

**BEFORE A BOARD OF INQUIRY  
EAST WEST LINK PROPOSAL**

**IN THE MATTER** of the Resource Management Act 1991 (**RMA**)

**AND**

**IN THE MATTER** of a Board of Inquiry appointed under s149J RMA to consider notices of requirement and resource consent applications made by the New Zealand Transport Agency (**NZTA**) in relation to the East West Link roading proposal in Auckland

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**SUMMARY / UPDATE STATEMENT OF NICHOLAS COLYN GRALA FOR  
MERCURY NZ LIMITED  
Planning  
DATED 6 SEPTEMBER 2017**

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## Overview of key conclusions of my evidence

1. The notices of requirement and resource consent applications currently before the Board of Inquiry would see the East-West Link proposal (**Proposal**) constructed through the Mercury NZ Limited (**Mercury**) Southdown site (**Southdown Site**) that contains its gas-fired thermal power station (**Southdown Power Station**) and solar energy research and development centre (**Solar Research and Development Centre**), as well as infrastructure owned by other parties (Transpower and First Gas). These assets all form part of the 'existing environment'.
2. If approved, the Proposal would have direct adverse effects (including safety effects) and reverse sensitivity effects on the Southdown Power Station, and adverse effects on both access to and through the Southdown Site, and the Solar Research and Development Centre. It would also have adverse effects on New Zealand's security of electricity supply and give rise to further/consequential effects arising from the potential relocation of First Gas and Transpower assets.
3. Due to NZTA's misunderstanding about the status of the Southdown Power Station, in its applications NZTA and its experts assessed the Southdown Site only as an industrial property that accommodates a number of strategic advantages, and not as a site containing nationally significant infrastructure / a nationally important strategic site.
4. This meant that, NZTA failed to adequately consider the impacts of the Proposal on the Southdown Site when undertaking the:
  - (a) route assessment and selection processes;
  - (b) assessment of the environmental effects of the selected route;
  - (c) assessment against the relevant statutory framework, including sections 7(b) and 7(j) RMA; and
  - (d) drafting of proposed designation conditions.

5. In my opinion, due to the gaps and issues in relation to the significant adverse effects on the Southdown Site and economic analyses (as noted by Mr Murray), the applications as lodged and supported by NZTA's evidence do not contain adequate assessments to make a judgement that all actual and potential effects have been adequately avoided, remedied, or mitigated or that the Proposal can promote the sustainable management of natural and physical resources. Therefore, I do not consider that the Proposal can be said to achieve the purpose of the RMA.
6. The Proposal is also not consistent with the relevant planning documents, being:
  - (a) Aspects of the National Policy Statement on Urban Development Capability (**NPS-UDC**) because it would result in significant adverse effects on existing infrastructure;
  - (b) The objectives and policies for network utilities and infrastructure contained in the Auckland Unitary Plan: Operative in Part (**AUP**) because it would not:
    - (i) protect the infrastructure on the Southdown Site from reverse sensitivity effects;
    - (ii) adequately avoid, remedy or mitigate the adverse effects on the Southdown Site;
    - (iii) recognise the value of investment in the existing infrastructure at the Southdown Site; or
    - (iv) adequately avoid, remedy or mitigate adverse effects on the health and safety of people and communities.
7. Further, the Proposal is not consistent with aspects of the Auckland Plan because it would not protect existing critical infrastructure that is required to ensure secure and resilient energy supply that will meet the needs of Auckland over time.

8. In my assessment, NZTA's evidence does not contain adequate information for the Board to be satisfied that it can authorise the Proposal. I rely in part on the evidence of Mr Damian Phillis for this conclusion. He is of the view that there has not been sufficient risk assessment undertaken to determine whether it is appropriate or practical to co-locate the Proposal over the Southdown Site.<sup>1</sup>
9. In light of the above matters, in my opinion the notices of requirement must be cancelled and the applications for resource consents must be declined.
10. However, if (contrary to the relief Mercury is seeking) the Board decides to confirm the notices of requirement and grant the resource consents, then these should be made subject to outcome-based conditions that require NZTA to:
  - (a) avoid, remedy or mitigate the adverse effects of the operation of the Proposal on the various structures and componentry at the Southdown Power Station and its operation;
  - (b) avoid, remedy or mitigate the adverse effects related to the proposed enabling and construction works on the various structures and componentry at the Southdown Power Station;
  - (c) avoid, remedy or mitigate the adverse effects related to the proposed enabling and construction works on the Solar Research and Development Centre;

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<sup>1</sup> Mr Phillis, summary statement para.s 9-11 and hearing transcript page 5310 lines 3-44; page 5388 lines 1-38, page 5391 line 33 to page 5392 line 7, and page 5393 lines 9-17. See also the transcript Ms Hopkins' cross-examination, page 5413, line 31 to page 5414 line 1 and the transcript of the cross-examination of Mr Erskine.

