

**IN THE HIGH COURT OF SOUTH AFRICA  
(WESTERN CAPE DIVISION, CAPE TOWN)**

**Case no:**

In the matter between

**THE GREEN CONNECTION NPC**

First Applicant

**NATURAL JUSTICE**

Second Applicant

and

**MINISTER OF FORESTRY, FISHERIES AND THE  
ENVIRONMENT**

First Respondent

**MINISTER OF MINERAL RESOURCES AND ENERGY**

Second Respondent

**DIRECTOR GENERAL: DEPARTMENT OF MINERAL  
RESOURCES AND ENERGY**

Third Respondent

**TOTAL ENERGIES EP SOUTH AFRICA BLOCK 567  
(PTY) LTD**

Fourth Respondent

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**FOUNDING AFFIDAVIT**

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I, the undersigned

**ELIZABETH JANE McDAID**

do hereby make oath and say as follows

1. I am the position of the strategic lead and a board member of the Green Connection, and I am authorised to bring this application on behalf of the applicants. A resolution confirming my authority is annexed with a power of attorney marked **FA 1**.
  
2. Natural Justice is the second applicant. A confirmatory affidavit in the name of Natural Justice and deposed to by Delme Cupido confirming Natural Justice's authority will be filed together with this affidavit. Delme Cupido holds the position of Hub Director of Natural Justice's Southern Africa Hub. A resolution confirming Delme Cupido's authority is annexed with a power of attorney marked **FA 2**.
  
3. The facts set out below are true and correct and, unless the context indicates the contrary, fall within my personal knowledge.
  
4. Where I make legal submissions, I do so on the advice of the legal representatives.

## **INTRODUCTION**

5. The fourth respondent ("**Total**") has been granted an environmental authorisation ("**the EA**") to conduct exploratory drilling off the south-west coast of South Africa ("**the Proposed Project**").

6. This is a review application seeking to review and set aside the third respondent's decision ("the DG's Decision") to grant the EA and the first respondent's decision ("the Minister's Decision") to reject a number of appeals brought against the DG's Decision. I will refer to these decisions collectively as "**the Decisions under Review**".
7. The EA was granted following the preparation of an environmental impact assessment report ("**the Final EIR**") in terms of the National Environmental Management Act 107 of 1998 ("**NEMA**") and its regulations.
8. Each of the Applicants' review grounds contend that the Final EIR (and the process through which it was prepared) did not comply with one or more of the requirements set out by NEMA, the National Environmental Management: Integrated Coastal Management Act 24 of 2008 ("**the ICMA**"), or related legal obligations. As a result, the third respondent, Director-General of the Department of Minerals and Energy ("**the DG**") and the first respondent, the Minister of Environment, Forestry and Fisheries ("**the Minister**") took their decisions without a proper assessment of the environmental impacts of the Proposed Project.
9. The proposed project will take place off the Western Cape – between Cape Town and Cape Agulhas. Therefore, the environmental impacts will be felt in the Western Cape. As set out in more detail below the normal operation of the proposed project will include environmental impacts which are assessed as being of medium significance before and after mitigation measures. The

impacts associated with unplanned events are assessed as having a “very high” or “high” significance.

10. In terms of Section 1 of the Promotion of Administrative Justice Act 3 of 2000, a competent court in whose area of jurisdiction “the adverse effect of the administrative action was, is or will be experienced” will have jurisdiction. The environmental impacts of the proposed project will be experienced in the Western Cape therefore the adverse effects of the decisions under review will be experienced in the western cape and accordingly this honourable court has jurisdiction in terms of PAJA.
11. The Applicants rely on the following review grounds:
  - 11.1. First, that the Final EIR failed to fully assess the socio-economic impacts of an oil spill on fisheries.
  - 11.2. Second, the Final EIR failed to take into account considerations prescribed by the ICMA.
  - 11.3. Third, in assessing the need and desirability of the Proposed Project the Final EIR failed to consider climate change impacts associated with the use of any oil or gas discovered by the Proposed Project.
  - 11.4. Fourth, the Final EIR failed to assess the impacts of the Proposed Project which arise in Namibia, Namibian waters, or international waters.

- 11.5. Fifth, the failure to properly consider the Oil Spill Blowout Contingency Plans.
12. This affidavit is structured as follows:
  - 12.1. The parties.
  - 12.2. The decisions under review.
  - 12.3. The legal framework.
  - 12.4. The proposed project.
  - 12.5. The environmental impact assessment process.
  - 12.6. The climate crisis.
  - 12.7. The Applicants' review grounds.
13. This is a review application which is launched in term of Rule 53. Accordingly, the Applicants are entitled to, and intend to file a supplementary founding affidavit once the Rule 53 record for the Decisions under Review has been filed. That supplementary affidavit may expand on the factual material relevant to the above review grounds and may add additional review grounds.

## **THE PARTIES**

14. The first applicant is The Green Connection NPC, a non-profit company incorporated in terms of the laws of South Africa under registration no. 2021/773490/08 and having its registered address at Unit B1 Clareview

Business Park, 236 Imam Haron Road, Claremont, Cape Town (“**Green Connection**”).

15. The second applicant is Natural Justice, a voluntary association established with the object of providing legal support to indigenous peoples and local communities, which has as one of its objects to ensure that the interests of these communities are effectively represented in the development and implementation of domestic and international law and policy.
16. Natural Justice is a duly registered Nonprofit Organisation in terms of the laws of South Africa under registration no. 057-611-NPO and having its principal place of business at 6th Floor, Mercantile Buildings, 63 Hout Street, Cape Town (“**Natural Justice**”).
17. I will refer to all the applicants collectively as “**the Applicants**”.
18. The Applicants are all public interest organisations whose activities include protecting, preserving, and conserving the environment. They bring this application: in their own interest; in the public interest in terms of section 38(1)(c) of the Constitution and section 32(1)(d) of NEMA; and in the interest of protecting the environment in terms of section 32(1)(e) of NEMA.
19. The first respondent is the Minister of Forestry, Fisheries, and the Environment in her official capacity (“**the Minister**”). This application will be served on the Minister care of the State Attorney.

20. The second respondent is the Minister of Mineral Resources and Energy in his official capacity as the minister responsible for the Department of Mineral Resources and Energy. This application will be served on the Minister of Mineral Resources and Energy care of the State Attorney.
21. The third respondent is the Director General: Department of Mineral Resources and Energy, Mr Jacob Mbele with an address at Trevenna Campus, Building 2C, c/o Meintjies and Francis Baard Street, Sunnyside, Pretoria. This application will be served on the DG's physical address and on the State Attorney.
22. The fourth respondent is Total Energies EP South Africa Block 567 (Pty) Ltd a private company incorporated in terms of the laws of South Africa and having a registered address at 21<sup>st</sup> Floor No. 1 Thibault Square, 1 Long Street Cape Town, Western Cape. A copy of the Companies and Intellectual Properties disclosure certificate for the third respondent is annexed marked **FA 3**.
23. On 17 August 2012 Total was granted an exploration right (ER 12/3/224) in accordance with section 80 of the Mineral Resources and Petroleum Development Act ("**MPRDA**"). Total subsequently renewed that exploration right three times, with the last renewal being until 24 May 2024. Section 80(4) of the MPRDA provides that an exploration right may be renewed a maximum of three times, and consequently Total's exploration right will expire on or about 24 May 2024. Total have disputed this in correspondence (annexed marked **FA 3.1**). They are invited to set out the basis for this in their answering affidavit.

## **THE DECISIONS UNDER REVIEW**

24. On 17 April 2023 the DG granted Total an environmental authorisation to conduct exploratory well drilling within a portion of the area described as “Block 5/6/7 off the South-West Coast of South Africa” (“**the Project Area**”). A copy of that environmental authorisation (“**the EA**”), which includes the reasons for the granting of the EA, is annexed marked **FA 4**.
  25. The Green Connection and Natural Justice appealed the DG’s Decision on 12 May 2023. A copy of their combined appeal is annexed marked **FA 5**.
  26. On 24 September 2023 the Minister issued an appeal decision dismissing the Applicants’ appeals as well as appeals lodged by 14 other appellants. A copy Minister’s appeal decision is annexed marked **FA 6**.
  27. An extract of the first applicant’s responses to its appeal is annexed marked **FA 7**.
  28. The DG’s Decision and the Minister’s Decision were taken on the strength of a final environmental impact assessment report prepared on behalf of Total, dated December 2022, and titled *Final Environmental and Social Impact Assessment Report* (“**the Final EIR**”).<sup>1</sup> A copy of the Final EIR is annexed marked **FA 8**. Copies of the relevant appendices to the Final EIR (including the specialist and technical reports on which it relies) are annexed marked **FA**
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8.1 (Appendix 7 to the Final EIR – The Oil Spill Modelling Technical Report) to 8.2 (Appendix 13 to the Final EIR – The Socio-economic Impact Assessment). A full list of appendices to the Final EIR is found on page 61 (lxii) of the Final EIR. Due to their volume, not all appendices to the Final EIR have been attached to this affidavit – instead those on which we rely are referred and attached throughout the body of this affidavit.

