

Before the Hearing Commissioners for the Waikato District Council

Under

the Resource Management Act 1991

In the matter of

a submission by Firstgas Limited on the Proposed Waikato District Plan (Hearing Number 18, Rural)

By

Firstgas Limited

Submitter

Primary Statement of Evidence (Planning) of Hywel David Edwards on behalf of Firstgas Limited (Submitter 945 // Further Submitter 1211)

Dated: 8 September 2020
Hearing Appearance Date: 29 September 2020 (via Zoom)

STATEMENT OF EVIDENCE OF HYWEL (DAVID) EDWARDS ON BEHALF OF FIRSTGAS LIMITED

EXECUTIVE SUMMARY

- 1 Pipelines for the distribution or transmission of natural or manufactured gas or petroleum are defined in the Waikato Regional Policy Statement (Te Tauāki Kaupapa here ā-Rohe) 2016 (Waikato RPS) as being regionally significant infrastructure.
- 2 The proposed Waikato District Plan (Proposed Plan) must 'give effect to' the Waikato RPS, or in other words must 'actively implement' the provisions of the Waikato RPS. To do this, the Proposed Plan must provide a firm enabling and protective direction for regionally significant infrastructure, within an overall blueprint within which that outcome can be achieved. It is my view that amendments are needed to the provisions of the Proposed Plan in order to give effect to the Waikato RPS, and ultimately provide for peoples economic and social wellbeing and sustainable management.
- 3 Since purchasing the gas transmission network in 2016, and to address substandard RMA related outcomes inherited, Firstgas has reviewed and refined its approach to both protecting and managing others' land use activities near their network through the Resource Management Act 1991 (RMA). Whereas former owners were largely inactive in the RMA space, Firstgas has become more active in RMA processes across the North Island to ensure it is doing what it reasonably needs to, to efficiently and effectively enable and protect the gas transmission network.
- 4 The Proposed Plan must, in my view, provide a clear and prominent framework within which to manage reverse sensitivity effects on the gas transmission network as a regionally (and nationally) significant infrastructure asset. It does not currently achieve this in the Rural Zone provisions because:
 - 4.1 Noting not all of Firstgas' assets are designated within the district, a designation is insufficient and ineffective to address broader reverse sensitivity effects. A designation / Requiring Authority's powers are limited to the designated corridor rather than a broader land use and reverse sensitivity context;
 - 4.2 The existing 12m wide gas easement (extending 6m either side of the centreline of the pipeline) is a land instrument, not an RMA instrument. An easement is not fit for purpose to protect the gas transmission network in an RMA context; and
 - 4.3 The recommended matters of discretion for subdivision activities to address the relief sought by Firstgas would not be specific nor effective enough to assess potential adverse effects on the gas transmission network.
- 5 Nicola Hine, Land and Planning Advisor for Firstgas Ltd, will appear at the hearing. She will confirm Firstgas' assets within the district, provide real examples of reverse sensitivity effects across the gas transmission network, and demonstrate why reliance on the gas easement is not fit for purpose, including because of access related issues. She will also be available to respond to Hearing Panel questions relating to Firstgas activities and operation in the Waikato District.

- 6 Without additional reverse sensitivity provisions pertaining to subdivision and land use activities in the Rural Zone, the gas transmission network will not adequately be protected from others' activities. In turn, this will not provide for peoples' economic and social wellbeing, nor ensure that peoples' health and safety and property are safely managed.
- 7 I set out provisions in my evidence that I consider will actively implement the Waikato RPS, and ultimately better protect the gas transmission network in a rural reverse sensitivity context. My view is that the provisions I recommend will provide for sustainable management.

QUALIFICATIONS AND EXPERIENCE

- 8 My name is Hywel Edwards and I am a Senior Associate Planner employed in the firm of Beca Limited.
- 9 I hold a Bachelor of Science in City and Regional Planning (honours) and Diploma in Town Planning from the University of Wales, Cardiff, obtained in 2000 and 2002 respectively. I am a Full Member of the New Zealand Planning Institute and am currently a Committee Member on the Central Region Branch. I have also completed the Making Good Decisions course and am a certified RMA Hearings Commissioner.
- 10 I have over sixteen year's professional experience in planning and resource management. I have worked for Central and Local Government in the United Kingdom, and since 2006 I have worked for private planning consultancies in New Zealand.
- 11 I began providing planning assistance to Firstgas in approximately 2016. Since that period, I have undertaken a range of planning work for Firstgas, including:
- resource consents for a range of activities such as earthworks, works in waterways and flaring;
 - policy advice on a range of regional and district level planning documents;
 - national standards and statements;
 - providing advice for what I would describe as 'model provisions' for district and regional plans; and
 - planning evidence on behalf of Firstgas in a range of hearing forums across the North Island.
- 12 I have been engaged by Firstgas to prepare and present this planning evidence.
- 13 I did not write the Firstgas submissions lodged on the Proposed Plan, but am familiar with the content of its' submissions and outcomes sought.

