



## **Appendix 5**

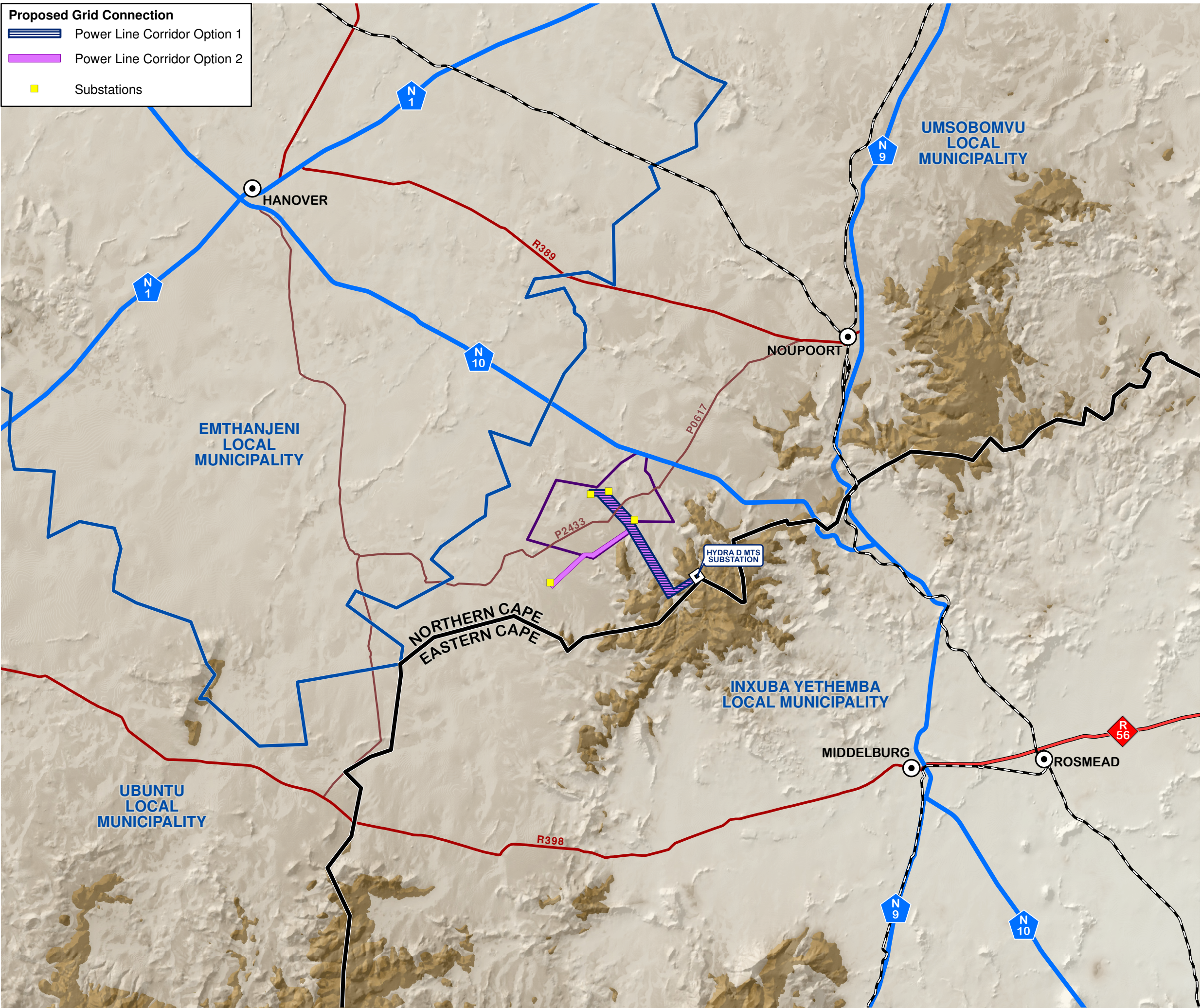
### **Maps**





**Proposed Grid Connection**

- Power Line Corridor Option 1
- Power Line Corridor Option 2
- Substations



**PROPOSED GRID CONNECTION FOR MOOI PLAATS SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITY**  
**NEAR NOUPOORT, NORTHERN CAPE PROVINCE**  
**REGIONAL CONTEXT**

**Legend**

- Provincial Boundary
- Local Municipal Boundaries
- National Routes
- Main Arterial Routes
- Main Roads
- Secondary Roads
- Railways
- Main Towns
- Hydra D MTS Substation
- Mooi Plaats Solar PV Application Site

SOURCE: MUNICIPAL DEMARCATION BOARD, 2011  
 NGI, 2014



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Map Ref No 15324/MG_01	Revision 0	Date

