission has been supplied;
- if information has not been supplied, reasons have been included as to why the information has not been supplied;
- all information known to me that is relevant to the consideration of this notice has been supplied; and
- all information supplied is correct as at the date of this notice.

I undertake to advise the Commission immediately of any material change in circumstances relating to the notice.

I understand that it is an offence under the Commerce Act to attempt to deceive or knowingly mislead the Commission in respect of any matter before the Commission, including in these documents.

I am an officer of the company and am duly authorised to submit this notice.

Name and title of person authorised to sign:

Patrick Teagle Head of Commercial and Legal OMV New Zealand Limited

Sign: _____

Date: _____

Appendix 1: Transaction Documents

Copies of the following transaction documents are **attached**:

 Agreement for the Sale and Purchase of the Share Capital of Shell Exploration NZ Limited, Energy Infrastructure Limited, Shell Taranaki Limited and Shell New Zealand (2011) Limited between Shell Investments NZ Limited and OMV New Zealand Limited dated 15 March 2018

Appendix 2: Corporate Structure Charts

Part 1 – Current Ownership of OMV

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Part 2 – Current Ownership of SINZL and Shell Companies

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Part 3 – Post Transaction Ownership Structure

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Appendix 3: Each Party's Most Recent Annual Report & Audited Financial Statements

OMV

The latest quarterly, consolidated, unaudited financial information of OMV Aktiengesellschaft (for the period to, and as at, June 30 2017) can found be found here:

The Annual Report and Accounts for OMV Aktiengesellschaft (for the year ending 31 December 2016) can be found here:

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The financial statements for OMV NZ for the year ended 31 December 2017 are attached.

Shell

The most recent Annual Report and Statutory Accounts for SINZL are **attached**, which also include financial information for entities other than the Shell Companies.

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Appendix 4: Each Party's Total Sales Revenues, Volumes, Capacity & Excess Capacity Figures

OMV

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Shell

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Appendix 5: Names/Contact Details of Competitors & Industry Associations

	Name of Company	Contact Details	Relevant Contact Person
Competitors	Todd Energy	Level 15 The Todd Building 95 Customhouse Quay, PO Box 3141, Wellington 6140 Phone: (04) 471 6555 www.toddenergy.co.nz	Tony Bissell Senior Commercial Manager
	Greymouth Petroleum	Level 26 151 Queen Street Auckland Phone: (09) 320 0413 www.greymouthpetroleum.co.nz	Chris Boxall Commercial Manager
	New Zealand Oil & Gas	Level 1 36 Tennyson Street Te Aro Wellington Phone: (04) 495 2424 www.nzog.com	Andrew Jeffries Chief Executive Officer
	Genesis Energy	Genesis Energy Building 660 Great South Road Greenlane Auckland 1051 Phone: (09) 580 2094 www.genesisenergy.co.nz	Duncan Jared Commercial Fuels Manager
	Beach Energy	Level 3 32-38 Molesworth Street New Plymouth www.beachenergy.com.au	Paul Manktelow
	Mitsui E&P Australia Pty Ltd	Level 22, Exchange Tower 2 The Esplanade Perth WA 6000 Australia Phone: (00618) 6364 4777 www.mitsui.com	Ken Togawa General Manager
	Sapura Exploration & Production (NZ) Sdn Bhd	Level 53, Tower Two Petronas Twin Towers Kuala Lumpur City Centre 50088 Kuala Lumpur Malaysia www.sapuraenergy.com	Kevin Robinson Vice President
	TAG Oil	P O Box 402 New Plymouth Phone: (06) 759 4019 www.tagoil.com	Ryan Brown Commercial and Finance Manager
	WestSide Corporation	Level 17 300 Queen Street Brisbane Australia Phone: +61 7 3020 0900 www.westsidecorporation.com	Matt Wallach Chief Commercial Officer

	Methanex	125 Queen Street Auckland Phone: (09) 356 9300	Phil Watson Senior Commercial Manager
Spot Market	emsTradepoint	Ground Floor, Transpower House 96 The Terrace Wellington, New Zealand TL: 64 4 590 6692 <u>http://www.emstradepoint.co.nz/about- us/contact/</u>	Quintin Tahau General Manager
Industry Associations	Petroleum Exploration & Production Association of New Zealand (PEPANZ)	Level 6 EMC Building 5 Willeston Street Wellington Phone: (04) 472 1994 www.pepanz.com	Cameron Madgwick Chief Executive
Other Regulators	Gas Industry Company	Level 8 The Todd Building 95 Customhouse Quay Wellington Phone: (04) 472 1800 www.gasindustry.co.nz	Andrew Knight Chief Executive Officer