CODE OF CONDUCT

- 14 I have read the Environment Court's Code of Conduct for Expert Witnesses, and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in my brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

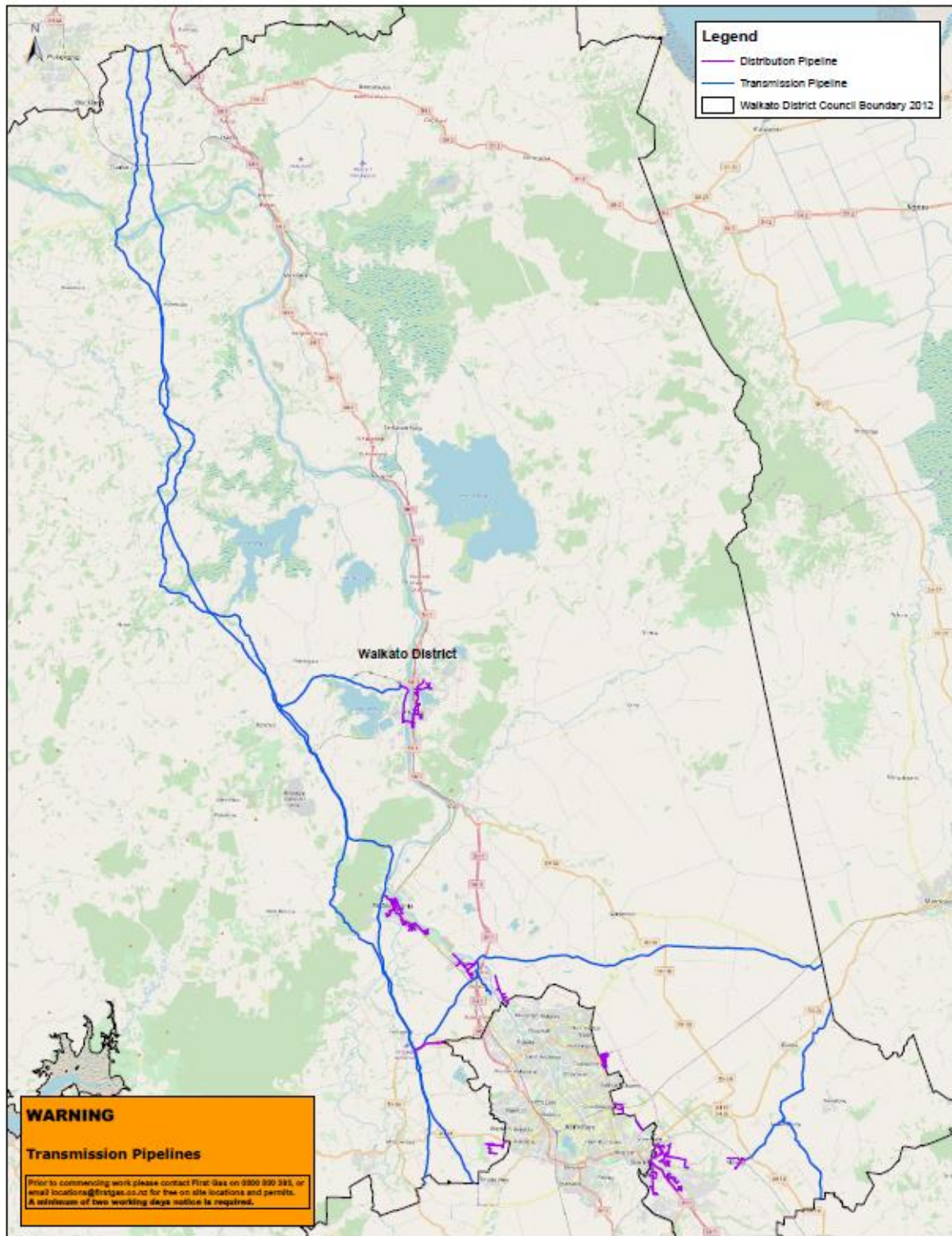
SCOPE OF EVIDENCE

- 15 My evidence covers the following topics relevant to Firstgas' regionally (and nationally) significant infrastructure in the Rural Zone:
- 15.1 The gas regulation framework;
 - 15.2 Broad outcomes sought by Firstgas in its submissions;
 - 15.3 An overview of higher order planning documents to which the Proposed Plan must 'give effect to' or actively implement;
 - 15.4 The need to protect Firstgas' regionally (and nationally) significant assets from others' subdivision and land use activities, including through an appropriate rule trigger (and activity status) and assessment criteria;
 - 15.5 Assumptions and assessments made in the s42A Reports; and
 - 15.6 Reverse sensitivity provisions in other district plans.
- 16 I have recommended provisions in the body of my evidence that I consider are appropriate for inclusion in the Proposed Plan, as they relate to protecting Firstgas' gas transmission network as a matter of regional (and national) importance.

FIRSTGAS ASSETS IN THE WAIKATO DISTRICT

- 17 Nicola Hine will provide an overview of Firstgas' assets within the district at the hearing. These assets are illustrated in Figure 1 below. Firstgas' gas transmission network traverses a number of zones within the Proposed Waikato District Plan. These include the Rural, Country Living, Village, Residential, Industrial, Industrial Heavy, and Te Kowhai Airpark Zones. In principle, Firstgas has sought appropriate set back provisions in relation to all of these zones.
- 18 In addition, the gas transmission network traverses the following overlays as identified within the Proposed District Plan: Outstanding Natural Features (including the Waikato River), Significant Natural Area (SNA), Aggregate extraction area and Coal mining area.
- 19 Firstgas is the Requiring Authority for an area of land designated within the District as R1 identified as gas transmission pipeline on the proposed District Plan maps between Rotowaro and East Tamaki. This designation was granted in 2004 by the then four district councils (Manakau, Waikato, Franklin, Papakura). This designation ranges in width from 6m to 25m and is for the purpose of protecting the existing 400mm line and also providing for a potential second line.
- 20 The gas transmission network is not designated in its entirety across the Waikato district. Overall, the designation covers less than 50% of Firstgas' assets within the district.

Figure 1 Firstgas Assets in the Waikato District



FIRST GAS TRANSMISSION AND DISTRIBUTION PIPELINES WITHIN WAIKATO DISTRICT COUNCIL



GENERAL NOTES
 1. Cadastral information sourced from Coriolis
 2. Topographical information sourced from LINZ Data Service under the Creative Commons Attribution 3.0 New Zealand License