- (d) avoid, remedy or mitigate the adverse effects on access to and through the Southdown Site (both during construction and when the Proposal was operational); and
  - (e) avoid reverse sensitivity effects and health and safety effects of the Proposal being located in proximity to an operable power station.
11. I am of the view that if the Board confirmed the designations and granted the consents, the proposed Southdown Site-specific conditions that are included as **Appendix 1** of this summary statement would achieve the requirements listed in paragraph 10 above. Below I explain some updates to those conditions made since I prepared Southdown Site-specific conditions for the expert conferencing on 2 and 4 August 2017.

#### **Corrections and clarifications to my evidence**

12. I would like to clarify what I said about s171(1)(c) RMA in paragraphs 74 - 75 of my evidence in chief.<sup>2</sup>
13. In those paragraphs, I was not trying to suggest that NZTA needed to demonstrate that there was only one reasonable alternative to satisfy s171(1)(c) RMA. The point I was making was that the NZTA's project objectives for the Proposal are so broad that they could conceivably have been achieved by any one of the 16 alternative options NZTA considered at the long-list stage of its alternatives assessment. Consequently, it does not appear to be reasonably necessary (in terms of achieving those project objectives) to locate the Proposal over the Southdown Site.

#### **Matters that have changed since I prepared my statement of evidence**

14. I attended the planning expert witness caucusing on 30 May 2017. Of particular relevance to my statement was the planners' agreement on:

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<sup>2</sup> Section 171(1)(c) RMA provides that the Board must have particular regard to whether the Proposal and the proposed designation are reasonably necessary for achieving the NZTA's objectives.

- (a) the common bundle of statutory documents and provisions that are relevant to the Proposal; and
  - (b) what constituted the environment in terms of s104 and s171 RMA.
- 15. I attended the Southdown Site facilitated meeting on 8 June 2017, in which all parties agreed that a risk assessment of NZTA's applications to locate the Proposal over the Southdown Site needed to be undertaken. The parties agreed a collaborative process to advance this and that it should involve Mercury, NZTA, KiwiRail, Auckland Transport and First Gas.
- 16. I attended the planning expert witness caucusing for Southdown (Existing Environment) on 11 June 2017 held in response to the Board of Inquiry's Minute and Direction 19. At that caucusing meeting the planners agreed that:
  - (a) The existing state of the environment at the Southdown Site comprises the Southdown Power Station and Solar Research and Development Centre, both owned by Mercury, as well as the Transpower, KiwiRail and First Gas assets on the site.
  - (b) The future state of the environment consists of the permitted activities that could be carried out at the Southdown Site under the AUP.
- 17. I understand that through the course of the hearing there have been questions put to various experts on whether there would be a need for Mercury to obtain new or varied consents to restart the Southdown Power Station. My view is that this would not be required unless for some reason Mercury chose replacement turbines that would not meet the conditions of its existing air discharge permit. I understand from Dr Graham's evidence that Mercury would be likely to have the option of re-installing exactly the same kind of turbines as were previously used.<sup>3</sup> Therefore, there is no basis for assuming that Mercury

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<sup>3</sup> Hearing transcript page 5519.

would currently need to obtain a variation to its air discharge permit, or a new consent, to re-start the power station.

18. I attended the planning expert witness caucusing for Southdown (Conditions) on 2 and 4 August 2017, held in response to the Board of Inquiry's Minute and Direction 26, to draft a discrete set of conditions for the Southdown Site. In preparing for this caucusing, Ms Hopkins and myself each drafted a set of Southdown-site specific conditions and we then met to try to reach agreement on those conditions.
19. We were not able to agree on a single set of conditions but we were able to agree that, among other things, if the Board was satisfied that the Proposal could satisfy the relevant statutory tests, and the authorisations for the Proposal were granted:
  - (a) There should be a separate section within the authorisation conditions that was specific to the Southdown Site that should be labelled SD (Southdown Site).
  - (b) There should be conditions within that SD section that:
    - (i) required further risk assessment to be undertaken;
    - (ii) required any statutory approvals that were required as a direct result of the Proposal to be obtained before enabling works or construction works for the Proposal commenced, unless otherwise agreed;
    - (iii) required a Southdown Management Plan to be prepared for the construction of the Proposal that was similar to the Network Utilities Management Plan included within the NU section of NZTA's proposed conditions; and
    - (iv) covered any vibration requirements that are specific to the site, including ensuring that a make good provision applies to damage caused by vibration;

