

BEFORE THE HEARINGS PANEL

UNDER THE

Resource Management Act 1991

IN THE MATTER OF

the Proposed Far North District Plan

**STATEMENT OF EVIDENCE OF DAVID ERIC BADHAM ON BEHALF
OF TOP ENERGY**

HEARING STREAM 6 & 7

Planning

7 October 2024

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1 INTRODUCTION

- 1.1 My full name is David Eric Badham. I am a Partner and Northland Manager of Barker and Associates, a planning and urban design consultancy with offices across New Zealand. I am based in the Whangārei office, but undertake planning work throughout the country, although primarily in Te Tai Tokerau / Northland.
- 1.2 My qualifications, experience and involvement with Top Energy on the Proposed Far North District Plan (*PDP*) are set out in Attachment 1 to my evidence filed on 13 May 2024 which addressed planning matters in relation to Hearing Stream 1 – Strategic Direction. I also filed planning evidence on 22 July 2024 on Hearing Stream 4 – Natural Environment Values and Coastal Environment.

Code of conduct

- 1.3 Although this is not an Environment Court proceeding, I have read and am familiar with the Environment Court’s Code of Conduct for Expert Witnesses, contained in the Environment Court Practice Note 2023, and agree to comply with it. My qualifications as an expert are set out in Attachment 1 to my Hearing Stream 1 evidence filed on 13 May 2024. Other than where I state that I am relying on the advice of another person, I confirm that the issues addressed in this statement 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 that I express.

2 SCOPE OF EVIDENCE

- 2.1 My evidence addresses submission (#483) and further submission (#FS369) by Top Energy on the PDP, as relevant to Hearing Stream 6 & 7 and in particular addresses the following:
- (a) amendments to the notified noise provisions in the PDP (Section 3);
 - (b) amendments to the notified earthworks provisions in the PDP (Section 4);

- (c) section 32AA evaluation (Section 5); and
- (d) concluding comments (Section 6).

3 NOISE

Objective NOISE-O2 and Policy NOISE-P2

3.1 Top Energy made a submission seeking amendments to NOISE-O2 as follows:¹

new noise sensitive activities are designed and/or located to minimise conflict **with** (and **avoid** reverse sensitivity effects **on**) **existing lawfully established noise generating activities**.

3.2 Top Energy also made a submission seeking amendments to NOISE-P2 as follows:²

Ensure noise sensitive activities proposing to be located within the Mixed Use, Light Industrial and Air Noise Boundary are located, designed, constructed and operated in a way which will minimise adverse noise on community health, safety and wellbeing by having regard to:

- a. Any existing **lawfully established** noise generating activities and the level of noise that will be received within any noise sensitive building;
- b. **The need to avoid any reverse sensitivity effects on lawfully established noise generating activities**;
- c. The primary purpose and the frequency of use of the activity; and
- d. The ability to design and construct buildings accommodating noise sensitive activities with sound insulation and/or other mitigation measures to ensure the level of noise received within the building is minimised particularly at night.

3.3 The Reporting Officer has recommended rejecting these submission points because he considers they are inappropriate and concurs with Mr. Ibbotson's opinion that:³

¹ Submission 483.181.

² Submission 483.182.

³ Light and Noise section 42A Report, at [331].

Reverse sensitivity effects from noise sensitive activities located in noisier zones cannot be avoided entirely, unless the noise sensitive land use is not permitted or is prohibited. In the Far North District, it is proposed to allow some noise sensitive activities to be located near noise sources (roads, mixed use zone, light industry) provided suitable façade sound insulation measures are provided. If the objective was to “avoid” reverse sensitivity effects, the objective would be at odds with those provisions. This would affect the amount of land available for residential development.

3.4 The Reporting Officer further notes:⁴

The RPS does not support a blanket 'avoidance' approach to all noise producing activities. Objective 3.6 of the RPS focuses on managing reverse sensitivity effects but does not mandate avoidance in all cases. Instead, it emphasizes managing such effects to enable the continued operation of existing activities while accommodating some level of new development. Policy 5.1.3 of the RPS does include an 'avoidance' directive, but this is narrowly tailored to specific circumstances such as certain significant infrastructure and regional significant industries, and does not extend to all noise-producing activities. Thus, the requested amendment would not align with the RPS provisions and could unnecessarily restrict land use flexibility.