 3. Coordinates are in terms of New Zealand Transverse Mercator projection
 4. Date of issue: 13/06/2018

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REGULATION FRAMEWORK

- 21 At the hearing, Nicola Hine will provide an overview of the framework under which the gas transmission pipeline is regulated, including:
- 21.1 *the Health and Safety in Employment (Pipeline) Regulations 1999*
- 21.2 *NZS/AS2885 Pipelines-Gas and Liquid Petroleum, comprising*
- (i) *AS2885.0 Part 0: General Requirements, 2018;*
 - (ii) *AS2885.1 Part 1: Design and Construction, 2018;*
 - (iii) *AS 2885.2 Part 2: Welding, 2016;*
 - (iv) *AS 2885.3 Part 3: Operation and Maintenance, 2012; and*
 - (v) *AS 2885.6 Part 6 Pipeline Safety Management.*
- 21.3 *Section 5 of AS2885.3 2012 - Pipeline Integrity Management.*
20. I am not an expert in these regulations and standards, but provide an overview of my understanding below. The regulations and standards referenced provide the framework for the relief sought in my evidence.
21. Pipeline owners are required to prepare safety management studies, which requires the pipeline route to be divided into safety management sections depending on land use and population density, and to prepare and implement a pipeline integrity management plan (PIMP). Regular communication with the community and stakeholders and the relevant authorities is required to raise and reinforce awareness of the presence of a pipeline and the constraints with respect to the use of land on and near the pipeline.
22. Pipeline owners are to identify groups such as land use planners, developers, property and service designers, owners and operators, drillers and excavators, blasting companies and borers and liaise with these groups to identify as early as possible any changes in planning, development or other activities that pose a threat to the pipeline.
- 22 AS2885.0:2018 defines the term "Location Class" which is the classification of an area according to its general geographic and demographic characteristics, reflecting both the threats to the pipeline from land usage and the consequences for the population should the pipeline suffer a loss of containment. Primary location classes include rural, rural residential, residential and high density. Secondary location classes include sensitive use, industrial and heavy industrial.
- 23 "Sensitive Use" is defined within AS2885.6:2018, and is the land where the consequences of a failure may be increased because it is developed for use by sectors of the community who may be unable to protect themselves from the consequences of a pipeline failure and includes schools, hospitals, aged care facilities and prisons. Sensitive use location class is assigned to any portion of pipeline where there is a sensitive development within a measurement length. It also includes locations of high environmental sensitivity to pipeline failure.

