

PROPOSED ROGGEVELD WIND FARM

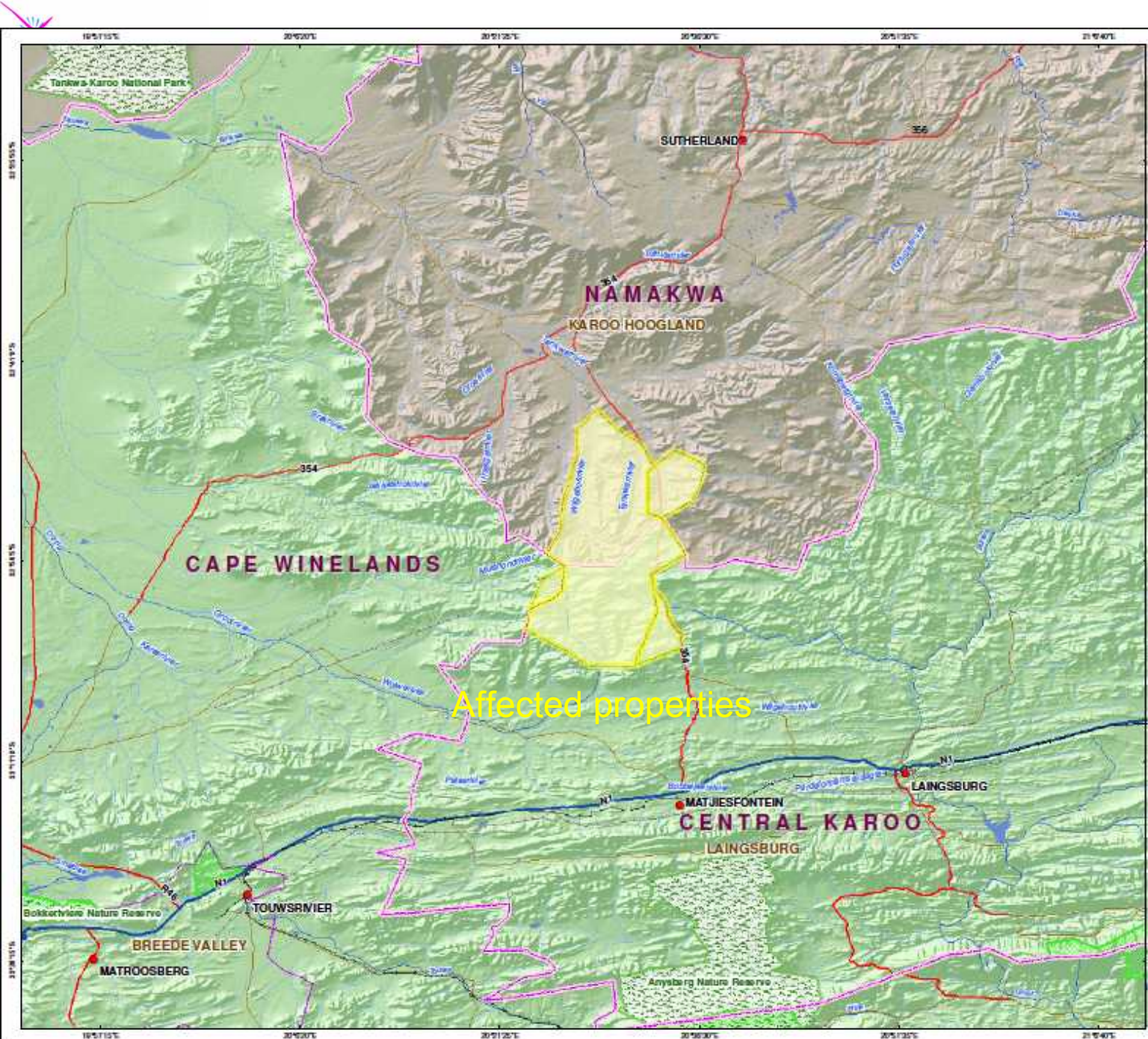
Request for revised s38(8) comment

16 January 2013

Presentation to Heritage Western Cape by
Roggeveld Wind Power (Pty) Ltd

The Proposed Project

- Site located west of the R354, ~45 km south of Sutherland and 30 km north of Matjiesfontein, in both Western and Northern Cape Provinces
- energy generation capacity of up to 750 MW (250 turbines)
- Turbines: max 100m hub height, 117m rotor diameter (3 blades of 58.5m)
- to be rolled out in 140 Megawatt phases (Department of Energy's)
- Electricity to be fed into the Eskom grid on site
- Project includes related infrastructure - Access roads, cabling and substation