3.5 In relation to NOISE-P2, the Reporting Officer is in agreement with Mr. Ibbotson that:⁵

... the inclusion of an additional clause specifying the need to avoid any reverse sensitivity effects related to noise generating activities is too difficult to achieve as the suggested wording by the submitter requires complete avoidance of such effects, which is unrealistic; even with noise insulation, some reverse sensitivity effects will still occur. In my opinion, the wording amendments suggested by the submitter are not appropriate, and the infrastructure chapter manages these aspects appropriately.

3.6 In response to the above, I highlight that Policy 5.1.1(e) of the Northland Regional Policy Statement (*RPS*) is as follows:

Subdivision, use and development should be located, designed and built in a planned and co-ordinated manner which:

(a) ...

⁴ Light and Noise section 42A Report, at [332].

⁵ Light and Noise section 42A Report, at [335].

(e) Should not result in incompatible land uses in close proximity **and avoids the potential for reverse sensitivity;**

(f)

(emphasis added)

3.7 Policy 5.1.3(c) of the RPS is also as follows:

Avoid the adverse effects, including reverse sensitivity effects

of new subdivision, use and development, particularly residential development on the following:

(a) ...

(c) **The operation, maintenance or upgrading of existing or planned regionally significant infrastructure;** and

(d) ...

(emphasis added)

3.8 Pursuant to section 75(3)(c) of the RMA, a district plan must give effect to any RPS. It is my opinion that the language within both Policies 5.1.1 and 5.1.3 of the RPS provide a strong directive to “avoid” the potential for reverse sensitivity generally (Policy 5.1.1) and to “avoid” reverse sensitivity effects on the operation, maintenance or upgrading of existing or planned regionally significant infrastructure (Policy 5.1.3.(c)).

3.9 As outlined in my Hearing 1 Evidence dated 13 May 2024, large components of Top Energy’s electricity network meet the definition of ‘regionally significant infrastructure’ under the RPS. In my opinion, the proposed Objective NOISE-O2 and Policy NOISE-P2 as notified, and recommended by the Reporting Officer, clearly do not give effect the direction sought within the RPS.

3.10 I consider the drafting of the applicable objective and policy to be primarily a planning matter, to be informed by relevant technical inputs but not dictated by them. While it is Mr Ibbotson’s opinion that the “avoid” directive would be at odds with the proposed provisions for noise sensitive activities within the Noise Chapter of the PDP, that is not the applicable test. The directive in section 75(3)(c) of the RMA that

the PDP **must give effect** to the RPS, section 32(1)(a) directs that an evaluation report must “examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of the Act”. Section 32(1)(b) further directs examination of “whether the provisions in the proposal are the most appropriate way to achieve the objectives.” The objectives of the PDP, in other words, set the direction which the provisions must then implement – it is not the other way around.

- 3.11 With regard to the Reporting Officer’s further comments that the RPS⁶ does not support a “blanket avoidance approach to all noise-producing activities”, I note that Top Energy’s submission sought reference in both NOISE-O2 and NOISE-P2 to ‘Noise Generating Activities’ which is proposed to be defined in the PDP as follows:

means high levels of noise generated from activities that are nationally significant or regionally significant infrastructure.

- 3.12 In my opinion, Top Energy’s requested amendments to NOISE-O2 and NOISE-P2 do not apply to “all noise producing activities” as suggested by the Reporting Officer. As such, the avoidance directive in Policy 5.1.3(c) does apply, and the wording sought by Top Energy in its submission, which I support, subject to some amendments outlined in **Attachment 1**, clearly gives effect to it. Notwithstanding this, I note that the Reporting Officer has neglected to reference Policy 5.1.1(e) of the RPS, which directs that “subdivision, use and development should be located, designed and built in a planned and co-ordinated manner which avoids the potential for reverse sensitivity.”

- 3.13 Finally, I note that the Reporting Officer has recommended additional changes to:

- (a) Noise-O2 to include to “protect community health and wellbeing”); and
- (b) Noise-P2 to reference “land near state highways” and “in close proximity of regionally significant infrastructure within these areas”.

⁶ Light and Noise section 42A Report, at [335].

