

**COMMENTS ON THE ALBANY WIND ENERGY FACILITY EIA PROCESS  
INADEQUACIES IN EIR AND SPECIALIST STUDIES**

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## 1. INTRODUCTION

- 1.1 The Indalo Protected Environment ("Indalo") is made up of the 9 Private Game Reserves ("PGRs") belonging to different landowners. The 9 PGRs are located over 3 local municipalities in the Sarah Baartman District Municipality of the Eastern Cape Province of the RSA as indicated and form a corridor between the Addo National Park (Addo") and the Great Fish River Provincial Nature Reserve ("Great Fish").
- 1.2 Based on government's Protected Area Expansion Strategy, buffer zones and Biodiversity Stewardship Programme discussed in this Comment, Indalo is currently actively working with local provincial and national partners including the Wilderness Foundation South Africa, Eastern Cape Park and Tourism Agency ("ECPTA") and SA National Parks ("SANParks") to expand areas under protection. This includes further amalgamation of the southern, central and northern nodes of Indalo into large agglomerations (>50 000Ha) of private reserves in the central node and private/public reserves by forming public-private partnerships with Addo and the Great Fish (and various provincial nature reserves) in the south and north respectively.
- 1.3 Like Addo and the Great Fish, the Indalo PGRs (as are many others in South Africa and in Africa in general) are concerned with nature and wildlife tourism as a key protected area goods and service. Likewise, the Indalo PGRs are managed according to a Protected Area Management Plan but instead of relying on public funds like Addo and Great Fish, they must secure funding from internal resources.
- 1.4 These resources are derived from nature and wildlife tourism which is dependent on a natural environment largely free from the structures and signs of modern civilisation (often from which the tourists come to get away to find solitude, tranquillity and serenity). Wind energy development characterised by colossal skyline intrusion will impose a significant divestment on Indalo members impacted and curtail wildlife and nature tourism enabled protected area expansion.

## 2. INDALO PROTECTED ENVIRONMENT

### 2.1 HISTORY

2.1.1 The Indalo Protected Environment ("PE") is made up of the 9 PGRs reflected in the Table below.<sup>1</sup>

Table: Private Game Reserves forming part of the Indalo Protected Environment

| No | Name                              | Size hectares    | Local Municipality           |
|----|-----------------------------------|------------------|------------------------------|
| 1. | Amakhala Game Reserve             | 9,733.7          | Sundays River Valley, Makana |
| 2. | Hopewell Game Reserve             | 2,730.94         | Sundays River Valley         |
| 3  | Kariega Game Reserve              | 7,936.78         | Ndlambe, Makana              |
| 4. | Kwandwe Game Reserve              | 18,988.04        | Makana                       |
| 5. | Oceana Beach and Wildlife Reserve | 724.72           | Ndlambe                      |
| 6. | Pumba Game Reserve                | 5,837.10         | Makana                       |
| 7. | Shamwari Game Reserve             | 20,338.58        | Sundays River Valley, Makana |
| 8. | Sibuya Game Reserve               | 1,785.23         | Ndlambe                      |
| 9. | Lalibela Game Reserve             | 8,001.46         | Makana                       |
|    | <b>TOTAL</b>                      | <b>76,076.59</b> |                              |

2.1.2 The PGRs that form the Indalo PE are classified as game and natural lodges for tourism purposes. The Tourism Grading Council of South Africa (TGCSA) regards "Private Nature Reserves" as part of "Game or Nature Lodges". The visual and scenic quality of the natural environment of the PGRs (along with wildlife and

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<sup>1</sup> See detail in the Indalo Protected Environment - Protected Area Management Plan, 2019-2024 ("Indalo PAMP"), p 1-14.

hotel specifications), are part of the minimum requirements to be a Game or Nature Lodge.

*“Scenic or natural vista (beyond that of the immediate garden area) e.g.: water view, rural outlook, mountain view or natural bush setting offering some Safari Activity such as Game Drives, Walking, Cycling, Horseback, Canoeing etc.”<sup>2</sup> [Our emphasis.]*

2.1.3 The unique background, character, nature-based tourism services, and community development by Indalo PGRs are well appreciated by national and regional authorities. Indalo PGRs have made a substantial contribution towards increasing areas under formal protection and contributing to achieve targets set in provincial and national protected area expansion strategies. Indalo PGRs reflect a proud history of financial investment and selfless personal commitment, dedication and service over many years by owners and personnel that have established and developed the different reserves as world class nature-based tourism destinations through ethical management of their biodiversity and natural environments. Protecting the unspoiled scenic and natural vistas of their unique natural environments were and are pivotal for the Indalo PGRs to establish and maintain their international reputation as malaria free wilderness tourism destinations of choice. This Comment demonstrates that the proposed location for the Albany Wind Energy Facility (“WEF”) will significantly affect the unique wilderness experience of some of the PGRs, and in particular the Great Fish, which may cause serious economic harm to some parties.

2.1.4 Indalo is currently actively working with local provincial and national partners including the Wilderness Foundation South Africa, ECPTA and SANParks to expand areas under protection through further amalgamation of southern, central and northern nodes into large agglomerations (>50 000Ha) of private reserves in the central node and private/public reserves by forming public private partnerships

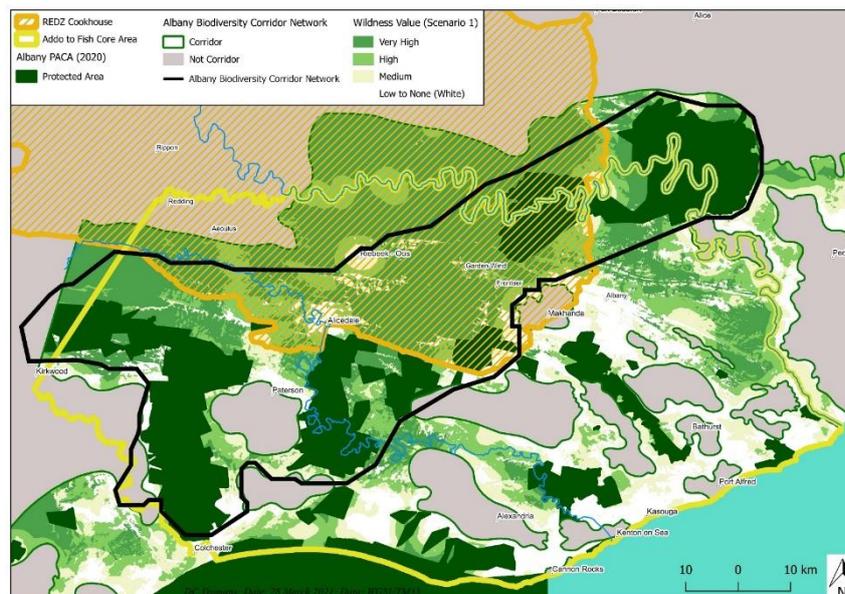
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<sup>2</sup> See the *Minimum Requirements: Game Lodge / Nature Lodge Accommodation, 2014* p 1 at <https://www.tourismgrading.co.za/assets/Uploads/Game-NATURE-Lodge-Criteria.pdf>.

with Addo and the Great Fish (and various provincial nature reserves) in the south and north respectively.

2.1.5 Based on government's Protected Area Expansion Strategy, buffer zones and Biodiversity Stewardship Programme, Indalo is currently actively working with local provincial and national partners including the Wilderness Foundation of South Africa, Eastern Cape Park and Tourism Agency and SA National Parks to expand areas under formal protection, inform land-use planning, stimulate economic development and aide thicket restoration in the broader Albany region.

2.1.6 This is will be achieved through further amalgamation of the southern, central and northern nodes into large agglomerations (>50 000Ha) of private nature and game reserves in the central node and private/public nature and game reserves through public-private partnerships with Addo National Park and Great Fish Provincial Reserves in the south and north respectively with common traversing agreements and unified conservation management as part of the so-called Albany Mega-Reserve (also referred to as Albany Biodiversity Corridor or Addo to Great Fish Corridor as set out in below figures).



2.1.7 The environmental and economic benefits associated with the agglomerations (>50 000Ha) of private reserves and expansion through private partnerships with Addo in the south and the Great Fish in the north are considerable. Not only will

this form a **Mega Eastern Cape Protected Area** as larger consolidated areas will lead to improved marketability of the Eastern Cape as a world class safari destination, making it comparable to Kruger, Sabi Sands and Madikwe. As much as wind energy development is necessary in South Africa, we hold wind energy development in Addo, Great Fish, Indalo and their further extended areas to be untenable and undesirable that should be avoided at all cost.

## 2.2 LEGAL STATUS

2.2.1 **Proclamation:** Indalo was declared on 13 April 2018 as a Protected Area, Category Protected Environment, in terms of section 28(1)(a)(i) and (b) of the National Environmental Management: Protected Areas Act, No. 57 of 2003 ("NEMPAA"), by the Member of the Executive Council ("MEC") for Economic Development, Environmental Affairs and Tourism, in the Eastern Cape Province.<sup>3</sup>

2.2.2 **Indalo Association:** The MEC assigned his power as Management Authority of the Indalo PE to the Indalo Association in terms of section 38(2)(b) of NEMPAA.<sup>4</sup> The ECPTA, an agency of the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism ("DEDEAT"), entered into an agreement with the Indalo Private Game Reserve Association that the Indalo PE becomes a Biodiversity Stewardship site.<sup>5</sup>

2.2.3 **Stewardship Agreement:** The Indalo Stewardship Agreement with the state forms an important part of the Indalo PE legal framework (read with the national and provincial biodiversity and conservation law, policies and programmes discussed below) that must be taken into consideration by the Department of Forestry,

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<sup>3</sup> PN 70 of 13 April 2018 in PG 4030. Indalo PAMP, p 55. Lalibela Private Game Reserve was only declared part of the Indalo PE on 31 July 2019 in PN 219 of 31 July 2019 in PG 4280.

<sup>4</sup> By the declaration notices.

<sup>5</sup> Indalo PAMP, p 1-2. There are 5 categories of biodiversity stewardship in South Africa whereby conservation authorities secure land in biodiversity priority areas for conservation by entering into agreements with private and communal landowners: (i) Nature Reserves under NEMPAA with a single private nature reserve owner, (ii) Protected Environments (PEs) under NEMPAA with multiple landowners which is the case for Indalo, (iii) biodiversity management agreements (statutory contracts) under NEMBA, (iv) biodiversity agreements (common law contracts), and (v) biodiversity partnership areas (non-binding memorandums of understanding).

Fisheries and the Environment, ("DFFE") and the EAP in evaluating the EIA for the Albany WEF development. Section 8 of the Indalo Protected Area Management Plan ("PAMP") sets out certain restrictions on landowners in Indalo based on legislation and the Biodiversity Stewardship Agreement with the ECPTA. It specifically prohibits the placement of wind turbines for the generation of renewable energy inside Indalo.<sup>6</sup> This prohibition on wind turbines inside Indalo addresses the same negative environmental impacts which Indalo demonstrates in this Comment that the location of the Albany WEF outside of the Indalo PE will have on the surrounding Protected Areas (including Indalo) and consequently should be situated elsewhere than the proposed site in the EIR.

## 2.3 LEGAL FRAMEWORK

2.3.1 The EAP's recommended in section 12.6 of the EIR that the proposed Albany WEF development be authorised (subject to the conditions). The EAP's recommendation is wrong, since the EIR is fatally flawed as demonstrated below and thus in contravention of the prescribed legal provisions. The EAP, and the DFFE as the competent authority, are required to consider, evaluate, and respectively recommend or decide, the Albany WEF application for EA against the prescribed legal framework which is summarised below.

2.3.2 **Constitutional norms:** The Constitution is the supreme law in South Africa and hence the starting point in interpreting any legislation.<sup>7</sup> Section 39(1) of the Constitution stipulates that the interpretation of the Bill of Rights (environmental rights in section 24 referred to below) must promote the values that underlie an open and democratic society based on human dignity, equality and freedom. International law must, and foreign law may, be considered during interpretation. This Comment demonstrates below that the legal comparison by the EIR (SIA) of the relationship between wind energy facilities and nature-based tourism in foreign jurisdiction was poorly done because of factual mistakes that excluded relevant foreign examples and referred to irrelevant foreign examples.

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<sup>6</sup> Indalo PAMP, p 92.

<sup>7</sup> Section 2 of the Constitution.

Furthermore, section 39(2) requires that the spirit, purport and objects of the Bill of Rights, which is the cornerstone of our society, must be promoted during legal interpretation. Hence the courts prescribe a purposive interpretation of the legal provisions regulating the EIA of the Albany WEF application measured within their larger statutory context and against the fundamental constitutional values. It is submitted that a purposive and contextual value based interpretation of environmental principles and the EIA requirements in NEMA justifies the use of international best environmental practice ("BPEO") standards for WEFs such as by the World Bank Group (International Finance Corporation ("IFC")) that will be discussed *infra*.

2.3.3 Various constitutional imperatives are derived from, and is identified in, section 24 of the Constitution of the Republic of South Africa, 1996 ("the 1996 Constitution"). One of the more relevant constitutional imperatives is an obligation to protect the environment by promoting conservation (for example, by way of supporting the expansion strategy for Protected Areas or by way of preventing negative impacts on biodiversity), another is the obligation to protect the environment through ecologically sustainable development (by requiring that an industrial development must be environmentally, socially and economically sustainable). The proposed Albany WEF does not demonstrate meeting either of these.

2.3.4 **Right to well-being and dignity:** Section 10 of the Constitution also protects the human dignity of a person. The significant impact of the Albany WEF on the aesthetic quality and well-being of affected persons in section 24(a) of the Constitution by necessary implication also unjustifiably impairs their human dignity. Section 24 of the Constitution provides the fundamental normative foundation for environmental protection and conservation in South Africa by guaranteeing specific environmental rights to everyone. Section 24(a) protects the right to an environment that is not harmful to a person's health or well-being. The right to well-being is relevant to the Albany WEF because a person's well-being includes protection of the aesthetic quality of human life against nuisances such as odour, noise or visual pollution. This Comment indicates that the Albany WEF will cause significant visual disturbance which will negatively affect the aesthetic quality of the natural wilderness environment and the natural or wilderness experience of

persons staying in or visiting the surrounding Protected Areas (Indalo, Great Fish and Addo). The visual disturbance will affect the right to well-being which cannot be justified in an open and democratic society based on human dignity, equality, and individual freedom through the impact to national estate in the form of Indalo Protected Environment and Great Fish Provincial Nature Reserve.

Page 165 of Socio-Economic Scoping Assessment Specialist Report Undertaken for the Strategic Environmental Assessment For Wind And Solar Photovoltaic Energy In South Africa indicates:

*"There is also a possibility that prices of land in some areas of REDZ could actually drop with the development of wind or solar PV projects. This scenario will apply to all the areas and land parcels that are situated in picturesque areas and are currently deriving their income from eco-tourism and hunting. Establishment of wind or solar PV projects in areas that may affect the landscape and aesthetics of the environment that is used to generate revenue from tourists will negatively impact the attractiveness of the area. As a result, the area might no longer be suitable for tourism-related activities or the revenue that could be generated from such activities would be significantly reduced. Since land values are linked to future economic value of revenue that could be derived from it, decline in tourism numbers completely or partially will lead to a decline in revenue, which subsequently results in the decrease of business value and land that is used to derive the revenue. **In order to mitigate the potential decline in land prices in selected areas, wind and solar PV projects should not be developed on land parcels that derive their income from ecotourism or commercial game hunting and within the buffer zones of these sites.** Consequently, the WEF should not be allowed to be developed on the proposed site but must be moved elsewhere where it does not have a significant impact on people's right to well-being.*

- 2.3.5 **Right to environmental protection:** Section 24(b) of the Constitution guarantees the right to environmental protection. It places a constitutional obligation on the state to protect the environment for the sake of present and as well as future generations through reasonable measures that includes legislation that: (i) prevent pollution and ecological degradation; (ii) promote conservation and (iii)

secure ecological sustainable development and use of natural resources whilst promoting justifiable economic and social development. Thus, the constitutional principle of inter- and intragenerational conservation trusteeship places a clear legal duty on the DFFE (and other competent authorities e.g. SANParks, SANBI, ECPTA and local municipalities) to act as custodians of the natural environment and conservation by taking the necessary steps that may be required to ensure short and long-term environmental protection of the Indalo, Great Fish and Addo Protected Areas in the Eastern Cape Province. The court confirmed this principle in the Fuel Retailers case: *“The importance of the protection of the environment cannot be gainsaid. Its protection is vital to the enjoyment of the other rights contained in the Bill of Rights; indeed, it is vital to life itself. It must therefore be protected for the benefit of the present and future generations. The present generation holds the earth in trust for the next generation. This trusteeship position carries with it the responsibility to look after the environment. It is the duty of the court to ensure that this responsibility is carried out.”*<sup>8</sup> [Own emphasis.]

2.3.6 The discussion of the viewsheds of the proposed WEF that were prepared by EScience for this submission (as per Appendix C), overwhelmingly demonstrate the short and long term visual degradation of the natural environment. The DFFE's environmental trusteeship requires it to prevent this degrading development so that current and future visitors will continue to enjoy the unspoilt natural environment, moreover so of the planned Eastern Cape Mega Protected Environment through the expansion programme of the Addo, Great Fish, Indalo and other PGRs.