- 24 Part 6 of the standard defines how a measurement length is calculated, based off pipeline diameter, operating pressure and other factors. Based on an average pipeline size for the Firstgas network (DN200) and typical Design Pressure of 8.62MPag, using the AS2885.1 Appendix Y method for radiation contours – a radiation intensity of 12.6 kW/m² coincides with a 60m radius from an affected pipeline. Referring to AS2885.6 Appendix B3 “A thermal radiation level of 12.6 kW/m² represents the threshold of fatality, for normally clothed people, resulting in third degree burns after 30 seconds of exposure.”
- 25 In a broader context, while noting there is no New Zealand based guide, the Major Industrial Accidents Council of Canada (MIACC) published a document titled ‘Land use planning with respects to pipelines: A guide for local authorities, developers and pipeline operators (1999). The MIACC makes recommendations for local authorities to establish a ‘Consultation Zone’ that extends for 200 meters either side of a gas pipeline. This distance is based on the immediate area affected should a pipeline incident occur. Developments within this zone would be required to demonstrate consultation with the pipeline operator had occurred before any approvals are given.
- 26 The MIACC do not go as far as to recommend prohibiting specific land use types within the Consultation Zone, however certain land uses are encouraged, and others discouraged. Lower density housing is encouraged due to ease of evacuation in the event of an emergency. Critical services, such as hospitals, police and fire departments that would need to function in the event of a pipeline emergency are encouraged to be located outside of the ‘Consultation Zone’. The MIACC concludes that any type of development should provide unobstructed access to the pipeline corridor to allow for operational and maintenance activities and in the event of an emergency.

BROAD OUTCOMES SOUGHT IN FIRSTGAS’ SUBMISSION

- 27 Firstgas’ interest in the Proposed Plan’s approach to managing land use activities can be summarised as seeking to ensure the District Plan:
- 27.1 enables the operation, maintenance, upgrade development and/or removal of its assets and operations; and
- 27.2 protects its assets and operations from others’ land-use and subdivision activities.
- 28 These interests work in tandem to the extent that protection is required to avoid and mitigate reverse sensitivity effects, thereby enabling the efficient and effective operation, maintenance, upgrade and development. Once reverse sensitivity effects manifest, in my experience they are often irreversible to the detriment of an asset owner. A precautionary approach in this respect is required, especially where relating to regionally (and nationally) significant infrastructure.

Operation, maintenance, replacement, upgrade, removal and development

- 29 Firstgas’ gas transmission network is regionally and nationally significant infrastructure in that it delivers significant benefits to people’s social and economic well-being, as well as health and safety.
- 30 In light of the benefits provided by the network, the safe, efficient and effective operation, maintenance, replacement, upgrade, removal and/ or development of the network needs to

be provided for in the District Plan through enabling land use provisions, while ensuring adverse effects generated by those activities and operations are appropriately managed.