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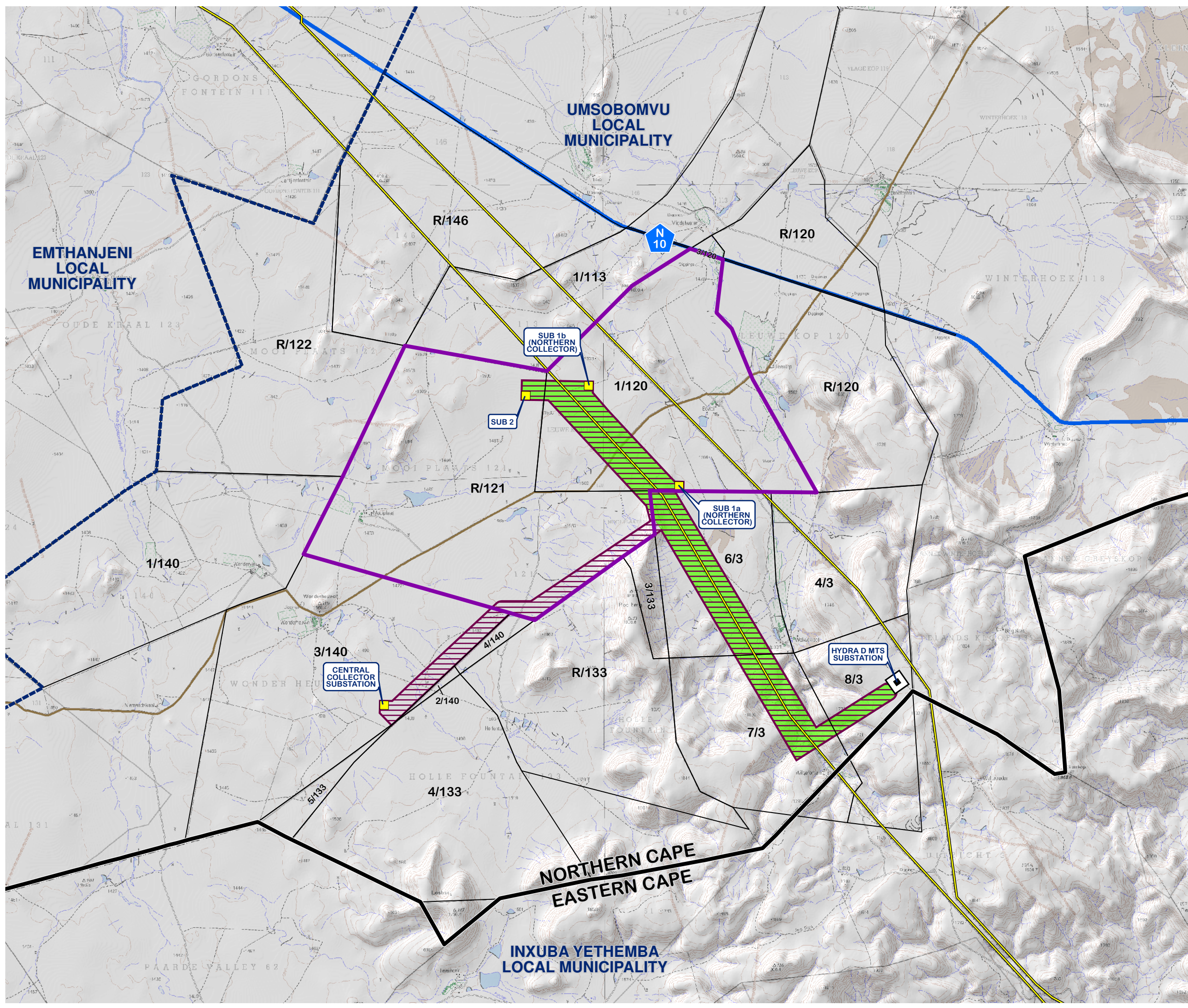
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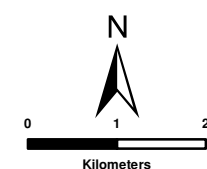


**PROPOSED  
GRID CONNECTION FOR  
MOOI PLAATS SOLAR  
PHOTOVOLTAIC (PV)  
ENERGY FACILITY  
NEAR NOUPOORT,  
NORTHERN CAPE PROVINCE  
ROUTE ALIGNMENT**



**Legend**

-  Provincial Boundary
-  Local Municipal Boundaries
-  National Route (N10)
-  Secondary Roads
-  Existing High Voltage Power Lines (400kV)
-  Hydra D MTS Substation
-  Farm Portions
-  Mooi Plaats Solar PV Application Site
- Proposed Grid Connection**
-  Power Line Corridor Option 1
-  Power Line Corridor Option 2
-  Substations