2.3.7 **Sustainable development:** Section 24(b)(iii) of the Constitution provides an exception to the right to environmental protection by acknowledging the right of the Applicant to the Albany WEF, but subject to the important proviso that it must be ecological sustainable. The right to sustainable development is one of the core environmental and economic principles in the Constitution and in South African law and is further guaranteed in the environmental principles in section 2(4) of NEMA that contain fundamental directives of state action, the principle of

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<sup>8</sup> *Fuel Retailers Association of South Africa (Pty) Ltd v Director-General Environmental Management Mpumalanga Province* 2007 (6) SA 4 (CC) para [102], see also para [71], [74], [75], [80], [93].

integrated environmental management in sections 23 and 24 of NEMA and the relevant EIA Regulations as well as various provisions of the specific environmental management acts ("SEMA's") and other legislation that provides environmental regulation of economic development. Sustainable development is defined by NEMA as the *"integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations."* Considering that

2.3.8 The right to sustainable development requires that both the EAP in the EIR as well as the DFFE through its decision, to strike a fair balance or equilibrium (as explained by the courts) between environmental protection of the affected Protected Areas and the economic development of the Albany WEF. In light of the serious concerns and fatal flaws of the EIR to ensure proper environmental protection, it is clear that the EAP (and some specialists) had failed to comply with the integration requirement of the section 24(b) of the Constitution and section 2(4) of NEMA. Based on the supplementary information provided by Indalo in this follow up submission, an informed and fair balancing of the Applicant's right to develop the Albany WEF vis-a-vis Indalo's (and the Protected Areas') and visitors' right to environmental protection and ecological conservation clearly shows that the environmental rights outweighs the development right at the proposed location as there is already a substantial number of WEF sites that have been authorised for the purposes of bidding into the REIPPP – in fact the currently authorised projects indicate that there is a multiple of 10.6 times capacity to meet the IRP target over the next 5 years and indeed enough capacity to meet the proposed updated 2030 target. Furthermore the Eastern Cape alone with authorised WEFs of over 3 GW has approximately 2.5 times more wind energy capacity than that which is required to meet the proposed updated IRP 2019 target over the next 5 years and but wind energy in the Eastern Cape is limited by the maximum export or evacuation capacity of the Eastern Cape which currently stands at 1 740 MW as confirmed by Eskom (2019)<sup>3</sup>. On the evidence explained in this submission, the proposed Albany WEF will not be ecologically sustainable as required by section 24(b) of the Constitution and cannot demonstrate desirability, and although the need for renewable energy is beyond dispute, the

need for further WEF development in the Eastern Cape in the short to medium term cannot be demonstrated in the face of oversupply and grid capacity constraints. For this reason, the DFFE as custodian of the natural environment of the must reject the Albany WEF application.

2.3.9 **Neighbour law:** The common law regulates the conduct between neighbours to prevent the unlawful and unreasonable impairment of each other's undisturbed enjoyment of their property due to noise, visual or odour pollution or other conduct by a neighbour. This common law duty of care by a landowner or user towards neighbours is based on the *sic utere tuo* doctrine. Failure by the intruding neighbour to cease the nuisance affecting the neighbouring property can result in interdictory relief by a court of law and in worse cases payment of compensation by Aquilian action for the damages caused by the interference. In the present matter the Protected Areas precede the proposed Albany WEF. Also, the Albany WEF has been duly informed (through this Comment – which should have been done by the EIR, but which was omitted) of the expansion programme to create the Eastern Cape Mega Protected Area. Thus, the WEF must respect the historic rights and legitimate interests of Indalo and the other Protected Areas. (The expansion of Protected Areas and creation of buffer zones are prescribed by the existing law and government have developed and is implementing expansion policies, strategies and plans over many years (discussed below).) It is Indalo's view that negative environmental impacts of the WEF will cause a significant and permanent impairment of the undisturbed enjoyment of the Indalo and Great Fish Protected Areas as well as of the future Mega Protected Area.

2.3.10 **NEMA:** As required by section 24(b) of the Constitution, various laws were promulgated that ensure protection of the environment during the Albany Wind Farm development. Primary are NEMA and the EIA Regulations which in the present case provide the overall national legislative framework. Section 2 of NEMA contains fundamental environmental principles, that the EAP must consider when considering the environmental impacts for the EIR and the DFFE when deciding the Wind Farm application to ensure proper environmental protection. Sections 24(4) and 24O of NEMA provide the criteria for the EIR,

including compliance with NEMA (integrated environmental management and mainstreaming of conservation management in section 23, the polluter's duty of environmental care in section 28), EIA Regulations, SEMAS and other regulations and notices as specified below. The EIA Regulations contain detail requirements for EIA studies e.g. to demonstrate the need and desirability of undertaking the proposed activity, assess alternatives (including location, technology and content), public comment, assess direct, indirect and cumulative impacts of the development, and take into account any applicable government policies, plans, guidelines, environmental management instruments, and other decision-making instruments that have been adopted by the competent authorities. No consideration was afforded to the socioeconomic impact is required by the Guideline on Need and Desirability (DEA (2017)) and the proposed Albany WEF has not been demonstrated to be socially sustainable for lack of assessment of the opportunity costs in terms of jobs that may be lost / potential jobs that may be lost in wildlife and nature tourism that is substantially more job intensive, further it has been shown in the economic assessment that whereas the economic contributions of wildlife and nature tourism in the private game reserves and WEFs are similar, employment becomes a drastic distinguishing factor, and the scale is heavily tilted towards PGRs as the investment that would yield the highest socio-economic return. What is even more compelling is that the inverse of this argument is also valid, i.e. if one needs to divest in PGRs or WEFs, the largest socio-economic losses will be incurred in the PGR domain. In this case the proposed development will force divestment and job losses multiples of what the WEF will generate.

2.3.11 Various SEMAs apply to important aspects of the Indalo, Great Fish and Addo Protected Areas in the present matter e.g. to conservation (NEMPAA), protection of biological diversity (National Environmental Management: Biodiversity Act, No. 10 of 2004 ("NEMBA")), management of water resources (National Water Act, No. 36 of 1998 ("NWA")), waste management (National Environmental Management: Waste Act ("NEMWA")), management of coastal areas (National Environmental Management: Integrated Coastal Management Act, No. 24 of 2008 ("ICMA")), etc. (Not a complete list.) Provincial environmental and conservation legislation in the Eastern Cape Province adds a further layer of legislative control. In addition, national legislation such as for spatial development planning

(permission for change of land-use by section 26(4) of the Spatial Planning and Land Use Management Act, No. 16 of 2013 ("SPLUMA")) and the by-laws and spatial development frameworks ("SDFs") of the Sundays River Valley, Makana and Ndlambe local municipalities provide additional protection to these Protected Areas.

2.3.12 **Conservation:** The conservation of biodiversity is primarily regulated by NEMPAA and NEMBA which should be interpreted and applied in an integrated manner in support of each other's legislative purpose and objectives. Both laws emphasise the state's constitutional obligation as the national trustee for the environment to protect and conserve biological diversity, natural landscapes and seascapes as well as the species and ecosystems therein and ensure the sustainable use of indigenous biological resources.<sup>9</sup> All state institutions in the national, provincial and municipal spheres of government must comply with the provisions of these Acts, their regulations, norms and standards, frameworks, strategies, conservation policies and management instruments. The provisions of NEMBA and NEMPAA prevail over conflicting provisions of any national, provincial or municipal laws e.g. provincial spatial biodiversity plans, Sara Baartman District Municipality and Makana Local Municipal integrated development plans ("IDPs") and the Makana Local Municipal SDF.<sup>10</sup> NEMBA and NEMPAA must be interpreted and applied in accordance with the national environmental management principles of NEMA as well as be read with its applicable provisions.<sup>11</sup> In the *Mabola* case the court confirmed the objectives of NEMPAA in section 2 are –

*"the provision, within the framework of national legislation, including NEMA, for the declaration and management of protected areas, to provide for cooperative governance in the declaration and management of such areas, including the promotion of sustainable utilisation of protected areas for the*

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<sup>9</sup> Sections 3 of NEMBA and NEMPAA. *Mining and Environmental Justice Community Network of SA and others v Minister of Environmental Affairs and Others*, Case 50779/2017 NGHC 6 November 2018, para 4.7 ("*Mabola*").

<sup>10</sup> Section 48(1) of NEMBA.

<sup>11</sup> Sections 6 and 7 of NEMBA and section 5(1) of NEMPAA.

benefit of people in a manner that would preserve the ecological character of such areas."<sup>12</sup> [Own emphasis]

2.3.13 2.3.13 The viewshed prepared by Indalo discussed below (Appendix C) clearly illustrates that the Albany WEF will destroy the aesthetic character of the scenic view from Adam's Krans in the Great Fish Protected Area. Thus, the location of the Albany WEF will be in clear violation of NEMPAA as protected by the court. The provisions of NEMPAA (and NEMBA) trump conflicting economic growth policies in the various strategy documents and spatial planning instruments referred to by the SIA Specialist (para 3.2, 3.3 and 3.4) as justification for the Albany WEF. The legality principle of the rule of law in section 1 of the Constitution requires that all government policies must be consistent with the Constitution and legislation (in this case NEMPAA and NEMBA) otherwise they are unconstitutional and will be set aside to have no force or effect. This means the SIA cannot place more emphasis on government policies for economic (energy) development than on conflicting the environmental legislation when considering the Albany WEF. The EIA Regulations require the SIA specialist and the EAP to adequately assess and disclose information that is detrimental to the WEF. This was not adequately done in the EIR.

2.3.14 **Conservation** obligations: Section 17 of NEMPAA is important for the evaluation of the environmental impact of the WEF with respect to the Indalo, Great Fish and Addo Protected Areas. It specifies the legal purposes which these Protected Areas are obligated to fulfil, i.e. –

- “(a) to protect ecologically viable areas representative of South Africa’s biological diversity and its natural landscapes and seascapes in a system of protected areas;*
- (b) to preserve the ecological integrity of those areas;*
- (c) to conserve biodiversity in those areas;*

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<sup>12</sup> Mabola, para 4.6.

- (d) to protect areas representative of all ecosystems, habitats and species naturally occurring in South Africa;
- (e) to protect South Africa's threatened or rare species;
- (f) to protect an area which is vulnerable or ecologically sensitive;
- (g) to assist in ensuring the sustained supply of environmental goods and services;
- (h) to provide for the sustainable use of natural and biological resources;
- (i) to create or augment destinations for nature-based tourism;
- (j) to manage the interrelationship between natural environmental biodiversity, human settlement and economic development;
- (k) generally, to contribute to human, social, cultural, spiritual and economic development; or
- (l) to rehabilitate and restore degraded ecosystems and promote the recovery of endangered and vulnerable species." [Own emphasis.]

2.3.15 **Protected Area Obligations:** Section 28(2) of NEMPAA stipulates that the Indalo PE may only be declared for the following purposes, -

- “(a) to regulate the area as a buffer zone for the conservation and protection of a ... national park, MPA, ... or nature reserve;
- (b) to enable owners of the land to take collective action to conserve biodiversity on their land and to seek legal recognition therefor;
- (c) to protect the area if it is sensitive to development due to its (i) biological diversity, (ii) natural characteristics, (iii) scientific, cultural, historical, archaeological or geological value, (iv) scenic and landscape value, or (v) provision of environmental goods and services;
- (d) to protect a specific ecosystem outside of a national park, or nature reserve;
- (e) to ensure that the use of natural resources in the area is sustainable; or
- (f) to control change in land use in the area if the area is earmarked for declaration as, or inclusion in, a national park or nature reserve.” [Own emphasis.]

2.3.16 All the purposes in section 17 of NEMPAA apply to Indalo, Great Fish and Addo. The underlined provisions of section 17 require that Indalo and the other Protected Areas must, (i) provide environmental goods and services, (ii) create an environment that is conducive for nature-based tourism, and (iii) ensure ecological sustainable social and economic development takes place. Similarly, the purposes in section 28(2) of NEMPAA apply specifically to the Indalo. This means that Indalo must (i) form a buffer zone between the Addo and Great Fish, (ii) enable the different PGRs inside Indalo to conserve their biodiversity, (iii) protect sensitive areas in respect of economic development e.g. areas with scenic and landscape value, and (iv) provide environmental goods and services.

2.3.17 **Legal error:** Indalo objects against approval of the Albany WEF because the development will prevent Indalo from fulfilling its statutory obligations (purposes) in sections 17 and 28 of NEMPAA. (This also the case for the Great Fish and Addo in respect of their obligations under section 17.) This is so because the environmental impact of the WEF will affect the ability of the Protected Areas to adequately provide some of the environmental goods and services (e.g. game drives and walks, experiencing wildlife in their natural habitat, nature photography, wildlife education, game cuisine and cultural interaction with local communities), will significantly affect nature-based tourism and is not ecologically, socially and economically sustainable because it will cause the reduction of visitors to some of the Indalo PGRs and Protected Areas. In this regard we refer to the negative effect of the Waaihoek WEF on tourism to Pumba (see Pumba letter attached) which confirm these risks as real and not miniscule or theoretical as appears to be the impression created in the EIR and SIA.

2.3.18 **Unlawful and unconstitutional conduct:** The recommendation by the EAP in the EIR contains a material legal error that will have an unlawful and unconstitutional legal effect if the DFFE approves the application. The EAP's recommendation to the DFFE to provide conditional environmental authorisation (EA) for the development of the Albany WEF will affect Indalo and the other Protected Areas to comply with their legal obligations under section 17 and 28 of NEMPAA, respectively (as underlined). Indalo members are concerned with nature and

wildlife tourism and are managed according to a Protected Area Management Plan and secure funding from internal resources to fund the Protected Area Management Plan in compliance with its obligations, the provisions of conservation and biodiversity legislation and the conditions stipulated by formal management agreements with Government. These resources required to perform the management of the Protected Area are directly derived from nature and wildlife tourism which is dependent on a natural environment largely free from the structures (often from which the tourists come to get away to find solitude, tranquillity and serenity). Wind energy development, characterised by colossal turbines and associated skyline intrusions rotating turbine blades and flashing aviation warning lights, which naturally severely mar the landscape and disturb serenity of the protected area which the applicant's members fundamentally thrive on for the environment and for their business, the development of wind energy, will impose a significant divestment on the applicant's members as this significantly impacts and curtails wildlife and nature tourism. Page 165 of Socio-Economic Scoping Assessment Specialist Report Undertaken for the Strategic Environmental Assessment For Wind And Solar Photovoltaic Energy In South Africa indicates: Establishment of wind or solar PV projects in areas that may affect the landscape and aesthetics of the environment that is used to generate revenue from tourists will negatively impact the attractiveness of the area. As a result, the area might no longer be suitable for tourism-related activities or the revenue that could be generated from such activities would be significantly reduced. **In order to mitigate the potential decline in land prices in selected areas, wind and solar PV projects should not be developed on land parcels that derive their income from ecotourism or commercial game hunting and within the buffer zones of these sites.** The EAP's recommendation to the DFFE to provide conditional environmental authorisation (EA) will be contrary to the rule of law, and thus unlawful and unconstitutional conduct. If the Applicant receives EA for the Albany Wind Farm development, Indalo reserves its right to have it set aside on internal appeal to the Minister, or on judicial review in terms of sections 6(2)(d) and (i) of the Promotion of Administrative Justice Act, 3 of 2000 ("PAJA") as well as the right to obtain interdictory relief where necessary.

2.3.19 **NEMBA:** NEMBA regulates the legal classification and permitting system for the protection of threatened ecosystems and species in South Africa. It also provides the legal framework for integrated and coordinated planning, monitoring of biodiversity conservation and protection through 3 instruments: (i) the national biodiversity framework (provide national norms and standards to all organs of state, communities and the private sector throughout the country), (ii) bioregional plans (maps for specific geographic areas that identify Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs") with guidelines for land use, and (iii) biodiversity management plans (to protect listed threatened ecosystems, indigenous species and special categories in specific cases). Indalo has indicated important gaps in the assessment of the avifaunal impact of the WEF which will contravene the statutory obligations of the WEF in terms of NEMBA, the EIA Regulations relevant guidelines specifically the Guidelines for the implementation of the Terrestrial Fauna and Terrestrial Flora Species Protocols for environmental impact assessments in South Africa (GNR 20 January 2020) which the avifaunal assessment does not meet.

2.3.20 **Protected Area Expansion:** The National Protected Area Expansion Strategy ("NPAES") in 2008 provides the national policy framework for the integrated and coordinated expansion and consolidation of the Protected Areas under NEMPAA through ecosystem specific expansion targets. Extended Protected Areas provide important ecosystem goods and services e.g. production of clean water, flood moderation, preventative erosion, carbon storage and protection of the aesthetic value of the landscape. NPAES identified the Baviaans-Addo Area (Focus Area Nr. 3) for protection of 7 biomes in the Eastern Cape as a suitable Protected Area expansion area (and includes the Albany Thicket biome). The Eastern Cape Provincial Areas Expansion Strategy, 2012 ("ECPAES") was developed by ECPTA to implement the terrestrial objectives of NPAES in the EC Province. ECPAES mapped 20 priority areas and developed a realistic implementation plan over the next 5 years for focus areas of high, medium and low precedence that include the Greater Addo and the Great Fish Protected Areas. The Indalo PE is included in the proposed expansion of the Protected Areas by ECPAES. Thus, the aforesaid national and provincial expansion programs provide the legal basis for the creation over time of a Mega Protected Area in

the Eastern Cape. The EIR is deficient because it does not adequately assess and consider how the expansion of the Protected Areas will be impacted by the development of the Albany WEF at the proposed location.

**2.3.21 Buffer Zones:** The expansion of Protected Areas is complemented by a strategy to create buffer zones to National and Provincial Parks such as for Addo and Great Fish. The ecological landscapes of the Parks continue into the surrounding region and their viability as Parks depend on their social, economic and ecological integration into the surrounding region. Once declared and gazetted, the buffer zones will provide legal mechanisms to regulate development in that area e.g. to prevent the negative impacts of intruding developments. As indicated section 28(2) of NEMPAA provides that one of the purposes of the Indalo PE was to form a buffer zone with the Addo and Great Fish. Lalibela in the Indalo PE plans to expand its area to link up with neighbouring Shamwari and Pumba Game Reserves to form part of the proposed Larger Addo - Great Fish Corridor (also referred to as the Albany Corridor). To this effect a formal protected area expansion strategy is under development by various stakeholders including the Wilderness Foundation Africa, ECPTA, SANParks, and the Indalo Association. The EIR does not adequately assess and consider how the proposed development of the Albany WEF will impact on the proposed Larger Addo - Great Fish Corridor (Albany Corridor).