- (c) While Ms Hopkins was willing to agree to a condition which would provide Mercury with a s176 RMA approval waiver to undertake maintenance of assets on land subject to NZTA's proposed designation within the Southdown Site, the waiver condition I am proposing (condition SD. 8 in my set of proposed conditions) goes wider than that and also includes operation and upgrading of assets at the site.
- 20. On 28 and 31 August 2017, I attended planning expert caucusing to prepare a summary of possible adverse effects with respect to the Southdown Site (including possible reverse sensitivity effects) in response to Board Minute and Direction 30. A joint statement on the outcomes of that caucusing was provided to the Board on 31 August 2017. Ms Rickard and I were not able to reach full agreement on a summary of effects. Two points of difference are:
  - (a) Ms Rickard does not consider the Proposal would create reverse sensitivity effects, in contrast I am of the view that reverse sensitivity effects may arise from the introduction of people (drivers, cyclists, and pedestrians) in close proximity to the Southdown Site.
  - (b) I consider that the future/consequential effects arising from the potential relocation of First Gas and Transpower assets is a relevant adverse effect (Ms Rickard does not).
- 21. During cross examination of Mr Phillis, counsel for NZTA provided a copy of the Assessment of Environmental Effects (AEE) that accompanied the resource consent application for the expansion of the Southdown Power Station (which Mercury now refer to as GE105).<sup>4</sup> Counsel for NZTA identified to Mr Phillis that the AEE only included an assessment of hazards as they related to storage of hazardous substances and stormwater discharges and did not include any risk assessment of the power station itself (for example of the gas turbines).

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<sup>4</sup> Exhibit 026.



22. I note that the Auckland Council District Plan: Isthmus Section 1999 (that applied at the time of that consent application) provided for Electricity Generation Facilities (Gas Fired) as a **Permitted** activity in the Business 6 zone (that the Southdown Site was zoned at the time), under Rule 8.7.1 of the District Plan. Given this, I would not expect that the application would have needed to include an assessment of the permitted effects of gas-fired electricity generation.

#### **Changes to my proposed Southdown Site conditions since 4 August 2017**

23. In his summary statement on behalf of Transpower NZ Limited, Mr Horne had concerns with two of the conditions that I proposed within the Joint Witness Statement dated 11 June 2017.
24. Mr Horne was concerned that my proposed condition SD.3 sought to constrain infrastructure asset owners from moving from the Southdown Site if they wanted to move for reasons unconnected to the Proposal. That was not my intention. The intent of my proposed condition SD.3 was to ensure that none of the asset owners were put in the position where they *had* to move away from the Southdown Site because of the Proposal.
25. Mr Horne was also concerned that I was seeking to use my proposed Condition SD.6(h) to override Transpower's discretion as to whether or not to grant dispensations when dispensations would be required under the New Zealand Electrical Code of Practice for Electrical Safe Distances (**NZEC**P). That was not my intention, I was seeking the Proposal be designed to ensure that complying clearances were retained between any structures and assets within the Southdown Site and the National Grid so that dispensations from Transpower were not required.
26. In response to Mr Horne's concerns I have:
- (a) Included an additional clause in my proposed condition SD.3 stating that the condition does not apply to the relevant asset in the event that Mercury confirms that they are no longer able to accommodate it within the Southdown Site; and