## **THE LEGAL FRAMEWORK**

### **The requirement to obtain an environmental authorisation**

29. Section 24(2) of the National Environmental Management Act No. 107 of 1998 empowers the Minister to identify activities which may not commence without an environmental authorisation.
30. The process through which an environmental authorisation is obtained is prescribed by the Environmental Impact Assessment Regulations, 2014 made under NEMA (“**the EIA Regulations**”).
31. The activities which require an environmental authorisation are prescribed by Listing Notices 1 to 3 of the EIA Regulations. As is explained more fully below, undertaking the Proposed Project would involve a number of listed activities.

### **The broader framework of environmental law**

32. The obligation to obtain an environmental authorisation is one manifestation of the broader principles of environmental law. The most relevant of these principles are set out below.

33. Section 24 of the Constitution provides that:

*Everyone has the right –*

*(a) to an environment that is not harmful to their health or well-being; and*

*(b) to have the environment protected for the benefit of present and future generations, through reasonable legislative and other means that –*

*(i) prevent pollution and ecological degradation;*

*(ii) promote conservation; and*

*(iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.*

34. NEMA was enacted to give effect to this constitutional right. Section 2 of NEMA contains a set of principles which serve as a general framework for environmental management and guide both decision-making by organs of state in terms of NEMA or any statutory provision concerning the protection of the environment, and the interpretation and implementation of NEMA and any other law concerned with the protection or management of the environment.

35. The most relevant of these principles are:

35.1. Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural, and social interests equitably.

35.2. Development must be socially, environmentally, and economically sustainable.

- 35.3. Pollution and degradation of the environment must be avoided or, where this cannot be done altogether, be minimised and remedied.
- 35.4. The exploitation of non-renewable resources must be responsible, equitable and take into account the depletion of that resource.
- 35.5. That a risk-averse and cautious approach should be applied which takes into account the limits of current knowledge about the consequences of decisions and actions.
- 35.6. Negative impacts on the environment and on people's environmental rights must be anticipated and prevented, and where they cannot be altogether prevented, they must be minimised and remedied.
- 35.7. The environment is held in the public trust for the people and the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage.
- 35.8. The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.
- 35.9. Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands and similar systems require specific attention in management and planning procedures.

36. Section 23 of NEMA sets out the objectives of the environmental authorisation framework. These include ensuring that the effects of activities that have the potential to be environmentally harmful receive adequate consideration before a decision is made as to whether or not to authorise them. This involves, predicting and evaluating: (a) the actual and potential impact on the environment, socioeconomic conditions and cultural heritage, (b) the risks and consequences and (c) alternatives and options for mitigation of activities; with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2 of NEMA.

**The requirements for an environmental impact assessment**

37. Section 24 of NEMA provides that the potential environmental impacts of a listed activity must be assessed.
38. Section 24(4) provides that this must be done through a procedure which:
- 38.1. ensures the investigation of the potential impacts of the activity on the environment and the significance of those potential impacts;
  - 38.2. includes an investigation of the potential impacts of the alternatives to the activity on the environment and the significance of those impacts;  
and
  - 38.3. includes an investigation of the mitigation measures to keep adverse consequences or impacts to a minimum.

39. In terms of section 24O, when considering an application for an environmental authorisation the competent authority must take into account:
  - 39.1. any pollution or environmental impact or degradation which is likely to be caused if an authorisation is granted;
  - 39.2. the measures which may be taken to prevent or mitigate those impacts;
  - 39.3. the ability of the applicant to implement mitigation measures;
  - 39.4. where appropriate, any feasible and reasonable alternatives to the activity, including feasible and reasonable modifications to the activity.
  
40. The Appendix 3 of the EIA Regulations provides that:
  - 40.1. the environmental impacts of a proposed project must be set out in the environmental impact assessment report which must contain the information that is necessary for the competent authority to consider and come to a decision on the application, and must include the information specified in section 3 of Appendix 3;
  - 40.2. The objectives of an environmental impact assessment process include:
    - 40.2.1. the description of the need and desirability of the proposed project.

- 40.2.2. the determination of the nature, significance, extent, duration and probability of the impacts occurring to inform the identified preferred alternatives.
- 40.3. An environmental impact assessment must include:
  - 40.3.1. a motivation for the need and desirability of a proposed project.
  - 40.3.2. a full description of the process to identify and assess the impacts of the proposed activity, including a description of all environmental issues and risks and an assessment of the significance of each issue and risk.
  - 40.3.3. an assessment of each identified potentially significant impact and risk including: cumulative impacts; the nature, significance, and consequences of the impact and risk; the extent and duration of the impact and risk; the probability of the impact and risk occurring; the degree to which the impact and risk can be reversed; the degree to which the impact and risk may cause irreplaceable loss of resources; and the degree to which the impact and risk can be mitigated
- 41. The requirement to assess the impact of an activity includes a requirement to assess the impact the activity will have on climate change. A climate change impact assessment must include a full life-cycle analysis of the direct and

indirect emissions associated with the construction and operation of the facility.

**The specific protection of coastal areas**

42. The ICMA, provides specific protection to South Africa's coastal areas, including the sea to the outer limit of South Africa's exclusive economic zone.

43. As I explain in more detail below, the ICMA establishes additional (and higher) levels of protection for the coastal environment which are more stringent than those generally applicable to other areas of South Africa. Most of the coastal environment is defined as "coastal public property" which is owned by the citizens of South Africa and held in trust for them by the State, which must ensure that it is managed in an integrated manner, and used, protected, conserved and enhanced in the interests of the whole community (as defined). One of the consequences of the unique legal status of coastal public property is that decision-makers who are responsible for deciding whether or not to authorise coastal activities, must take account of:

43.1. their duties as public trustees responsible for conserving and protecting areas owned by the citizens of South Africa; and

43.2. additional considerations specified in section 63 of the ICMA.

44. Section 63 of the ICMA sets out the relevant factors which must be considered by a competent authority when deciding whether to grant an environmental authorisation for coastal activities. If the proposed activity would take place within coastal public property, the factors which must be considered include:

- 44.1. whether the proposed activity is consistent with the purpose for establishing and protecting coastal public property;
- 44.2. whether the activity is “*inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations*”; and
- 44.3. whether the activity would be contrary to the interests of the whole community.

### **THE PROPOSED PROJECT**

45. The Final EIR records that Total intends to drill up to five exploration wells in the Project Area (see p. 1). The purpose of this is to generate information on the possible oil and gas resources (see p. 89).
46. The Final EIR describes the Project Area as follows (see p. 93):
  - 46.1. It covers an area of approximately 10 000km<sup>2</sup>.
  - 46.2. It is located roughly between Cape Town and Cape Agulhas.
  - 46.3. It located between 60km and 170km offshore.
  - 46.4. The water depths range from 700m to 3200m.
  - 46.5. The assumed drilling depth is 3570m.
47. As explained below, it appears that the Project is located within the Benguela Current Large Marine Eco-System.



48. By virtue of the fact that the Proposed Project will take place between 60km and 170km offshore, it takes place within South Africa's exclusive economic zone.
49. The execution of each exploration well (including both physical drilling and testing) will take approximately four months (see p. xiii of the Final EIR).
50. The exact drilling technology to be used has not been confirmed but Total proposes to use either a semi-submersible drilling unit or a drilling ship. In either case a dynamic positioning system would be used (see p. 95 of the Final EIR).
51. The Final EIR provides that a drilling unit is comprised of the following main systems:
  - 51.1. A hoisting system which is used to raise and lower a drill pipe and to support the drill string. It includes a derrick (which is a steel tower) that supports the crown block, and pulleys which are used to raise and lower the drill string (see p. 100).
  - 51.2. A mud and drilling discharges circulating system which is used to pump drilling fluids (which lubricate and cool the drill bit) down the hole, through the nozzles in the drill bit and return these fluids to the surface (see p. 100).
  - 51.3. A blow-out prevention and well control system which is installed on the well-head and is intended to prevent the flow of hydrocarbons out

of the reservoir if pressure in the reservoir exceeds the pressure of the drilling fluid (see p. 103).

51.4. A power unit which uses marine gas oil to generate and transmit electricity to the drilling unit (see p. 105).

52. The Final EIR describes the drilling process as follows (see pages 99 to 112):

52.1. The seafloor is penetrated with a drill string (drill bit and pipe), which is repeatedly raised and lowered by means of a hoisting system.

52.2. Drilling fluid is conveyed through the drill pipe in order to reduce friction, remove rock fragments, and to equalise pressure in the wellbore and prevent other fluids from flowing into the well-bore.

52.3. After the hole is drilled, casings (sections of steel pipe), each slightly smaller in diameter, are placed in the hole and permanently cemented in place. The hole diameter decreases with increasing depth.

52.4. The drilling can be divided into two phases - the riserless phase and the risered phase.

52.5. A riser is a vertical pipe that connects the drilling platform to the seafloor. It isolates the drilling fluid and cuttings from the environment to create a closed loop system.

52.6. The first 1070 metres (approximately) will be drilled without a riser. During the riserless drilling phase cuttings (rock particles) and excess drilling fluid are discharged onto the seafloor.