3.14 I have no concerns with these amendments, and have incorporated them into my recommended amendments to NOISE-O2 and NOISE-P2 outlined in **Attachment 1**.

Noise Note 8 – Generators

3.15 Top Energy made a submission⁷ seeking amendments to the NOISE-notes as follows:

8. The use of generators and mobile equipment (including vehicles) for emergency purposes, including testing and maintenance ~~not exceeding 48 hours in duration~~ where they are operated by emergency services or lifeline utilities.

3.16 The reason for Top Energy's relief sought was that the 48 hour limit is arbitrary and unnecessary, and there is no guarantee that the requirement to utilise generators in an emergency or for testing and maintenance purposes would be 48 hours or less.

3.17 In response to recommendations from Mr Ibbotson, the Reporting Officer has recommended accepting this in part and notes:⁸

I agree with the recommendations made by Mr Ibbotson. In Mr Ibbotson's opinion the 48-hour duration limit should be deleted as requested by the submitter. Mr Ibbotson has provided additional commentary on limiting the use of generators for maintenance and testing purposes. In my opinion there is scope to assess this matter given the submitters request to delete the time limit.

3.18 The Reporting Officer further notes:⁹

I consider that the recommended amendment to Note 8, which involves deleting the 48-hour limit and introducing additional restrictions for the testing and maintenance of generators, better reflects the original intent of the exemption. The current 48-hour limit is arbitrary and unnecessary. The proposed amendment is more effective and efficient, as it would be impractical to require a resource consent if an emergency were to exceed 48 hours. Additionally, the amendment provides a more realistic annual limit for testing and maintenance activities, which need to be conducted on a semi-regular basis.

⁷ Submission 483.183.

⁸ Light and Noise section 42A report, at [162].

⁹ Light and Noise section 42A report, at [176].

3.19 Mr Ibbotson has provided the following recommendations in relation to Note 8 of the NOISE-notes:

We agree that limiting the use of generators in an emergency situation to 48 hours is arbitrary and unnecessary. We consider that the rule was intending to allow testing and maintenance to **48 hours per year** as an exclusion. However, this is not clear in the rule.

Testing and maintenance typically requires emergency generators to be operated for short periods (typically less than an hour for each test) 12 times per year. It is not unreasonable to exclude this testing from noise rules, even though there is risk that testing of noisy generators can be inconvenient / intrusive to receivers. Having no limit on emergency generator testing makes it more likely that lifeline and emergency utilities providers will locate permanent generators closer to dwellings, and be less likely to consider noise reduction measures when installing them. However we note that the specific relief sought by Top Energy does not relate to that part of the proposed clause – rather the proposal simply aims to remove the ‘48 hour’ limit.

We are broadly supportive of the change. We would expect testing and maintenance to occur over at least twelve separate occasions per year, but not for longer than 12 hours (cumulative) per year. The provision of a “48-hour limit” does not serve to provide any real benefit, and is expected to create unnecessary confusion.

Note that the clause should not permit generators used for load shedding or peak lopping to be located on a site without an evaluation of noise levels (even if those generators are proposed to be used in an emergency also). It is our view that the proposed clause amendment would not allow for this as peak lopping / load shedding is not an “emergency operation.

3.20 I consider that the Reporting Officer has misinterpreted the assessment of Mr Ibbotson. I do not read Mr Ibbotson’s assessment as a direct recommendation to change the wording of the note, rather that he is broadly supportive of the change to remove the 48-hour limit and expects testing and maintenance to occur over at least twelve separate occasions per year, but not longer than 12 hours (cumulative) per year.