Protection from third party works

- 31 Firstgas has an obligation to ensure the safety of the gas transmission network and the people living and working near this network. This obligation will be expanded upon by Nicola Hine, Land and Planning Advisor for Firstgas Ltd, at the hearing.
- 32 Pipelines are required to meet the safety and operational requirements of the Health and Safety in Employment (Pipelines) Regulations 1999 and the operating code Standard AS2885 Pipelines – Gas and Liquid Petroleum (AS2885). Firstgas is required to ensure the protection and integrity of the pipeline is maintained to ensure the safety of the public, property and the environment.
- 33 Third party interference is one of the main risks to the safety and integrity of the underground pipelines. Activities which may affect the gas pipelines should take into account the location and protection requirements of the pipelines. Activities in the vicinity of gas transmission pipeline and ancillary equipment (i.e. the network) should be carried out in such a way so as not to compromise the safe and efficient operation of the gas transmission network.
- 34 Traditionally, Vector Gas Ltd (the former owners and operators of the gas transmission network) relied on the gas transmission easement to both protect and enable assets, infrastructure and activities. Noting that the easement was established in the 1960s, the easement is no longer considered wholly fit for purpose in terms of delivering the outcomes required by Firstgas in an RMA context.
- 35 For example, across the North Island, I am aware it is common for Firstgas to not be notified of the subdivision of land containing the gas transmission network. This does not lead to good resource management outcomes in a reverse sensitivity context as the network cannot be 'designed in' at subdivision stage. Consequently, more and more time is being spent managing the expectations of the purchasers of new allotments, or rectifying or remediating activities that have occurred.
- 36 The most efficient and effective way of dealing with these issues is at subdivision and land use application stage, as well as having clear signals in a District Plan (subdivision and land use rules) as to what is acceptable and what is not in relation to the regionally (and nationally) significant gas transmission network.

WAIKATO REGIONAL POLICY STATEMENT 2016

- 37 The hierarchy of planning documents under the RMA require that the development of any plan must 'give effect' to any relevant National Policy Statements (*NPS*) or National Environmental Standards (*NES*). The Regional Policy Statement (*RPS*) must be given effect to by the 'lower plans' i.e. the Regional Plan, Regional Coastal Plan and District Plan.
- 38 The Waikato RPS 2016 identifies the regionally significant issues around the management of regional resources. It sets out what needs to be achieved (objectives) and the way in which the objectives will be achieved (policies and methods). In its primary submission, Firstgas

sought to ensure that the Proposed Plan gives effect to the Waikato RPS, with the key provisions being included as **Attachment 1** to my evidence.

39 It is my view that 'giving effect' to the RPS essentially means that the District Plan must actively implement it through its provisions, and ultimately ensure that:

- Firstgas' regionally (and nationally) significant assets are able to be safely, effectively and efficiently operated, maintained, upgraded, replaced, removed and / or developed while appropriately managing adverse effects; and,
- the adverse effects of development in proximity to Firstgas' regionally (and nationally) significant assets are avoided or mitigated depending upon the context in which the development occurs.

KEY SUBMISSION POINTS FROM FIRSTGAS

Subdivision – New Rule and Matters of Discretion

40 Firstgas sought to introduce a new rule in relation to subdivision in the Rural Zone under Subdivision Rule 22.4.1 which would make subdivision of a site containing a gas transmission pipeline a restricted discretionary activity (submission point 945.21):

The subdivision of land containing a gas transmission pipeline is a restricted discretionary activity.

Council's discretion shall be restricted to the following matters:

- (i) *The extent to which the subdivision design avoids or mitigates conflict with the gas infrastructure and activities.*
- (ii) *The ability for maintenance and inspection of pipelines including ensuring access to the pipelines.*
- (iii) *Consent notices on titles to ensure on-going compliance with AS2885 Pipelines- Gas and Liquid Petroleum- Parts 1 to 3.*
- (iv) *The outcome of any consultation with Firstgas Limited.*

41 The reason provided in the submission was to address reverse sensitivity effects. The Section 42A reporting officer agrees with the intent of this submission point, but considers that a matter of discretion for subdivisions would provide a better way of assessing the effects on the gas pipeline as one of many types of infrastructure that may exist on rural properties. Other reasons provided by the reporting officer are that:

41.1 Given that the pipeline traverses through rural farmland, it is anticipated the rule would affect many properties;

41.2 The gas pipelines are either covered by a designation or an easement which restricts activities near the corridor; and

41.3 that Firstgas Ltd is responsible for ensuring that any effects are managed through the designation or easement process.

42 Taking the above into account, the S42A reporting officer recommends that Firstgas' submission point be rejected. I disagree with this for the reasons outlined below.