- 52.7. During the risered drilling phase, the drilling fluid and cuttings (rock particles) are isolated in the riser and subsequently collected and treated on the drilling platform.
- 52.8. Total intends to make use of a substance referred to as “water-based mud” as the drilling fluid during the riserless phase. A non-aqueous drilling fluid is to be used during the risered drilling phase. The chemical composition of these two substances is detailed at pages 106 to 108 of the Final EIR.
- 52.9. Before risered drilling commences, a blow-out preventer ("**BOP**") is installed. A BOP is designed to stop the flow of fluid in the well in the event of an emergency.
- 52.10. As the drilling progresses through various rock formations, cuttings are collected in order to test petrochemical properties.
- 52.11. In the event of a discovery, well flow testing will be undertaken. This involves a controlled process to allow fluids (oil, gas and water) to naturally flow from the well to the surface of the ocean in order to test the properties of the discovered resource.
- 52.12. On completion of operations the well is to be sealed and plugged.

## **THE ENVIRONMENTAL IMPACT ASSESSMENT**

53. The Proposed Project will trigger numerous activities listed in terms of Listing Notices 1 and 2 to the EIA Regulation. These are set out in Table 2-1 at page 10 of the Final EIR.

54. Accordingly, the Proposed Project requires an environmental authorisation and the impacts of the Proposed Project must be assessed through the scoping and environmental impact assessment process.

55. The Final EIR is annexed to this affidavit. I do not propose to fully recount its content here. Indeed, that would be impractical and render this affidavit unnecessarily prolix. Rather:

55.1. In this section, I summarise certain of the main issues apparent from the Final EIR.

55.2. Where the content of the Final EIR relates to specific review grounds that content is discussed in more detail in relation to each review ground.

56. The Final EIR motivates the need and desirability of the Proposed Project on the following basis:

56.1. South Africa's Integrated Resource Plan 2019 ("**the 2019 IRP**") notes the need to follow a diversified energy mix with respect to electricity production (see p. 79 of the Final EIR).

56.2. Natural gas is considered a transition fuel that can complement renewable energy sources (see p. 79 of the Final EIR).

56.3. The potential availability of gas provides "*an opportunity to convert closed-cycle gas turbines (CCGT) and run open-cycle gas turbine plants at Ankerlig (outside Cape Town), Gourikwa (Mossel Bay), Avon*

*(outside Durban) and Dedisa (Coega IDZ) on gas”* (see p. 79 of the Final EIR).

- 56.4. The Proposed Project can support the above by determining the nature and extent of offshore resources which could include gas finds (see p. 79 of the Final EIR).
- 56.5. The South African Economic Reconstruction and Recovery Plan 2020 lists energy security as one of its priority intervention areas including the *“creation and securing additional supply, including gas...”* (see p. 79 of the Final EIR).
- 56.6. The meaningful addition of gas to South Africa’s energy mix will *“rejuvenate an overburdened, out-dated energy infrastructure and reduce cyclical shortfalls”*.
- 56.7. The Proposed Project is an exploration project and will not, itself, result in the production of oil and gas. Rather it will provide a better understanding of the viability of developing indigenous gas resources (see p. 89 of the Final EIR).
- 56.8. The Proposed Project will potentially lead to South Africa optimising its own resources to provide its identified oil and gas needs until the 2050 deadline for carbon neutrality (see p. 89 of the Final EIR).
57. Accordingly, it is apparent that a significant part of the motivation for the Proposed Project is that it seeks to identify oil and gas resources with a view to these being exploited in the future.

58. The impacts identified by the Final EIR as being associated with the normal operation of the Proposed Project include the following (see Table 2 at p. xxvi of the Final EIR):
- 58.1. The operation of the vessel and drill unit could impact intangible cultural heritage by degrading and disturbing the marine environment. This is assessed as being of medium significance before and after mitigation.
- 58.2. The discharge of drill cuttings and cement may smother certain habitats by disturbing seabed sediments and the water column. In respect of hardground habitats this is assessed as being of high significance before mitigation and medium significance after mitigation.
59. The impacts identified by the Final EIR as being associated with unplanned events include the loss of well control or a well-blow out (see p. xliii of the Final EIR). The Final EIR assesses that without mitigation this will have a very high impact on: marine ecology and the marine environment; commercial fishing; coastal and near shore users; and cultural heritage. With mitigation these impacts are assessed as being either very high or high.

### **THE CLIMATE CRISIS**

60. There is no longer any doubt that climate change is caused by human activities and that global average warming above 1.5°C above pre-industrial levels will have profoundly harmful effects on humanity and the planet.

61. This is accepted by the United Nations, by the Intergovernmental Panel on Climate Change (“IPCC”) (which is the international body for assessing the science related to climate change) and by the South African government.
62. In 2018 the IPCC prepared a Special Report on the impacts of global warming of 1.5°C above pre-industrial levels. The Summary for Policy Makers published alongside that report recorded that human activities are causing an increase in the Earth’s temperature and this poses a risk to health, livelihood, food security and water supply. The relevant paragraphs read:

*Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels with a likely range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.*

and

*Climate-related risk to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5°C and increase further with 2°C.*

63. The South African government accepts that: climate change is a measurable reality; South Africa is especially susceptible to climate change; and that climate change poses a substantial threat to the section 24 environmental right, other fundamental rights and NEMA principles. This is apparent from the documents set out in the relevant subsection below.
64. There is wide consensus that urgent action is necessary in the next decade to limit global warming to 1.5°C and that there is no atmospheric space left for

new fossil-fuel emissions. In 2018, the IPCC found that to limit warming to 1.5°C, countries must reduce CO<sub>2</sub> emissions by 45% within the next decade and achieve net zero emissions around 2050 (executive summary, page 12) an extract of this page is annexed as “**FA 8.2.1**”. Unfortunately, to date, the global community has fallen short of reaching this goal and average global temperatures are increasing faster than predicted. For example, the United States National Oceanic and Atmospheric Administration (“**NOAA**”) has reported that:

- 64.1. 2023 was the hottest year on record (i.e. since 1850) and surpassed the previous record set in 2016 by a record-setting margin;
  - 64.2. the average global temperature for 2023 exceeded the pre-industrial (1850–1900) average by 1.35 degrees C; and
  - 64.3. the 10 warmest years since 1850 have all occurred in the past decade and there is a 99% chance that 2024 will rank among the top five warmest years.
  - 64.4. An extract of the relevant NOAA finding is annexed marked **FA 8.3**
65. For this reason, it is not anticipated that any of the respondents will take issue with:
- 65.1. the existence of climate change;



- 65.2. that climate change is caused by human activity, principally through the emission of greenhouse gasses (which includes both methane and carbon dioxide);
  - 65.3. that this is causing, and will continue to cause harm to humanity and the planet; and
  - 65.4. that urgent action is necessary to reduce emissions of greenhouse gasses.
66. Accordingly, the Applicants will not include substantive expert evidence on these points in this affidavit but will seek the permission of the Court to file a supplementary affidavit dealing with this issue should this become necessary.
67. Nonetheless, for context, certain key facts which have been accepted by the South African government are set out below.

**South Africa's international commitments**

68. The most pertinent global agreement which aims to reduce global greenhouse gas emissions is the United Nations Framework Convention on Climate Change ("**UNFCCC**"), to which South Africa is a party.
69. South Africa is also a party to the Paris Agreement on climate change. This agreement:
- 69.1. recognises the need for an effective and progressive response to the urgent threat of climate change;

- 69.2. recognises the fundamental priority of safeguarding food security and ending hunger and the particular vulnerabilities of food production systems to the adverse impacts of climate change; and
  - 69.3. commits parties to holding the increase in global average temperature to "well below 2°C above pre-industrial levels" and with best efforts made to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that restricting the increase to 1.5°C above pre-industrial levels would significantly reduce the risks and impacts of climate change.
70. It should be noted that recognising the impact of climate change on food security also recognised that climate change poses a threat to: the right to dignity; the right to life; and, the right to access sufficient food.
71. As a party to the UNFCCC and the Paris Agreement, South Africa has agreed:
- 71.1. to collaborate with the other Parties to limit the increase in the global average temperature to well below 2°C above pre-industrial levels, and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels;
  - 71.2. to develop and present Nationally Determined Contributions ("NDCs") which set out the part that South Africa will play in the global effort to reach global peaking of greenhouse gas emissions as soon as possible (Paris Agreement, article 4); and

71.3. to formulate and communicate long-term low greenhouse gas emission development strategies.

72. In the same year that the Paris Agreement was signed, the 2030 Agenda for Sustainable Development was adopted by South Africa and 192 other countries, along with a set of 17 Sustainable Development Goals (“SDGs”), many of which are linked to climate change. In particular, SDG 13 is “Take urgent action to combat climate change and its impacts”.