- (b) Included some subtle changes to the wording of proposed condition SD6(c) to make it clear that what the condition is seeking is for the Proposal design to maintain compliance with the NZECP so that the need for dispensations from Transpower is avoided.
- 27. I have spoken with Mr Horne about the proposed the changes but I was unable to reach agreement on the wording of the conditions at the time of writing this statement.
- 28. I have also made some minor amendments to my proposed access conditions to reflect the changes sought by Mr Ian Carlisle and Mr Damian Phillis in their summary statements. These required minor amendments to:
  - (a) Condition SD.6(d) to ensure that it covers access to, through and from the Southdown Site and ensure that the design of the Proposal achieves entrances to the Southdown Site that have a gradient of less than 5%. I understand this reflects the characteristics of the existing entrances on the Southdown Site.
  - (b) Condition SD.6(h) to ensure that access is adequate to enact an effective firefighting response and to require at least 5.7m of vertical clearance underneath the viaduct for the Proposal where that passes over the Southdown Site. This is required because the previous iteration of the condition required 5.1m of vertical clearance. However, 5.1m is the loaded height of the design vehicle Mr Carlisle used for the Southdown Site, so a 5.1 m clearance would not allow any room between the top of that loaded design vehicle and the viaduct structure.
  - (c) Condition SD.10(b)(i) to ensure that assets within the Southdown Site could still be accessed if the site layout was changed and to require arrangements for circulation through the site to be developed in conjunction with any such layout changes.

29. I have also included:

- (a) a new Condition SD.6(i) to ensure that each parcel of the Southdown Site maintains its own pedestrian access;
- (b) a new Condition SD.6(j) to ensure that the design of the Proposal maintains the current ground clearances on Hugo Johnston Drive; and
- (c) a new Condition SD.10(b)(iv) to ensure that robust controls around hot work are implemented should the natural gas supply to the Southdown Power Station be required during the construction phase of the Project

30. I attach my amended set of conditions to this statement as Appendix 1.

#### **Ms Hopkins' amended NZTA Southdown conditions**

31. I have now had the chance to review and reflect on the amended proposed Southdown Conditions (**SD Conditions**) that Ms Hopkins included with her summary statement on 30 August 2017.

32. There are many similarities between our two sets of SD conditions but there are still a number of aspects where we disagree on what the conditions should cover. In my view some of the amended NZTA SD conditions are problematic because:

- (a) They would predetermine what the appropriate residual safety risk level would be, and enable a third party expert to determine that a risk assessment that was not acceptable to Mercury should be adopted;<sup>5</sup>
- (b) They do not stipulate an operable thermal power station with an operating capacity of no less than 135MW that can be started within a 3-4 month period;<sup>6</sup>

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<sup>5</sup> Ms Hopkins proposed definitions and proposed condition SD.2D.

<sup>6</sup> SD.1 references existing electricity assets but does not expand on what this consists of. Alternatively, the definition for the *Southdown Site* could be amended to stipulate that the Southdown Power Station has an

- (c) They set up a framework that assumes, and depends on, Mercury taking steps to accommodate the Proposal (both within and outside the designation footprint);<sup>7</sup>
- (d) They do not specify an outcome of an operable power station (either retained or reconfigured);
- (e) They do not include specific access or construction outcomes for the site;<sup>8</sup>
- (f) They do not enable the flexible use of the site that Mercury currently enjoys;
- (g) They do not require agreement from Mercury that any identified control measures are workable. Mr Phillis is of the view that it is vital that Mercury agree to any control measures to ensure they are acceptable from an operations perspective;<sup>9</sup>
- (h) They do not enable non-routine maintenance, operation or upgrading of any assets within the designation extent on the Southdown Site<sup>10</sup>.

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operating capacity of no less than 135MW that can be started within a 3-4 month period. The term 'no less' is appropriate and required to enable Mercury to upgrade the asset over time as foreshadowed by condition SD.1.

<sup>7</sup> SD.2B(ii) assumes that Mercury will agree to implementing control measures outside of the designation.

<sup>8</sup> SD.7 covers construction but does not include any access considerations. SD.3 covers design within the designation footprint but doesn't cover all the access outcomes that Mr Carlisle views as necessary,

<sup>9</sup> SD.2A(e)(iv)(a) only requires Mercury to be consulted on the control measures. SD.4 only allows Mercury to comment on NZTA's proposed designs for any control measures.

<sup>10</sup> SD.9 limits the s176 approval waiver to routine maintenance of assets within the designation. This would not enable GE105 to operate, be repaired or be upgraded in accordance with its land use consent (LUC57030408001 – condition 25).

- (i) They do not require the Proposal to avoid displacing the third party assets on the Southdown Site that Mercury either rely on and/or contribute to the strategic value of the site; and
- (j) They do not require the NOx monitoring that Dr Graham has suggested would be appropriate to undertake as part of the Project.<sup>11</sup>

**Nicholas Colyn Grala**

6 September 2017

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<sup>11</sup> Summary Statement of Dr Bruce Graham, paragraph 26.