- 43 The gas transmission network is regionally (and nationally) significant infrastructure, and recognised as such in the Waikato RPS. It transmits gas to, through and beyond the district, thereby enabling people to provide for their social and economic well-being. Noting there have been some much-publicised recent examples where gas supply has been disrupted (and the economic and social costs evident), the efficient, effective and safe operation of the asset is of critical importance. These things combined, in my view the Proposed Plan requires a specific focus on the gas transmission network (as opposed to the 'many types of infrastructure') in a reverse sensitivity context.
- 44 The fact that the gas transmission network traverses lots of rural farmland is not in itself a reason to reject the submission point. The issue being addressed is reverse sensitivity on regionally significant infrastructure. This does not preclude nor prevent subdivision, but rather enables a 'conversation' to be had with Firstgas as the owner and operator of the asset to ensure subdivision factors in the gas transmission network at the outset. This is good planning practice in order to avoid and / or mitigate potential effects.
- 45 Without an appropriate assessment of the effects, subdivisions may create inappropriate boundaries that dissect the pipeline corridor. This may cause the isolation of sections of the pipeline which become inaccessible and it would also increase the potential for unauthorised activities. If Firstgas is unable to access the pipeline, it means there is an inability to maintain and operate the pipeline safely is significantly compromised. Physical and/or legal access is often overlooked for a variety of reasons, and I am aware that this is often an issue for Firstgas post subdivision.
- 46 Construction traffic over the gas transmission pipeline to enable subdivision is another potential effect that requires consideration. When the transmission pipelines were originally designed and constructed in rural environments, they were designed for the environment within which they were placed at the time. Large areas of rural land around the North Island have become more urbanised. Urbanisation carries a number of threats to gas transmission pipelines designed for rural land, including as a result of excavation / disturbance on or near the pipelines, unacceptable soil loading, vibrations from heavy machinery, electromagnetic interference, building platforms being placed too close to pipelines and restricted access to pipelines. Urbanisation also changes the risk profile of the pipelines in the event of an incident. Changes in land use from those for which the pipeline was designed may introduce the need for design and/or operational changes to ensure any ongoing safety obligations can be achieved.
- 47 The potential consequences on the gas transmission network are best understood and managed by Firstgas as the owner and operator of the asset. Involvement in the early stages of subdivision via what I would describe as an enabling activity status is a good (and necessary) planning outcome for all parties. This is especially the case where there is the potential for significant risks associated with compromising the safety of the gas transmission network.
- 48 The majority of the gas transmission network is not designated within the Waikato district therefore any reliance on it as a protective mechanism is flawed. Irrespective of this, I am also aware of examples where even with a designation in place, Firstgas has not been notified of a subdivision consent on land containing a designated gas transmission pipeline on the basis that a consent authority has determined the subdivision would not '*prevent or hinder a public work or project or work to which the designation relates*'. In other words, subdivisions containing a designated gas asset have been approved without the need to obtain Firstgas' written approval under s176(1)(b). Such an interpretation of S176(1)(b) can be narrow and defined to the designated corridor as opposed to a wider and more

holistic view. Physical and legal access to the gas transmission network has the potential to be overlooked in such circumstances.

- 49 In respect of reliance on the gas easement, this is a land instrument and not an RMA instrument. It cannot be relied upon to protect the gas transmission network in an RMA context. For the reasons that Nicola Hine will relay at the hearing, reliance on the gas easement has not delivered consistently good outcomes for Firstgas in terms of protecting the network. This is a fundamental reason why Firstgas has reviewed and refined its approach to protecting its asset through the RMA.
- 50 As previously mentioned, Firstgas has an obligation to ensure the safety of the gas transmission network and the people living and working near this network. In my view, there is no single method of achieving this, but rather it is best achieved via different methods, including consent triggers under the RMA.
- 51 The recommendation made in the s42A report is not the most efficient nor effective way of managing subdivision near the gas transmission network. My view is that including a specific and visible restricted discretionary resource consent requirement for subdivision affecting land containing the gas transmission network best mitigates the potential for reverse sensitivity effects and best serves the purpose of the RMA.
- 52 In my view, the matters of discretion sought in Firstgas' submission are fit for purpose to ensure reverse sensitivity effects and other effects can be suitably mitigated.