73. In 2018 South Africa submitted its Third National Communication under the United Nations Framework Convention on Climate Change. This submission recorded that:

*Climate change is a measurable reality and South Africa is especially susceptible to its impacts.*

and

*South Africa falls within the Southern African region, which influences the country’s climate change impacts and adaptation response. Countries within Southern Africa are vulnerable to climate change (DEA,2014b). Increased temperatures in central regions and general decrease in annual rainfall (across the Western Cape of South Africa and parts Zimbabwe, Mozambique and Zambia) will negatively influence the sustainable development goal of zero hunger in the region [...].*

74. In compliance with its obligations under the Paris Agreement, South Africa has submitted its first long-term low greenhouse gas emission development strategy to the UNFCCC. The strategy is dated February 2020 and is titled

*South Africa's Low Emission Development Strategy 2050 ("SA-LEDS").*

Among other matters SA-LEDS:

- 74.1. acknowledges the considerable threat that climate change poses to the country and its socio-economic development, particularly to impoverished communities, stating for example:

*South Africa, like the rest of the world, is vulnerable to the impacts of climate change. In unmitigated greenhouse gas (GHG) emissions scenarios, warming of up to 5 to 8°C is projected over the interior of the country by the end of this century. Under a range of warming scenarios, drier conditions will be experienced in the west and south of the country and wetter conditions in the east. Rainfall patterns will become more variable and unpredictable.*

*These changes will impact on water resources and food production, and increase the vulnerability of impoverished communities, amongst others. The South African government thus regards climate change as a considerable threat to the country and its socio-economic development. At the same time, if climate change is to be limited through limiting the growth in global GHG emissions, with South Africa contributing its fair share to emission reductions, there will be other implications for the country. As one of the top 20 global emitters, with a high dependency on fossil fuels, substantial emission cuts will be required. The rapid transition that will be required presents a potential risk to economic growth and sustainable development if not managed properly. (Executive Summary, p vii)*

- 74.2. articulates the following vision –

*South Africa follows a low-carbon growth trajectory while making a fair contribution to the global effort to limit the average temperature increase, while ensuring a just transition and building of the country's resilience to climate change*

74.3. records that the energy sector is by far the biggest contributor to GHG emissions in South Africa (for example on page 12 it records that the energy sector accounted for 79.5% of the total gross emissions for South Africa in 2015 and that the percentage contribution of this sector to overall emissions grew by 25% between 2000 and 2015);

74.4. accepts that South Africa must find a way of ensuring that GHG emissions decrease rapidly in order to reach the goal of carbon neutrality by 2050, stating for example:

*It is clear that Parties must find a way to ensure that emissions over time decrease rapidly as part of a sustainable development pathway, consistent with the goal of carbon neutrality in the second half of this century (page 43).*

75. South Africa's (updated) current NDC:

75.1. acknowledges the necessity of keeping temperature increases well below 2°C or even below 1.5°C *"in light of emerging science, noting that global average temperature increase of 2°C translates to up to 4°C for South Africa by the end of the century"* (page 1);

75.2. recognises that net zero GHG emissions are required by 2050;

75.3. commits that national GHG emissions will peak from 2020-2025 in the range from 398 to 510 Mt CO<sub>2</sub>e (this was updated in 2021 from the original range of 398 to 614 Mt CO<sub>2</sub>e), then plateau and then decline; and

- 75.4. establishes the country's target range for 2025 as 398 to 510 Mt CO<sub>2</sub>e (updated from its original value of 398-614 Mt CO<sub>2</sub>e).

**South Africa's climate change policy**

76. In domestic policy, the South African government has accepted that climate change presents a serious threat to all South Africans, both now and in the future. These recognitions are not a recent development.
77. On 19 October 2011, the South African government published its National Climate Change Response White Paper ("the White Paper"), which "*presents the South African government's vision for an effective climate change response and the long-term, just transition to a climate-resilient and lower carbon economy and society.*"
78. I attach relevant excerpts from the White Paper, marked "**FA 9**".
79. South Africa's National Development Plan 2030, which was published in 2012 also recognised that climate change has an effect on South Africa. It noted:
- Climate Change is already having an impact on South Africa. Over the last 50 years, there are clear signs of warming and increased and increased frequency of rainfall extremes. The number of hot days has increased in frequency, while the days with cooler temperatures have decreased in frequency. The sea level has risen around South Africa.*
80. The government has since formulated a number of policy commitments to address the impacts of climate change.

81. South Africa’s National Climate Change Adaption Strategy (Version UE10, dated 13 November 2019.) (“NCCAS”), which was approved by Cabinet in August 2020, records (at p. 24) that:

*South Africa is experiencing significant effects of climate change particularly as a result of increased temperatures and rainfall variability. The observed rate of warming has been 2 C per century or even higher – more than twice the global rate of temperature increase for the western parts and the northeast (DEA 2017, 72).*

and, at page 17:

*South Africa experiences a wide range of weather and climate related impacts that are projected to worsen with climate change. Some of these impacts include drought, severe storms, flooding, heat waves, and change in the distribution of disease.*

### **1<sup>ST</sup> REVIEW GROUND: FAILURE TO CONSIDER SOCIO-ECONOMIC IMPACTS**

82. The most serious adverse consequence of the Proposed Project would occur in the event of a well blow out. According to the Final EIR, this term means “*the uncontrolled release of crude oil and/or natural gas from a well after pressure control systems have failed*” (see p. 445 of the Final EIR).
83. The broad consequences of a blow-out are described in the Final EIR as follows (see p. 461 of the Final EIR):

*“[c]rude oil spilled in the marine environment will have an immediate detrimental effect on water quality, with the toxic effects potentially resulting in mortality (e.g., suffocation and poisoning) of marine fauna or affecting faunal health (e.g., respiratory damage). Sub-lethal and long-term effects can*

*include disruption of physiological and behavioural mechanisms, reduced tolerance to stress and incorporation of carcinogens into the food chain. If the spill reaches the coast, it can result in the smothering of sensitive coastal habitats.*

84. With respect to the particular impact on the fishing industry, it is stated (see p. 468 of the Final EIR):

*“Large scale effects on fishing operations would also be likely to include area closures and exclusion of fisheries from areas that may be polluted or closed to fishing due to contamination of surface waters by oil or the chemicals used for cleaning oil spills. Based on the extent of the surface oiling of a large-scale blow-out and overlap with major fish spawning and nursery areas and key fishing areas, the operations of most commercial fisheries would be affected on a regional to international scale; viz, demersal trawl, midwater trawl, demersal longline, small pelagic purse-seine, large pelagic longline, tuna pole-line, traditional linefish, West coast rock lobster, south coast rock lobster and squid jig. In addition to offshore commercial fisheries, nearshore commercial and small scale fishing (incl. beach seine, gillnet, seaweed harvesting, white mussels, oysters, abalone, etc.) as well as aquaculture facilities, could be affected by shoreline contamination.*

85. The impact of a blow-out on marine ecology is rated as “very high” before and after mitigation (see page 467 of the Final EIR). The impact on the fishing industry in particular is rated as “very high” before mitigation and “high” after mitigation (see page 469 of the Final EIR). The intended mitigation which



accounts for the downgrading of the impact to “high” is a “grievance management procedure” that would enable stakeholders to ventilate specific grievances, and the operation of an international compensation mechanism that would reimburse affected sectors for direct economic loss.

86. The potential socio-economic impacts of the project are assessed in the Socio-Economic Impact Report (“**the SEI Report**”), which is Appendix 13 to the Final EIR.
87. Given the extreme nature of a blow-out scenario and the high significance of the anticipated impact on the fishing industry, one would have expected the SEI Report to focus heavily on this aspect and to present a full evaluation of the potential consequences, in a range of scenarios.
88. In fact, the EIA Regulations required that the nature, significance, consequences, extent, and duration of the identified potentially significant impact be assessed. This appears, most notably, from:
  - 88.1. item 2(d) of Appendix 3 to the EIA Regulations, which provides that one of the objectives of an environmental impact assessment is to determine the “*nature, significance, extent, duration, and probability*” of the impact occurring.
  - 88.2. item 3(1)(h) of Appendix 3 to the EIA Regulations which requires an environmental impact assessment to include an assessment of each of the identified potentially significant risks including an assessment

of the “*nature, significance, and consequences*” and the “*extent and duration*” of the impact.

89. As set out above, the Final EIR assesses the potential significance of the impacts of a well blow out on marine ecology as very high before and after mitigation and the impacts on commercial fishing as very high before mitigation and high after mitigation.
90. Therefore, these are potentially significant impacts and the Final EIR was required to assess the nature, extent, duration, and consequences of those impact.
91. The extent of the inquiry into the socio-economic consequences of a blow-out is reflected in the following statement (which appears at p. 471 of the Final EIR) and Appendix 13 (p. 80-83):

*Reduction in recreational, small-scale, and commercial fishing in the impacted area, including near-shore and offshore fishing. This may result in undermining fishing by the public at large.*

*Large scale effects on fishing operations would also be likely to include area closures and exclusion of fisheries from areas that may be polluted or closed to fishing due to contamination of surface waters by oil or the chemicals used for cleaning oil spills. Based on the possible extent of surface oiling (including major fish spawning and nursery areas), the intensity of the impact on most commercial fisheries would be high. As an indicator, assuming a 10% drop in value of fisheries, sustained over a full three years, the revenue lost would be about R600m a year. The percentage drop is however difficult to estimate.*

*Reduction in income for secondary and tertiary sectors that support tourism, recreational, fishing and other coastal economies.*

*Reduction in income and livelihoods impacts on those dependent on small scale fisheries.*

92. This cursory account is completely insufficient to place interested and affected parties and the decision-makers in a position to understand the nature, extent, duration and consequences of identified impacts. For example:

92.1. There is no assessment of the effect the impacts would have on local communities or fisheries.

92.2. The only attempt at quantifying the consequences of the potential impacts is the assumption of a 10% drop in the value of fisheries for three years. However, this is deficient for two reasons. First, it is, self-evidently a bald assumption which is advanced without any explanation or basis. Second, there is no assessment of the consequence of such a drop in value on fishing operators or local communities.