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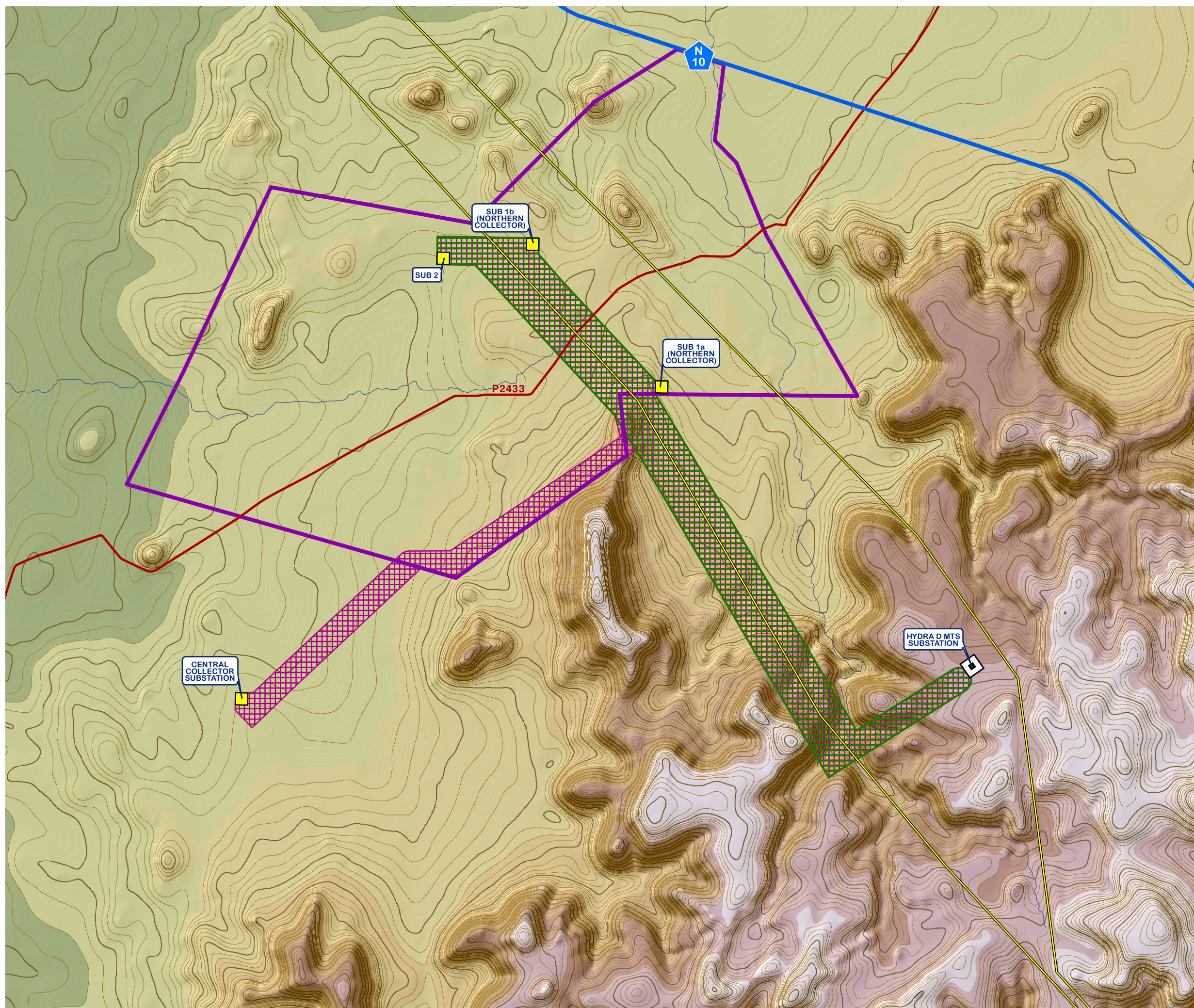
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**PROPOSED  
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MOOI PLAATS SOLAR  
PHOTOVOLTAIC (PV)  
ENERGY FACILITY**  
**NEAR NOUPOORT,  
NORTHERN CAPE PROVINCE**  
**TOPOGRAPHY**



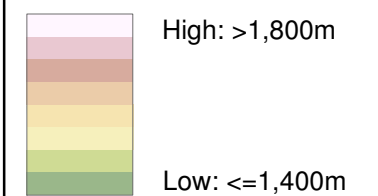
**Legend**

-  National Route (N10)
-  Secondary Roads
-  Existing High Voltage Power Lines (400kV)
-  Rivers
-  Contours (20m Interval)
-  Contours (5m Interval)
-  Mooi Plaats Solar PV Application Site
-  Hydra D MTS Substation

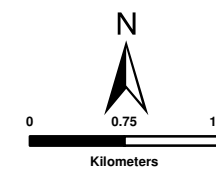
**Proposed Grid Connection**

-  Power Line Corridor Option 1
-  Power Line Corridor Option 2
-  Substations

**Elevation (msl)**



SOURCE:  
ESKOM, 2012  
NGI, 2014



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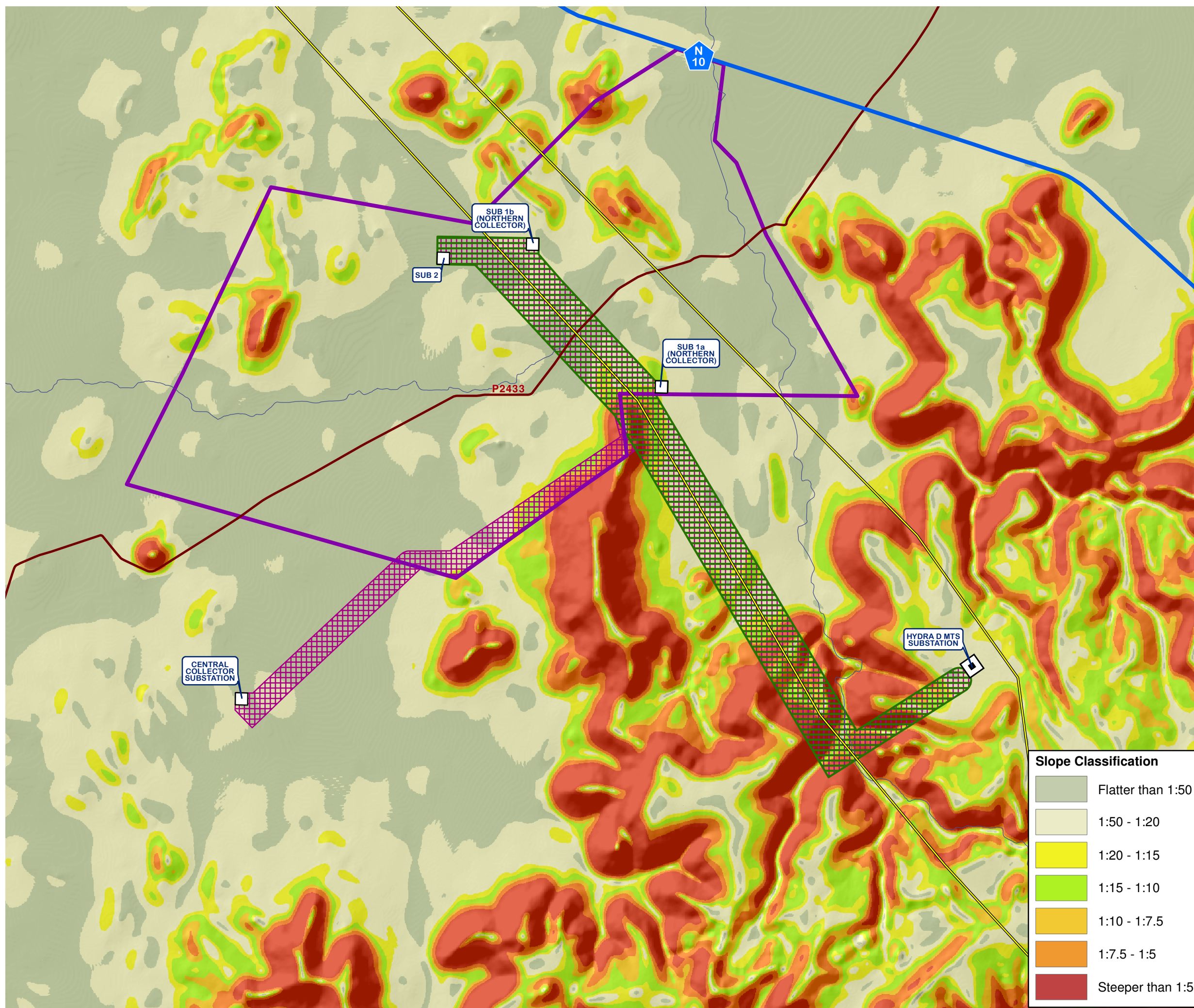
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