## Appendix 1 – Amended Southdown Site conditions

Ref	Applies to	Condition	Reasons for approach
1.1 SD.1	NoR 1	<p><b>Pre-start requirements</b></p> <p>The Requiring Authority shall not commence any Enabling Works or Construction Works for Sector 3 – <i>Anns Creek to Great South Road / Sylvia Park Road Intersection</i> of the Project until a letter has been provided to the consent authority from Mercury and the Requiring Authority confirming that:</p> <ul style="list-style-type: none"> <li>(a) Agreement has been reached with Mercury on how the Requiring Authority will meet the requirements set out in conditions SD.2, SD.3 SD.4, and SD.6; and</li> <li>(b) All required resource consents (including variations to existing resource consents) or other statutory approvals have been granted for any activities or works to be undertaken on the Southdown Site associated with the operation, relocation or reconfiguration of the Mercury, First Gas and Transpower assets located at the Southdown Site (including the KiwiRail substation) to meet the requirements of conditions SD.2, SD.3, SD.4, and SD.6 in the manner agreed under condition SD.1(a); and</li> <li>(d) Any works agreed under condition SD.1(a) are complete.</li> </ul>	<p>Gateway condition. It will not apply after the construction phase of the project.</p> <p>Based on condition DC14C.</p> <p>The condition sets out what needs to occur before the enabling works or construction near to the Southdown site can commence.</p> <p>The condition does not specify the assets present at a particular date. The intention here is to enable Mercury the opportunity to operate as freely as it can with a designation over its land until NZTA comes around to considering building its road. It also incentivises the parties to enter into the Agreement and provides certainty to the parties.</p> <p>By ensuring that any works agreed between the parties to satisfy SD.2, SD.3 and SD.5 are completed before Enabling and Construction Works occur, condition (c) enables Mercury to maintain the ability to operate within the same timeframes as it does now.</p>

1.2 SD.2	NoR 1	<p><b>Design and construction - outcomes to be achieved</b></p> <p>The Requiring Authority shall design and construct the Project so that it does not constrain the ability of the owners of electricity and gas assets at the Southdown Site to access, operate, maintain and upgrade those assets. This includes (but is not limited to) the ability to access, operate, maintain and upgrade the following assets at the Southdown Site:</p> <ul style="list-style-type: none"> <li>(a) An operable thermal power station with an operating capacity of no less than 135MW which can be started within a 3-4 month period;</li> <li>(b) the Mercury solar research and development centre (including battery research and development facilities);</li> <li>(c) Supporting assets such as the stormwater systems and earthgrid.</li> </ul> <p>The letter provided to the consent authority under condition SD.1 shall specify how the outcomes listed in this condition SD.2 will be achieved.</p>	<p>Design and construction condition. It will not apply after the construction phase of the project.</p> <p>Requires siting and design outcomes to ensure that the power station and solar research and development centre and necessary connections (as it is now or as reconfigured/relocated or upgraded in the future) can continue to operate / be capable of being accessed, operated, maintained and upgraded at the Southdown Site.</p> <p>The concept of upgrading is included to ensure that asset owners are able to exchange and improve on the assets present at the site.</p> <p>This condition applies to land inside and outside the designation and so it can't be an OPW condition.</p> <p>This condition is referenced in SD.1 and to SD.4.</p>
1.3 SD.3	NoR 1	<p><b>Design and construction – related assets to be retained</b></p> <p>In achieving the outcomes specified in condition SD.2, the Requiring Authority shall ensure that the design and construction of the Project does not require the relocation of any of the following assets away from the Southdown Site:</p> <ul style="list-style-type: none"> <li>(a) the Southdown Rail Supply Substation;</li> <li>(b) National Grid infrastructure; and</li> </ul>	<p>Design and construction condition. It will not apply after the construction phase of the project.</p> <p>This condition is worded to retain the assets that make the Southdown Site unique and valuable for electricity and gas infrastructure.</p>