**2.3.22 EC Biodiversity Plan:** The draft EC Biodiversity Strategy and Action Plan, 2017 for the protection of threatened or protected ecosystems was gazetted in 2018 for comment and is based on a comprehensive technical report known as the EC Biodiversity Conservation Plan, 2017. Once adopted these 2017 Plans will replace the outdated EC Biodiversity Conservation Plan of 2007 which is presently still in force. The 2017 Plans emphasise the importance of private conservation areas to the conservation of biodiversity and their contribution to the regional economy and its further expansion process. The 2017 Plans provide a systematic Spatial Biological Assessment ("SBA") that generated and mapped (down to district level) spatial terrestrial and aquatic CBA and ESA priorities based on biodiversity patterns, ecological processes, current and future land uses and the PA network. It provides a matrix of guidelines for recommended land use types and activities

that have been linked to SPLUMA land uses (Spatial Biodiversity Land Use Guidelines" ("SBLUG")) based on their impacts measured against the management objectives of the CBAs and ESAs.

2.3.23 The state's constitutional duty to ensure intergenerational environmental equity is not limited to climate change adaptation programmes such as the promotion of renewable energy (the Albany WEF), but it has the concomitant fundamental obligation to protect and conserve the environment by ensuring the ecological sustainability of the natural and wilderness environment – even against negative impacts of renewable energy projects such as the WEF. The EIR is one sided because it only focuses on the former and does not strike a fair balance between climate change adaptation and long-term environmental conservation and protection envisaged by the Protected Area expansion programme as discussed above.

### 3. COMMENTS OF SPECIALIST STUDIES

#### 3.1 NOISE IMPACT ASSESSMENT

##### 3.1.1 Choice of turbine for noise modelling-

- a) For the purpose of the noise impact assessment the sound power emission levels of the Vestas V136 3.45 MW wind turbine was used. This is a turbine with a rated power output of 3.45 MW and having a rotor diameter of 136m. The reports indicates that the proposed Albany WEF may consist of up to 66 turbines, each capable of generating up to 4.5 MW of power. It is also indicated that each wind turbine may have a rotor diameter of up to 170 m at a hub height of up to 130 m.
- b) The noise specialist, in the letter dated 11 August 2020, indicates as following, in order to motivate that no updated noise impact assessment is required: *“It should be noted that the change in wind turbine specifications such as the wind turbine hub height and rotor diameter does not relate to sound power emission levels, which depends on the model and make of a wind turbine. For the same model and make, a change in specifications such as hub-height and rotor diameter have an insignificant impact on sound power emission levels. Therefore, there is no advantage or disadvantage in terms of acoustics*

*by changing the wind turbine specifications such as turbine hub height as well as rotor diameter."*

- c) We present below the effect of turbine size and rotor diameter on sound power emission levels which show that these parameters do have a significant impact on sound power emissions
- d) It is a basic fact of physics that (all other things being equal) a larger turbine will emit more sound power. A larger turbine blade is required to extract more power from fluid flow over the blade and a larger object moving through a fluid will be a larger source of sound power emissions.
- e) We here provide some key points for consideration from a relevant paper titled "Low-frequency noise from large wind turbines" by Møller and Pedersen (2011)<sup>13</sup>. As Møller and Pedersen (2011) found: "a turbine of double size emits more than the double sound power." They further state that the sound power (in dBA) emitted from the turbines increases proportionally, or more than proportionally, with turbine size, thus indicating that larger turbines will affect potentially larger areas than smaller turbines (Møller and Pedersen, 2011).
- f) This is demonstrated in the figure below, taken from Møller and Pedersen (2011), which clearly shows that higher MW turbines have higher sound power levels across all but the very highest frequencies.

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<sup>13</sup> Møller H, Pedersen CS. Low-frequency noise from large wind turbines. J Acoust Soc Am. 2011 Jun;129(6):3727-44. doi: 10.1121/1.3543957. PMID: 21682397.

<https://asa.scitation.org/doi/10.1121/1.3543957>

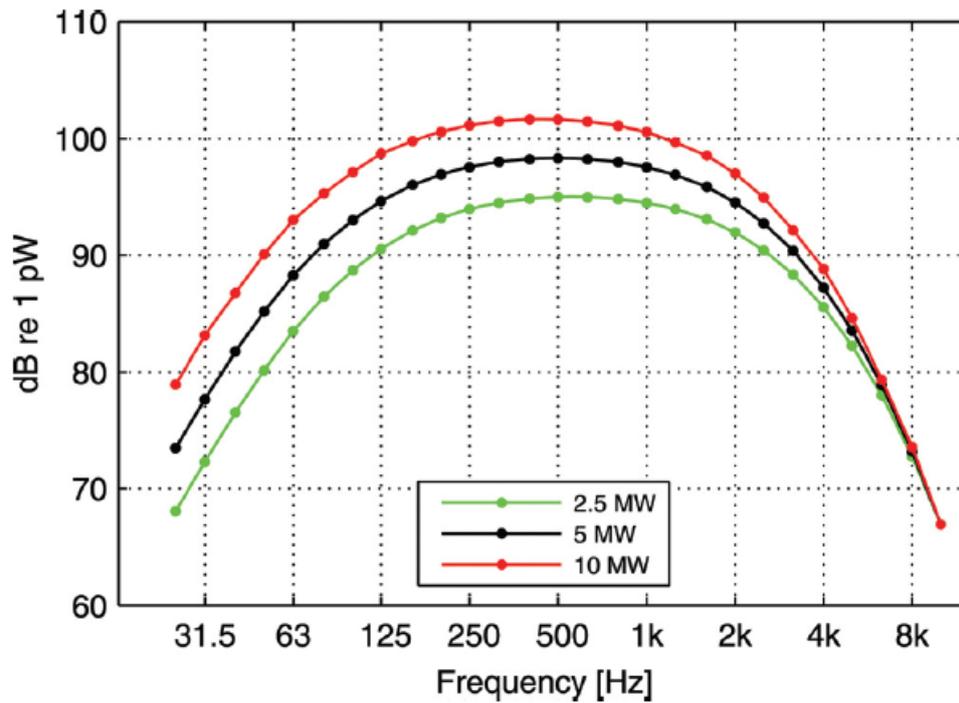
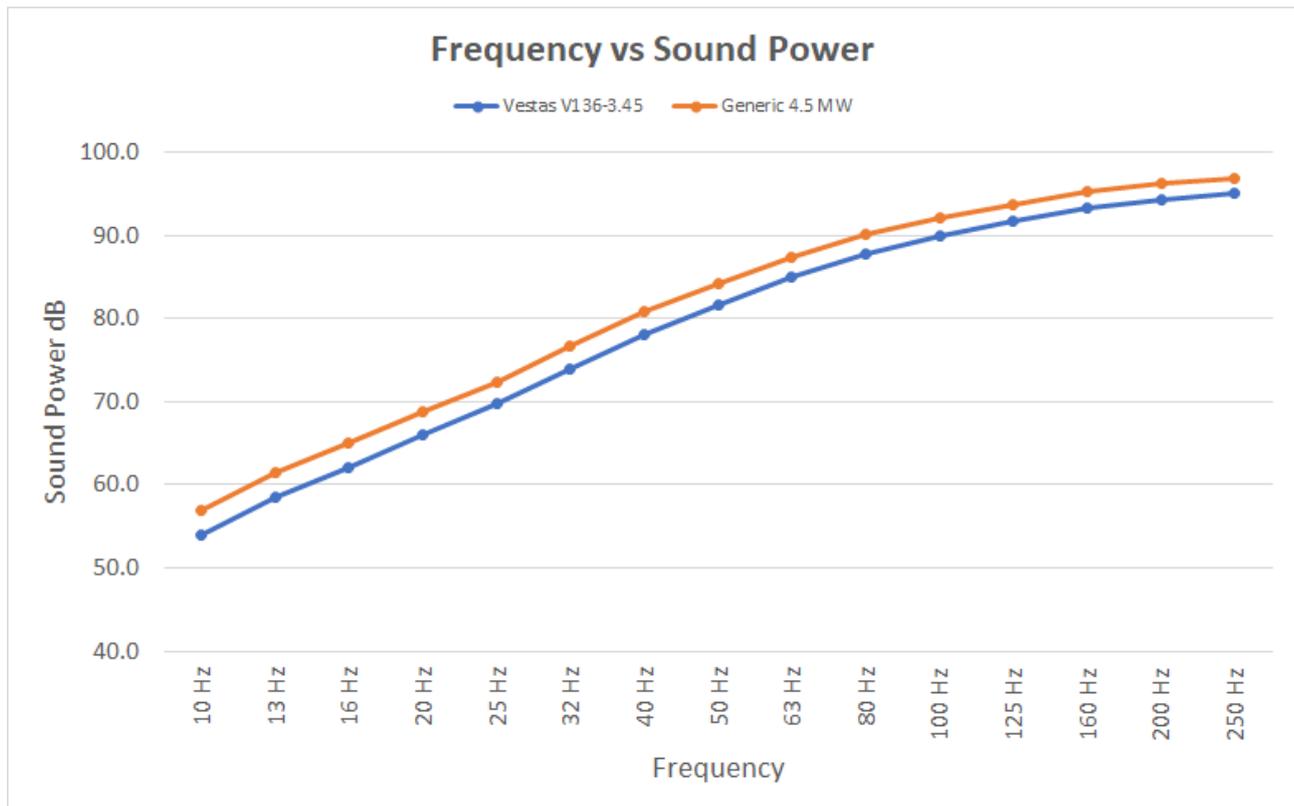


FIG. 19. (Color online) Estimated A-weighted sound power levels in one-third-octave bands for turbines around 2.5, 5, and 10 MW. Values and assumptions are taken from Table III.

- g) The above relationship is illustrated below for the case of Albany using the modelled 3.45 MW turbine and a generic 4.5 MW turbine to illustrate the worst case scenario if the maximum rated turbine is chosen for the development. A increase in sound power levels of between 1.79 dB and 2.97db is observed from the highest to the lowest frequencies. This serves to illustrate that increasing the size of the turbine will have a significant impact on sound power emissions.



- h) Additionally, Møller and Pedersen (2011) found that not only does the sound power level increase with turbine size, but the frequencies emitted by larger turbines are inversely related to turbine size, meaning that larger turbines emit more low frequency noise. See the below figure (Figure 1) from Møller and Pedersen (2011) where Lwa is A-weighted noise and LWALF is A-weighted low frequency noise. Note that LWALF increases more sharply than LWA indicating that the relative amount of low-frequency noise emitted increases with larger turbines. This is nicely summarised by Hansen and Hansen (2020)<sup>14</sup>, when they said, “As wind turbines become larger, the likelihood of annoyance from excessive infrasound and LFN [low frequency noise] becomes greater, due to the shift to lower frequencies of the wind turbine noise spectrum”.
- i) These findings were based on turbines between 2.3 – 3.6 MW, but the authors predict that with increasingly large turbines the results will just be exacerbated (Møller and Pedersen, 2011). However, as there can be fluctuations of several decibels between similarly sized turbines, a safety margin must be considered during the planning stages to ensure that noise guidelines are not exceeded

<sup>14</sup> Hansen, C. and Hansen, K., 2020, March. Recent advances in wind turbine noise research. In *Acoustics* (Vol. 2, No. 1, pp. 171-206). Multidisciplinary Digital Publishing Institute.

(Møller and Pedersen, 2011). There is an internationally accepted model to incorporate this, but it is frequently overlooked (Møller and Pedersen, 2011).

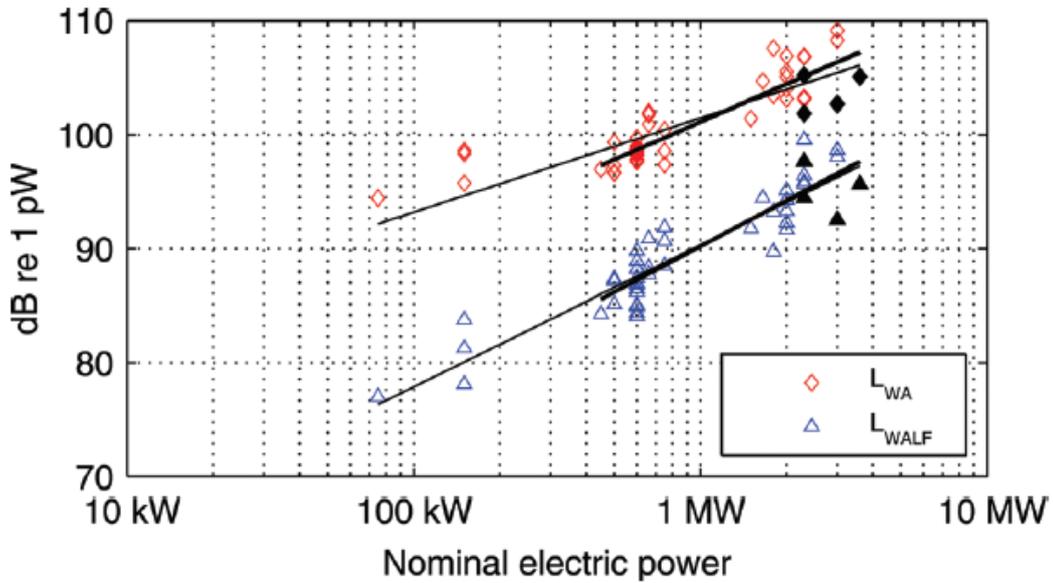


FIG. 1. (Color online) Apparent sound power levels ( $L_{WA}$  and  $L_{WALF}$ ) in the reference direction as a function of turbine size. Wind speed is 8 m/s. Regression lines: all turbines included (thin lines), four turbines below 450 kW excluded (bold lines). Black-filled marks are for turbines 1–4.

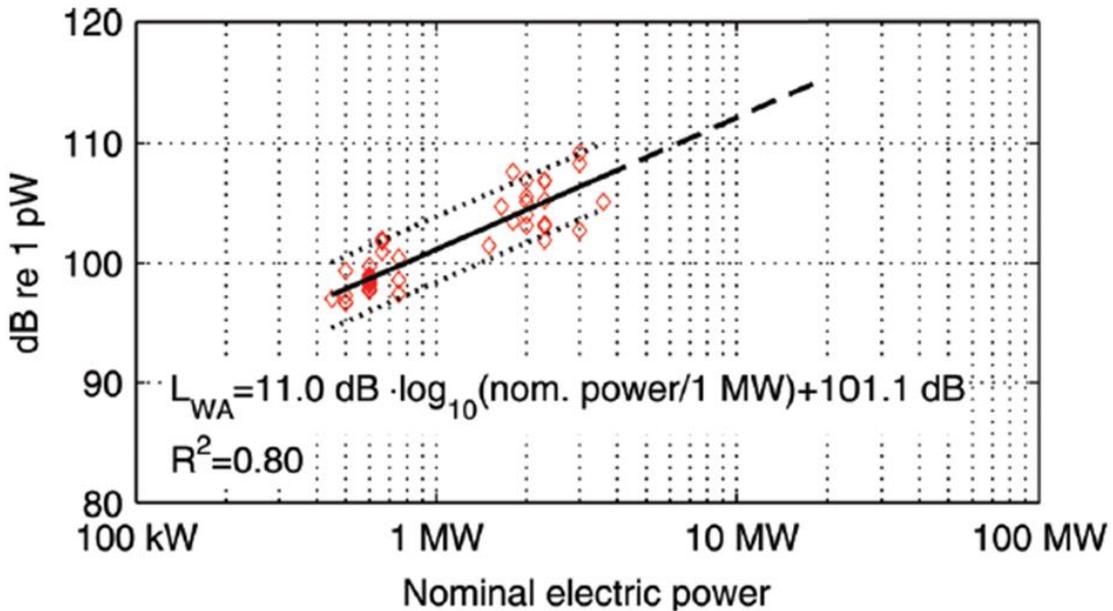


FIG. 13. (Color online) Apparent sound power level ( $L_{WA}$ ) as a function of turbine size, four turbines below 450 kW excluded, wind speed 8 m/s. Linear regression line, standard error of estimates (s.e.e.) 1.64 dB. Extrapolation dashed, 90 % confidence intervals (dotted) based on s.e.e.

