

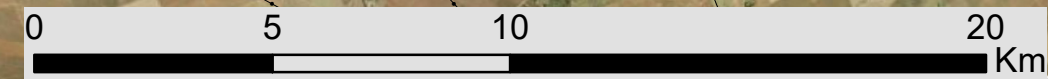
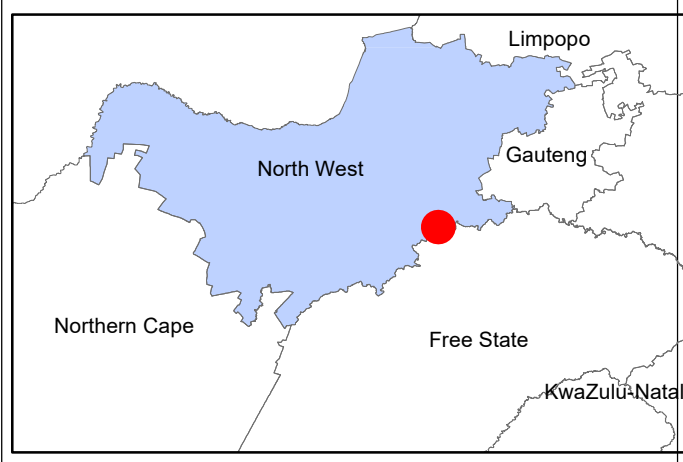
Vaal River Solar PV Facilities, Substation and 132kV power line projects near Orkney in the North West Province

Cumulative Map

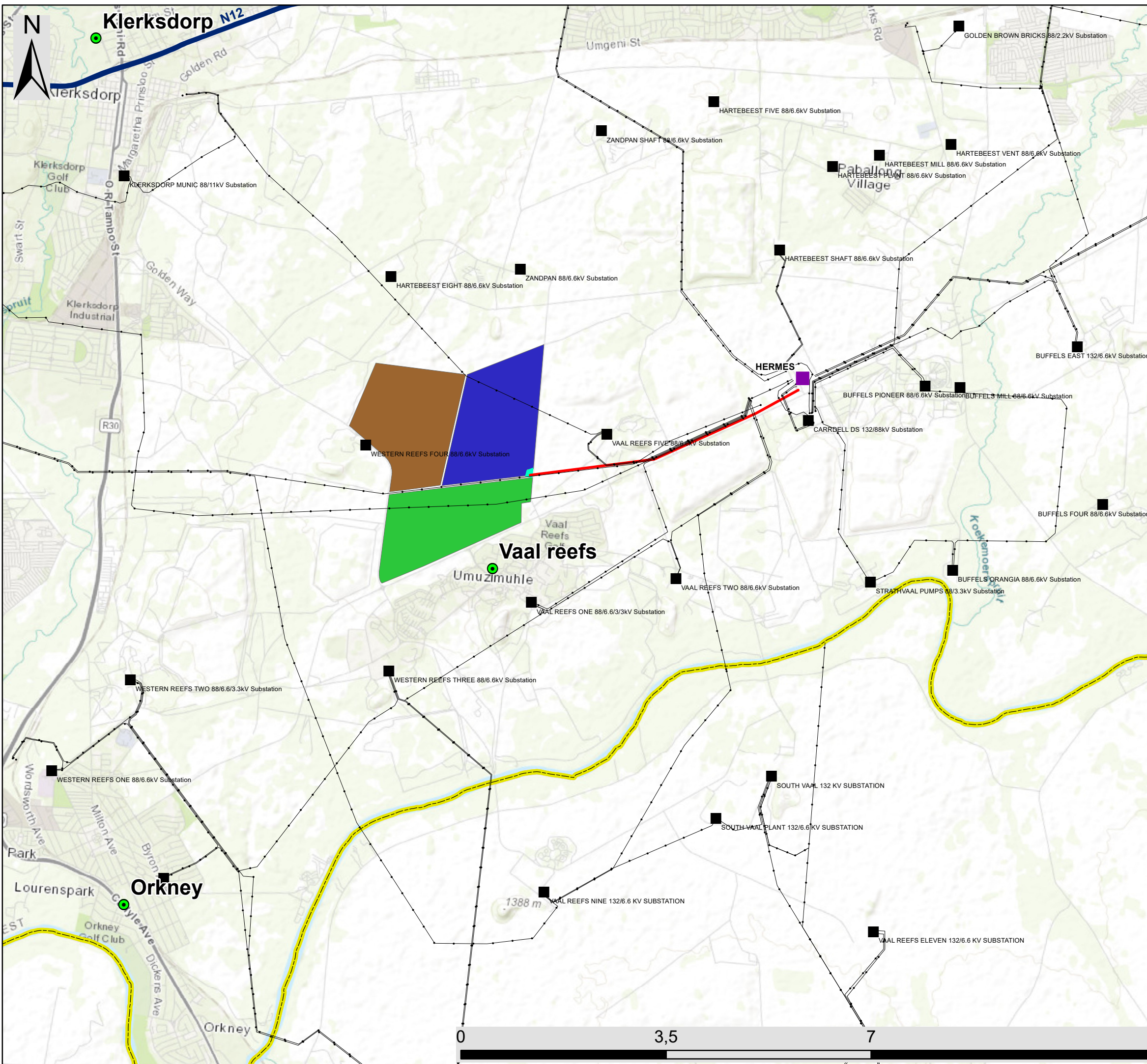
Legend

- Town
- Eskom Substation
- Hermes Eskom Substation
- Existing Power Line
- National Route
- Provincial Boundary
- Properties Associated With Renewable Energy Facilities**
- Buffels Solar PV1 Energy Facility
- Orkney PV Solar Energy Facility
- Vaal River Solar PV Projects**
- 132kV power line for Vaal River Solar PV Facilities
- Substation
- Vaal River Solar 1 PV Facility
- Vaal River Solar 2 PV Facility
- Vaal River Solar 3 PV Facility