		<p>(c) Gas supply infrastructure (including connections to the thermal power station referred to in condition SD.2(a)).</p> <p>The letter provided to the consent authority under condition SD.1 shall specify how the outcomes listed in this condition (SD.3) will be achieved.</p> <p><u>Except that this condition does not apply in the event that the landowner of the Southdown Site / Mercury confirms that they are no longer able to accommodate these assets within the Southdown Site.</u></p>	
<b>1.4 SD.4</b>	NoR 1	<p><b>Design - Risk measures</b></p> <p>Prior to the Requiring Authority applying for any Outline Plan of Works for Sector 3 – <i>Anns Creek to Great South Road / Sylvia Park Road Intersection</i> of the Project, the Requiring Authority shall identify the measures required to both:</p> <p>(a) Achieve levels of residual safety risk related to the colocation of the road and the electricity, gas and associated assets at the Southdown Site that are acceptable to the landowner, the owners of the electricity and gas assets at the Southdown Site and the Requiring Authority and that is consistent with all of the relevant parties' health and safety policies; and</p> <p>(b) Achieve the outcomes and requirements specified in conditions SD.2, SD.3 and SD.6.</p> <p>The identified measures shall be specified in the letter provided to the consent authority under condition SD.1. The letter shall also include confirmation from a Suitably Qualified Person that the measures required to achieve both (a) and (b) above are appropriate.</p>	<p>Design condition. It will not apply after the construction phase of the project.</p> <p>This condition covers land inside and outside the designation and so can't be an OPW condition. Instead it is something that needs to be achieved prior to OPW.</p>



1.5 SD.5	NoR 1	<p><b>Design and Construction – implementing measures</b></p> <p>The Requiring Authority shall ensure that the measures for achieving the outcomes in SD.2, SD.3, SD.4 and SD.6 identified in the letter provided to the consent authority under condition SD.1 are incorporated in, and implemented through, the Enabling Works and Construction Works for the Project.</p>	Design and construction condition. It will not apply after the construction phase of the project.
1.6 SD.6	NoR 1	<p><b>Design, construction and operation – specific requirements</b></p> <p>In achieving the outcomes specified by conditions SD.2, SD.3 and SD.4, the Requiring Authority shall ensure that the design of the Project must incorporate, as a minimum, the following requirements:</p> <p>(a) A minimum (horizontal) separation distance of 7 metres between any structures at the Southdown Power Station and any above ground structures associated with the Project to enable adequate physical access to the Southdown Power Station.</p> <p><i>Note: Should any separation required resulting from condition SD.4 exceed 7m, this shall be in addition to this condition, which is purely required for operation and maintenance on the Southdown Site.</i></p> <p>(b) The protection, or if not practicable, the replacement of the earthgrid at the Southdown Site, provided that any replacement of the earthgrid shall be operational before the existing earthgrid is removed or modified in any way.</p> <p>(c) Clearances between all National Grid assets and ground levels and structures at the Southdown Site (during both construction and operation of the Project) that achieve compliance with NZECP34:2001, including s5.2.1 to ensure that without the need for the landowner or the</p>	<p>Both a construction and operation condition. This condition will apply after the construction phase of the project.</p> <p>Implemented through an OPW condition SD.7</p>