Legend

- Towns
- Western Cape
- Northern Cape
- District Municipalities
- Local Municipalities
- Transmission Line
- National Route
- Main Road
- Secondary Road
- Railway
- Perennial River
- Non-Perennial River
- Inland Water
- Conservation Area
- National Park
- Roggeveld Land Parcel



TITLE:
Location of Roggeveld Wind Farm in relation to Municipal Areas

CLIENT:

DATE: SEPT 2011	CHECKED: TS	PROJECT: 017424
DRAWN: AD	APPROVED: SHC	SCALE: 1 : 500 000

DRAWING: Location of Roggeveld Municipalities	REV: 0
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 Building 22,
 The Woodlands,
 Woodlands Drive,
 Woodmead, 2146
 Johannesburg, South Africa
 Tel: +27 (0)11 786 4000
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Projection: Geographic, Datum: WGS84
 Source: NGI, InfoT, 1:500 000
 Inset Map, Cell Data & Maps

REF:
A3

Background – EIA process

- Presentation to HWC requested as a result of a revision (Version 2) of Final Environmental Impact Report (FEIR).
- FEIR dated 30 November 2011 was submitted to the Department of Environmental Affairs (DEA) for decision making on 15 December 2011.
- The DEA reviewed the report and requested that some changes be effected.
- Version 2 of the FEIR addressed these changes and was resubmitted to DEA for decision making on 15 November 2012.

EIA and Project Changes

- The FEIR changes generally relate to
 - Refinement of the preferred alternative map and infrastructure components
 - a refined Environmental Management Programme
 - a Threatened or Protected Species (ToPS) list
 - and the phasing of the project so as to be in line with the Department of Energy's requirement for a 140 Megawatt cap per wind farm application.
 - Observing bird and sensitivity buffers
- Changes in layout were effected to address HWC concerns - turbines taken off off Tafelkop and Spitskop

Purpose of the presentation

Previous HWC comment (07 Nov 2011)

“Decision:

The committee endorses the recommendations of all the consultants contained in the draft EIR and further comments that:

- 1. No turbines are to be located on Tafelkop or any other mountain ridgelines in the Western Cape;*
- 2. (...)“*

- We request a new comment from HWC which *does not* object to the revised proposals

Desirability of the Project Site

- Site selection done in a way that maximises energy generation but limits negative impacts on heritage and the environment. Following aspects make this site ideal:
 1. High wind resource
 2. Proximity to the Eskom grid
 3. Low tourism value
 4. NOT a pristine wilderness area, already disturbed by high voltage powerlines (2x existing 400kV, 1x 765kV under construction)
 5. Low potential agricultural land