3.21 Further, I disagree in part with the proposed amendments to Note 8 for the following reasons:

- (a) While I am supportive of the removal of the 48-hour restriction for the use of generators and mobile equipment for emergency purposes, I oppose the more restrictive 12 hours per year time limit for the use of generators for testing and maintenance purposes.
- (b) This recommendation is more stringent on the use of generators for testing and maintenance purposes than provided for in the notified PDP provisions. I am not aware of there being any scope arising from submissions for imposing a more stringent limit than the notified proposal.
- (c) The evidence from Russell Fernandes outlines the critical role of generators within Top Energy's network. In short, Mr Fernandes highlights that generators are not only used for emergencies and testing and maintenance, but also during critical maintenance of the electricity grid network – I address this further in paragraph 3.23 below. Mr Fernandes concludes that flexibility is needed in the PDP provisions without an unnecessary and arbitrary time limit imposed, so that Top Energy can use the generators as needed to maintain electricity supply to the Far North District.
- (d) Jon Styles has reviewed the s42A, Mr Ibbotson's noise review and the evidence of Mr Fernandes. He concludes that there should be no time limit within Note 8 on emergency use, testing and maintenance of generators and use during planned maintenance for the detailed reasons outlined in his evidence.
- (e) Irrespective of any provision within the PDP, I understand that Top Energy will not unnecessarily utilise or test generators. The diesel costs are expensive, and ultimately discourage unnecessary or frivolous use. Generator use for maintenance and testing is required for specific operational and functional requirements, and health and safety reasons, and therefore I consider it is important for this use to be appropriately recognised and provided for in the PDP, without unnecessary time restrictions that lead to costly and inefficient resource consenting requirements.

- (f) I rely on the evidence Mr Fernandes and Mr Styles. In my opinion, there is the clear operational and functional need for Top Energy to: use generators in emergencies; regularly test and maintain them to ensure they are ready for use in emergency situations; and to maintain electricity to the wider network during maintenance of the wider electricity network. Therefore, I consider that there should be no unnecessary time limit imposed in Note 8, and certainly not a more stringent limit as is recommended by the Reporting Officer.

3.22 Based on the evidence of Mr Styles and Mr Fernandes, I have recommended amendments to note 8 as outlined in **Attachment 1** as follows:

The noise rules and effects standards do not apply to noise generated by the following activities:

1. ...

8. the use of generators and mobile equipment (including vehicles) **where they are operated by emergency services or lifeline utilities as defined in the Civil Defence Emergency Management Act 2002** for:

a. emergency purposes; **including**

b. testing and maintenance; **or**

c. the ongoing supply of electricity during planned maintenance on the electricity network.

~~not exceeding 48 hours in duration, where they are operated by emergency services or lifeline utilities; provided that the use of generators for testing and maintenance purposes is limited to a cumulative time of 12 hours per year;~~

9. ...

3.23 On the evidence of Mr Styles and in response to the evidence of Mr Fernandes on behalf of Top Energy, I have recommended the inclusion of "the ongoing supply of electricity during planned maintenance on the electricity network." Given the fragility and lack of redundancy in Top Energy's network, I understand that Top Energy has to annually (and sometimes on a more frequent basis) utilise generators to allow planned maintenance on the wider electricity network (e.g., the 110kV

feeder line that is located centrally within the Far North district). Based on the evidence of Mr Fernandes, and as supported by Mr Styles, it is important in my opinion that critical maintenance of a lifeline utility is permitted to occur in those circumstances without unnecessary potential resource consenting burdens.

- 3.24 I have also recommended the inclusion of "lifeline utilities as defined in the Civil Defence Emergency Management Act 2002." This is because there is no definition of "lifeline utility" currently within the PDP or the RMA. It may be more appropriate that this included as a definition within the "Definitions Chapter", however I have recommended this within the provision now, noting that the definitions chapter is not being heard until a later date.

4 EARTHWORKS

Supported Recommendations of the Section 42A Report

- 4.1 The Reporting Officer has recommended the acceptance of Top Energy's submission point 483.177, and has recommended further amendments which are consistent with the relief sought by Top Energy. Given this, I do not address this submission point any further within my evidence.

Earthworks associated with infrastructure

- 4.2 Top Energy made submissions¹⁰ seeking amendments to EW-R7 and EW-R8 with the relief being to delete EW-S1 from both rules.
- 4.3 The Reporting Officer has recommended accepting, in part, these submission points and states the following:¹¹

I recommend that EW-R1 to EW-R14 are replaced with a consolidated general earthworks rule (EW-R1) that permits earthworks subject to compliance with all earthworks standards (EW-S1 to EW-S9).

My view is that the earthworks rules should be effects-based, unless there is a clear policy direction to provide a more generous thresholds or exemption to certain earthworks standards for a particular purpose. In my view, Top Energy has not provided

¹⁰ Submissions 483.178 and 483.179; Earthworks 42A Report, at [127].