		<p>owner of any infrastructure at the Southdown Site <u>does not need</u> to obtain <u>any</u> Transpower dispensations.</p> <p>(di) Retention of the current, or provision of adequate and acceptable alternative, heavy vehicle access to, <u>from and through</u> the Southdown Site at all times (during both the construction and operation of the Project).</p> <p><u>Any entrances to the Southdown Site must have a gradient of no more than 5% with suitable transitions at each end of the grade to provide for the necessary ground clearance for all vehicles</u></p> <p>‘Adequate and acceptable access’ means the provision of safe, efficient and uninterrupted 24hr access to the Southdown Site at all times including appropriate geometry, tracking and dimensional envelopes for the maximum length legal vehicle, as well as the over-weight and over-dimension vehicles expected to use the site, without having to obtain dispensations from Transpower.</p> <p>(ej) Any infrastructure or asset connections, including but not limited to those in condition SD.3, within or to the Southdown Site will not be disturbed by the Project, which shall be demonstrated through solutions agreed with Mercury.</p> <p>(fk) The pedestrian walkway and cycleway within Sector 3 – <i>Anns Creek to Great South Road / Sylvia Park Road Intersection</i>’ of the Project shall be constructed on the southern-most side of the Project.</p> <p>(gl) The Project viaduct over the Southdown Site shall be constructed so that the northern edge of the viaduct structure is no further north than the road alignment shown on the drawings listed in Condition DC.1 and referred to in Condition DC.4, unless otherwise agreed</p>	
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		<p>between the owner of the Southdown Site and the Requiring Authority.</p> <p><del>(hm)</del> Adequate access to all assets at the Southdown Site for <del>enacting an effective firefighting response</del> <del>firefighting</del> and <u>undertaking</u> maintenance and repair <del>activities</del> <del>purposes</del> shall be maintained, including at least a <del>5.7m</del> <del>5.1m</del> vertical clearance underneath the viaduct for the Project <u>at all points</u> where that <u>viaduct</u> passes over the Southdown Site.</p> <p><del>(in)</del> <u>The provision of appropriate pedestrian access to each of the parcels at the Southdown Site.</u></p> <p><del>(ip)</del> <u>Clearances between all National Grid assets and ground levels and structures on Hugo Johnston Drive (during both construction and operation of the Project) that are no less than the clearances that currently exist on Hugo Johnston Drive.</u></p>	
1.7 SD.7	NoR 1	<p><b>Design and construction – OPW requirements</b></p> <p>As part of any Outline Plan(s) prepared under section 176A of the RMA for Sector 3 – <i>Anns Creek to Great South Road / Sylvia Park Road Intersection</i> of the Project, the Requiring Authority shall provide the following information (including plans):</p> <p>(a) Sufficient information to confirm that the outcomes specified in conditions SD.2, SD.3, SD.4 and SD.6 will be achieved in the manner agreed with Mercury under condition SD.1(a);</p> <p>(b) Confirmation from an independent Suitably Qualified Person that the design details, are appropriate to meet the outcomes specified in conditions SD.2, SD.3, SD.4 and SD.6.</p>	<p>This condition applies to land within the designation extent so it can be an OPW condition.</p> <p>This is a design and construction condition. It will not apply after the construction phase of the project.</p>

		<p>(e) The programme for carrying out the proposed work (including staging details, if applicable) within the designation area;</p> <p>(f) The extent, location and nature of major earthworks including details of how land will be reinstated post construction; and</p> <p>(g) Any proposed landscaping including details of existing landscaping to be re-instated, new landscape planting and treatment of batters and reinstatement of existing vegetation.</p>	
<b>1.8 SD.8</b>	NoR 1	<p><b>Operation – s176 approval waiver</b></p> <p>The Requiring Authority shall not require either the owner of, or the owners of assets within, the Southdown Site to seek written consent under section 176 of the RMA to access, operate, or undertake maintenance or upgrading of any assets located within the Southdown Site. To the extent that written approval is required, this condition shall constitute written approval.</p>	<p>Adopted from NU11.</p> <p>This is an operation condition – a s176 approval waiver. This condition will apply after the construction phase of the project.</p>
<b>1.9 SD.9</b>	NoR 1	<p><b>Construction and operation - Vibration</b></p> <p>The Requiring Authority shall, to the extent practicable, ensure that any vibration effects occurring from the construction or operation of the Project shall not damage assets located within the Southdown Site.</p> <p>Should it not be practicable to avoid damage to those assets, any damage shall be promptly made good by the Requiring Authority in a manner agreed with the relevant asset owner.</p>	<p>This is a construction and operation condition. This condition will apply after the construction phase of the project.</p> <p>This condition applies to land outside of the designation and so it cannot be an OPW condition.</p>
<b>1.10 SD.10</b>	NoR 1	<p><b>Design and construction - Southdown Management Plan</b></p>	<p>Adopted from NU.3.</p>