- j) It is clear from Møller and Pedersen (2011) that the spread in noise power output is as much as 8dB for three different 3 MW turbines evaluated (and that low frequency noise emissivity is spread similarly). It may be reasonably expected that relative to the reference turbine 3.45 MW Vestas (which incidentally falls on the linear regression line), another turbine may be expected to add as much as 4 dB if it falls on the upper limit.
- k) The requirements of Section 2(4)(a) of NEMA dictate that a risk averse and cautious approach (the precautionary principle) be taken. This requirement, further elaborated by the Guideline on Need and Desirability (DEA 2017), would require the noise impact assessment to increase the noise power used for the assessment by 1 dB for turbine size and 4 dB for turbine type.
- l) Using the curve fit equation derived from the above graph, the apparent sound power levels  $L_{WA}$  are calculated from the equation shown below:

$$L_{WA} = 11.0 \log_{10} \left( \frac{\text{nominal power}}{1MW} \right) + 101.1 \quad (1)$$

- m) The increase in sound power levels between a 3.45 MW turbine and 4.5 MW turbine at a wind speed of 8m/s is approximately 1.27 dB.
- n) We herewith provide to the noise specialist the equations that set out increase in sound power as function of increase in swept area(rotor diameter):

The power output of a wind turbine is affected by factors such as air density, turbine swept area, air velocity and power coefficient and given by the equation:

$$P = 0.5 \rho A V^3 C_p \quad (2)$$

Where,

P =Power (Watts)

$\rho$  = Air Density (about 1.225 kg/m<sup>3</sup> at sea level)

A = Swept Area of Blades (m<sup>2</sup>)

V = Velocity of the wind (ms<sup>-1</sup>)

$C_p$  = Coefficient of performance

And where  $r$  = the length of the rotor blade the swept area is given by:

$$A = \pi r^2 \quad (3)$$

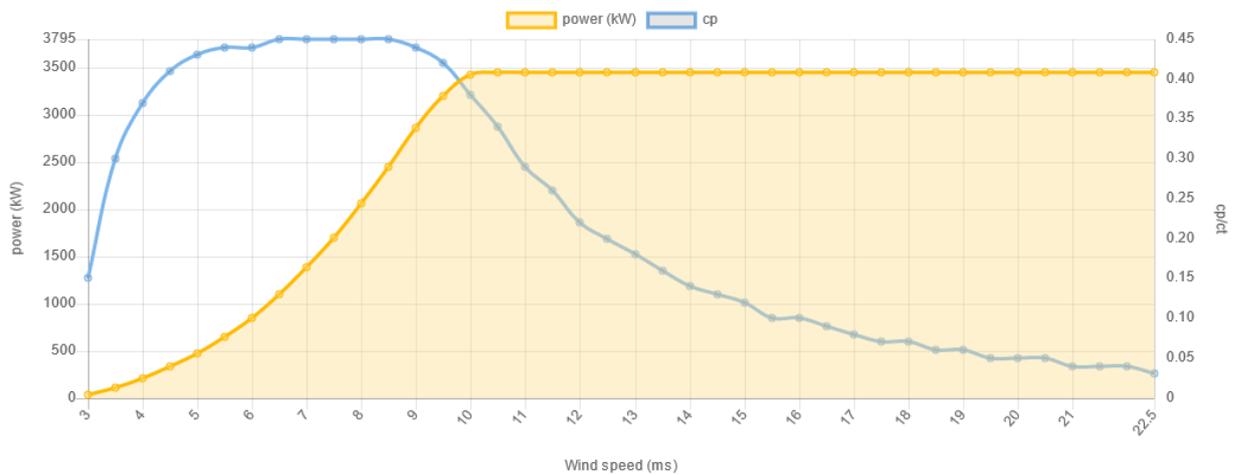
And thus the power is a function of the square of the radius ::

$$P = 0.5 \rho \pi r^2 V^3 C_p \quad (4)$$

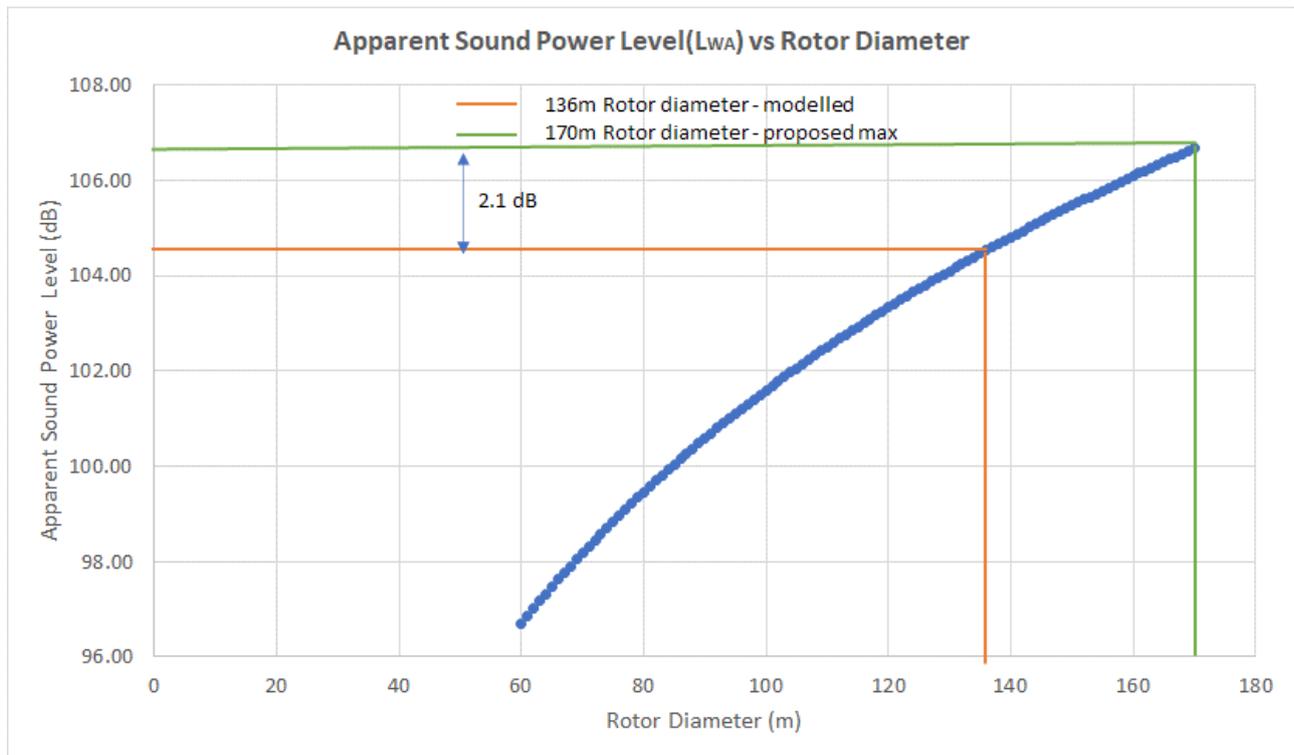
And where from Equation (1), the apparent sound power is given by:

$$L_{WA} = 11.0 \log_{10} \left( \frac{0.5 \rho \pi r^2 V^3 C_p}{1MW} \right) + 101.1 \quad (5)$$

- o) Assumption: Vestas V136-3.45 Turbine (proposed for Albany) By substituting Nominal power =2058 kW at 8ms-1 from Vestas V136-3.45 turbine power curve shown below into Equation 4, a coefficient of performance of 0.45 is calculated.



- p) Using Equation 5 and above assumption the relationship between apparent sound power level and rotor diameter is derived and plotted below.



- q) The difference in sound power levels between a turbine with a 136m rotor diameter that was modelled and a turbine with the proposed maximum 170m rotor diameter at 8ms-1 is approximately 2.1 dB.
- r) Thus, contrary to what is being stated as fact by the noise specialist with respect to rotor diameter i.e. swept area, the power output will be increased with an increase in the turbine's swept area (which is a function of rotor diameter), and an increase in swept area will be accompanied by a corresponding increase in apparent sound power levels
- s) "Change in specifications such as hub-height and rotor diameter have an insignificant impact on sound power emission levels" as stated by the noise specialist is false, misleading and raises questions as to the objectivity of the specialist. This has the potential to mislead the authority making the decision.
- t) The report states that: "The potential noise impact must again be evaluated should the layout be changed where any wind turbines are located closer than 1,000 m from a confirmed NSD or if the developer decides to use a different wind turbine that has a sound power emission level higher than the Vestas WTG used in this report (sound power emission level exceeding 105 dBA re 1 pW)". Based on the analysis above, this renders the whole specialist study meaningless as it is the intention of the developer to use 4,5 MW turbines, as

stated in the project description, which will have a sound power emission level higher than the 3.45 MW Vestas WTG used by the report.

3.1.2 Please refer to Appendix B for a detailed review, conducted by Mackenzie Hoy Consulting Engineers, of the Noise Impact Assessment. Some of the conclusions are summarised below:

- a) The report provides a high-level generic overview of noise legislation in South Africa most notably Noise Control Regulations (GN R.154 of 1992) and the Model Air Quality Management By-law for adoption and adaptation by Municipalities (GN 579 of 2010). It would thus appear as if the legal requirements applicable have been delineated but in fact applicable legislation have not been identified such that appropriate noise limits and compliance requirements are derived and stipulated.
- b) The report records residual / ambient noise measurements at 5 locations. There are however 27 noise sensitive locations (as stated in the report) and thus for 22 of them there is no measurement record of existing conditions.
- c) The report only superficially deals with noise impact to fauna and otherwise deals exclusively considers noise impact on humans there is a clear lack of consideration to impacts to key faunal species relating to vulnerability, feeding, habitat selection, reproductive success, community structure as well as communication.
- d) The noise prediction and impact assessment were undertaken using 3,45 MW turbine and not the 4,5 MW turbine proposed for use in the considering that the 4,5 MW turbines have a 20% greater noise generation. this statement brings into disrepute the entire report and is in contradiction with the p106 statement that it is a "worst-case scenario being evaluated".
- e) The report fails to mention that the turbine area is located within 5 km of a number of protected areas, private game reserves and game farms and study maps fails to indicate protected areas, game reserves and game farms and fails to consider biodiversity economy of the region comprised of formally protected private game reserves (Indalo Protected Environment), game farms and hunting lodges and the diversity of species protected and utilized for nature and wildlife tourism, hunting and otherwise
- f) The report states that at nine noise sensitive locations the wind turbine noise will be audible and at one location, disturbing. The report suggest that at NSD

17 the occupants can be relocated if they find the turbine noise disturbing. This is constitutionally unacceptable.

- g) The lack of a description of the methodology used in determining the turbine noise as function of distance, topography and weather leaves the study falling short of normal practice as well as basic scientific principles of reproducibility. Also the report thus do not meet the NEMA EIA Regulations 385 Regulation 33 stipulating the need for "a description of the methodology adopted in preparing the report or carrying out the specialised process".
- h) The noise contour maps plotted not only offered without any description as to the methodology are largely incorrect (37 dBA contours plotted as 30 dBA).
- i) The report is thus substantially flawed and as it stands it hides the severity of the noise impact that the Albany WEF will have on its receiving environment and is oblivious to the exceedance of SANS 10103 noise limits at various sensitive noise receptors (including various formal protected areas) that the development will bring about.
- j) The report thus only at best meets in part the requirements of Regulation 17 of the EIA Regulations, 2010 (d) comply with the Act, in that it would indicate the project is desirable when in fact it will lead to substantial non-compliance to applicable SANS standards and constitute a major nuisance.

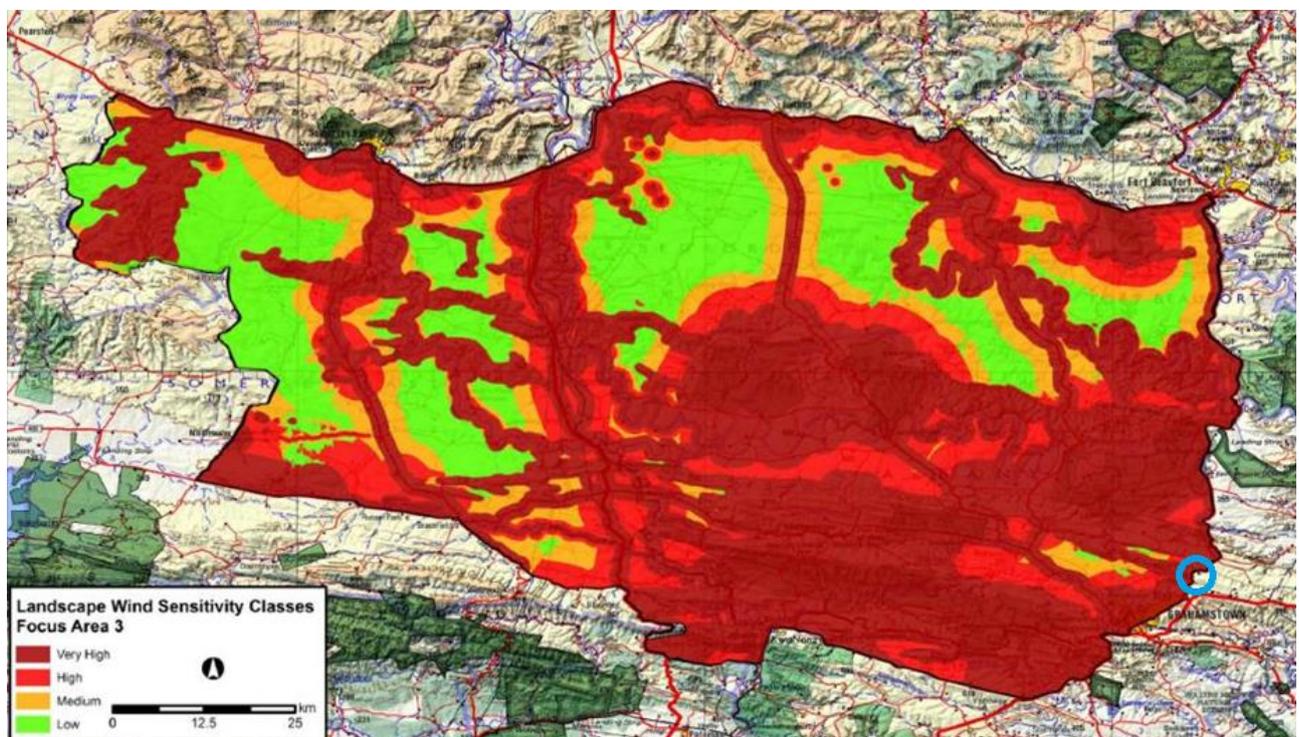
## 3.2 SENSE OF PLACE AND VISUAL IMPACT ASSESSMENT

3.2.1 **Requirements:** A Visual Impact Assessment (VIA) has to be fit for purpose and needs to determine visual impact "significance" with respect to both the local as well as regional importance of the landscape and features the landscape is comprised of, the relative pristineness of landscape and features comprising and their contribution to sense of place. The VIA in the EIR for the Albany WEF did not meet these objectives, is defective and must be rejected.

### 3.2.2 **Landscape sensitivity and Cookhouse REDZ:**

- a) The VIA makes much about the fact that the development is in part located within the Cookhouse REDZ. The VIA states that "*The southern and eastern portions [of the cookhouse focus area] should possibly be excluded from the focus area because of their visual and scenic sensitivity.*" And "Twelve (12)

turbines of the western cluster of proposed Albany WEF are located in a small south easterly portion of the Cookhouse Renewable Energy Development Zone (REDZ) which the Landscape Scoping Report suggests the possible exclusion of this area from the REDZ (although it still remains included in the REDZ per the SEA)." This displays a lack of understanding of what the REDZ is and of the purpose of the Strategic Environmental Assessment was. The REDZ is not an area in which WEFs are encouraged regardless of the receiving environment, but rather it is in area for which a pre-assessment has been done, in the form of the Strategic Environmental Assessment. It should be noted that the REDZ visual sensitivity mapping at the regional scale indicate that the Albany WEF receiving environment is categorised as 'very high visual sensitivity'. (Our emphasis.) This means that it is not ideally suitable for wind farm development where the wilderness character forms the basis for wildlife and nature tourism (and more so if this is the basis for Protected Area establishment and upkeep by biodiversity stewardship).



- b) Most of the proposed turbines are located outside of the Cookhouse Focus Area, however this does not mean that they fall outside of this area of Very high Visual Sensitivity, in fact, the figure below, from the DFFE National Web based screening tool, shows that most of the development falls within area's classified as Very high Visual Sensitivity, for reasons, amongst other such as proximity to protected areas and nature reserves.



Very high sensitivity areas are potentially unsuited for large scale development owing to their aesthetic or scenic values. These landscapes contain visually sensitive or scenically valuable resources which include skyline ridges and other prominent topographic features. These landscapes may also be very sensitive due to their close proximity to protected areas (national parks, nature reserves, botanical or biosphere reserves and private reserves), game farms, cultural landscapes, heritage sites, settlements, scenic routes, tourism facilities and/or other sensitive receptors.

Proponents intending to develop a wind or solar PV facility that triggers an environmental impact assessment process in very high sensitivity areas inside adopted REDZs must prove to the relevant competent authority that the proposed development will not have an unacceptable negative impact on sensitive local and/or regional aesthetic and scenic values. In order to do so, a comprehensive Visual Impact Assessment (VIA), integrated into a wider Heritage Impact Assessment (HIA), undertaken by a competent visual specialist, and in accordance with NEMA regulations pertaining to specialist reports and impact assessment, is required. Such a study must be submitted to the relevant heritage authority for comment. Such comment, if provided within stipulated timeframes, will be considered by the relevant competent authority for decision making.

In addition to the NEMA requirements the VIA must include:

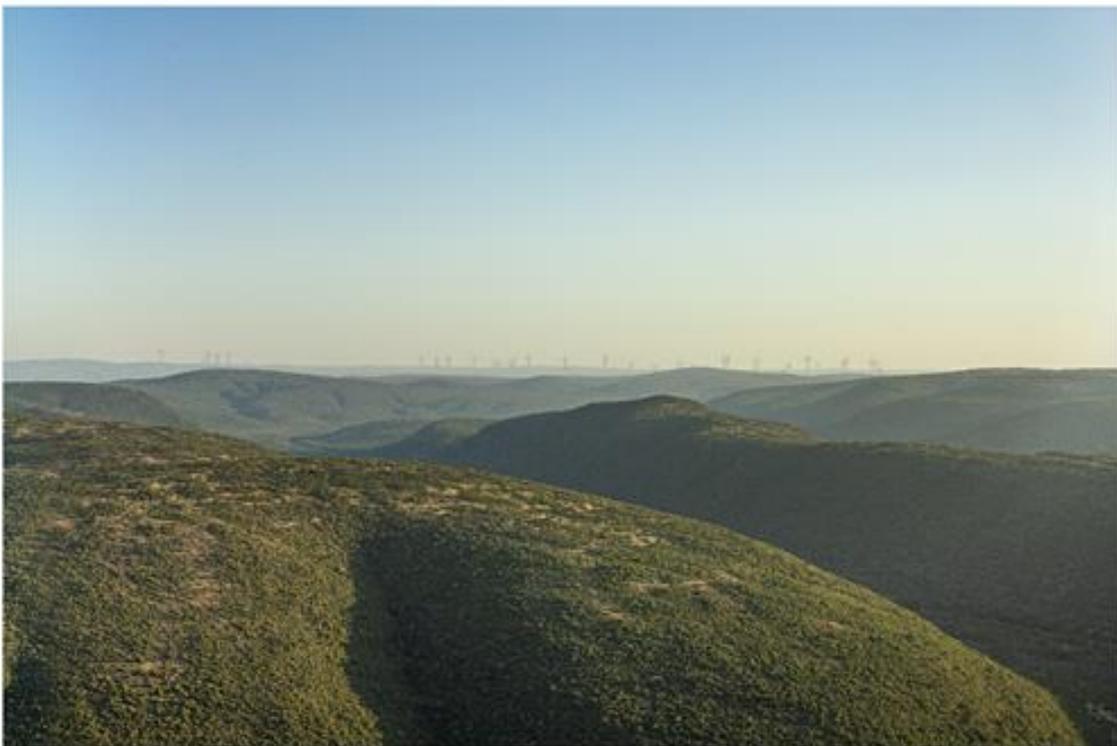
- project footprint (including supporting infrastructure) with a 50 m buffered development envelope, overlaid on a sensitivity map prepared in accordance with the sensitivity criteria set out in this study;
- calculations of development densities considering all surrounding projects that applied for environmental authorisation prior to the project currently under investigation, and comparison thereof with the limits set out in this study;
- a clear and justified opinion statement by the specialist recommending whether the project should from a landscape perspective receive approval. If this statement is subject to any conditions these must also be clearly stated; and
- where applicable, proposed mitigation measures for inclusion in the Environmental Management Programme (EMPr).