Receiving environment - series of rolling hills



Receiving environment - already disturbed

Southern 400kV power line

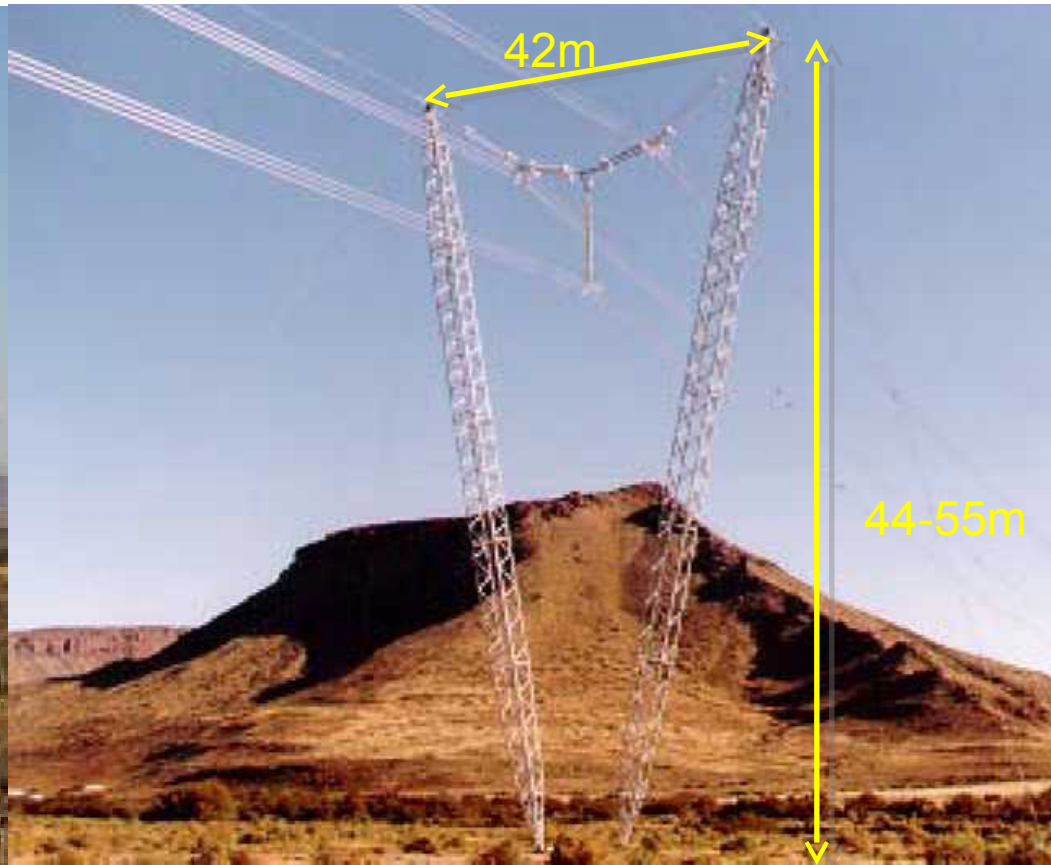
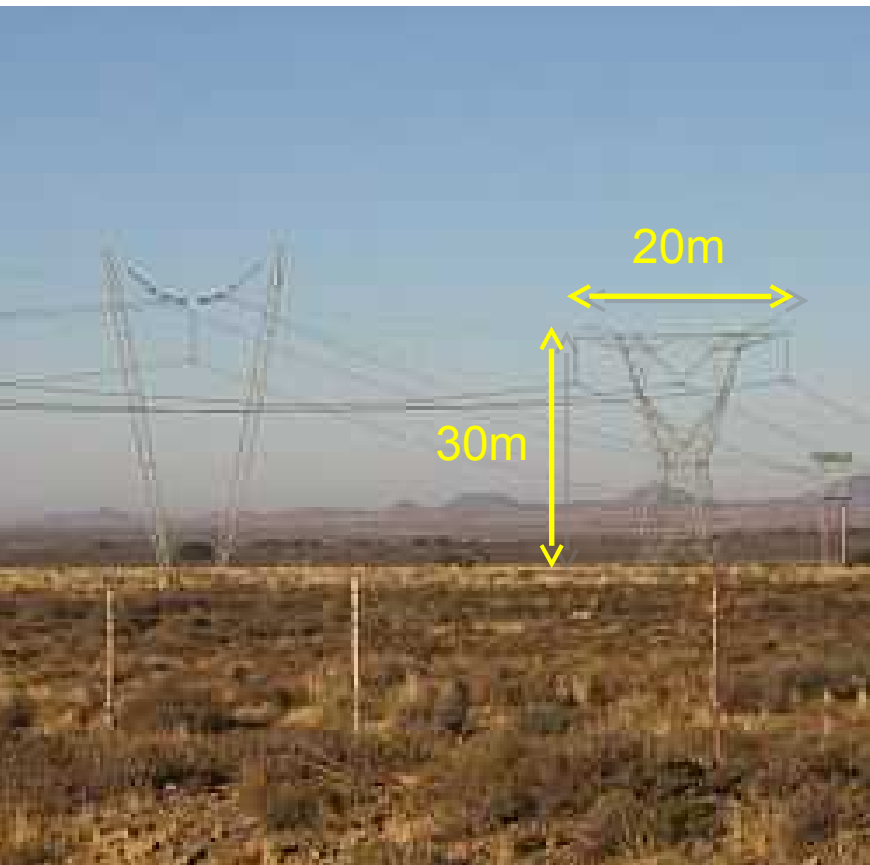