¹¹ Earthworks 42A Report, at [127].

sufficient reasoning or examples for me to recommend that all earthworks for infrastructure are exempt from EW-S1. As noted above and discussed below, the maximum earthworks area and volume thresholds in EW-R1 are important controls in my view to manage the adverse effects of earthworks.

- 4.4 I agree with the Reporting Officer's recommendation to structurally consolidate the earthworks rules into a single general earthworks rule. This is logical as many of the rules simply reference the same standards. However, I disagree with the Reporting Officer's position regarding the deletion of EW-S1 from EW-R7 (which related to earthworks for new infrastructure or repair and upgrades) and EW-R8 (which related to earthworks for new infrastructure or repair and upgrades of existing infrastructure owned by network utility providers or requiring authority). In my opinion, there is a strong policy basis for more enabling provisions for earthworks for infrastructure repair and upgrades in the Strategic Direction Chapter, namely SD-IE-O1 and within the proposed Infrastructure Chapter more broadly.¹²
- 4.5 With regard to the Reporting Planner's position that there is a clear policy direction to provide more generous thresholds or exemption to certain earthworks standards for a particular purpose, in my opinion, the Reporting Officer is contradicting the position already outlined in Hearing 4 (Natural Character, Natural Features and Landscapes, Coastal Environment and Ecosystems and Indigenous Biodiversity). For instance, in the Coastal Environment and in particular for Rule CE-R3 (earthworks or indigenous vegetation clearance), the Reporting Officer has recommended that earthworks required for the operation, repair or maintenance of existing lawfully established network utilities and for any upgrade of existing network utilities (outside of high natural character and outstanding natural character areas) are permitted with no volume or area controls.¹³
- 4.6 I consider that if there is no requirement for maximum earthworks thresholds in sensitive environments such as the Coastal Environment for the operation, repair or maintenance of existing lawfully established

¹² Noting that Top Energy has a large number of submission points on the Infrastructure chapter that it will be pursuing in the Energy, Infrastructure & Transport Chapter.

¹³ Coastal section 42A Report, at [409].

network utilities and for any upgrade of existing network utilities (outside of high natural character and outstanding natural character areas), then logically there should also be no requirement for maximum earthworks thresholds in other less sensitive areas elsewhere in the district.

- 4.7 Therefore, I have recommended a similar exemption should apply in EW-S1, as outlined in **Attachment 1**.
- 4.8 With respect to Top Energy’s submission on EW-R15,¹⁴ the relief sought included redrafting the rule so that the activities identified are permitted, with a non-complying default (when permitted activity standards are not met). The submission also sought a review of the potential overlap with I-R12.
- 4.9 I agree with the Reporting Officer’s recommendation to redraft EW-R15 as a permitted activity with the non-complying status only to be applied for earthworks that do not comply with the relevant permitted activity standards.¹⁵
- 4.10 The Reporting Officer does not appear to have specifically addressed the concern outlined in Top Energy’s submission relating to the relationship between EW-R15 with I-R12. In my opinion, this is symptomatic of the integration issues I have already raised in my previous evidence statements.¹⁶ I note that the Reporting Officer who is also the author of the upcoming ‘Infrastructure’ section 42A report has reached out to organise expert caucusing on the infrastructure provisions and integration issues across the PDP. I consider that this matter is best addressed in that forum.
- 4.11 Top Energy has also provided a further submission¹⁷ in support of Transpower New Zealand’s original submission¹⁸ to include a new policy clause which protects nationally and regionally significant infrastructure from the adverse effects of earthworks. The Reporting Officer has

¹⁴ Submission 483.180.

¹⁵ Earthworks section 42A Report, at [166].

¹⁶ Planning Evidence of David Badham – Hearing Stream 1 - 13 May 2024 & Planning Evidence of David Baham – Hearing Stream 4 – 22 July 2024.

¹⁷ Further Submission 369.473.

¹⁸ Submission 454.101.

accepted this in part with an amendment to EW-P6 to provide for the protection of infrastructure more generally.¹⁹ I agree with the Reporting Officer's recommendation as I consider that this provides for the protection of Top Energy's infrastructure assets.

5 SECTION 32AA EVALUATION

5.1 Section 32AA of the RMA provides that further evaluation is required when changes are made to a plan since the original evaluation was completed. I have recommended a number of amendments to the provisions above and have completed a section 32AA evaluation in respect of those amendments in **Attachment 1**.