- d) The specialist has not proven “to the relevant competent authority that the proposed development will not have an unacceptable negative impact on sensitive local and/or regional aesthetic and scenic values”. Rather the VIA shows and acknowledges that the impact to a number of sensitive receptors, in the form of protected areas, will be high.
- e) There has been no attempt to integrate the VIA into a wider Heritage Impact Assessment as required by the SEA
- f) There is no map showing project footprint (including supporting infrastructure) with a 50 m buffered development envelope, overlaid on a sensitivity map prepared in accordance with the sensitivity criteria set out in the SEA;
- g) There are no calculations of development densities considering all surrounding projects that applied for environmental authorisation prior to the

project currently under investigation, and comparison thereof with the limits set out in the SEA;

3.2.3 The viewpoint from Adam's Krans in the Great Fish is particularly severely affected. The independent viewsheds that were prepared by EScience for Indalo clearly demonstrate that the WEF takes up two thirds in the middle of the vista from Adam's Krans and will amount to a blight on a landscape of national importance. These undisturbed landscape views form part of the unique wilderness experience for ecotourism to the Great Fish and Indalo Protected Areas that **would be permanently disturbed** by the WEF. For this reason alone, the application to develop the WEF is not desirable at this location and should be refused by the DFFE.

AlbanyWEF - Viewpoint - Adam's Krantz



### AlbanyWEF - Viewpoint - Adam's Krantz



3.2.4 **Deficiencies** in visual impact consideration: Additional the following problems with the veracity of the VIA need to be pointed out:

- a) Turbine blade and their dynamics: The dynamic aspect of wind turbine blade motion has not been considered as a contributor to visual impact whereas Sullivan found that contributed significantly to visual prominence of wind turbines at distances of up 24 km;<sup>16</sup> others have identified wind turbine blade as a significant attractor of visual attention and a factor that increases perceived visual contrast from wind facilities.<sup>17</sup> Moreover, the VIA failed to assess the cumulative impact of the proposed enlargement of the Plan 8 (Grahamstown) WEF turbine blades and towers (and thus the environmental footprint) of the approved facility. (The matter is reportedly presently under appeal after the DFFE rejected the amendment application.) Generally, the VIA failed to adequately assess (e.g. through viewshed simulations from critical view points) and consider

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<sup>16</sup> Sullivan et al (2012).

<sup>17</sup> Bishop & Miller (2007).

the cumulative direct and indirect visual impacts of all the different current and planned WEFs in the region (Waaihoek, Plan 8 (Grahamstown) Albany, Dassenridge and Cookhouse) on the wildlife and natural visual and aesthetic character and sense of place of the planned Mega Protected Area (Addo - Great Fish Corridor (Albany Corridor)).

- b) Atmospheric perspective: It is well understood that humans judge distance to objects in the landscape in part by assessing the effects of atmospheric perspective, the decrease in contrast between an object and its background as distance increases. As distance increases, the colours of the object become less distinct and shift toward the background colour, usually blue or gray. Atmospheric perspective is an important cue for an observer to determine relative distance of objects in the landscape. The loss of sharpness and lower contrast of photographs relative to in-situ viewing may exaggerate the effects of atmospheric perspective, thus may affect the perception of scale and distance to objects in the landscape, making them appear farther away than they actually are.<sup>18</sup>

**3.2.5 Lifespan of wind energy facility:** Consideration of the likely development lifespan and future of the wind farm indicates a project life of 20-25 years which is flawed. The Report does not consider the reality of turbines and wind energy technology development and turbine tower and blade advances which make application of taller and larger bladed turbines more economical. Typically wind farms are redeveloped during their productive lifespans for example by raising and increasing blade diameter. This means that the expected lifespan of the WEF is longer than 25 years and can even be permanent but with increasing visual impacts as the towers are lifted. Secondly, those protected tourism operators that are negatively affected by the WEF, will suffer economic damages that will last well beyond the 25 year lifespan.

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<sup>18</sup> Palmer & Sullivan 2020.

3.2.6 **Mitigation:** With respect to "Impact 2: Impact of wind turbines on visually sensitive receptors" The VIA indicates that "*Other than the removal of further turbines from the Albany WEF project (in addition to the 23 turbines already removed since the draft VIA), there are no other feasible mitigation measures that will further reduce the visual intrusion of the wind turbines due to their size, height and visibility, and the lack of screening opportunities in the landscape.*" However, the alternatives evaluation is neglected and specifically omits to consider turbines of lower hub-height and hence reduced visibility. A reduced hub height operating at a site of good wind resource may still compete with a turbine of higher hub height at a site with poorer wind resource. The omission to investigate a reduced hub-height means the EIR has not considered the minimum requirements for "alternatives" as prescribed in the EIA Regulations. We submit that proper assessment and consideration of this alternative will most likely have demonstrated that the proposed location for the WEF is not suitable for the development but was avoided to prevent this conclusion from being reached.

### 3.2.7 **Concluding Statement.**

a) The VIA acknowledges the high visual impact but then attempts to diminish or justify the impact by stating:

*The Albany WEF will undoubtedly have a HIGH visual impact on the landscape. However, this impact should be considered within the context of the following:*

- *The wind farm will not be a permanent development (i.e. 20-25 years life span), after which the turbines and other superstructure will be removed on decommissioning, failing which a new Environmental Authorization will need to be secured;*
- *The landscape can be restored through rehabilitation after decommissioning;*

As we have detailed in paragraph 3.2.5 above, the lifespan may very well be extended, but even if it were not, 20 to 25 years of reduced tourism revenue will permanently impact the respective tourism operators, and the operations may cease to exist by the time the WEF is decommissioned.

- *Although limited, certain recommended measures can be implemented to mitigate the impacts to some extent;*

This is in contradiction to an earlier statement that *“Other than the removal of further turbines from the Albany WEF project (in addition to the 23 turbines already removed since the draft VIA), there are no other feasible mitigation measures that will further reduce the visual intrusion of the wind turbines due to their size, height and visibility, and the lack of screening opportunities in the landscape.”*

- *The landscape of the immediate study area (farms on which turbines will be located) is not pristine or of very high scenic value;*

This is misleading and irrelevant in that what is being attempted here by the VIA is a justification of the high impact to sensitive receptors. These are sensitive receptors whose own pristine landscapes and high scenic and wilderness value is being threatened by the proposed WEF. The fact that the farms on which the WEF is proposed is not pristine or of very high scenic value is not relevant. When the receiving environment is considered, not just the land where the turbines are to be constructed should be taken into account, but also the surrounding area, with particular emphasis on national parks, protected areas, heritage sites, and other sites of historical or conservation importance. Due to the proximity to numerous protected areas and game farms, the landscape of the study area can only be described as having a very high or pristine scenic value.

- *The wind farm is partially situated within and adjacent to a Renewable Energy Development Zone (REDZ 3 - Cookhouse) and adjacent to the already approved Grahamstown Wind Farm.*

In no way does the presence of the REDZ excuse or justify environmental impacts or lower the bar for the protection of the environment. As we have detailed in paragraph 3.2.2 above, the REDZ and its associated Strategic Environmental Assessment are merely a pre-assessment or a type of scoping. In this respect specifically note that the SEA determines the area to be of very high visual sensitivity.

b) The concluding statement of the VIA states:

*According to Oberholzer (2005), the criteria that determine whether or not a visual impact constitutes a potential fatal flaw are categorised as follows:*

- *Non-compliance with Acts, Ordinances, By-laws and adopted policies relating to visual pollution, scenic routes, special areas or proclaimed heritage sites.*
  - *Non-compliance with conditions of existing Records of Decision.*
  - *Impacts that may be evaluated to be of high significance and that are considered by stakeholders and decision-makers to be unacceptable.*
- c) The VIA does find impacts of high significance to Protected Environments and nature tourism / ecotourism operators.
- d) The question as to whether the impacts of high significance constitute a fatal flaw then relies on whether or not they *"are considered by stakeholders and decision-makers to be unacceptable"*.
- e) It is clear from the comments from IAPs, Including Indalo and its members, as well as other eco-tourism operators that the affected stakeholders deem the impact to be unacceptable.
- f) The DFFE's Strategic Environmental Assessment (SEA) for Wind and Solar Photovoltaic Energy in South Africa of 2015<sup>19</sup> expressly warns of the potential negative economic impact of these wind energy facilities to wildlife and nature tourism / ecotourism:

*"There is also a possibility that prices of land in some areas of REDZ could actually drop with the development of wind or solar PV projects. This scenario will apply to all the areas and land parcels that are situated in picturesque areas and are currently deriving their income from eco-tourism and hunting. Establishment of wind or solar PV projects in areas that may affect the landscape and aesthetics of the environment that is used to generate revenue from tourists will negatively impact the attractiveness of the area. As a result, the area might no longer be suitable for tourism-related activities or the revenue that could be generated from such activities would be significantly reduced. Since land values are linked to future economic value of revenue that could be derived from it, decline in tourism numbers completely or partially will lead to a decline in revenue, which subsequently results in the decrease of business value and land that is used to*

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<sup>19</sup> *Strategic Environmental Assessment for Wind and Solar Photovoltaic Energy in South Africa, 2015* in [https://sfile.environment.gov.za:8443/ssf/s/readFile/folderEntry/19044/8afbc1c75aea91ba015b8b9c8bf64b7b/1427308743000/last/Final%20SEA%20Report\\_All%20sections.pdf](https://sfile.environment.gov.za:8443/ssf/s/readFile/folderEntry/19044/8afbc1c75aea91ba015b8b9c8bf64b7b/1427308743000/last/Final%20SEA%20Report_All%20sections.pdf)

derive the revenue. In order to mitigate the potential decline in land prices in selected areas, **wind and solar PV projects should not be developed on land parcels that derive their income from ecotourism or commercial game hunting and within the buffer zones of these sites.**"<sup>20</sup> [Own emphasis.]

- g) Based on the above, the decision-makers also deem a high visual impact to receptors that derive their income from ecotourism or commercial game hunting to be unacceptable.

### 3.3 SOCIO-ECONOMIC ASSESSMENT

3.3.1 **International Research:** A substantial volume of research concerning wilderness tourism and renewable energy have been performed in Iceland and are relevant for the Albany Wind Farm development.<sup>21</sup> The finding of the SIA Specialist that *"From international literature consulted, no consensus exists with regards to wind farms' actual impacts on tourism (volumes, experiences, and revenue), tourists' destination of choice and so forth"* is not correct for wilderness tourism because evidence about wilderness tourism in Iceland (as opposed to general tourism) shows the following:

- a) Visitors have reported satisfaction with *"present settings and preferred to protect the area from development to ensure the provision of currently available recreational opportunities"*.
- b) Surveys *"indicate that one-third of the travellers would be less likely to visit the Southern Highlands if a proposed wind farm were built, and two-thirds think that wind turbines would decrease the area's attractiveness"*.<sup>22</sup>

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<sup>20</sup> Socio-Economic Scoping Assessment Specialist Report for the SEA, p 165.

<sup>21</sup> See e.g. Anna Dóra Sæþórsdóttir, Rannveig Ólafsdóttir & Diane Smith (2018) *Turbulent times: tourists' attitudes towards wind turbines in the Southern Highlands in Iceland*, International Journal of Sustainable Energy, 37:9, 886-901, DOI: 10.1080/14786451.2017.1388236; and Anna Dóra Sæþórsdóttir, Rannveig Ólafsdóttir (2020) *Not in my back yard or not on my playground: Residents and tourists' attitudes towards wind turbines in Icelandic landscapes* February 2020 Energy for Sustainable Development 54:127-138 DOI: 10.1016/j.esd.2019.11.004.

<sup>22</sup> Sæþórsdóttir et al 2018.

- c) A more recent study reporting on a follow-up survey concludes that “[t]he results indicate that residents are more positive than tourists towards wind turbines and consider them less intrusive in the landscape”.<sup>23</sup>
- d) This Icelandic study also found that –
  - i) Wind turbines reduce the naturalness of a landscape and the quality of wilderness.
  - ii) Residents and tourists consider landscape without power plant infrastructure more beautiful.
  - iii) Tolerance level towards landscape change is higher among residents than tourists.
  - iv) Economic reasons are likely to influence residents' opinion on wind energy production.

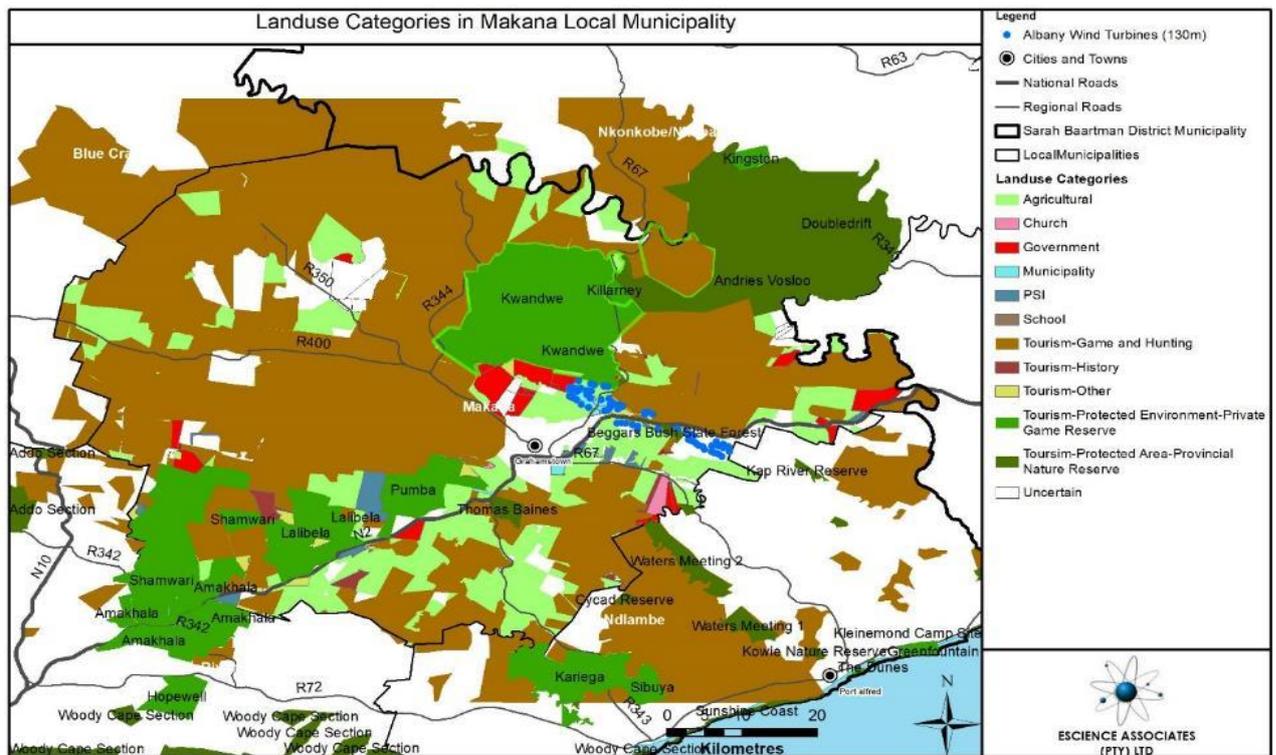
It is suggested that the SIA Specialist, the EAP and ultimately the DFFE, should rather draw parallels from Iceland which is a popular international wilderness tourism destination.

3.3.2 **Nature Tourism:** The SIA Specialist study of 2020 also consider in the Section titled “*Land uses and socio-economic background of the Project Area*”, factors such as Agriculture land use, Private Game Reserves in the broader district, Residential, Towns and villages but is flawed for the following reasons.

- a) The discussion of the tourism sector Section 7.6.2 Tourism does not consider to any level of detail the nature of the tourism product and services of the area, nor the wilderness character of the area as basis for nature and wildlife tourism.

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<sup>23</sup> Sæþórsdóttir & Ólafsdóttir 2020.



### 3.3.3 Visual Impact:

- a) The SIA in Section 11.4.2 Intrusion impacts copies directly from the VIA and states that, “visual impacts are considered to be MODERATE to HIGH for the following four sensitive visual receptors, particularly to the closer western turbine cluster:
- Kwandwe Private Game Reserve North Indalo Protected Environment;
  - Kwandwe West Indalo Protected Environment;
  - Buffalo Kloof Protected Environment; and
  - Kwandwe Private Game Reserve None Indalo Protected Environment”
- b) Then it lists a mitigation measure as: “Implement all mitigation and management measures as proposed in the Specialist Noise and Visual Impact Assessment Reports”. However, the VIA, in relation to the impact on these sensitive visual receptor’s states “Other than the removal of further turbines from the Albany WEF project (in addition to the 23 turbines already removed since the draft VIA), there are no other feasible mitigation measures that will further reduce the visual intrusion of the wind turbines due to their size, height and visibility, and the lack of screening opportunities in the landscape.”
- c) Thus, indirectly, the SIA is recommending that the further turbines should be removed.

d) Furthermore, a reduced hub-height alternative is not considered as a mitigation measure.