Northern 400kV power line



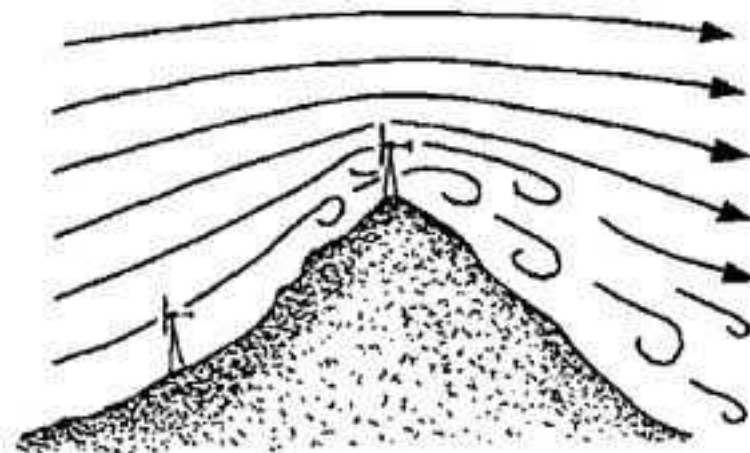
Receiving environment - to get even more disturbed soon

New Kappa/Omega 765kV line under construction next to southern 400kV line – to be almost double the size of the 400kV pylons



Why turbines on top of ridges?

- The winds are *ALWAYS* stronger on top
- Lower wind in valleys but no visual advantage necessarily (can't always hide)
- Just a hundred metres off the ridge is strong turbulence, greatly shortening the turbine life time
- Stronger winds = cheaper electricity!!!



Ridge Placement – Common Practice Overseas








Visual Impact Assessment Concerns

- VIA proposed that mitigation of a high visual impact of the wind turbines to a medium-high visual impact includes the removal or re-location of turbines from prominent hills such as Tafelkop and Spitskop
- This recommendation has been followed

What will it look like?

Additional Photomontage #1

Tafelkop (now
without turbines)