Scale: 1:200 000
 Projection: GCS_WGS_1984
 Map Ref: Vaal River Solar PV Facility



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



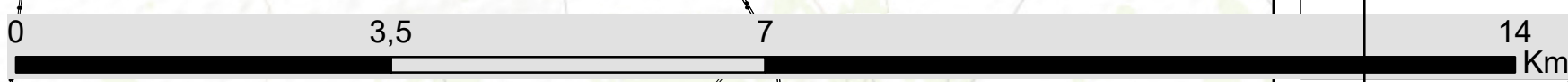
Vaal River Solar PV Facilities, Substation and 132kV power line projects near Orkney in the North West Province

Locality Map

Legend

- Town
- Hermes Eskom Substation
- Eskom Substation
- Existing Power Line
- National Route
- Provincial Boundary
- Vaal River Solar PV Projects**
- 132kV power line for Vaal River Solar PV Facilities
- Substation
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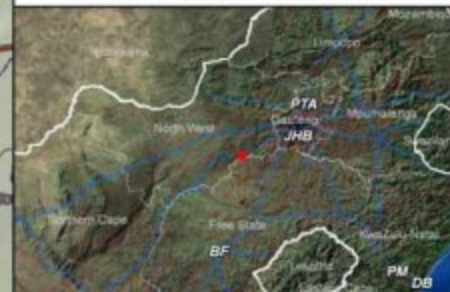


Vaal River Vaalkop Sites

Ecological Sensitivity Map

Legend

- National Road
 - Regional Road
 - Secondary Road
 - Railway Line
 - Perennial River
 - Non-perennial River
 - Existing power Line
 - Distribution Substation
 - Transmission Substation
 - Proposed substation
 - Power line - Vaalkop to Hermes
 - Project Boundary
- Ecological Sensitivity**
- Medium
 - Low



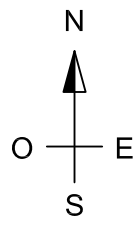


IMAGE FROM GOOGLE EARTH

POWER UNIT	
1	1,260 MVA
2	1,260 MVA
3	1,260 MVA
4	1,260 MVA
5	1,260 MVA
6	1,260 MVA
7	1,260 MVA
8	1,260 MVA
9	1,260 MVA
10	1,260 MVA
11	1,260 MVA
12	1,260 MVA
13	1,260 MVA
14	1,260 MVA
15	1,260 MVA
16	1,260 MVA
17	1,260 MVA
18	630 KVA
19	1,260 MVA
20	1,260 MVA
21	630 KVA
22	1,260 MVA
23	1,260 MVA
24	1,260 MVA
25	630 KVA
26	630 KVA
27	1,260 MVA
28	1,260 MVA
29	1,260 MVA
30	1,260 MVA
31	1,260 MVA
32	1,260 MVA

POWER UNIT	
33	630 KVA
34	1,260 MVA
35	1,260 MVA
36	1,260 MVA
37	1,260 MVA
38	1,260 MVA
39	1,260 MVA
40	630 KVA
41	1,260 MVA
42	1,260 MVA
43	1,260 MVA
44	1,260 MVA
45	630 KVA
46	1,260 MVA
47	1,260 MVA
48	1,260 MVA
49	1,260 MVA
50	1,260 MVA
51	1,260 MVA
52	1,260 MVA
53	1,260 MVA
54	630 KVA
55	1,260 MVA
56	1,260 MVA

LEGEND (Vaal River Solar 3)

- POWERLINE 88 kV
- ONE AXIS TRACKING SYSTEM
- SUBSTATION
- TRANSFORMER AND INVERTERS CENTER
- FENCE
- LIMIT PV AGRUPATION 1,25 MVA / 630 KVA
- PLOT LIMIT
- BATTERY ENERGY STORAGE SYSTEM (2HA)

TOTAL FENCE AREA: 280,63 Ha	
Module	Silicom 290 Wp
# Modules	259.560 units
Total Power	75.272 kWp
Nominal Power	64,89 MWn
Tracker 1 Horizontal axis +/- 55° GCR 1/3	
LENGTHS	
Fence	6,896 m

PLOT'S UTM COORDINATES DATUM WGS84

POINT	X	Y
1	471.246	7.024.189
2	472.920	7.024.065
3	472.579	7.022.202
4	471.745	7.022.117
5	471.759	7.022.427
6	471.683	7.022.595
7	470.940	7.023.146
8	471.050	7.023.368
9	471.027	7.023.417
10	471.046	7.023.538
11	471.170	7.023.757

REVIEW	DATE	MODIFIES TITLE N°
DESCRIPTION:		
DESCRIPTION:		
DESCRIPTION:		

VAAL RIVER SOLAR 3 PV FACILITY

SITE LOCATION:

VAAL RIVER

STATUS: PRELIMINARY LAYOUT

TITLE: 11.005 KVS3-PDES-LYO-1

DATE: 12/12/2011 ESCALE: 1:10.000
ORIGINAL FORMAT A-3

LAYOUT