93. As a result, the Final EIR and the SEI Report:

93.1. do not adequately assess the nature, significance and consequences of the impacts and risks associated with the Proposed Project;

93.2. do not adequately assess the extent and duration of the impacts and risks associated with the Proposed Project; and

- 93.3. omit material information.
94. Therefore, the Final EIR and the SEI Report did not comply with *inter alia*: sections 24(1) and 24O(1) of NEMA; and items 2(d), 3(h) and (3)(j) of Appendix 3 to the EIA Regulations.
95. Therefore, the Decisions under Review:
- 95.1. did not comply with a mandatory and material procedure prescribed by NEMA and the EIA Regulations;
- 95.2. were materially influenced by an error of law;
- 95.3. were taken because irrelevant considerations were taken into account and relevant considerations were not considered;
- 95.4. were not rationally connected to the information before the decision makers; and
- 95.5. were unreasonable.
96. Therefore, the Decisions under Review stand to be reviewed and set aside in terms of sections 6(2)(b), 6(2)(d), 6(2)(e)(iii), 6(2)(f)(cc) and 6(2)(h) of PAJA.

**2<sup>ND</sup> REVIEW GROUND: FAILURE TO CONSIDER THE ICMA FACTORS AND DISCHARGE STATE'S DUTIES AS TRUSTEE OF COASTAL PUBLIC PROPERTY**

97. As set out above, the ICMA provides specific protection to South Africa's coastal areas.

98. The ICMA applies to South Africa's coastal waters, which includes South Africa's territorial waters and exclusive economic zone.
99. The Proposed Project will take place in South Africa's exclusive economic zone. Therefore, it falls within the coastal zone and is a coastal activity regulated by the ICMA
100. As such the Decisions under Review were obliged to take into account the factors listed in section 63 of the ICMA in addition to the requirements of NEMA and the EIA Regulations. These factors include the following:
  - 100.1. whether coastal public property will be affected by the activity and, if so, the extent to which the proposed development or activity is consistent with the purpose of establishing and protecting these areas (section 63(1)(c));
  - 100.2. if the activity affects coastal public property, whether it is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations (section 63(1)(h)(i));
  - 100.3. whether the activity would be contrary to "*the interests of the whole community*" (section 63(1)(h)(vii); and
  - 100.4. the objects of the ICMA (section 63(1)k).
101. South Africa's coastal waters form part of the coastal public property. Therefore, the Proposed Project will affect coastal public property.

102. Broadly, the above provisions require the competent authority to give specific consideration to the compatibility of a proposed activity with the framework of principles and objectives established by the ICMA.

103. The following provisions of the ICMA are of particular relevance:

103.1. Coastal public property is vested in the citizens of the Republic and is held in trust and managed on their behalf by the State (section 11).

103.2. In performing this function, the State is under a duty to ensure that coastal public property is managed, conserved and enhanced in “*the interests of the community as a whole*” and to take whatever reasonable legislative and other measures it considers necessary to conserve and protect coastal public property for the benefit of present and future generations (section 12).

103.3. The ICMA is explicit in addressing how the public interest must be construed for purposes of the Act. The term “the interests of the community as a whole” is defined in section 1 to mean:

*[t]he collective interests of the community determined by –*

*(a) prioritising the collective interests in coastal public property of all persons living in the Republic over the interests of a particular group or sector of society;*

*(b) adopting a long-term perspective that takes into account the interests of future generations in inheriting coastal public property and a coastal environment characterised by healthy and productive ecosystems and economic activities that are ecologically and socially sustainable; and*

*(c) taking into account the interests of other living organisms that are dependent on the coastal environment”.*

103.4. In terms of section 7A, coastal public property is established *inter alia* to:

103.4.1. protect sensitive coastal ecosystems;

103.4.2. secure the natural functioning of dynamic coastal processes;

103.4.3. protect people, property and economic activities from the risks arising from dynamic coastal processes including the risk of sea-level rise.

104. Thus, the ICMA seeks to ensure the protection of coastal resources and the coastal environment as a public good and to this end: first gives particular prominence to the collective public interest and the interests of other living organisms that are dependent on the coastal environment, and second imposes specific duties on the State.

104.1. In fulfilling the rights in section 24 of the Constitution, the State, through its functionaries and institutions which implement the ICMA, must act as the trustee of the coastal zone (section 3(a)).

104.2. In relation to coastal public property (ownership of which vests in the citizens of the Republic but is held in trust by the State on their behalf) the State, in its capacity as the public trustee, must: (a) ensure that coastal public property is used, managed, protected, conserved and enhanced in the interests of the whole community; and (b) take

whatever reasonable legislative and other measures it considers necessary to conserve and protect coastal public property for the benefit of present and future generations (section 12).

105. I am advised that to discharge its duty in the context of Total's application, the competent authority would, at minimum, have had to consider:

- 105.1. whether the Proposed Project would affect coastal public property;
- 105.2. whether the Proposed Project is consistent with the objective of conserving, protecting and enhancing coastal public property for the benefit of current and future generations;
- 105.3. whether the Proposed Project is likely to cause irreversible or long-lasting adverse effects to the coastal environment that cannot be satisfactorily mitigated;
- 105.4. whether the Proposed Project would substantially prejudice any coastal management objective;
- 105.5. whether the Proposed Project is socially and economically justifiable and ecologically sustainable and consistent with section 24 of the Constitution regarding the interests of future generations in inheriting coastal public property and a coastal environment characterised by healthy and productive ecosystems and economic activities that are ecologically and socially sustainable;



- 105.6. whether the Proposed Project is in the interests of other living organisms that are dependent on the coastal environment;
- 105.7. whether granting an environmental authorisation for the Proposed Project is consistent with the duties of the decision-maker to conserve and protect coastal public property for the benefit of present and future generations and to ensure that it is used, managed, protected, conserved and enhanced in the interests of the whole community.
106. Neither the Director nor the Minister made any attempt to do so.

**The DG's failure to consider the ICMA**

107. The reasons for the DG's Decision give no consideration to the ICMA or section 63 of that Act. In fact, the DG's Decision fails even to mention the ICMA.
108. The gravity of this failure is underscored by the fact that the DG specifically identifies other statutory considerations. For example, the DG's Decision records:
- 108.1. that the motivation for need and desirability of the Proposed Project complied with the EIA Regulations and addressed the key issues set out in the Need and Desirability Guideline (p. 17 of the DG's Decision);  
and
- 108.2. that the public participation process complied with the EIA Regulations (p. 18 of the DG's Decision).

109. The DG's Decision also failed to consider or even mention the following considerations:

109.1. Coastal public property.

109.2. The objective of conserving and enhancing the coastal public property for the benefit of current and future generations.

109.3. Coastal management objectives.

109.4. The interests of the whole community.

110. Accordingly, it is plainly apparent that the DG failed to consider the ICMA or section 63 of that Act.

**The Minister's failure to consider the ICMA**

111. The failure to consider the ICMA was raised in the appeals submitted by the Applicants (see p. 133 of the Minister's Decision).

112. The Minister dismisses these appeals. Her reasoning for doing so is contained in a single paragraph which reads (see p. 139 of the Minister's Decision):

*Having considered the grounds of appeal and responses thereto, I determine that the grant of the EA read together with the general and specific conditions and the identification of the potential impacts and mitigation measure[s] of the project, the authorisation was rational and reasonable and that the provisions of [the ICMA] and section 63 were considered. In any event, I have considered in the appeal and I am of the view that the authorisation is rational and reasonable.*

113. The Minister's conclusion is completely unrelated to the content of the DG's Decision. As set out above, the DG's Decision did not make any mention of the ICMA generally or section 63 in particular.

114. The Minister's Decision also does not give any substantive consideration to the ICMA generally or section 63 in particular.

**Basis for the 2<sup>nd</sup> Review Ground.**

115. In the light of what is set out above it is apparent that:

115.1. The DG's Decision did not take into account section 63 of the ICMA or any other consideration under that Act.

115.2. There is no basis for Minister's conclusion that the DG's Decision did consider the ICMA including section 63 of that Act.

115.3. The Minister's Decision does not contain any basis or reasoning that could amount to the consideration of the ICMA or section 63 of that Act.

116. Therefore, the Decisions under Review stand to be reviewed and set aside on two bases, as set out below.

117. First, in failing to take into account the ICMA and section 63 of the ICMA, the Decisions under Review:

117.1. did not comply with a mandatory and material procedure prescribed by NEMA and the EIA Regulations;

- 117.2. were materially influenced by an error of law;
  - 117.3. were taken because irrelevant considerations were taken into account and relevant considerations were not considered; and
  - 117.4. were not rationally connected to the information before the decision makers.
118. Therefore, the Decisions under Review stand to be reviewed and set aside in terms of sections 6(2)(b), 6(2)(d), 6(2)(e)(iii), 6(2)(f)(cc) and 6(2)(h) of PAJA.
119. Second, in the alternative to the above, the Decisions under Review:
- 119.1. do not set out any findings or process of reasoning in relation to any of the factors required to be considered by section 63 of the ICMA; and
  - 119.2. do not set out any findings or process of reasoning in relation to a determination that the granting of the EA for the Proposed Project was warranted in the light of considerations prescribed by section 63 of the ICMA.
120. Therefore, the Decisions under Review do not contain adequate reasons for any findings in relation to section 63 of the ICMA. Accordingly, per section 5(3) of the PAJA, the Decisions under Review are presumed to have been taken without good reason and, as such, stand to be reviewed and set aside in terms of sections 6(2)(e)(iv) and 6(2)(f)(ii)(aa) to (cc) of PAJA.