**3.3.4 Potential loss in incomes: Tourism/Game/Hunting industries:**

- a) 11.2.1 of the SIA discusses Potential loss in incomes for Tourism/Game/Hunting industries.
- b) The section acknowledges that some game farm owners in close proximity to the Cookhouse (66 turbines) and Waainek (8 turbines) wind farms have been negatively affected by the WEFs.
- c) It goes on to state that the overall significance of the impact is of "moderate negative". In attempting to understand the calculation of the significance rating methodology used, it is noted that there is no formula provided under section 14.3. A comparison between the impact calculated under 10.5.3 with that calculated under 11.2.1 shows a concerning inconsistency:

| <b>Impact without mitigation</b> | <b>Temporal scale</b> | <b>Spatial scale</b> | <b>Severity of impact</b> | <b>Risk or likelihood</b> | <b>Overall significance</b> |
|----------------------------------|-----------------------|----------------------|---------------------------|---------------------------|-----------------------------|
| 10.5.3                           | Short term            | Study Area           | Moderate severe           | Possible                  | Moderate negative           |
| 11.2.1                           | Long term             | Municipal            | Moderate severe           | Possible                  | Moderate negative           |

d) It is unclear how the Overall significance of Moderate negative is arrived at for both of the impacts as there is no formula provided. However we are of the opinion that the negative local economic impacts on tourism/game/hunting industries will be very high negative.

e) In addition, the SIA failed to assess and consider the cumulative direct and indirect effect of the different current and planned WEFs in the region (Waaihoek, Plan 8 (Grahamstown) Albany, Dassenridge and Cookhouse) on

wildlife and nature-based tourism of the planned Mega Protected Area (Addo - Great Fish Corridor (Albany Corridor)) due to their significant degradation of the aesthetic character and sense of place.

3.3.5 **Indalo's Economic Impact Assessment:** Indalo performed an independent Economic Assessment of the proposed Albany WEF development. The report Economic Assessment - Albany Wind Energy Facility (August 2021) makes the following salient findings (see Appendix D):

- a) The main economic concern of the Indalo Protected Area, Private Game Reserves is the potential devaluation of their tourism offering if wind energy facilities (or any other highly intrusive developments affecting wilderness sense of place) are allowed to encroach on the Indalo Protected Area environmental goods and service offerings and specifically the tourism product which funds Protected Area establishment and management. This concerns not only land that is currently declared as Protected Area or similarly managed as game reserves and game farms but specifically also concerns the sterilization of land suitable for Protected Area expansion).
- b) Although nature and wildlife tourism services and products don't constitute the entire tourism product of the of Sundays River, Ndlambe and Makana Local Municipalities, it contributes the majority of tourism products and services (and a large part of this is from Protected Area environmental goods and services, principally from Addo, Indalo and Great Fish Provincial Nature Reserve).
- c) Degradation of the environmental goods and services upon which tourism is based would imply a certain "*disinvestment*" in the nature and wildlife sub-sector for the respective regions, the province and even on a national scale. Accordingly, due consideration is to be afforded to the biodiversity stewardship that nature and wildlife tourism affords the national estate.
- d) The socio-economic assessment in the EIR indicates that there is in terms of Gross Domestic Product ("GDP") no significant economic difference between WEFs

and PGRs – they would contribute equally to the wealth of the region and to the South African economic domain. Investment in either sector would yield an economic improvement if it is to displace extensive agriculture. Marais advises that it is not clear if this statement would also be applicable for the potential case of intensive agriculture displacement as the agriculture multipliers reflect agriculture in general. It is however unlikely that nature and wildlife tourism typical of PGRs will displace intensive agriculture as it requires a natural environment and wilderness setting. This is in contrast with WEFs which could co-exist with intensive agriculture (and an optimal combination would seem to combine WEFs with intensive agriculture and to combine PGRs with a natural environment and wilderness setting).

- e) Although the WEF contribution to Gross Value Added is notably higher than that of the PGRs, the difference disappears when production taxes and subsidies are incorporated to derive the comprehensive (GDP) view on the economy where these are deemed to be equally desirable.
- f) There is no significant difference between the labour compensation contributions of the WEF and PGR sectors.
- g) As investment in wildlife and nature tourism driven PGRs expansion would generate about three times as many employment opportunities than electricity sectors WEFs. From an employment point of view, it would accordingly be distinctly better to promote PGRs than to deploy WEFs and the “disinvestment” argument is equally applicable, i.e. if PGRs should be devalued by the choice to deploy WEFs, it could lead to a significant reduction in net direct, indirect and induced employment in the region.
- h) Given the fact that the economic contributions of PGRs and WEFs are similar, employment becomes the distinguishing factor when one needs to decide whether to invest in wind farming or game reserves, and the scale is evidently tilted towards PGRs as the investment that would yield the highest socio-economic return. The inverse of this argument is also valid, i.e. if one needs to

divest in PGRs or WEFs, the largest socio-economic losses will be incurred in the PGR domain.

- i) A compromise between PGR and WEF development (investment) could be a desirable solution and alternative best suited economically. It might be opportune to consider the deployment of PV technology rather than wind energy facilities, as this has a significantly lower impact on the wilderness character of the region. Alternatively, if the WEFs could be deployed sufficiently distant from nature and wildlife tourism-based operators, so as to avoid impacting the wilderness character and its tourism value. Combined land use, that does not imply a reduction in environmental goods and services (or quality of environmental goods and services), should ideally be pursued as the most desirable and best economic alternative.
- j) **Wind Energy Capacity Supply and Grid Connection Constraints.** The total capacity of authorised WEF options exceeds the IRP target over the next 5 years by a multiple of 9.5. when we consider all currently authorised WEFs at sites where the windspeed exceeds 7 ms<sup>-1</sup>.
- k) a large number of high-quality projects have been developed which may adequately compete for limited grid access and project development resources and effort should be allocated to areas that have been under-developed and where gold and coal mining industry is in a decline.
- l) The total capacity of authorised WEF options in sites with wind speeds exceeding 7ms<sup>-1</sup> for the Eastern Cape alone is over 3 GW. The constraint for the WEF development in the Eastern Cape is likely to be the maximum export or evacuation capacity of the Eastern Cape which currently stands at 1740 MW.

### 3.3.6 The DFFE's Strategic Environmental Assessment (SEA) for Wind and Solar Photovoltaic Energy in South Africa of 2015<sup>24</sup> expressly warns of the potential

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<sup>24</sup> *Strategic Environmental Assessment for Wind and Solar Photovoltaic Energy in South Africa*, 2015 in [https://sfiles.environment.gov.za:8443/ssf/s/readFile/folderEntry/19044/8afbc1c75aea91ba015b8b9c8bf64b7b/1427308743000/last/Final%20SEA%20Report\\_All%20sections.pdf](https://sfiles.environment.gov.za:8443/ssf/s/readFile/folderEntry/19044/8afbc1c75aea91ba015b8b9c8bf64b7b/1427308743000/last/Final%20SEA%20Report_All%20sections.pdf)

negative economic impact of these wind energy facilities to wildlife and nature tourism / ecotourism, but this warning was seemingly ignored by the SIA. We repeat this warning so eloquently phrased by the SEA.

*"There is also a possibility that prices of land in some areas of REDZ could actually drop with the development of wind or solar PV projects. This scenario will apply to all the areas and land parcels that are situated in picturesque areas and are currently deriving their income from eco-tourism and hunting. Establishment of wind or solar PV projects in areas that may affect the landscape and aesthetics of the environment that is used to generate revenue from tourists will negatively impact the attractiveness of the area. As a result, the area might no longer be suitable for tourism-related activities or the revenue that could be generated from such activities would be significantly reduced. Since land values are linked to future economic value of revenue that could be derived from it, decline in tourism numbers completely or partially will lead to a decline in revenue, which subsequently results in the decrease of business value and land that is used to derive the revenue. In order to mitigate the potential decline in land prices in selected areas, **wind and solar PV projects should not be developed on land parcels that derive their income from ecotourism or commercial game hunting and within the buffer zones of these sites.**"*<sup>25</sup> [Own emphasis.]

3.3.7 In conclusion we believe the SIA and therefore the EIR are **fatally flawed** due to their disregard of the clear policy guidelines in the SEA because of the Applicant's **material failure** to properly investigate, assess, and quantify the profound impact that the Albany WEF will have on the wildlife and nature tourism / ecotourism of the surrounding Protected Areas that will become less attractive to tourists and lose income which may affect their economically viability.

## 3.4 AVIFAUNAL IMPACT ASSESSMENT

### 3.4.1 Minimum requirements for avifaunal assessments

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<sup>25</sup> Socio-Economic Scoping Assessment Specialist Report for the SEA, p 165.

- a) In terms of meeting the minimum requirements for avifaunal assessments, the Albany Avifaunal Assessment lacks the following:
- a) Recon Study is required to be undertaken. It is a requirement that a 2-4 day recon study is to be undertaken to inform the pre-application monitoring programme and it would appear that there was a lack of such a recon and scoping of monitoring plan which may put the findings of the study in question.
  - b) Pre-application Avifaunal Monitoring Plan –
    - i) Maps showing the water features, drainage lines, quarries, powerlines or other existing wind energy facilities.
    - ii) Duration of monitoring and number of observers not included it is mentioned that 9 transects walked and some in car (2 per season).
    - iii) Uncertain if pre-application monitoring has been uploaded onto national bird monitoring database.
  - c) Assessment of fatalities from surrounding WEFs in general and specifically not of the nearby Waainek Wind Energy Facility.
  - d) Post construction monitoring plan not included.
  - e) Conditions to which the statement of approval or disapproval are subject is not included.
  - f) We do not see adequate consideration of potential impact to soaring birds and specifically soaring modes in a raptors.

#### 3.4.2 Best-Practice Guidelines for Assessing and Monitoring the Impact of Wind-Energy Facilities on Birds in Southern Africa (3<sup>rd</sup> ed, 2015).

- a) Unlike smaller raptors, which can readily use flapping flight, large raptors are mainly restricted to soaring flight due to energetic constraints. Whereas thermal soaring occurs in relatively flat areas which are likely to have good thermal uplift availability topography. The technique is called ridge lift or slope soaring. The ridgeline targeted by the Albany WEF will present ideal conditions for raptors and other soaring along area of uplift where turbines will be located.

- b) Sufficient data should be gathered on bird movements, to enable the use of the data in collision--- risk modelling to provide an indication of the potential mortality rates of priority species.
- c) The ridgeline that is targeted by the Albany WEF is within the fog belt and the presence of fog and conditions that complicate bird observation including topography, inaccessibility and dense vegetation complicates avifaunal assessment. and accordingly, there are concerns with respect to the veracity of raptor observations.
- d) Due to the detailed data on bird movements is required, or where movements occur at night or in conditions of poor visibility (e.g. fog) special remote sensing methods should be considered e.g. radar in combination with direct observations (wherever possible).

#### 3.4.3 Assessment of fatalities from surrounding Wind Energy facilities

- a) Understanding the cumulative effect of wind energy fatalities is vital when multiple sites are located in one area. The Albany WEF applicant owns the established Waainek WEF nearby and should have bird fatality monitoring in place, however, the details of avifaunal impact monitoring and reports on fatalities at Waainek other is conspicuously absent from the Albany WEF avifaunal assessment.
- b) The presence of Waainek WEF nearby can therefore be used as an additional source of data to substantiate the observations of the avifaunal specialists and lack of formal and transparent reporting of Waainek WEF avifaunal mortality monitoring is seen as a glaring omission. There are three components to estimating fatality rates: a) estimation of searcher efficiency and scavenger removal rates, b) carcass searches, and c) estimation of collision rates.

- a) All turbines should be searched for fatalities, with a search interval determined by scavenger- removal trials and objectives monitoring. Two complementary search protocols should be applied: 1) intensive and regular searches of a minimum of 30% or 20 turbines at a WEF (whichever is greater), and 2) extensive, less frequent sampling of the remaining turbines to record fatalities of large-bodied birds. The search area must be defined and consistently adhered to throughout monitoring. As a minimum, the radius of the search area should be equal to 75% of the turbine height (ground to blade-tip).
- b) Observed mortality rates must be adjusted to account for searcher efficiency, scavenger removal and the probability that some carcasses may be outside the search area.
- c) As it stands the cumulative impacts discuss the need for consideration of the overall impact but there is not any investigation as to the current background cumulative effect in terms of fatalities per existing turbine from the operational facilities.

#### 3.4.4 Post construction monitoring plan

- a) Currently the most significant mitigation as per the Avifaunal report is adherence to Appendix 6: sensitivity map. No monitoring requirements are set out within the Avifaunal assessment, however there are monitoring requirements outlined within the EIR, uncertain if these were provided by an avifaunal specialist or by the EAP.
- b) Monitoring needs to take into consideration various aspects, such as searcher efficiency and scavenger removal. Therefore, without a post construction monitoring plan and actual directives as to what is required to be implemented, it is likely that monitoring will not meet the requirements of the *Birds and Wind Energy Best Practice Guidelines*.

- c) Mitigation measures should be implemented to further prevent collisions, various suggestions outlined below:
  - a) Collision detectors to prevent mass fatality of bird flocks;
  - b) Ultrasonic acoustics;
  - c) Make turbines more visible to birds/bats;
  - d) GPS monitoring of critical species to prevent collision when these species are nearby the turbines; and
  - e) Deterrent Strobe Lights.
- d) Additional offset measures should also be investigated and implemented to prevent a net loss of bird species as a result of the operations of the Wind Energy Facility.

#### 3.4.5 Conditions to which the statement of approval or disapproval are subject to -

- a) In the event of approval, adequate monitoring is required to be implemented as per the Birds and Wind Energy Best Practice Guidelines. The effects of the facility on the surrounding avifauna can only be effectively quantified through appropriate post construction monitoring.
- b) The Guidelines set out the minimum requirements for monitoring from a planning to decommissioning phase and with this as a guideline, the impact to Avifauna will be better understood.

## 4. COMMENTS OF ENVIRONMENTAL IMPACT REPORT (EIR)

## 4.1 NEED AND DESIRABILITY

4.1.1 The EIR offers has a section titled "Need and Desirability" which does little more than list Policy and Legislation. the Environmental Impact Assessment (EIA) regulations require environmental assessment practitioners (EAPs) who undertake environmental assessments, to have knowledge and take into account relevant guidelines, and what is conspicuous in its absence from the Section on Need and Desirability is the consideration of the Need and Desirability Guideline Document (DEA 2017)

4.1.2 Need and desirability is based on the principle of sustainability, set out in the Constitution and in NEMA, and provided for in various policies and plans, including the National Development Plan 2030 (NDP). Addressing the need and desirability of a development is a way of ensuring sustainable development – in other words, that a development is ecologically sustainable and socially and economically justifiable

4.1.3 Need and Desirability Guideline Document (DEA 2017) sets out a list of questions which should be addressed when considering need and desirability of a proposed development. These are divided into questions that relate to ecological sustainability and justifiable economic and social development. The questions that relate to ecological sustainability include how the development may impact ecosystems and biological diversity; pollution; and renewable and non-renewable resources which it may be reasonably expected that questions will be covered directly or indirectly, however, these are not addressed and it may be noted that a number of key questions concerning need and desirability has been avoided as follows:

- a) How will this development (and its separate elements/aspects) impact on the ecological integrity of the area? Not answered -in this respect the EAP omits detail the extent to which the development will have significant impact to protected area viability.
- b) How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to

firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? Not answered -in this respect the EAP and VIA specialist omits to document impact to the national estate comprised of protected areas and some of the most scenic views of the Eastern Cape.

- c) Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio- economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)? Not answered - No consideration was afforded to the socioeconomic impact is required by the Guideline on Need and Desirability (DEA (2017)) and the proposed Albany WEF has not been demonstrated to be socially sustainable for lack of assessment of the opportunity costs in terms of jobs that may be lost / potential jobs that may be lost in wildlife and nature tourism that is substantially more job intensive, further it has been shown in the economic assessment that whereas the economic contributions of wildlife and nature tourism in the private game reserves and WEFs are similar, employment becomes a drastic distinguishing factor, and the scale is heavily tilted towards PGRs as the investment that would yield the highest socio-economic return. What is even more compelling is that the inverse of this argument is also valid, i.e. if one needs to divest in PGRs or WEFs, the largest socio-economic losses will be incurred in the PGR domain. In this case the proposed development will force divestment and job losses multiples of what the WEF will generate.

## 4.2 REVIEW OF ALTERNATIVES

### 4.2.1 EIA Regulations

- a) Appendix 2, Items 1(d) and 2(1)(g)(i), (iv), (v), (vi), (vii) and (h)(i) of the EIA Regulations and Appendix 3, Items 2 (c), (d)(i); 3(1)(h)(i), (iv), (vii) of the EIA Regulations require, respectively, that the Scoping Report and the EIR must undertake a detailed site selection process in which it ranks the preferred and alternative sites with reference to the cumulative impacts based on the

geographical, physical, biological, social, economic, and cultural aspects of the environment.

- b) Regulation 1 of the EIA Regulations also specifies that “alternatives” refer to the –
- i) “property on which or location where the activity is proposed to be undertaken;
  - ii) *type of activity to be undertaken;*
  - iii) *design or layout of the activity;*
  - iv) *technology to be used in the activity; or*
  - v) *operational aspects of the activity,*
- and includes the option of not implementing the activity.” [Own emphasis]*
- c) Appendix 2, Item 2(1)(x) and Appendix 3, Item (1)(h)(ix) of the EIA Regulations further stipulate that “if no alternative locations for the activity were investigated” the Scoping Report and EIR, respectively, must provide “the motivation for not considering such.”