Restricted Discretionary Activities - Rule 22.1.3 Amendments and Matter of Discretion

- 53 Firstgas sought to amend Rule 22.1.3¹ in relation to earthworks in the Rural zone near the gas transmission pipeline and network. In its primary submission, Firstgas sought the following activities as additional restricted discretionary activities:
- Establishment of a residential activity or use within 20m of a gas transmission pipeline;
 - Establishment of a residential activity or use within 60m of the gas network (other than a gas transmission pipeline)
 - Establishment of a sensitive land use (excluding residential activities) within 60m of the gas network.
- 54 In addition, Firstgas sought to add the following matter of discretion under Rule 22.1.3:
- The extent to which the development will avoid or mitigate conflict with the gas network.
- 55 These primary submission points do not appear to have been addressed and responded to in the Section 42A report. In my view, the submission point and relief sought by Firstgas is appropriate. Much of the rationale for my view is explained above in my evidence (i.e. the fact the gas transmission network is regionally (and nationally) significant infrastructure and that reverse sensitivity provisions of this nature represent good planning practice etc.).
- 56 The set-back distances sought in Firstgas' submission broadly align with the outcomes required under regulations and standards under which it operates, and which I have set out above in my evidence. For example, "Sensitive Use" is defined within AS2885.6:2018, and is the land where the consequences of a failure may be increased because it is developed for

¹ While the relief sought is sufficiently clear, I note there was an error in the referencing of the rule pertaining to Restricted Discretionary Activities in the Rural Chapter. The original submission referenced Rule 16.1.3 as opposed to Rule 22.1.3.

use by sectors of the community who may be unable to protect themselves from the consequences of a pipeline failure. This includes schools, hospitals, aged care facilities and prisons.

- 57 The MIACC guide for local authorities, developers and pipeline operators (1999) recommends that local authorities to establish a 'Consultation Zone' that extends for 200 meters either side of a pipeline. This distance is based on the immediate area affected should a pipeline incident occur. Developments within this zone would be required to demonstrate consultation with the pipeline operator had occurred before any approvals are given.
- 58 Firstgas is not seeking a 200m set-back, but rather is seeking a pragmatic outcome in managing other's activities near the gas transmission network. The provisions sought would ensure Firstgas is consulted with when potentially unacceptable activities are proposed in close proximity to the pipeline, and ultimately consider whether the activity may threaten the safety of the pipeline and / or result in the activity being exposed to potential risks.
- 59 I also note that Firstgas is not intending to prohibit development within the prescribed distances, and there may be situations where development is appropriate. For example, the activity may be acceptable if the pipe is actually smaller, operating at a lower pressure and/or if appropriate modifications can be made to the pipeline to minimise any identified risk. The resource consent process will facilitate that discussion through appropriately assessing the potential reverse sensitivity effects of the activity.
- 60 In my view, the relief sought in Firstgas' submission is fit for purpose to ensure reverse sensitivity effects and other effects can be suitably mitigated.

Earthworks – Rule 22.2.3 and Matters of Discretion

- 61 Firstgas Ltd sought to introduce a new Permitted Activity standard under Rule 22.2.3 (P2)(a) which requires any earthworks to a depth of greater than 200mm to be located 12m from the centreline of a gas pipeline to address reverse sensitivity effects. The new Permitted Activity Standard sought is as follows:
- Earthworks to a depth of greater than 200mm are to be located a minimum of 12m from the centreline of a gas pipeline.
- 62 The recommendation in the s42A Report is that the 12m setback is not necessary due to the existing designation which is proposed to be rolled over to the Proposed Plan. The s42A report states that as the reticulated gas network within the Waikato District is already protected by way of a designation, any earthworks within the designation could only be undertaken with Firstgas' written consent.
- 63 This s42A report conclusion assumes the entire length of the gas transmission network is designated, but this is not the case. The existing designation does not cover all of Firstgas' pipelines within the Waikato District.
- 64 I am aware that the undertaking of earthworks near and over the gas transmission pipeline raises the potential for machinery or objects to physically contact the pipeline, reduce the safe separation distance between the pipeline and ground level as well as de-stabilise land in which the pipeline is located (e.g. land slips, erosion and scouring).

65 I am aware that across the North Island, it is not uncommon for earthworks to be undertaken above and near the gas transmission pipeline without Firstgas' knowledge irrespective of an easement or designation being in place. This has the potential to cause adverse effects on the safe, effective and efficient operation of the gas transmission network.

66 There is the potential for earthworks to create sub-standard, and potentially unacceptable, outcomes for Firstgas. To this end I am aware that First Gas has clear expectations for earthworks near the gas transmission pipeline in terms of what is acceptable and what is not in relation to its regionally and nationally significant asset.