**PROPOSED  
GRID CONNECTION FOR  
MOOI PLAATS SOLAR  
PHOTOVOLTAIC (PV)  
ENERGY FACILITY**  
**NEAR NOUPOORT,  
NORTHERN CAPE PROVINCE**  
**SLOPE CLASSIFICATION**



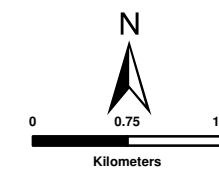
**Legend**

-  National Route (N10)
-  Secondary Roads
-  Existing High Voltage Power Lines (400kV)
-  Rivers
-  Mooi Plaats Solar PV Application Site
-  Hydra D MTS Substation
- Proposed Grid Connection**
-  Power Line Corridor Option 1
-  Power Line Corridor Option 2
-  Substations

**Slope Classification**

-  Flatter than 1:50
-  1:50 - 1:20
-  1:20 - 1:15
-  1:15 - 1:10
-  1:10 - 1:7.5
-  1:7.5 - 1:5
-  Steeper than 1:5

SOURCE:  
ESKOM, 2012  
NGI, 2014



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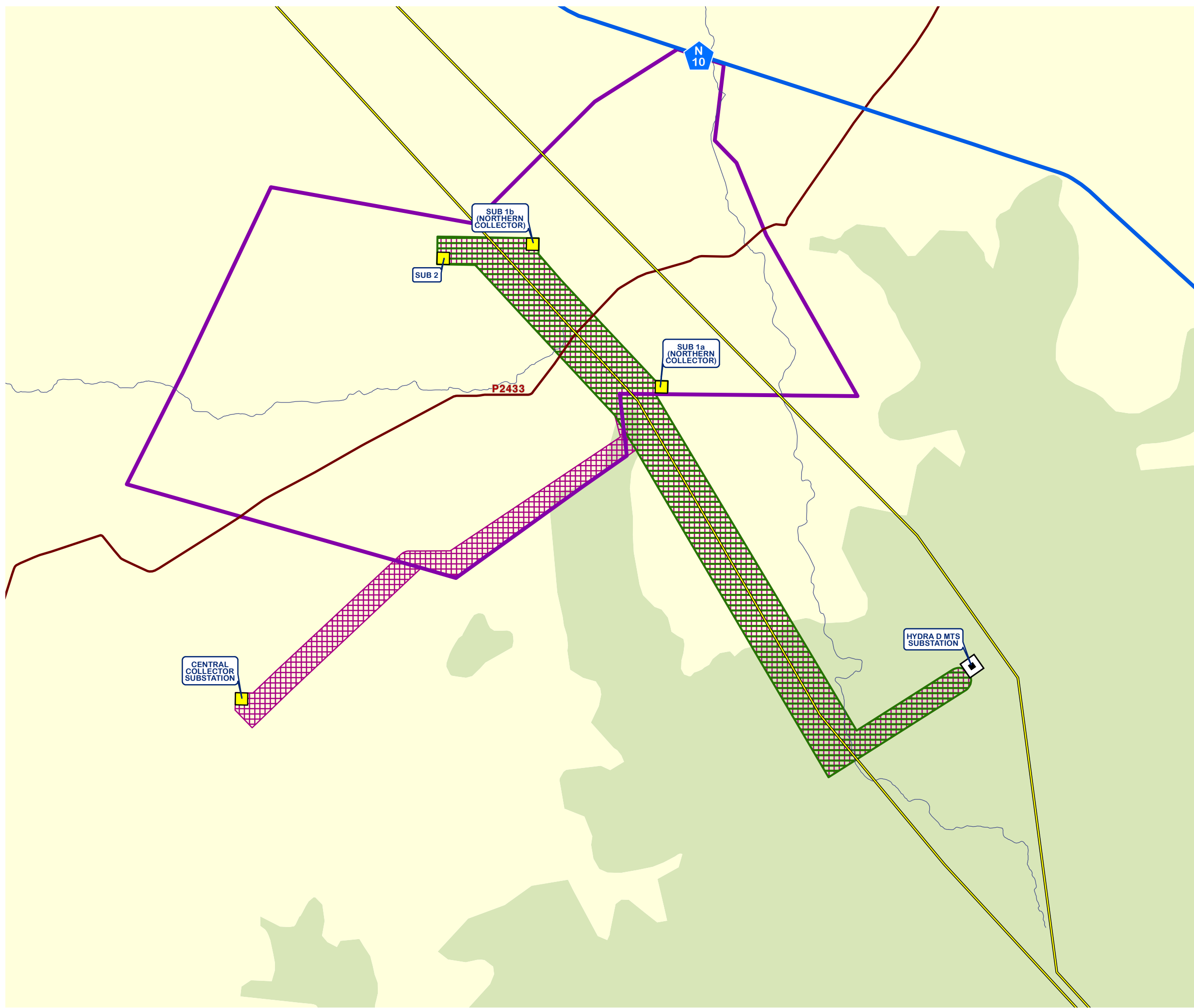
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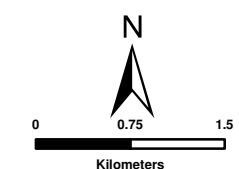
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GRID CONNECTION FOR  
MOOI PLAATS SOLAR  
PHOTOVOLTAIC (PV)  
ENERGY FACILITY  
NEAR NOUPOORT,  
NORTHERN CAPE PROVINCE  
VEGETATION CLASSIFICATION**