**3<sup>RD</sup> REVIEW GROUND: FAILURE TO CONSIDER CLIMATE CHANGE AS PART OF NEED AND DESIRABILITY**

121. Item 3(1)(f) of Appendix 3 to the EIA Regulations obliges an environmental impact assessment to provide a motivation for the need and desirability of the proposed activity.
122. As set out above, the premise of the need and desirability motivation in the Final EIR is that the Proposed Project could locate oil and gas which could then be exploited and ultimately serve as fuel for electricity generation.
123. However, the Final EIR's motivation for need and desirability does not consider the foreseeable greenhouse gas emissions or climate change impacts which will be caused by burning any gas discovered by the Proposed Project and by gas which escapes into the atmosphere before being burnt ("**fugitive emissions**").
124. This has two implications:
- 124.1. First, it means that the Final EIR does not comply with the obligation to assess production emissions when assessing the need and desirability of an exploration project as set out by a full bench of the Eastern Cape High Court (Makhanda) in *Sustaining the Wild Coast NPC v Minister of Mineral Resources and Energy 2022 (6) SA 589 (ECMk)*.

- 124.2. Second, the motivation for need and desirability in the Final EIR is fundamentally flawed. In advancing the need and desirability the Final EIR contends that Proposed Project is necessary and desirable because it may discover oil and gas which could be exploited for the purposes of electricity generation. However, that only presents half the picture. If the oil or gas is to exploited for electricity generation this will, unavoidably, involve greenhouse gas emissions. The Final EIR's motivation of need and desirability does not consider these emissions. Therefore, in essence, it presents only the alleged positive effects of the Proposed Project without considering or presenting the associated negative effects.
125. These two implications must be understood in the context of the 2019 United Nations *Report Special Rapporteur on the issues of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment (A/74/161)* ("**the UN Safe Climate Report**") which, at paragraph 24 provides:

*In 2012, the International Energy Agency estimated that two thirds of proven fossil fuel reserves must not be burned if we are to limit warming to 2°C. A similar study published in 2015 concluded that 82 per cent of known coal reserves and 33 per cent of oil reserves cannot be burned if we are to avoid dangerous climate change of more than 2°C. The future greenhouse gas emissions contained in known reserves of fossil fuels are three times larger than the 2°C carbon budget. The obvious conclusion is that further investments in new fossil fuel generating capacity or exploration for additional fossil fuel resources will either lock in a future that precludes achieving the required emission reductions or result in stranded assets.*

126. A copy of the relevant page of the UN Safe Climate Report is annexed marked **FA 10**.
127. The omission of climate change in the Final EIR's assessment of need and desirability makes it impossible to definitively assess the extent to which the climate change consequences would negate the purported benefits of the Proposed Project. However, types of issues which would likely include whether the costs associated with the extraction, infrastructure development, and environmental damage could offset any potential gains that the Final EIR assumes is likely to follow from a successful find.
128. Therefore, the Decisions under Review:
- 128.1. did not comply with a mandatory and material procedure prescribed by NEMA and the EIA Regulations;
  - 128.2. were materially influenced by an error of law;
  - 128.3. were taken because irrelevant considerations were taken into account and relevant considerations were not considered;
  - 128.4. were not rationally connected to the information before the decision makers; and
  - 128.5. were unreasonable.
129. Therefore, the Decisions under Review stand to be reviewed and set aside in terms of sections 6(2)(b), 6(2)(d), 6(2)(e)(iii), 6(2)(f)(cc) and 6(2)(h) of PAJA.

#### **4<sup>TH</sup> REVIEW GROUND: FAILURE TO ASSESS TRANS-BOUNDARY IMPACTS**

130. The Applicant's fourth review ground is that the Final EIR establishes that an oil spill caused by a well blow out may lead to oil contaminating Namibian waters, the Namibian shoreline, and international waters. Despite this, the Final EIR (and the specialist reports attached to it) do not assess the impacts of such contamination.

##### **The predicted transboundary impacts**

131. In assessing the impact of a well blow out the Final EIR records the following (see p. 465 of the Final EIR):

*While the probability of a major spill happening is extremely small, the impact nonetheless needs to be considered as it would have devastating effects on the environment. As noted previously, refer to Section 10.4.2.3 for a summary of oil spill modelling results. Modelling results show that the coast between southern Namibia on the West Coast and Gqeberha on the South East Coast may be at risk depending on the metocean at the time of drilling (seasons dependent). In the event of a blow-out, the period June to August (Season 3) was identified as the worst in respect to the maximum amount of oil reaching the shore coupled with the probability of shoreline oiling for both discharge locations. The modelling results also found that the implementation of both surface response and SSDI reduced the amount of oil at the surface and that reaching the shore.*

132. The Final EIR assesses the probable extent of oil contamination caused by well blow outs as a result of the Proposed Project. This assessment relies on the specialist oil spill modelling report (appendix 7 to the Final EIR) ("the Oil Spill Report").



133. Part of this assessment was done by way of stochastic modelling. The Final EIR explains stochastic modelling as follows (see p. 447 of the Final EIR):

*The stochastic simulation is a statistical calculation based on the results of many sets of similar deterministic simulations using the same weathering model. The results from each individual simulation making up the stochastic scenario are combined to produce statistics on oil slick distribution probabilities, in time and space, that are translated on statistical maps. The main result is a map showing the probability of contamination above defined threshold values, for sea surface and shoreline compartments. The probabilities are given as percentages of the total number of simulations (in the current study 72 simulations for Season 1 and 90 simulations for Season 2 to 4). For example, a probability of 50% implies that an area was impacted during the studied period for half of the number of simulations in the stochastic scenario. These probability plots DO NOT depict the extent of a single spill.*

134. This is a contrast to a deterministic simulation which studies the trajectory of an individual oil slick at a defined moment in the past and uses the associated wind and current data (usually the worst-case scenario identified in the stochastic simulation) (see p. 447 of the Final EIR).
135. The assessment contemplates four scenarios which differ in the location of the well blow out and the response to the blow out.
136. The two locations are referred to as Release Point 1 and Release Point 2 (see p. 446 of the Final EIR):
- 136.1. Release point 1 is located at depth of 719m and is 72km of the coast.
- 136.2. Release point 2 is located at a depth of 1357m and 155km off the coast.

137. The two response scenarios are (see p. 42 of the Oil Spill Report):
  - 137.1. The deployment of a capping stack 20 days after the blow out.
  - 137.2. The deployment of a capping stack 20 days after the blow out together with: the use of aircraft and surface vessels for chemical dispersion as well containment and recovery operations; the deployment of a subsea surfactant to reduce oil droplet size (“SSDI”). These additional responses would commence at various points after the blowout.
  
138. The Final EIR records that the results of stochastic modelling of an oil spill from a well blow out at Release Point 1 with a capping only response indicate the following (see p. 452 of the Final EIR):
  - 138.1. In the event of a well blow out at Release Point 1 the probability of shoreline oiling above the 10 g/m<sup>2</sup> extends from Plettenberg Bay to north of the Namibian Border.
  - 138.2. In the event of a well blow out in June to August stronger currents and winds would result in oil from Release Point 1 entering Namibian waters and oil from Release Point 2 heading into international waters beyond South Africa’s exclusive economic zone.
  
139. While the Oil Spill Report also considers the probability of oil contamination to the water column this does not appear to be discussed in the Final EIR.
  
140. It appears from the Oil Spill Report that in each of the postulated scenarios for Release Point 1 there is a predicted risk of oil contamination to the Namibian

shoreline, the surface and water column of Namibian waters, and/or the surface and water column of international waters for at least some portion of the year.

141. In summarizing its conclusions on the stochastic modelling the Oil Spill Report records the following regarding the possible areas in which the shoreline or surface will be effected by an oil spill:

	<b>Capping Only Response</b> (See table 20 on p. 57 of the Oil Spill Report)			
	<b>Season 1</b>	<b>Season 2</b>	<b>Season 3</b>	<b>Season 4</b>
<b>Surface waters reached</b>	South African, Namibian, and International	South African, Namibian, and International	South African and International	South African and International
<b>Shoreline possibly impacted</b>	Cape Agulhas to Port Nolloth	George to the Namibian border	Plettenberg Bay to north of the Namibian border	Jongensfontein to South Luderitz (in Namibia)
	<b>Capping, Surface Response and SSDI</b> (See table 21 on p. 77)			
	<b>Season 1</b>	<b>Season 2</b>	<b>Season 3</b>	<b>Season 4</b>
<b>Surface waters reached</b>	South African and International	South African, Namibian, and International	South African and International	South African and International

<b>Shoreline possibly impacted</b>	Unlike table 20, table 21 does not provide a geographical description of the shoreline possibly impacted. Rather it simply provides the length of coastline which could receive oil. Depending on the season this ranges from 1163km to 1642 km.
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142. The Oil Spill Report depicts the stochastic probabilities of an oil spill reaching particular areas through various diagrams. From these, the probabilities of oil contaminating the Namibian shoreline or Namibian or international waters are summarized in the following table:

Seasons	Capping Only			Capping, Surface Response, SSDI		
	Shoreline	Surface	Water Column	Shoreline	Surface	Water Column
1	1% - 30% <sup>2</sup>	1% <sup>3</sup>	1% - 10% <sup>4</sup>	1 - 10% <sup>5</sup>	1% <sup>6</sup>	1% <sup>7</sup>
2	0% <sup>8</sup>	1% - 5% <sup>9</sup>	1% - 5% <sup>10</sup>	1% - 5% <sup>11</sup>	1% <sup>12</sup>	1% <sup>13</sup>

<sup>2</sup> See Oil Spill Report p. 49 figure 23.