67 To this end, I recommend the following rule (Rule 22.2.3):

Earthworks to a depth greater than 400mm are to be located a minimum of 10m from the centreline of a gas transmission pipeline.

OTHER DISTRICT PLAN

68 As previously mentioned, Firstgas has reviewed and refined its approach to enabling and protecting its regionally (and nationally) significant infrastructure under the RMA since purchasing the asset in 2016. Noting that RMA processes are lengthy, Firstgas is gaining traction in reducing reliance on the gas easement and embedding more effective and efficient provisions in district plans to address the issues (including reverse sensitivity) it is facing in an RMA context.

69 This has included illustrating the gas transmission network on district plan maps, embedding more effective and efficient enabling and protective provisions pertaining to the gas transmission network and also designating its asset under its Requiring Authority status through new Notices of Requirement. There are clear examples of this traction across second generation district plans, including:

- Kapiti Coast District Plan;
- Opotiki District Plan;
- Central Hawkes Bay District Plan;
- Porirua District Plan; and
- New Plymouth District Plan.

70 I am able to expand on these district plan provisions and processes at the hearing.

CONCLUSIONS

71 As previously stated, the Proposed Plan must 'give effect to' the Waikato RPS, or in other words must 'actively implement' it. To do this, the Proposed Plan must provide a firm protective direction for regionally significant infrastructure, within an overall blueprint within which that outcome can be achieved. It is my view that amendments are needed to the provisions of the Proposed Plan in order to give effect to the Waikato RPS, and ultimately protect the gas transmission network and ultimately provide for peoples economic and social wellbeing and sustainable management.

72 Firstgas has reviewed and refined its approach to managing others' land use activities near its network through RMA processes. Whereas former owners were largely inactive in the RMA

space, Firstgas has become more active in RMA processes across the North Island to ensure it is doing what it reasonably needs to, to efficiently and effectively enable and protect the gas transmission network.

- 73 The Proposed Plan must, in my view, provide a clear and prominent framework within which to avoid and / or mitigate reverse sensitivity effects on the gas transmission network as a regionally (and nationally) significant infrastructure asset. It does not, in my view, currently achieve this in the Rural Zone provisions.
- 74 In my view, the relief and recommendations set out in my evidence will actively implement the Waikato RPS and effectively and efficiently protect the gas transmission network in a rural reverse sensitivity context.
- 75 My view is that the provisions I recommend will provide for sustainable management.

Hywel David Edwards

8 September 2020

ATTACHMENT 1

Waikato Regional Policy Statement 2016	
Objective 3.2: Resource Use and Development	<p><i>Seeks to recognise and provide for the role of sustainable resource use and development and its benefits in enabling people and communities to provide for their economic, social and cultural wellbeing, including by maintaining and where appropriate enhancing:</i></p> <ul style="list-style-type: none"> <i>a. Access to natural and physical resources to provide for regionally significant industry and primary production activities that support such industry;</i>
Objective 3.12: Built Environment	<p><i>Seeks that development of the built environment (including transport and other infrastructure) and associated use occurs in an integrated, sustainable and planned manner which enables positive environmental, social, cultural and economic outcomes, including by:</i></p> <ul style="list-style-type: none"> <i>e. Recognising and protecting the value and long-term benefits of regionally significant infrastructure;</i>
Policy 4.4: Regionally Significant Industry and Primary Production	<p><i>Seeks that the management of natural and physical resources provides for the continued operation and development of regionally significant industry and primary production activities by:</i></p> <ul style="list-style-type: none"> <i>a. recognising the value and long term benefits of regionally significant industry to economic, social and cultural wellbeing;</i> <i>c. ensuring the adverse effects of regionally significant industry and primary production are avoided, remedied or mitigated; avoiding or minimising the potential for reverse sensitivity;</i>
Policy 6.6: Significant Infrastructure and Energy Resources	<p><i>Seeks to ensure that the management of the built environment ensures particular regard is given to:</i></p> <ul style="list-style-type: none"> <i>a. that the effectiveness and efficiency of existing and planned regionally significant infrastructure is protected;</i> <i>b. the benefits that can be gained from the development and use of regionally significant infrastructure and energy resources, recognising and providing for the particular benefits of renewable electricity generation, electricity transmission, and municipal water supply; and</i> <i>c. the locational and technical practicalities associated with renewable electricity generation and the technical and operational requirements of the electricity transmission network.</i>