**Legend**

-  National Route (N10)
-  Secondary Roads
-  Existing High Voltage Power Lines (400kV)
-  Rivers
-  Mooi Plaats Solar PV Application Site
-  Hydra D MTS Substation
- Proposed Grid Connection**
-  Power Line Corridor Option 1
-  Power Line Corridor Option 2
-  Substations
- Vegetation Classification**
-  Besemkaree Koppies Shrubland
-  Eastern Upper Karoo

SOURCE:  
ESKOM, 2012  
NGI, 2014  
SANBI, 2012



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**Land Cover Classification**







-  Bare (None Vegetated)
-  Cultivation
-  Grassland
-  Low Shrubland
-  Mining
-  Thicket/Dense Bush
-  Waterbodies
-  Woodland/Open Bush

**PROPOSED  
GRID CONNECTION FOR  
MOOI PLAATS SOLAR  
PHOTOVOLTAIC (PV)  
ENERGY FACILITY**




**NEAR NOUPOORT,  
NORTHERN CAPE PROVINCE**

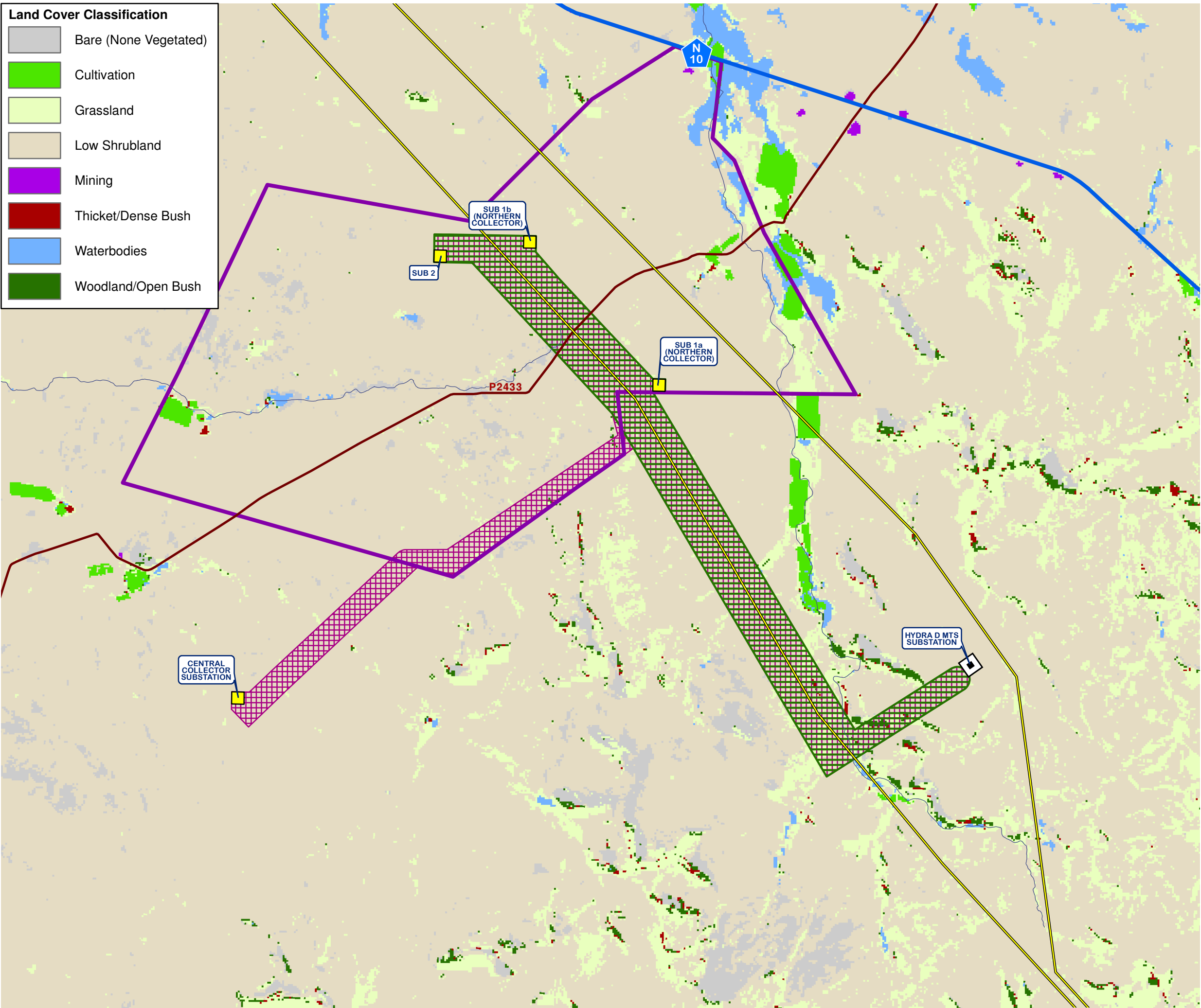
**BROAD LAND COVER  
CLASSIFICATION**

**Legend**

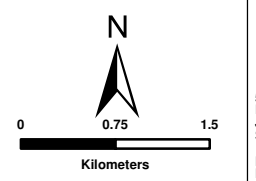
-  National Route (N10)
-  Secondary Roads
-  Existing High Voltage Power Lines (400kV)
-  Rivers
-  Mooi Plaats Solar PV Application Site
-  Hydra D MTS Substation

**Proposed Grid Connection**

-  Power Line Corridor Option 1
-  Power Line Corridor Option 2
-  Substations



SOURCE:  
ESKOM, 2012  
NGI, 2014  
2013-2014 SA NATIONAL LAND COVER  
(© GEOTERRAIMAGE - 2014)



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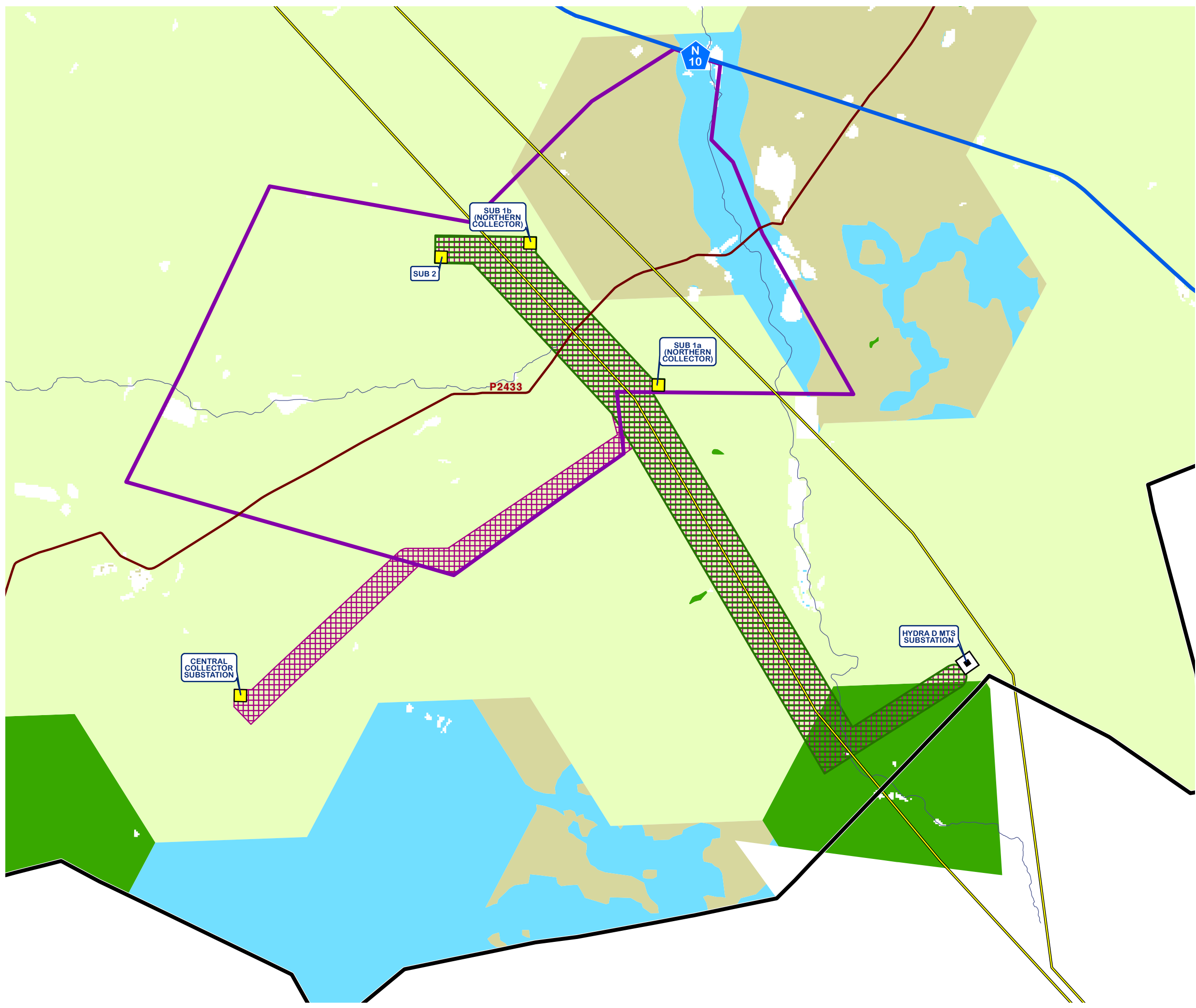
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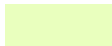