		<p>(a) The Requiring Authority shall prepare and implement a Southdown Management Plan (<b>SDMP</b>). The SDMP shall be prepared in consultation with Mercury, First Gas, KiwiRail and Transpower.</p> <p>The purpose of the SDMP is to ensure that the design and construction of the Project takes account of, and includes, measures to, address the safety, integrity, protection, operation and, if necessary, relocation of assets located within the Southdown Site.</p> <p>(b) The SDMP shall include methods and measures to:</p> <p>(i) Ensure that assets can be accessed for maintenance at all reasonable times, or for emergency works at all times, during and after construction activities <u>(with such access to be developed in conjunction with any changes to the layout of the Southdown Site required due to the relocation of any assets on that site);</u></p> <p>(ii) Manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to assets located at the Southdown Site (in accordance with condition SD.13); <del>and</del></p> <p>(iii) Ensure that no activity is undertaken during construction that would result in ground vibrations, ground instability and/or ground settlement likely to cause material damage assets located at the Southdown Site; <u>and</u></p> <p>(iv) <u>Ensure that robust controls around hot work are implemented should the natural gas supply to the Southdown Power Station be required during the construction phase of the Project.</u></p>	<p>This is a design and construction condition. It will not apply after the construction phase of the project.</p> <p>Before these conditions are finalised it would be appropriate to seek comment from First Gas, KiwiRail and Transpower.</p>
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		<p>(c) Demonstrate compliance with relevant standards and Codes of Practice including:</p> <ul style="list-style-type: none"> <li>(i) NZECP 34:2001 New Zealand Electrical Code of Practice for Electrical Safe Distances 2001; and</li> <li>(ii) AS/NZS 4853:2012 Electrical hazards on Metallic Pipelines.</li> </ul> <p>(d) The SDMP shall also include the specific matters set out in Conditions SD.12 and SD.13.</p> <p>(e) At least 40 working days prior to the commencement of any Enabling Works or Construction Works affecting any assets at the Southdown Site, the Requiring Authority shall provide a draft of the SDMP to Mercury, First Gas, KiwiRail and Transpower for their review and comment.</p> <p>The Requiring Authority shall consider any comments received from the infrastructure provider when finalising the SDMP. The final SDMP shall describe how the input from the Southdown Site asset owners in relation to their assets has been incorporated into the SDMP.</p> <p>(f) Any amendments to the SDMP related to the assets at the Southdown Site shall be prepared in consultation with the relevant asset owner.</p>	
<b>1.11 SD.11</b>	NoR 1	<p><b>Design and construction - Southdown Management Plan</b></p> <p>A copy of the SDMP shall be provided to the Manager for their information at least 20 working days prior to the commencement of any Enabling Works or Construction Works where those Enabling or Construction Works impact on Southdown Site assets.</p>	<p>Adopted from NU.4.</p> <p>This is a design and construction condition. It will not apply after the construction phase of the project.</p>
<b>1.12 SD.12</b>	NoR 1	<p><b>Design and construction - Southdown Management Plan</b></p>	<p>Adopted from NU.9.</p>

		The SDMP shall include procedures, methods and measures to manage effects of the Enabling Works and Construction Works on the Southdown Site, in particular, effects on electricity and gas assets including but not limited to the assets identified in conditions SD.2 and SD.3.	This is a design and construction condition. It will not apply after the construction phase of the project.
<b>1.13 SD.13</b>	NoR 1	<p><b>Design and construction - Southdown Management Plan</b></p> <p>The Requiring Authority shall work with Mercury, Transpower, KiwiRail and Auckland Transport to confirm the design and construction methodology for Enabling Works and Construction Works on or and around the Southdown Rail Supply Substation.</p> <p>Construction Works that would compromise the ongoing operation of the transformer and other assets located within the Southdown Rail Supply Substation shall not occur until such time as measures are in place, as agreed with those parties, to mitigate any potential risks to the rail network and ensure continuity of electricity supply.</p>	<p>Adopted from NU.10.</p> <p>This is a design and construction condition. It will not apply after the construction phase of the project.</p>
<b>1.14 SD.14</b>	NoR 1 / Resource Consent	<p><b>Construction - Dust</b></p> <p>The Consent Holder shall avoid (as far as practicable) dust, offensive or objectionable odour and fumes arising from construction activities at any point on the Southdown Site. This includes:</p> <ul style="list-style-type: none"> <li>(a) Managing the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to infrastructure and assets at the Southdown Site; and</li> <li>(b) Identifying contingency measures to address verified effects on property in the event of a process malfunction or an accidental dust discharge.</li> </ul>	<p>Adopted from AQ.1</p> <p>This is a design and construction condition. It will not apply after the construction phase of the project.</p>

1.15 SD.15	NoR 1	<p><b>Construction and operation – NOx monitoring</b></p> <p>To determine the effects of the Project on the background air quality in the vicinity of the Southdown Site, the Requiring Authority shall set up an air quality monitoring station in close proximity to both the Project site and the Southdown Site and continuously monitor ambient air contaminant levels for NOx, for two six month periods from February through to July (inclusive), one six-month period to be pre construction of the Project and the other six-month period to be post construction of the Project.</p>	<p>This is an operational condition. This condition will apply after the construction phase of the project.</p> <p>New condition proposed by Dr Graham in his statement</p> <p>Suggestion operational conditions should be designation whereas construction based conditions should be RC.</p>
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