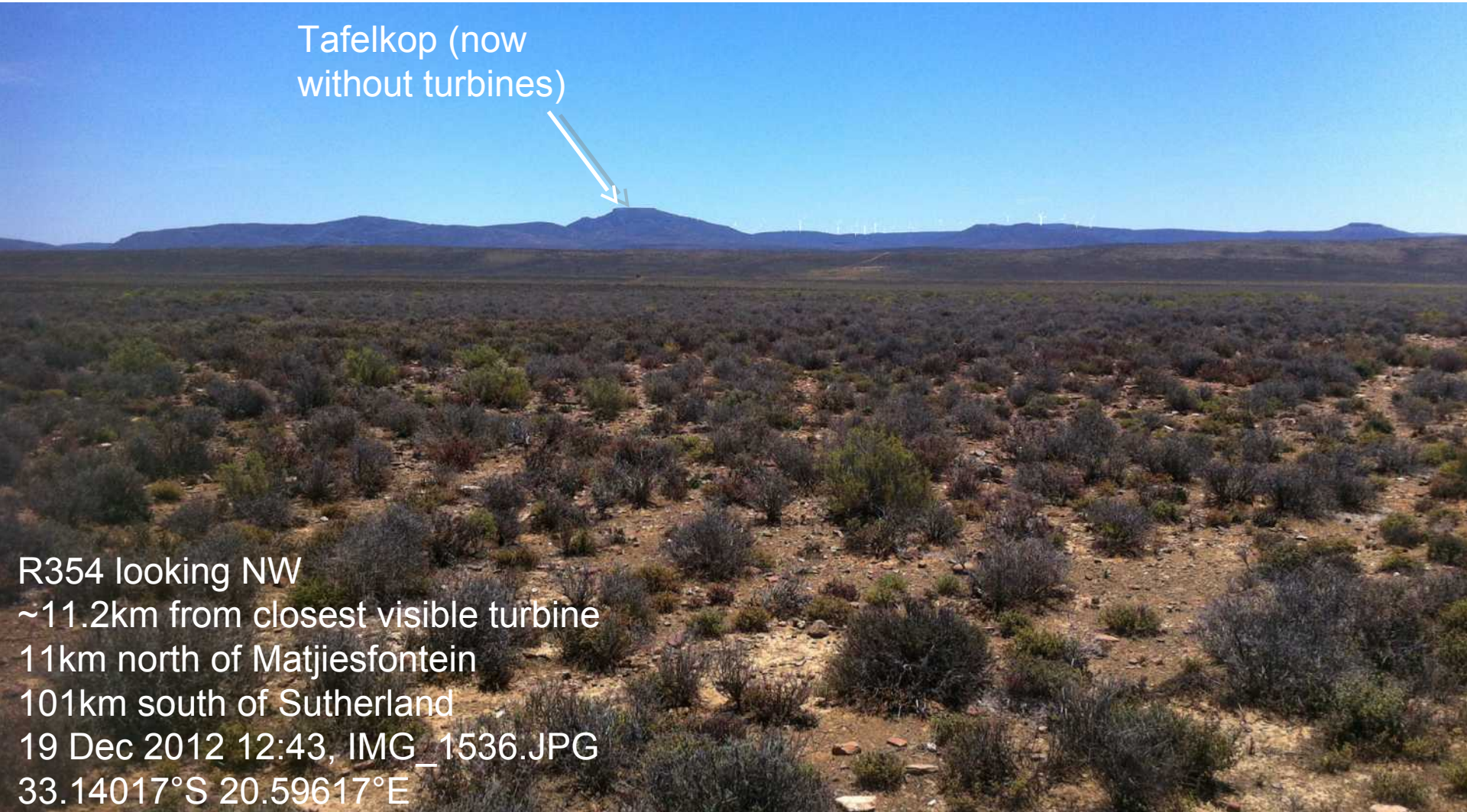


R354 looking NNW
~14.8km from closest visible turbine
6.1km north of Matjiesfontein
105.9km south of Sutherland
19 Dec 2012 12:31, IMG_1531.JPG
33.18183°S 20.58633°E

What will it look like?

Additional Photomontage #2

Tafelkop (now
without turbines)



R354 looking NW
~11.2km from closest visible turbine
11km north of Matjiesfontein
101km south of Sutherland
19 Dec 2012 12:43, IMG_1536.JPG
33.14017°S 20.59617°E

What will it look like?

Additional Photomontage #3



R354 looking NW
~5.5km from closest visible turbine
27.5km north of Matjiesfontein
84.5km south of Sutherland
19 Dec 2012 13:05, IMG_1540.JPG
33.00550°S 20.57133°E

What will it look like?

Additional Photomontage #4



R354 looking WNW
~3.1km from closest visible turbine
30.2km north of Matjiesfontein
81.8km south of Sutherland
19 Dec 2012 13:14, IMG_1542.JPG
32.98450°S 20.56350°E

Almost identical to Viewpoint 3 in Figure 5
of VIA (previously submitted to HWC)

What will it look like?