5.2 By way of summary, I consider that the amendments to the provisions that I have proposed will be the most appropriate way to achieve the purpose of the RMA in accordance with section 32(1)(a) for the following reasons:

- (a) The recommended noise provisions will give effect to the sustainable management purpose in section 5 of the RMA, as regionally significant infrastructure (including Top Energy's electricity distribution network) is a physical resource that is fundamentally important to the social, cultural and economic well-being and health and safety of people and communities within the Far North.
- (b) The recommended earthworks provisions will help ensure the efficient use and development of natural and physical resources in accordance with section 7(b) of the RMA, by specifically recognising and providing for regionally significant infrastructure while still managing adverse effects on the environment.
- (c) The recommended provisions will specifically give effect to the RPS provisions, specifically regarding the directive to "avoid" reverse sensitivity effects in policies 5.1.1(e) and 5.1.3(c) in accordance with the direction in section 75(3)(c) of the RMA.

¹⁹ Earthworks section 42A report, at [87].

- (d) The costs of the social and economic effects of imposing further (and in my opinion, unnecessary) restrictions on Top Energy's operations outweigh the benefits to be gained through implementation of those restrictions. I do not consider that there are any alternative reasonably practicable options which would more appropriately achieve the objectives of the PDP and the purpose of the RMA.

6 CONCLUDING COMMENTS

- 6.1 Overall, I consider that there are a number of issues outstanding from Top Energy's submission relating to Noise and Earthworks that need to be addressed by the Hearings Panel. These primarily relate to ensuring that reverse sensitivity effects from new noise sensitive activities on existing lawfully noise generating activities are avoided, the removal of unnecessary time limits for the use of generators for testing and maintenance, and an exemption from EW-S1 – Maximum earthworks thresholds where the works are associated with infrastructure owned by a network utility.
- 6.2 While the Reporting Officer has made a number of amendments to assist with achieving these outcomes, I consider that further changes are needed as I have outlined in **Attachment 1** of this evidence statement.

David Eric Badham

7 October 2024

Attachment 1 – Track Change Version of Provisions

S42A recommended wording = **additions underlined text deletions ~~strikethrough text~~**

David Badham recommended wording = **additions underlined text deletions ~~strikethrough text~~**

Objective NOISE-O2

"New noise sensitive activities are designed and/or located to minimise conflict with and avoid reverse sensitivity effects on, existing lawfully established noise generating activities, and to protect community health and wellbeing."

Policy NOISE-P2

"Ensure noise sensitive activities proposing to be located within the Mixed Use, Light Industrial, on land near state highways and Air Noise Boundary and in close proximity of regionally significant infrastructure in these areas are located, designed, constructed and operated in a way which will minimise adverse noise on community health, safety and wellbeing by having regard to:

- a. Any existing lawfully established noise generating activities and the level of noise that will be received within any noise sensitive building;
- b. The need to avoid any reverse sensitivity effects on lawfully established noise generating activities;**
- c. The primary purpose and the frequency of use of the activity; and
- d. The ability to design and construct buildings accommodating noise sensitive activities with sound insulation and/or other mitigation measures to ensure the level of noise received within the building is minimised particularly at night."

Noise Chapter Notes:

"The noise rules and effects standards do not apply to noise generated by the following activities:

1. ...
8. the use of generators and mobile equipment (including vehicles) **where they are operated by emergency services or lifeline utilities as defined in the Civil Defence Emergency Management Act 2002** for:
- d. emergency purposes; **including**
 - e. testing and maintenance; **or**
 - f. the ongoing supply of electricity during planned maintenance on the electricity network.**
- not exceeding 48 hours in duration, where they are operated by emergency services or lifeline utilities; provided that the use of generators for testing and maintenance purposes is limited to a cumulative time of 12 hours per year;**
9. ..."

EW-S1

"...

This standard does not apply to:

- a. **earthworks for septic tanks and associated drainage fields;**
- b. **earthworks for the maintenance of existing walking tracks, farm tracks, driveways, roads and accessways;**
- c. **earthworks for the maintenance of drains; and**
- d. **earthworks for the operation, repair, maintenance and upgrading of existing lawfully established network utilities."**