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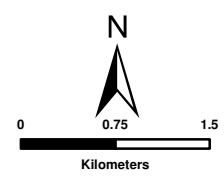
**PROPOSED  
GRID CONNECTION FOR  
MOOI PLAATS SOLAR  
PHOTOVOLTAIC (PV)  
ENERGY FACILITY  
NEAR NOUPOORT,  
NORTHERN CAPE PROVINCE  
CRITICAL BIODIVERSITY AREAS**



**Legend**

-  Provincial Boundary
-  National Route (N10)
-  Secondary Roads
-  Existing High Voltage Power Lines (400kV)
-  Rivers
-  Mooi Plaats Solar PV Application Site
-  Hydra D MTS Substation
- Proposed Grid Connection**
-  Power Line Corridor Option 1
-  Power Line Corridor Option 2
-  Hydra D MTS Substation
- CBA Classification (Northern Cape)**
-  Critical Biodiversity Area One
-  Critical Biodiversity Area Two
-  Ecological Support Area
-  Other Natural Areas

SOURCE:  
ESKOM, 2012  
NGI, 2014  
NORTHERN CAPE DEPT OF ENVIRONMENT AND  
CONSERVATION, 2016



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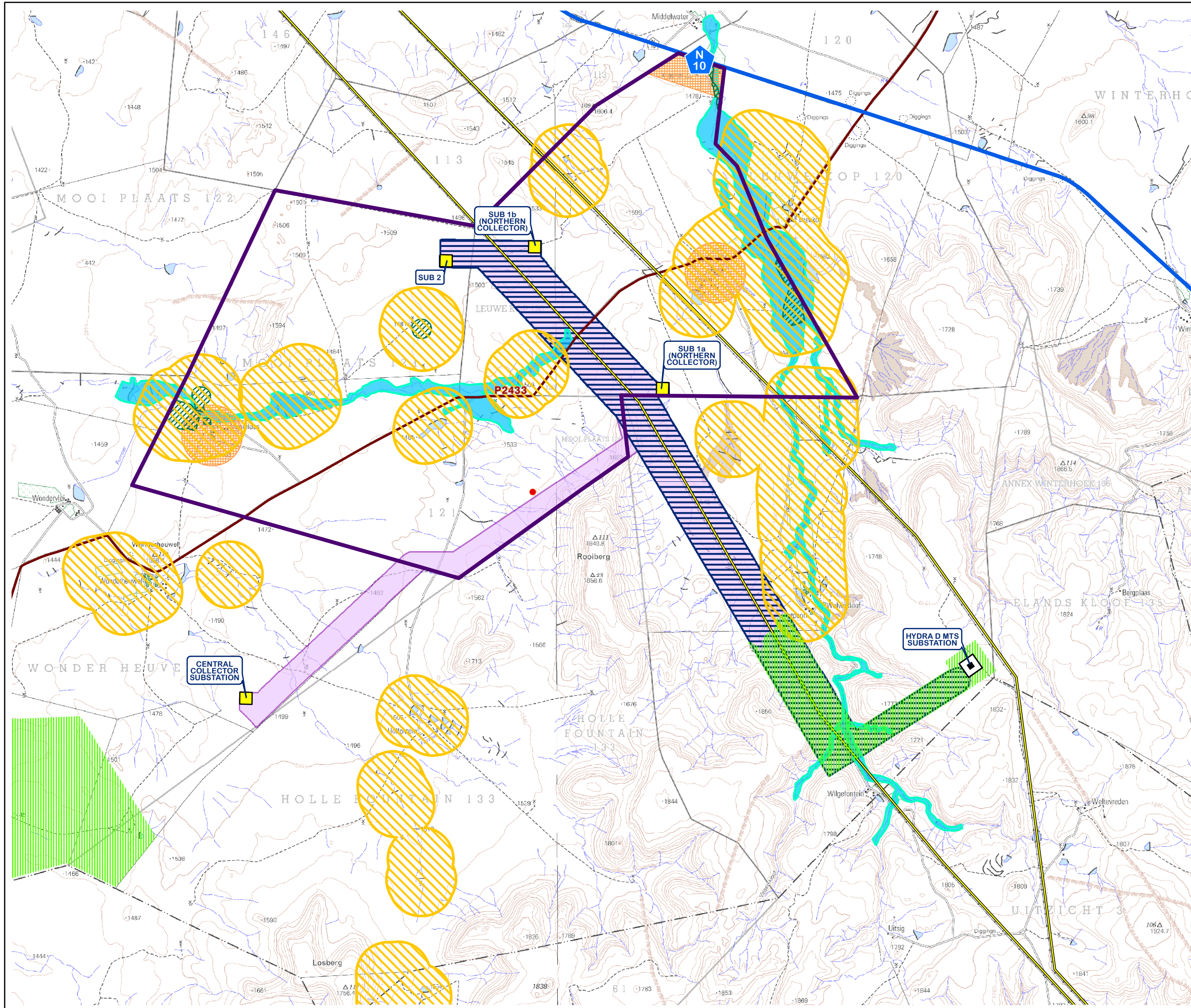
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**PROPOSED  
GRID CONNECTION FOR  
MOOI PLAATS SOLAR  
PHOTOVOLTAIC (PV)  
ENERGY FACILITY  
NEAR NOUPOORT,  
NORTHERN CAPE PROVINCE  
ENVIRONMENTAL SENSITIVITY**