Additional Photomontage #5



Northern
400kV line

Southern 400kV line
(765kV built adjacent)

R354 looking NNW
2.2km from closest visible turbine
34.4km north of Matjiesfontein
77.6km south of Sutherland
19 Dec 2012 13:21, IMG_1544.JPG
32.94933°S 20.55000°E

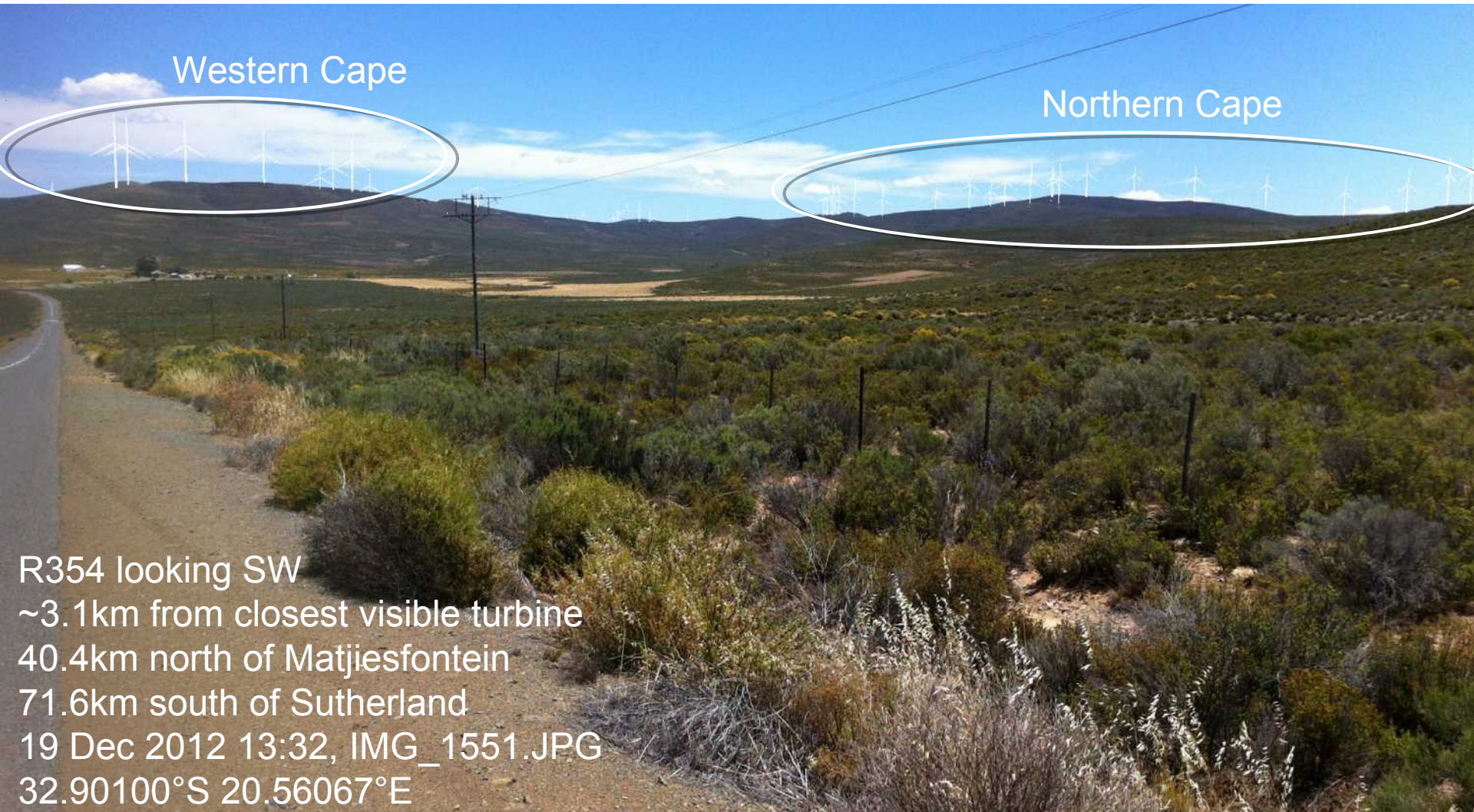
What will it look like?

Additional Photomontage #6



What will it look like?

Additional Photomontage #7



Heritage Impact Report (1)

- Assessed Archaeological, Heritage and Palaeontological impacts
 - Minimal areas of archaeological significance lie within the site
 - Discovery of palaeontological material during the excavation could be a positive impact if monitored by a palaeontologist
 - The significance of most impacts assessed is low if proposed mitigation measures are applied.