<sup>3</sup> See Oil Spill Report p. 49 figure 23.

<sup>4</sup> See Oil Spill Report p. 55 figure 27.

<sup>5</sup> See Oil Spill Report p. 59 figure 29 (right hand diagram).

<sup>6</sup> See Oil Spill Report p. 59 figure 29 (right hand diagram).

<sup>7</sup> See Oil Spill Report p. 62 figure 31 (top right diagram).

<sup>8</sup> See Oil Spill Report p. 49 figure 23.

<sup>9</sup> See Oil Spill Report p. 49 figure 23.

<sup>10</sup> See Oil Spill Report p. 55 figure 27.

<sup>11</sup> See Oil Spill Report p. 63 figure 32 (right hand diagram).

<sup>12</sup> See Oil Spill Report p. 63 figure 32 (right hand diagram).

<sup>13</sup> See Oil Spill Report p. 66 figure 34 (top right diagram).

3	1% - 5% <sup>14</sup>	1% <sup>15</sup>	1% <sup>16</sup>	0% <sup>17</sup>	1% <sup>18</sup>	1% <sup>19</sup>
4	1% - 30% <sup>20</sup>	1% <sup>21</sup>	1% <sup>22</sup>	1% - 5% <sup>23</sup>	1% <sup>24</sup>	1% <sup>25</sup>

143. The Socio-Economic Impact Report records that both pre and post mitigation socio-economic impacts of a well blow out would have an international extent (see p. 83 of that Report).

144. The Final EIR and the Marine Ecology Report also records that there are number of ecologically or biologically significant areas which span the border between Namibia and South Africa (see p. 214 of the Final EIR and p. 116 of that Marine Ecology Report).

#### **The failure to assess the transboundary impacts**

145. The thirteenth appeal ground raised in Green Connection and Natural Justice's appeal is that the Final EIR failed to assess transboundary impacts (see p. 43 of the GCNJ Appeal).

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<sup>14</sup> See Oil Spill Report p. 49 figure 23.

<sup>15</sup> See Oil Spill Report p. 49 figure 23.

<sup>16</sup> See Oil Spill Report p. 55 figure 27.

<sup>17</sup> See Oil Spill Report p. 67 figure 35 (right hand diagram).

<sup>18</sup> See Oil Spill Report p. 67 figure 35 (right hand diagram).

<sup>19</sup> See Oil Spill Report p. 70 figure 37 (top right diagram).

<sup>20</sup> See Oil Spill Report p. 49 figure 23.

<sup>21</sup> See Oil Spill Report p. 49 figure 23.

<sup>22</sup> See Oil Spill Report p. 55 figure 27.

<sup>23</sup> See Oil Spill Report p. 71 figure 38 (right hand diagram).

<sup>24</sup> See Oil Spill Report p. 71 figure 38 (right hand diagram).

<sup>25</sup> See Oil Spill Report p. 74 figure 40 (top right diagram).

146. In response to this appeal ground Total did not contend that such impacts were considered. Rather, it contended that there was no obligation to do so (see p. 515 of Total's Appeal Response).

147. The Minister's reasons for refusing this ground of appeal reads as follows (see p. 131 of the Minister's Decision):

*I have noted the indications in the [Final EIR] of the possibility of potential impacts on Namibian territorial waters in the event of an oil spill, however I determine that there was no requirement for the applicant to conduct a "detailed assessment" of any impacts on Namibian waters, or its coast and coastal communities. I find that this does not render the process deficient.*

148. The failure to assess transboundary impacts is borne out by what appears in certain of the specialist reports annexed to the Final EIR.

149. The Socio-Economic Impact Assessment summarises its study areas as follows (see p. iv of the SEI Report):

*In summary, the study area for the socio-economic component incorporates section of the Western and Southern Cape coastline. The primary focus is proximate coastline between Saldanha Bay and Cape Agulhas, but the study also expands up the west coast into the Northern Cape, and along the South Coast in the Eastern Cape province. In addition, greater focus is given to the Port of Cape Town which has been identified as the preferred onshore supply base to be used during the exploration operations. The Port of Saldanha has also been identified as an option and this too is given attention.*

150. In setting out the applicable terms of reference the Fisheries Impact Assessment Report provides that its terms of reference were to "provide a

*description of the fisheries sectors operating in South African coastal waters, focussing on the block”* (see p. 2 of that Report). There is no indication that that Report considered any fisheries operating in Namibian or international waters. In fact, while this Report notes that oil spilled from a blow out could extend north of the Namibian border, (see p. 2 of the Report) it does not consider any impacts which would arise in those circumstances.

151. The starting point for the terms of reference for the Marine Ecology Impact Assessment was to provide a description of the marine fauna off the Southwest Coast of South Africa (see p. 21 of the Report). The Report also records that the receiving environment described focussed primarily on the study area between the Orange River mouth and Cape Agulhas (see p. 16 of that Report). There is no indication that the Report considered any impacts which would arise in Namibia or in Namibian or international waters.

**The obligation to consider transboundary effect**

152. As set out above, the Minister’s decision held that there was no obligation to assess the impacts of an oil spill on Namibian waters, the Namibian coastline, or Namibian communities.
153. I am advised that one does not usually address legal points in affidavit, but because this ground of review directly involves an error of law, I set out the following.

154. The Minister's finding that there was no legal obligation to conduct a detailed assessment of the impacts in Namibia is incorrect. Further, there is also an obligation to consider impacts on international waters.
155. Nothing in NEMA provides that the assessment of impacts of activities which require an environmental authorisation is limited to impacts arising in South Africa.
156. Section 2(e) of the ICMA provides that one of the objectives of that Act is "*to give effect to the Republic's obligations in terms of international law regarding coastal management and the marine environment*".
157. Section 233 of the Constitution reads:
- When interpreting any legislation every court must prefer any reasonable interpretation of the legislation that is consistent with international law over any alternative interpretation that is inconsistent with international law.*
158. At least four international obligations are relevant.
159. First, South Africa is a party to the Convention for Co-Operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region ("Abidjan Convention"). A copy of this convention is annexed marked **FA 11**



160. The Abidjan Convention relates to the marine environment (including the coastal zone) within the jurisdiction of the states from (and including) Mauritania to Namibia.<sup>26</sup>

161. Article 13 of that Convention reads as follows:

*(1) As part of their environmental management policies, the Contracting Parties shall develop technical and other guidelines to assist the planning of their development projects in such a way as to minimize their harmful impact on the Convention Area.*

*(2) Each Contracting Party shall endeavour to include an assessment of the potential environmental effects in any planning activity entailing projects within its territory, particularly in the coastal areas that may cause substantial pollution of, or significant and harmful changes to, the Convention Area.*

*(3) The Contracting Parties shall, in consultation with the Organisation, develop procedures for the dissemination of information concerning the assessment of the activities referred to in paragraph 2 of this article.*

162. South African (and its waters) do not form part of the Convention Area. Yet article 13(2) obliges South Africa to consider the impact of activities in its territory on the Convention Area.

163. Second, South Africa is a party to the Benguela Current Convention, a copy of which is annexed marked **FA 12** One of the objects of that Convention, per article 2, is to:

*promote a co-ordinated regional approach to the long-term conservation, protection, rehabilitation, enhancement and sustainable use of the Benguela Current Large Marine*

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<sup>26</sup> Abidjan Convention, article 1.

*Ecosystem, to provide economic, environmental and social benefits.*

164. According to article 3, the area of application for the Benguela Current Convention is all areas within the national jurisdiction of South Africa, Namibia, and Angola.
165. The Final EIR (at p. 131) records that the Project Area is located within the southern Benguela Region. The Marine Ecology Report records that it used the Benguela Current Large Marine Ecosystem Thematic Report as a source of information to identify the potential impacts of the Proposed Project. Accordingly, it appears that the Proposed Project will take place within the Benguela Current Large Marine Ecosystem.
166. Article 4(2)(b) requires the member states to undertake environmental impact assessment for all proposed activities which are likely to cause adverse impacts on the marine and coastal environments.
167. Article 1 of the Benguela Current Convention defines adverse impact to include any actual or potential detrimental effect on the Benguela Current Large Marine Ecosystem including those effects which extend beyond the jurisdiction of a Party.
168. Accordingly, where an activity in South Africa will have effect which extend beyond South Africa's jurisdiction, the Benguela Current Convention obliges South Africa to assess those impacts.