#### 4.2.2 Site and Location Alternatives

- a) The reasons provided in the EIR (page 87) for not considering any alternative site locations for the Wind Farm other than the proposed Location 1, are as the following:

*“None identified as the rights to sufficiently large enough contiguous parcels of private land must be sought from local landowners. Location 1 has been agreed to. Alternative sites in the area that are close to Eskom electrical infrastructure, do not yield the same wind resource potential.”*

- b) The EIR then further comment about this decision:

*“Alternative locations for the current project are limited and where not deemed to be either reasonable or feasible due to the following:*

- The available wind resource is the most critical aspect of a wind energy project since a feasible WEF must generate sufficient energy to be financially feasible in terms of REIPPPP.*
- A feasible WEF must also be located close to a connection point into the Eskom grid and substation. This is a critical factor to the overall technical and financial feasibility of the WEF project.*
- Therefore, alternative locations for the proposed Albany WEF, were not assessed.”*

c) The above explanation of the lack of suitable wind conditions as the reason why no alternative site locations were investigated, is not persuasive and must be rejected by the DFFE. The explanation does not provide a coherent, well-reasoned and rational motivation with supporting evidence to proof that no suitable alternative locations elsewhere in the Eastern Cape or in South Africa exist where wind energy may be generated without the same significant environmental impact. No evidence was provided in the EIR of a detailed site selection process in which the EAP ranked the preferred and alternative sites with reference to the cumulative impacts based on the geographical, physical, biological, social, economic, and cultural aspects of the environment as required by the EIA Regulations. It is important to note that we are not referring to layout alternatives.

d) The same criticism applies to the Eskom grid connection requirements.

e) The first part of the Applicant's explanation about the absence of available private land is brief, unclear, and not further explained in the comment column of page 99. The statement: “Location 1 has already been agreed to” is problematic. So is the reference in the previous line that “Albany Wind Energy

and landowners have formally agreed to the proposed development on the site and are in full support of the use of this area." It appears to indicate that the Applicant has already secured preferential rights to the land for Location 1. The legal nature of these agreements with landowners were not disclosed but it matters not as this is not a valid ground for failure to perform a proper investigation to alternative sites.

- f) Although it is important that the applicant has secured the support of the landowners for Location 1 (as it must and which is also the case for any other alternative locations), their approval does not place any legal obligation on the DFFE to accept Location 1. The competent authority cannot be expected to rubber stamp Location 1 regardless of the result of the EIA and notwithstanding the significant environmental impact of the development from that location, because the EIR presents it with a *fait accompli*. This would clearly be unlawful and an automatic ground for the rejection of the application. The Applicant knows that it carries the risk during the application and that environmental authorisation is subject to the discretion of the DFFE based on the results of the EIA process.
  
- g) Reasons of convenience for the Applicant (which are subjective) not to have performed the prescribed alternative location assessment should not be confused with objective substantive grounds that would in exceptional cases justify the absence of location alternatives e.g. the location of the ore body for a mining application. The Albany Wind Farm application is not such a case.
  
- h) The lack of a proper investigation about alternative site locations in accordance with the prescribed requirements of the EIA Regulations is a material mistake in the EIR and cannot be lawfully condoned by the DFFE. Also, the Applicant's noncompliance with the peremptory requirements of the EIA Regulations to investigate during the Scoping and EIA processes and report in the prescribed manner in Scoping Report and EIR on alternative site locations for the Albany Wind Farm means the EIR is incomplete and forms further ground for the DFFE to reject the application.

- i) A further concern is that the EIR indicates that layout alternatives were considered which resulted in the reduction from 66 down to 43 turbines, however there is no comparative assessment of the 66 turbine layout versus the new 43 turbine layout and there is no explanation of why each of the 23 turbines were removed.

#### 4.2.3 Cumulative Impacts

- a) Although the EIR refers at various instances to the cumulative impacts (in Chapter 9) e.g. on page 164 it assesses the visual impact from the VIA as follows:

*“As seen in the cumulative viewshed for the 43 Albany WEF turbines (Please see Figures 9.1 and 9.2 in the VIA), turbine hubs and blades will be visible from a wide area surrounding the WEF. Notable features within the viewshed include: the towns of 1) Makhanda, 2) Bathurst and 3) KwaNdwanyana, public nature reserves such as the 4) Great Fish River Nature Reserve, private game reserves such as 5) Kudu Ridge, 6) Bucklands, 7) Kwandwe, 8) Buffalo Kloof and 9) Coleridge, 10) multiple homesteads, 11) the N2 and R67 roads. The most significant cumulative visual impacts will come from the operational Waainek WEF located between over 10-15 km to the south west and the Proposed Plan 8 WEF located between about 5-10km to the north east of the Albany WEF site. The Waainek Wind Farm consists of eight (8) turbines, each with a hub height of 84m and a rotor diameter of 112m, and the Plan 8 facility will host up to 22 turbines, each with a hub height of up to 91.5m and a rotor diameter of up to 117m. Since turbine visibility diminishes with distance, as already described in this VIA, it is suggested that, due to the distances between the three respective wind farms, that the overall cumulative visual impacts will be MODERATE during the daytime. However, the impacts of night lighting could be HIGH, with the proposed Albany WEF making the largest contribution to the impact.” [Own emphasis.]*

- b) Firstly, Plan 8 has applied for an increase of its size, height and footprint and the DFFE's refusal is under appeal. This is not mentioned by the EAP.

- c) Secondly, the EIR, failed to also assess WEFs further away at Dassenridge and Cookhouse and consider the cumulative direct and indirect effect of all five these Facilities on wildlife and nature-based tourism of the planned Mega Protected Area (Addo - Great Fish Corridor (Albany Corridor)) due to the Wind Farms' significant degradation of the aesthetic character and sense of place.
- d) Thirdly, based on the specialist VIA these direct cumulative impacts are considered as high significance with no mitigation possible, except the no go option (pages 164 and 165). The EAP confirms this in his/her summary in paragraph 9.4.11 and the conclusion in paragraph 9.4.12:

*"The Visual Assessment identified a total of 34 impacts. The majority of these impacts related to the visual impact of the proposed WEF on sensitive receptors during the operation of the WEF. There are eight (8) HIGH negative significance impacts that cannot be mitigated due to the fact that they are perception-based (Table 9-16). ...*

*It is concluded that majority of the cumulative impacts are MODERATE in nature and although the most of the cumulative visual impacts of the proposed Albany WEF and existing WEF (e.g. Waainek WEF) and proposed WEFs (Grahamstown, Fronteer and Wind Garden WEFs) in the area will be HIGH, potential losses of scenic resources are not sufficiently significant to represent a fatal flaw, specific to the proposed project, given the LOW/MODERATE significance of the remainder of the impacts and given the environmental and social benefits that such renewable energy projects promote." [Own emphasis.]*

- e) The EAPs overruling of his/her own assessment as informed by the VIA, is irrational as it is based on wrong information as pointed out above (mistakes in the VIA and SIA).

- f) The argument that the WEF is not permanent and the disturbed landscape can be restored is totally irrelevant to the affected Indalo PGR owner that will for 20-25 years suffer damages because of the presence of the WEF.
- g) It is irrational and arbitrary for the EAP to simply conclude that “*although there are local losses in terms of visual impacts, there will also be local gains.*” Through this statement the EAP simply equate the property rights of the Indalo PGRs with the economic interests of the developer and recommends that the latter should override the former without factually establishing the impact of such decision on the Indalo PGRs. It should be noted that the rule of law in section 1 of the Constitution as in the common law, respects and protects the established rights of property owners such as of the Indalo PGRs. Their property rights cannot simply be ignored by the competent authority (DFFE) on a whim of possible future economic interests of third parties. The law does not equate established rights (of property owners) with potential interests (of the Proponent). In an irreconcilable conflict such as the present application for the Albany WEF, the vested rights of property owners must trump the potential conflicting interests of the WEF developer. Thus, based on the assessment of cumulative direct and indirect impacts in the EIR, it is submitted that the EAP did not engage in a balanced and fair weighing of opposing rights and interests as is contemplated by constitutional jurisprudence.

#### 4.2.4 Consideration of Guidelines in EIA

- a) Guidelines for the implementation of the Terrestrial Fauna and Terrestrial Flora Species Protocols for environmental impact assessments in South Africa (GNR 20 January 2020) and Best-Practice Guidelines for Assessing and Monitoring the Impact of Wind Energy Facilities on Birds in Southern Africa (3<sup>rd</sup> Edition, 2015) and neither of these are met by the avifaunal assessment.
- b) The World Bank Group “*Environmental, Health and Safety Guidelines for Wind Energy*” (August 2015) provide a useful guideline for the application of “Good International Industry Practice” –

- a) is required to be applied by any member of the World Bank Group including the International Finance Corporation (IFC); and
- b) the IFC further prescribes standards of environmental assessment and management to which many financiers (including numerous South African funds of renewable energy subscribe in the form of the IFC standards) who are involved in such a project.

#### 4.2.5 World Bank Group Environmental, Health and Safety (EHS) Guidelines

- a) World Bank Group Environmental , Health and Safety (EHS) Guidelines indicate that where any host country regulations differ from the levels and measures presented in the World Bank Group (WBG) Guidelines then the projects are expected to conform to the whichever are the most stringent.
- b) Since apart from Avifaunal Assessment no formally adopted Guidelines for wind farm site selection exist in South Africa and numerous of South African renewable energy project funders (e.g Nedbank and RMB) apply IFC standards it is expected that these World Bank Group Guidelines would be appropriate to apply in the Albany WEF EIA.
- c) The WBG Guidelines repeat the need to consider the choice of site carefully from the earliest stage of planning. *"The general approach to the management of EHS issues should consider potential impacts as early as possible in the project cycle, including the incorporation of EHS considerations into the site selection, in order to maximize the range of options available to avoid and minimize potential adverse impacts. Importantly, many EHS impacts associated with wind energy facilities may be avoided by careful site selection."* (Own Emphasis).
- d) WBG Wind Energy Guidelines Section 1.1.1, "*Landscapes, Seascapes and Visual Impacts*", the Guidelines advise that potential impacts –

- i) Note 12 “*on Legally Protected and Internationally Recognised Areas of Importance to biodiversity and cultural heritage features are also a consideration.*” Accordingly it would have been expected that the Proponent of the Albany WEF at the hand of the EIA process would have considered the impact of the WEF on Protected Areas and Provincial Nature Reserves Legally Protected and Internationally Recognised Areas of Importance to biodiversity and cultural heritage and failing consideration of which would not be in line with NEMPAA.
- ii) Note 13 *it is advocated that “...avoidance and minimization measures to address landscape...and visual impacts are largely associated with the siting and layout of wind turbines and associated infrastructure...”*. Given that the siting of the turbines on the ridge line overlooking Protected Areas and the Provincial Reserve are intrusive on sensitive landscape that form the basis for wildlife and nature tourism within avoidance of impact through avoidance of turbine placement i.e. the no-go option can be considered both on a per turbine as well as per development basis.

e) WBG Wind Energy Guidelines Section 1.1.3 Biodiversity indicate –

- i) Note 25 indicates: “*Site selection is critical to avoiding and minimizing potential adverse impacts on biodiversity. Site selection should include the following:*
  - *Consideration of the proximity of the proposed wind energy facility to sites of high biodiversity value in the region. Early screening can improve macro-level project site selection and the scoping of priorities for further assessment, thus reducing unnecessary biodiversity impacts and costs in the future. Sites of local, regional, and international importance may include national and international protected areas (including marine protected areas), Important Bird Areas (IBA), Key Biodiversity Areas (KBAs).*

□ *Consultation with relevant national and/or international conservation organizations also helps to inform site selection for both onshore and offshore facilities."*

ii) It is patently clear that Protected Areas and Provincial Reserves are affected and the relevant local, provincial and national conservation organizations (Indalo, ECPTA and SANParks) have not been consulted to help to inform site selection.

#### 4.2.6 International Finance Group Guidelines

a) The International Finance Group (IFC) is a member of the World Bank Group which has established a set of "Performance Standards" (January 2012) under its Sustainability Framework. The Sustainability Framework articulates IFC's strategic commitment to sustainable development (ref: <https://www.ifc.org/wps/>).

i) Standard 6 Guidance Note GN27: *In practice, natural and modified habitats exist on a continuum that ranges from largely untouched, pristine natural habitats to intensively managed, modified habitats. Project sites will often be located among a mosaic of habitats with varying levels of anthropogenic and/or natural disturbance. Clients are responsible for delineating the project site as best as possible in terms of modified and natural habitat... Is the project site (or parts of it) an isolated area of natural habitat within a heavily disturbed or managed landscape? Is the project site located near areas of high biodiversity value (for example, wildlife refuges, corridors, or protected areas)? Or, is the project site located in a mosaic of modified and natural habitats that contain biodiversity values of varying importance to conservation?*

ii) The Albany WEF project site is located near areas of high biodiversity value and is located within mosaic of modified and natural habitats that contain biodiversity values of varying importance forming corridors between protected areas (Buffalo Kloof Protected Environment/Waters Meeting

Nature Reserve, Blaauwkrantz Nature Reserve, Kwandwe Protected Environment and Great Fish Nature Reserve).

- iii) An evaluation of the adherence to IFC Performance Standard 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources is contained in Appendix: A

#### 4.3 **OPINION AS TO WHETHER THE ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED**

4.3.1 EIA Regulation 31(2)(n) states that: *"An environmental impact assessment report must contain all information that is necessary for the competent authority to consider the application and to reach a decision contemplated in regulation 35, and must include ...a reasoned opinion as to whether the activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorization;"*

4.3.2 The EIA Regulation 31(2)(n) is explicit in that it requires that an EIR *"must"* contain a reasoned opinion (of the EAP) as to whether the activity *"should or should not be approved"*. In other words, if the Draft EIR fails to provide an opinion as to whether the activity should be approved, or not, then the reasoning of approval cannot be evaluated and Draft EIR does not meet the requirements of EIA Regulation 31(2)(n).

4.3.3 The EAP provides a vague and non-committal discussion around his/her views on the various aspects and impact assessment findings of the EIA study but falls short of providing a reasoned opinion as to whether the activity should or should not be authorised.<sup>26</sup>

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<sup>26</sup> Section 12.6 indicates *"Based on the contents of this report, and all associated documentation, it is the opinion of the EAP that the proposed Albany WEF be authorised on condition that all conditions stipulated in Section 12.7 of this report be contained within the EA"*.

## 5. IMPACTS ON BIODIVERSITY

5.1 The following important questions should be asked when considering a project location for a project of this nature:

5.1.1 Is the scheme likely to have a significant effect on the integrity of a protected area or nature reserve?

Yes - The project site is located near areas of high biodiversity value and is located within mosaic of modified and natural habitats that contain biodiversity values of varying importance forming corridors between protected areas (Buffalo Kloof Protected Environment / Waters Meeting Nature Reserve, Blaauwkrantz Nature Reserve, Kwandwe Protected Environment and Great Fish Nature Reserve).

5.1.2 If so, is the project likely to damage (or destroy) any of the features of interest, or disturb any of the wildlife for which the site is protected?

Yes – Like the Addo National Park and the Great Fish Provincial Nature Reserve, the Indalo PGRs (like many others in South Africa and in Africa in general) is concerned with nature and wildlife tourism as a key protected area goods and service.

a) It is specifically the wildlife and nature tourist's experience that relies on the wilderness character of both the protected areas and their surrounds and in a way the wilderness character of the reserves which finances protection of ecological, geological, landscape and other features of scientific, cultural and/or historical value (nature and wildlife tourism in reality underpins the protected areas operation and ability to meet biodiversity conservation objectives).

b) Like the Addo National Park and the Provincial Nature Reserves (most notably the Great Fish), the Indalo PGRs are managed according to a Protected Area

Management Plan, but with the important difference that they do not receive public funds but have to secure funding from internal resources.

- c) These resources are derived from nature and wildlife tourism which is dependent on a natural environment largely free from the structures and signs of modern civilisation (often from which the tourists come to get away). Wind energy development characterised by colossal skyline intrusion will impose a divestment on Indalo members impacted and curtail wildlife and nature tourism enabled protected area expansion.

5.1.3 Is the scheme likely to have a significant adverse effect on the favourable conservation status of any habitat?

Yes- the scheme will hinder the expansion of areas under formal protection –

- a) Based on government's Protected Area Expansion Strategy, buffer zones and Biodiversity Stewardship Programme, Indalo is currently actively working with local provincial and national partners including the Wilderness Foundation of South Africa, ECPTA and SAN Parks to expand areas under formal protection. This is done through further amalgamation of the southern, central and northern nodes into large agglomerations (>50 000Ha) of private nature and game reserves in the central node and private/public nature and game reserves through public-private partnerships with Addo National Park and the Great Fish (and various provincial nature reserves ) in the south and north respectively.
- b) One of the main objectives of the expansion plan is to enable common traversing agreements and unified conservation management through the dropping of fences between reserves.
- c) To this effect a formal protected area expansion strategy is under development by various stakeholders including the Wilderness Foundation Africa, ECPTA, SAN Parks and the Indalo Association that will guide protected area expansion,

inform land-use planning, stimulate economic development and aide thicket restoration in the broader Albany region.

- d) The environmental and economic benefits associated with the agglomerations (>50 000Ha) of private reserves and expansion through private partnerships with Addo in the south and the Great Fish in the north are considerable. Not only will this form a mega reserve as larger consolidated areas will lead to improved marketability of the Eastern Cape as a safari destination, making it comparable to Kruger, Sabi Sands and Madikwe. As much as wind energy development is necessary in South Africa, we hold wind energy development that impacts on the Addo, Great Fish and Indalo Protected Areas and their further extended areas to be untenable and undesirable that should be avoided at all cost.

- 5.2 Accordingly it would have been expected that the Proponent of the Albany WEF, at the hand of the EIA process would have considered impact of the Facility on Protected Areas and Provincial Nature Reserves that are legally protected and internationally recognised areas of importance to biodiversity and cultural heritage as required by NEMPAA. The EIR for the Albany WEF failed to do so which is contrary to the requirements of NEMPAA.

## **6. CONCLUSION**

- 6.1 The Indalo Protected Environment places on record that the EIR and specialist studies are deficient to the extent that these inadequacies are covering up fatal flaws in the application, if these material deficiencies were to be addressed it would become clear that the development would blight views from Great Fish Reserve (most spectacularly from Adam's Krans view point) and would degrade the scenic value of the area and its unique wilderness tourism product in general. Indalo is unconditionally in favour of the outright refusal of the Albany WEF based upon the grounds set out in this comment on EIR.
- 6.2 In other words, Indalo favours the ultimate, most effective mitigation measure for the Albany WEF and the fatal flaws that it holds in terms of impact to the

Protected Areas and their potential for expansion, is by avoiding the WEF through its outright refusal.