Heritage Impact Report (2)

- Cultural Landscape
 - “Although this is a high scenic area, it is very remote and not celebrated as a place with visual heritage qualities.” (p 35)
 - “Hence in heritage terms assigning a high degree of visual impact to the heritage resources [is] seems unjustified.” (p 35)
 - “While the area is highly scenic, within the project boundary there are no major tourism enterprises and is seldom visited by persons other than those directly involved in farming.” (p 35)
- By way of illustration, during a visit in December 2012 there were only 20 cars spotted in 2 hours on the R543 both directions.

Heritage Impact Report (3)

Assessment of Impacts

- “These wind swept mountain tops are generally remote, exposed and inhospitable. During the course of this study many kilometres of ridge top landscapes were traversed and found to be sterile of any human made heritage material.” (p 35)
- “The historic pass to Sutherland via Karoopoort lies 18km to the east of the closest turbine row. The impact to this heritage resource and scenic route will be minimal as the turbines will only be marginally visible under the clearest of conditions.” (p 35)
- “The study area has little amenity or intrinsic active tourism value at the present time which means that assigning a high degree of impact in terms of sense of place is unjustified.” (p 36)

Heritage Impact Report (4)

Concluding statement of the HIA (Section 7.5, p.41):

“On purely heritage alone, there is no justifiable reason for not supporting the proposal”

Witberg Comparison

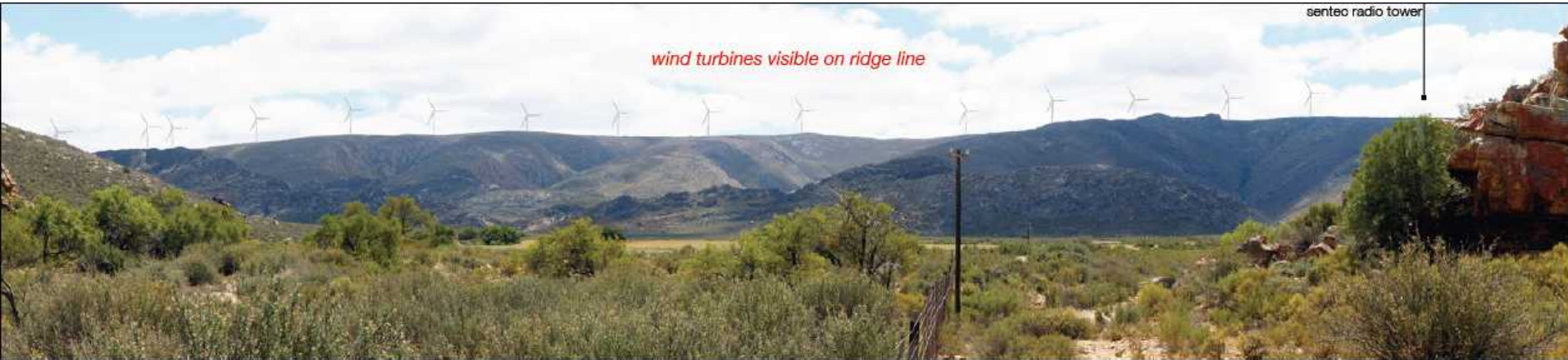
- In Oct 2011, IACom commented without objection to the proposed Witberg WEF which is:
 - on top of a prominent mountain ridge (vs lower, rolling hills here)
 - in the neighbourhood of a *significant* heritage resource (Matjiesfontein) (none here)
 - has a higher impact on cultural heritage / sense of place (moderate-high vs moderate)

Witberg Photomontages



Viewpoint W9 • looking north from Elandsfontein 2
distance to nearest turbine • 2.08km

33.3074S, 20.4659E • 08/10/2010 • 12h23



Viewpoint W10 • looking north from Elandskloof Gate
distance to nearest turbine • 4.3km

33.3197S, 20.5006E • 08/10/2010 • 12h37

Conclusion

- The HIA recommended approval
- There has been additional mitigation (turbines on Tafelkop + Spitskop removed)
- Similar proposal (Witberg) was NOT objected to in the past
- We request that HWC provide a new comment which does not object to the proposed project as it now stands