169. Third, article 206 of the United Nation Convention on the Law of the Sea reads:

*When States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effect of such activities on the marine environment and shall communicate reports of the results of such assessments in the manner provided in article 205.*

170. Fourth, general international law (as confirmed by the International Court of Justice in the *Case Concerning Pulp Mills on the River Uruguay Judgment I.C.J Reports 2010 p. 14*) requires states to conduct an environmental impact assessment where there is a risk that a proposed activity may have a significant adverse impact in a trans-boundary context.

171. Accordingly:

171.1. Total was obliged to assess the impacts of the Proposed Project on Namibian waters, the Namibian shoreline, and international waters.

171.2. The DG and the Minister were obliged to consider the results of that assessment.

172. This was not done.

**The basis for this review ground**

173. In the light of the above it is apparent that:

173.1. The Proposed Project may have significant impacts on Namibian waters, international waters, and the Namibian shoreline.

173.2. The Final EIR (and the specialist reports on which it relies) did not assess these impacts.

173.3. The DG and the Minister took their decision in the absence of an assessment of these impacts.

174. Therefore, the Decisions under Review:

174.1. did not comply with a mandatory and material procedure prescribed by NEMA, the ICMA, and the EIA Regulations;

174.2. were materially influenced by an error of law;

174.3. were taken because irrelevant considerations were taken into account and relevant considerations were not considered;

174.4. were not rationally connected to the information before the decision makers; and

174.5. were unreasonable.

175. Therefore, the Decisions under Review stand to be reviewed and set aside in terms of sections 6(2)(b), 6(2)(d), 6(2)(e)(iii), 6(2)(f)(cc) and 6(2)(h) of PAJA.

#### **5<sup>TH</sup> REVIEW GROUND: THE BLOW OUT & OIL SPILL CONTINGENCY PLANS**

176. In assessing the risks associated with a well blow out, the Final EIR records that as part of Total's emergency response plan it will prepare a detailed Oil Spill Contingency Plan ("OSCP") and a Blow-Out Contingency Plan ("BOCP")

will be prepared specifically for each of the drilling operations (see p. 458 of the Final EIR).

177. The Final EIR describes the OSCP as specifying (see p. 460 of the Final EIR):

177.1. how to best control an unlikely oil spill.

177.2. how to prevent certain sensitive environments from exposure to oil.

177.3. what can be done to minimise the damage done by an oil spill.

178. Both the OSCP and the BOCP are listed as "*Project Controls / Key Mitigation*" for the risk of a well blow out (see p. 476 of the Final EIR).

179. The Final EIR records that the BOCP will "*set out the detailed response plan and intervention strategy to be implemented in the event of a blow out.*" (see p. 482).

180. The Final EIR records that "*The primary objective of the OSCP is to identify all possible spill scenarios, level of response requirements and set in motion the necessary actions to stop any discharge of oil and to minimise its effect.*" (see p. 482). It also notes that OSCP's are prepared through a seven-step process once operations are defined (see p. 482).

181. The Oil Spill Report notes that because no OSCP has been prepared for the Project Area the Report assumes that the spill response strategies will accord with those set out in the OSCP for Block 11B/12B and that Total has validated these assumptions (see p. 41 of the Oil Spill Report). Similarly, it relies on the

BOCP for Block 11B/12B and for the Venus well drilling in Namibia (see p. 42).

182. Accordingly, it is apparent that the OSCP and BOCP were not available when the Final EIR was prepared and when the Decisions under Review were taken. The only document which was made available was Total's "*generic Oil Spill Contingency Plan*" which was made available online for review.

183. The reasons for the DG's Decision do not record any considerations in relation to the BOCP or OSCP. The highwater mark for the consideration of the management of the risks associated with a well blow out are addressed in a single paragraph which reads (see para. 3.2 on p. 17 of the DG' Decision):

*Most of the potential impacts with normal drilling operations range from negligible to low significance. The impact of unplanned event[s] such as blow-out range from high to very high, however occurrence of such events is very unlikely, and the holder has strategies in place to deal with such should it occur.*

184. It appears that the strategies referred to at least include the OSCP and the BOCP.

185. The EA approves the environmental management program submitted together with the Final EIR (see para. 5.4.1 of the EA).

186. The EA also includes:

186.1. condition 5.5.2 which reads:

*The holder must, within 60 days prior to the commencement of the proposed drilling operations, submit all specific management plans identified in the [Final EIR] i.e., Shipboard Oil Pollution Emergency Plan; Emergency Response Plan; Blow-Out Contingency Plan; Oil Spill Contingency Plan; Stakeholder Engagement Plan; Waste, Emissions, Discharge Management Plan; Hazardous Substance Management Plan; Preventative Maintenance Plan; Ballast Water Management Plan; Biodiversity Management Plan and Corrective Action Plan.*

186.2. and condition 5.5.4 which reads:

*If the operations are planned to cover the Austral winter period, the oil spill response plan must be enhanced to cover the risks associated with shoreline oiling from blow-out.*

187. The documents referred to in condition 5.5.2 were listed in the Final EIR as part of Total's "*overall internal Health, Safety and Environment Management System (HSE-MS) and will be prepared in addition to the [environmental and social management program]*" (see pp. 480 to 493 of the Final EIR).
188. In considering the impacts of an unplanned oil spill the Minister's Decision records that she is "*satisfied that that the OSCP and BOCP that will be put in place will adequately mitigate the severity of the impact*". This despite there being no indication that the OSCP or BOCP were before the Minister.
189. Section 24N(1A) of NEMA provides that where an activity is assessed by way of an environmental impact assessment, an environmental management program ("**EMPR**") must be submitted before the competent authority decides to authorise the activity.

190. Section 24N(2)(g) provides that an EMPR must include a description of the manner in which it intends to modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation.
191. Appendix 4 of the EIR Regulations provides, *inter alia*, that an EMPR must include a description of the proposed impact management actions, identifying the manner in which the impact management outcomes will be achieved including actions to avoid, modify, remedy, control or stop and action, activity or process which causes pollution or environmental degradation (see item 1(1)(f)).
192. The OSCP and BOCP are the plans which will set out how Total intends to respond to a well blow out or oil spill. Accordingly, these are the documents which will describe how Total intends to modify, remedy, control or stop an oil spill resulting from a well blow.
193. As such these documents (or their content) were required to form part of the EMPR for the Proposed Project.
194. From what is set out above it is apparent that:
  - 194.1. The EMPR for the Proposed Project did not include the OSCP or the BOCP (or their contents).
  - 194.2. The OSCP and the BOCP will not be prepared until shortly before the commencement of the Proposed Project.



- 194.3. The OSCP and the BOCP were not part of the public participation process relating to the EMPR for the Proposed Project.
  - 194.4. The EA does not require that the OSCP or the BOCP be subject to public participation before, or after, their submission to the DG.
  - 194.5. The EA does not provide for the DG to consider whether to accept or reject the OSCP and BOCP, all that is required is that they be submitted.
  - 194.6. The EA does not require the OSCP or BOCP to be consistent with the assumptions of their contents made in the Oil Spill Report.
  - 194.7. The EA does not permit the DG to reject the OSCP or the BOCP if they are not consistent with the assumptions of their content made in the Oil Spill Report.
  - 194.8. The EA does not permit the DG to consider whether the OSCP complies with the requirement of condition 5.5.4 and does not permit the DG to reject the OSCP if it does not comply with that condition.
  - 194.9. Irrespective of content of the OSCP and BOCP which are submitted to the DG, the DG and the Minister are *functus officio* and cannot withdraw or alter the EA.
195. Accordingly, it is submitted that:
- 195.1. The process through which the Final EIR and the EMPR for the Proposed Project were prepared and through which the EA was

granted was not procedurally fair and did not comply with the public participation required by NEMA.

195.2. The EMPR for the Proposed Project did not comply with section 24N of NEMA or Appendix 4 of the EIA Regulations.

195.3. The Decisions under Review are irrational, unreasonable, and arbitrary because they bind the DG to accept the OSCP and BOCP irrespective of their contents.

196. Therefore, the Decisions under Review:

196.1. did not comply with a mandatory and material procedure prescribed by NEMA and the EIA Regulations;

196.2. were procedurally unfair;

196.3. were arbitrary;

196.4. were materially influenced by an error of law;

196.5. were taken because irrelevant considerations were taken into account and relevant considerations were not considered;

196.6. were not rationally connected to the information before the decision makers; and

196.7. were unreasonable.

197. Therefore, the Decisions under Review stand to be reviewed and set aside in terms of sections 6(2)(b), 6(2)(c), 6(2)(d), 6(2)(e)(iii), 6(2)(e)(vi), 6(2)(f)(cc) and 6(2)(h) of PAJA.

**CONCLUSION**

198. In the circumstances, the Applicants have established that the Decisions under Review stand to be reviewed and set aside in terms of section 6 of PAJA.

**WHEREFORE** the Applicants pray for an order in terms of the notice of motion.

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**ELIZABETH JANE MCDAID**

I hereby certify that the deponent has declared that she knows and understands the contents of this Affidavit and that to the best of her knowledge and belief it is the truth, which Affidavit has been signed to and affirmed to before me at \_\_\_\_\_ on this the \_\_\_\_ day of \_\_\_\_\_ 2024.

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**COMMISSIONER OF OATHS**