## 7. SOURCES

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## APPENDIX A - IFC GUIDELINES

### Performance Standard 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources

#### PROTECTION AND CONSERVATION OF BIODIVERSITY

| Condition  | Comment   |
|--|---|
| <ul style="list-style-type: none"><li data-bbox="331 432 1218 1222">Guidance Note 6 - GN27. In practice, natural and modified habitats exist on a continuum that ranges from largely untouched, pristine natural habitats to intensively managed, modified habitats. Project sites will often be located among a mosaic of habitats with varying levels of anthropogenic and/or natural disturbance. Clients are responsible for delineating the project site as best as possible in terms of modified and natural habitat... Is the project site (or parts of it) an isolated area of natural habitat within a heavily disturbed or managed landscape? Is the project site located near areas of high biodiversity value (for example, wildlife refuges, corridors, or protected areas)? Or, is the project site located in a mosaic of modified and natural habitats that contain biodiversity values of varying importance to conservation?</li></ul> | <p data-bbox="1236 432 2065 895">The project site is located near areas of high biodiversity value and is located within mosaic of modified and natural habitats that contain biodiversity values of varying importance forming corridors between protected areas (Buffalo Kloof Protected Environment / Waters Meeting Nature Reserve, Blaauwkrantz Nature Reserve and Kwandwe Protected Environment and Great Fish Nature Reserve).</p> |

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Guidance Note 6 - GN32. Where socioeconomic and cultural uses of biodiversity (that is, ecosystem services) are at issue, biodiversity offsets may include the provision of compensation packages for Affected Communities impacted by the project and offset. Note that ecosystem services are covered in paragraphs 24 and 25 of Performance Standard 6, and compensation for ecosystem services is covered in Performance Standards 5, 7, and 8.</li> </ul> | <p>The impact on ecosystem services was not adequately considered. Refer to section below on ecosystem services.</p> |
|---|--|

**LEGALLY PROTECTED AND INTERNATIONALLY RECOGNIZED AREAS**

This IFC Performance Standard recognises legally protected areas that meet the IUCN definition: “A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.” For the purposes of this Performance Standard, this includes areas proposed by governments for such designation.

| Condition   | Comment   |
|---|---|
| <ul style="list-style-type: none"> <li>• Performance Standard 6 Paragraph 20. In circumstances where a proposed project is located within a legally protected area or an internationally recognized area, the client will meet the requirements of paragraphs 13 through 19 of this Performance Standard, as applicable. In addition, the client will: <ul style="list-style-type: none"> <li>○ Demonstrate that the proposed development in such areas is legally permitted;</li> <li>○ Act in a manner consistent with any government recognized management plans for such areas;</li> <li>○ Consult protected area sponsors and managers, Affected Communities, Indigenous Peoples and other stakeholders on the proposed project, as appropriate; and</li> <li>○ Implement additional programs, as appropriate, to promote and enhance the conservation aims and effective management of the area.</li> </ul> </li> </ul> | <p>Paragraph 14 of IFC Performance Standard 6 indicates:</p> <p>14. The client will not significantly convert or degrade natural habitats, unless all of the following are demonstrated:</p> <ul style="list-style-type: none"> <li>• No other viable alternatives within the region exist for development of the project on modified habitat;</li> </ul> <p>We are of the opinion that the applicant did come to a defensible conclusion that there are no other viable alternatives within the region.</p> <p>With respect to consultation with protected area sponsors, managers and stakeholders - Consultation with conservation entities seemingly substantially lacking, for example the Eastern Cape Parks Board and the Great Fish River Nature Reserve were not consulted.</p> <p>The impacts on the Great Fish River Nature Reserve and its future potential have not been considered.</p> |

| Condition   | Comment  |
|---|--|
| <ul style="list-style-type: none"> <li>Guidance Note 6 GN95. With respect to mitigation, clients are expected to comply with requirements for natural or critical habitat, depending on the qualifying biodiversity values present in the legally protected (including areas officially proposed for protection) or internationally recognized area.</li> </ul>   |  |
| <ul style="list-style-type: none"> <li>Guidance Note 6 GN96. When projects are located in legally protected and internationally recognized areas, clients should ensure that project activities are consistent with any national land use, resource use, and management criteria (including Protected Area Management Plans, National Biodiversity Strategy and Action Plans (NBSAPs), or similar documents). This will entail securing the necessary approvals from the responsible government agencies, and consulting with protected area sponsors and Affected Communities, indigenous peoples, and other relevant stakeholders. Note that stakeholder engagement and consultation is required for all projects located in legally protected and internationally recognized areas.</li> </ul> | <p>The project site is located near areas of high biodiversity value and is located within mosaic of modified and natural habitats that contain biodiversity values of varying importance forming corridors between protected areas (Buffalo Kloof Protected Environment / Waters Meeting Nature Reserve, Blaauwkrantz Nature Reserve and Kwandwe Protected Environment and Great Fish Nature Reserve). Accordingly, it would have been expected that the Proponent of the Albany WEF at the hand of the EIA process would have considered impact of the facility on these areas as well as the impact that the facility would have and any planned expansions of these areas.</p> |

## MANAGEMENT OF ECOSYSTEM SERVICES

| Condition  | Comment  |
|--|--|
| <ul style="list-style-type: none"> <li>24. Where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the client will conduct a systematic review to identify priority ecosystem services. Priority ecosystem services are two-fold: (i) those services on which project operations are most likely to have an impact and, therefore, which result in adverse impacts to Affected Communities; and/or (ii) those services on which the project is directly dependent for its operations (e.g., water). When Affected Communities are likely to be impacted, they should participate in the determination of priority ecosystem services in accordance with the stakeholder engagement process as defined in Performance Standard 1.</li> </ul> | <p>Paragraph 2 of Performance Standard 6 defines Ecosystem services:</p> <p>"Ecosystem services are the benefits that people, including businesses, derive from ecosystems."</p> <p>And categorises ecosystem services into four types:</p> <ul style="list-style-type: none"> <li>(i) provisioning services</li> <li>(ii) regulating services,</li> <li>(iii) cultural services, and</li> <li>(iv) supporting services</li> </ul> <p>footnote 1 of Performance Standard 6, gives examples for cultural services: "cultural services may include natural areas that are sacred sites and areas of importance for recreation and aesthetic enjoyment"</p> |
| <ul style="list-style-type: none"> <li>25. With respect to impacts on priority ecosystem services of relevance to Affected Communities and where the client has direct management control or significant influence over such ecosystem services, adverse impacts should be avoided. If these impacts are unavoidable, the client will minimize them and implement mitigation measures that aim to maintain the value and functionality of priority services.</li> </ul>  | <p>We believe the landscape features and the relative pristineness of the landscape contribute to the remote sense of place of the region, thereby providing a cultural ecosystem service. The remote sense of place will be impacted by the proposed facility. Therefore, this should</p>   |

| Condition  | Comment  |
|--|--|
| <p>With respect to impacts on priority ecosystem services on which the project depends, clients should minimize impacts on ecosystem services and implement measures that increase resource efficiency of their operations, as described in Performance Standard 3. Additional provisions for ecosystem services are included in Performance Standards 4, 5, 7, and 8.19</p>   | <p>have been identified as a priority ecosystem service as “services on which project operations are most likely to have an impact and, therefore, which result in adverse impacts to Affected Communities”</p> <p>All current beneficiaries of this ecosystem service should thus have been consulted as part of the stakeholder engagement process.</p>  |
| <ul style="list-style-type: none"> <li>GN108. Ecosystem services are indeed services because there is an identified (human) beneficiary (that is, the user). Ecosystem services are related to biophysical processes in the environment, but until there is a person or group of persons benefiting from the process, it is not a service. The beneficiary might be on the local, regional, or even global scale. ...</li> </ul> | <p>The adverse impact on the priority ecosystem service identified above is manifested through the visual impact of the proposed turbines. The only manner in which this impact can be mitigated in order to “maintain the value and functionality of priority services” is through</p> <ul style="list-style-type: none"> <li>i. consideration of alternative locations (which were not considered in the EIR)</li> <li>ii. consideration of reduced hub height (which was not considered in the EIR), or</li> <li>iii. through implementing the no-go option.</li> </ul> |
| <ul style="list-style-type: none"> <li>GN112. Ecosystem services is a transdisciplinary topic; hence, it is covered under a number of the Performance</li> </ul>   |  |

| Condition   | Comment   |
|---|---|
| <p>Standards. With respect to provisioning and cultural ecosystem services, it is the community of practice of social development specialists...</p>  |   |
| <ul style="list-style-type: none"> <li>GN114. Client requirements in Performance Standard 6 for ecosystem services are applicable only when the client has “direct management control or significant influence” over such services.</li> </ul>  | <p>The applicant does have direct management control and significant influence over the cultural ecosystem service provided by the pristine landscape, landscape features and remote sense of place.</p>  |
| <ul style="list-style-type: none"> <li>GN115. As described in paragraphs GN4–GN6 of this note, the risks and identification process will include a scoping for ecosystem services, which should primarily take place through literature review and consultation with Affected Communities as part of the stakeholder engagement process outlined in Performance Standard 1. Stakeholder engagement is covered under paragraphs GN91–GN105 of Guidance Note 1. Of particular relevance to ecosystem system services is engagement with poor and vulnerable communities, especially indigenous peoples (see related ecosystem services requirements in Performance Standard 7). Particular emphasis should also be paid to engaging with women, as they are likely users of natural resources. Where</li> </ul> | <p>The visual impact assessment and the socio-economic impact assessment consider the impact on the cultural ecosystem service provided by the pristine landscape, landscape features and remote sense of place. Comments on the adequacy of these assessments can be found in the body of this report.</p> |

| Condition   | Comment |
|---|---------|
| <p>potentially significant project-related risks to ecosystem services are identified, clients will be responsible for identifying priority ecosystem services. Priority ecosystem services are defined in paragraph 24 of Performance Standard 6 as (i) those services on which project operations are most likely to have an impact and, therefore, which result in adverse impacts to Affected Communities; and/or (ii) those services on which the project is directly dependent for its operations (for example, water). Priority ecosystem services should be identified using a systematic review and prioritization (paragraph 24 of Performance Standard 6). For the purposes of this Guidance Note, this process is referred to as a systematic assessment of ecosystem services.</p> |         |

| Condition   | Comment   |
|---|---|
| <ul style="list-style-type: none"> <li>• GN116. For the purposes of Performance Standard 6 implementation, ecosystem services are categorized as two types: <ul style="list-style-type: none"> <li>○ Type I: Provisioning, regulating, cultural and supporting ecosystem services, over which the client has direct management control or significant influence, and where impacts on such services may adversely affect communities.</li> <li>○ Type II: Provisioning, regulating, cultural and supporting ecosystem services, over which the client has direct management control or significant influence, and on which the project directly depends for its operations</li> </ul> </li> </ul> | <p>The cultural ecosystem service provided by the pristine landscape, landscape features and remote sense of place falls under Type 1.</p>  |
| <ul style="list-style-type: none"> <li>• GN117. Where a project is likely to have an impact on ecosystem services, the systematic assessment should screen for all type I and type II ecosystem services in the project site and its area of influence and prioritize ecosystem services based on the following: (i) the project's likelihood to have an impact on the service and (ii) the project's direct</li> </ul>   | <p>Although no explicit screening of ecosystem services was undertaken as part of the EIR, the visual impact assessment and the socio-economic impact assessment consider the impact on the cultural ecosystem service provided by the pristine landscape, landscape features and remote sense of place. Comments on the adequacy</p> |

| Condition  | Comment   |
|--|---|
| <p>management control or significant influence over that service.</p>  | <p>of these assessments can be found in the body of this report.</p>  |
| <ul style="list-style-type: none"> <li>• GN118. Type I ecosystem services will be considered priority under the following circumstances: <ul style="list-style-type: none"> <li>○ Project operations are likely to result in a significant impact on the ecosystem service;</li> <li>○ The impact will result in a direct adverse impact on Affected Communities "livelihood, health, safety, and/or cultural heritage;" and,</li> <li>○ The project has direct management control or significant influence over the service.</li> </ul> </li> </ul> | <p>These circumstances are applicable thus making the cultural ecosystem service provided by the pristine landscape, landscape features and remote sense of place a priority ecosystem service.</p>   |
| <ul style="list-style-type: none"> <li>• GN120. For Type I ecosystem services, the systematic assessment must be conducted as part of a participatory stakeholder consultation process. Social specialists will be the primary agents conducting this consultation, and requirements are defined in paragraphs 25–33 of Performance Standard 1. Related guidance can be found in paragraphs GN91–GN105 of Guidance Note 1. As part of the systematic assessment, the client should consider the following:</li> </ul>                                | <p>Although no explicit systematic assessment of ecosystem services was undertaken as part of the EIR, the visual impact assessment and the socio-economic impact assessment consider the impact on the cultural ecosystem service provided by the pristine landscape, landscape features and remote sense of place. Comments on the adequacy of these assessments can be found in the body of this report.</p> |

| Condition  | Comment |
|--|---------|
| <ul style="list-style-type: none"> <li>○ Review the nature and extent of ecosystem services in the project site and its area of influence.</li> <li>○ Identify the condition, trends, and external (non-project) threats to such services.</li> <li>○ Distinguish the beneficiaries of such services.</li> <li>○ Assess the extent to which the project depends on or may impact identified services.</li> <li>○ Assess the significance of the services in terms of livelihoods, health, safety, and cultural heritage.</li> <li>○ Identify the associated key social, operational, financial, regulatory and reputational risks.</li> <li>○ Identify courses of action and mitigation measures which can reduce identified risks.</li> </ul> |         |

Table 1: References to Ecosystem Services in Other IFC Performance Standards

| Performance Standard | Paragraph Number          | Reference and Relation to Performance Standard 6   |
|----------------------|---------------------------|--|
| 1                    | Paragraph 8/ first bullet | With respect to the definition of the project's area of influence, indirect project impacts on biodiversity or on ecosystem services upon which Affected Communities' livelihoods are dependent are to be accounted for.   |
| 4                    | Paragraph 8               | Describes the client's responsibility to take into account the project's potential direct impacts on priority ecosystem services that may result in adverse health and safety impacts to Affected Communities.<br><br>Ecosystem services are limited to provisioning and regulating services. Client requirements link back to paragraph 25 in Performance Standard 6. |
| 5                    | Paragraph 1/ footnote 1   | Footnote explains that natural resource-based livelihoods are considered "livelihoods" per Performance Standard 5.   |
|                      | Paragraph 5/ third bullet | Notes that Performance Standard 5 applies when economic displacement caused by project-related restrictions on land use and access to natural resources causes a community (or groups within a community) to lose access to resource usage.  |
|                      | Paragraph 5/ footnote 9   | States that the term "natural resource assets" as referred to in Performance Standard 5 are equivalent to the <b>provisioning ecosystem services</b> terminology of Performance Standard 6.  |
|                      | Paragraph 27              | Describes general client requirements for economically displaced persons who face loss of assets or access to assets, which includes natural resource assets.  |

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|---|-----------------------------------|---|
|   | Paragraph 28/<br>second<br>bullet | Describes additional client requirements for livelihood restoration for persons whose livelihoods are natural resource-based livelihoods and where there are project-related restrictions on access to natural resources, i.e., these would be considered <b>priority provisioning ecosystem services</b> of relevance to <b>Affected Communities</b> per Performance Standard 6.   |
| 7 | Paragraph 11/<br>footnote 5       | States that the term “natural resources and natural areas with cultural value” as referred to in Performance Standard 7 are equivalent to the provisioning and cultural ecosystem services terminology in Performance Standard 6.   |
|   | Paragraph 13/<br>footnote 6       | States that the term “natural resource assets” as referred to in Performance Standard 7 is equivalent to the <b>provisioning ecosystem services</b> terminology of Performance Standard 6.  |
|   | Paragraph 14                      | Describes client requirements if the client proposes to locate a project, or commercially develop natural resources on lands traditionally owned by, or under customary use of Indigenous Peoples.  |
|   | Paragraph 14/<br>footnote 9       | States that the term “natural resources and natural areas of importance” as referred to in Performance Standard 7 is equivalent to <b>priority ecosystem services</b> as defined in Performance Standard 6. This footnote is slightly different than footnote 5 in that it states that where impacts on natural resources and natural areas of importance trigger client requirements in Performance Standard 7, <b>they will be considered priority ecosystem services</b> per Performance Standard 6. |
|   | Paragraph 16/<br>footnote 13      | Describes client requirements with respect to impacts on critical cultural heritage for Indigenous Peoples. Footnote 13 explains that this includes “natural areas with cultural and/or spiritual value,” which would be  |

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|---|--------------------------|--|
|   |                          | considered <b>priority cultural ecosystem services</b> per Performance Standard 6.   |
| 8 | Paragraph 3              | Explains that “unique natural features or tangible objects that embody cultural values” (such as sacred groves, rocks, lakes and waterfalls) is covered under Performance Standard 8 (unless these are cultural sites of Indigenous Peoples in which case they are covered under paragraph 16 of Performance Standard 7). “Unique natural features or tangible objects that embody cultural values” are equivalent to the <b>cultural ecosystem services</b> terminology used in Performance Standard 6. |
|   | Paragraphs 11 and 12     | Describes the client requirements for “Replicable” and “Non-replicable” cultural heritage. Cultural ecosystem services that meet definition 3(ii) of paragraph 3 in Performance Standard 8 will be covered by the requirements in paragraphs 11 or 12, as appropriate. The definitions of “Replicable” and “Non-replicable” cultural heritage is provided in footnotes 3 and 5 of Performance Standard 8.  |
|   | Paragraph 11/ footnote 4 | Describes client requirements for “Replicable” cultural heritage and includes the mitigation hierarchy as it applies to Performance Standard 8. These requirements place emphasis on “maintaining or restoring any ecological processes needed to support (the cultural heritage).” The “ecological processes” term is essentially equivalent to <b>priority regulating ecosystem services</b> as defined in Performance Standard 6.   |

**APPENDIX B – REVIEW OF NOISE IMPACT ASSESSMENT BY  
MACKENZIE HOY**

**APPENDIX C – VISUAL IMPACT ASSESSMENT- ALBANY  
WIND ENERGY FACILITY**

**APPENDIX D – ECONOMIC ASSESSMENT - ALBANY WIND  
ENERGY FACILITY**