Appendix 6: Key Customer Details

OMV Gas Customers

Name of Company	Contact Details	Relevant Contact Person	Revenue from customer in last financial year
[]	[[]	[]
[]	1	[1
[]	[[]]	[]
[]		[]	[]

Shell Gas Customers

Name of Company	Contact Details	Relevant Contact Person	Revenue from customer in last financial year**
[]	[]	[]]]	[]]
[]	[[]]]	[]

[1	ſ	[[]
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Appendix 7: Relevant Maps





Map showing location of OMV's current working interests in exploration permits





Appendix 8: Glossary of Terms

2P reserves	means the sum of proved and probable reserves
Applicant	means OMV New Zealand Limited
ARPR	means Annual Review of Petroleum Resources
AWE	means AWE Holdings NZ Limited
bcm	means billion cubic metres
СМА	means the Crown Minerals Act 1991
COE	means Contract of Employment
EIL	means Energy Infrastructure Limited
EOFL	means end of field life
EPHL	means Energy Petroleum Holdings Limited
EPIL	means Energy Petroleum Investments Limited
EPJV	means the joint venture between EIL and Petroleum Infrastructure Limited
EPTL	means Energy Petroleum Taranaki Limited
LPG Market	means the national market for the production and wholesale supply of LPG
Maui	means the Maui gas field
Maui Deep	means the part of the Maui Licence below 12,000 feet subsea
Maui JV	means the joint venture relating to the Maui gas field
Maui JVOA	means the Maui Joint Venture Operating Agreement between the participants in the joint venture relating to the Maui gas field

Maui Licence	means Petroleum Mining Licence 381012 issued by the Crown under the Petroleum Act 1937
mcm	means million cubic metres
MDL	means Maui Development Limited
Mitsui	means Mitsui E&P Australia Pty Limited
MMCs	 means the Maui Mining Companies which, collectively, are: Energy Petroleum Holdings Limited, Energy Petroleum Taranaki Limited and Taranaki Offshore Petroleum Company of New Zealand (each of which is a wholly owned subsidiary of SENZL); and Energy Petroleum Investments Limited (which is a wholly owned subsidiary of Shell 2011)
MPS	means the Maui Production Station
Natural Gas Market	means the national market for the production and wholesale supply of natural gas
NGL	means natural gas liquids
NZOG	means New Zealand Oil & Gas Limited
NZPAM	means New Zealand Petroleum and Minerals
OGOG	means O.G. Oil and Gas Limited
OMV	means OMV New Zealand Limited
Petroleum Legislation	means the Crown Minerals Act 1991, the Petroleum Act 1937, the Health and Safety at Work Act 2015, the Energy Resources Levy Act 1976 and any Minerals Programmes, regulations or subordinate legislation made under any of them
PJ	means "Petajoule" (a unit of energy, work, and heat equal to 10 ¹⁵ joules)
PPS	means the Pohokura Production Station

Pohokura	means the Pohokura gas field
Pohokura JV	means the joint venture relating to the Pohokura gas field
Pohokura JVOA	means the Pohokura Joint Venture Operating Agreement between the participants in the joint venture relating to the Pohokura gas field
Pohokura Permit	means Petroleum Mining Permit 38154 issued by the Crown under the Crown Minerals Act 1991
Proposed Transaction	means the acquisition by the Applicant of 100% of the shares in SENZL, EIL, Shell Taranaki and Shell 2011 from the Vendor
[]	[]
[]	[]
[]	[]
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[]	[]
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[]	[

RMA	means the Resource Management Act 1991
ROFR	means a right of first refusal
Sapura	means Sapura Exploration and Production (NZ) SDN. BHD.
SENZL	means Shell Exploration NZ Limited
Shell	means Royal Dutch Shell Plc
Shell 2011	means Shell New Zealand (2011) Limited
Shell Companies	means collectively SENZL, EIL, Shell Taranaki and Shell 2011
Shell GSB	means Shell GSB Limited
Shell MMCs	means together, EPHL, EPTL, TOPCO and EPIL
Shell Taranaki	means Shell Taranaki Limited (previously Shell Todd Oil Services Limited)
SINZL	means Shell Investments NZ Limited
SPA	means the binding sale and purchase agreement between SINZL and OMV
Target Shares	means the shares in the Shell Companies
ТОРСО	means Taranaki Offshore Petroleum Company of New Zealand Limited
Vendor	means SINZL
WestSide	means WestSide Corporation