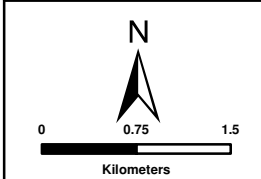
**Legend**

-  National Route (N10)
-  Secondary Roads
-  Existing High Voltage Power Lines (400kV)
-  Mooi Plaats Solar PV Application Site
-  Hydra D MTS Substation
- Proposed Grid Connection**
-  Power Line Corridor Option 1
-  Power Line Corridor Option 2
-  Substations

**Environmental Sensitivity**

-  Agricultural 'No-Go' Areas
-  Avifauna 'NoGo' Areas
-  Ecology 'No-Go' Areas
-  Palaeontology 'No-Go' Areas
-  Visual 'No-Go' Areas
-  Perennial Water Courses
-  Perennial Water Course Buffers (15m)

SOURCE:  
ESKOM, 2012  
NGI, 2014



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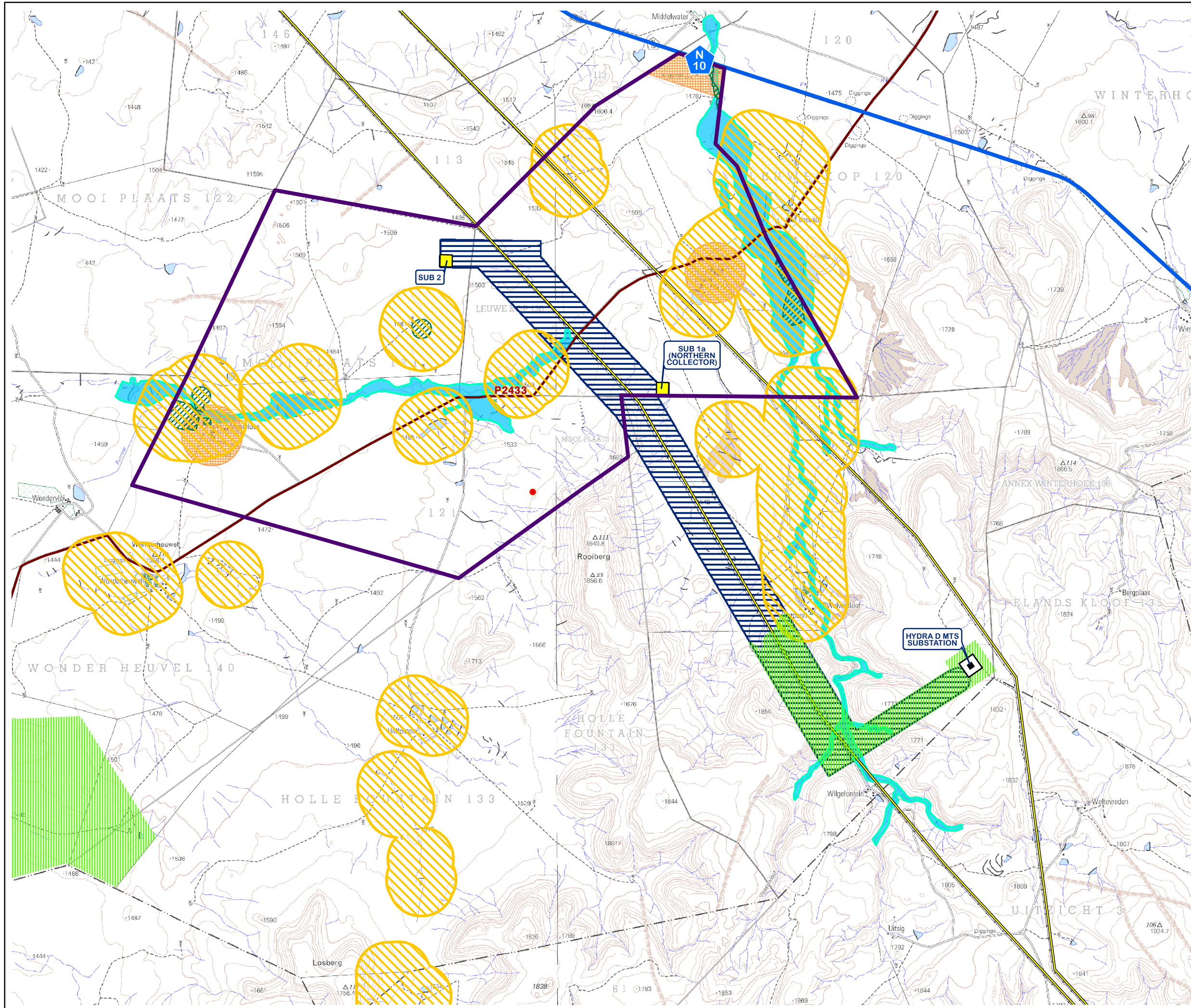
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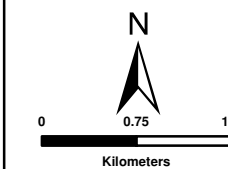
**PROPOSED  
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PHOTOVOLTAIC (PV)  
ENERGY FACILITY  
NEAR NOUPOORT,  
NORTHERN CAPE PROVINCE  
PREFERRED ALTERNATIVES**



**Legend**

-  National Route (N10)
-  Secondary Roads
-  Existing High Voltage Power Lines (400kV)
-  Mooi Plaats Solar PV Application Site
-  Hydra D MTS Substation
- Preferred Alternatives**
-  Power Line Corridor Option 1
-  Substations
- Environmental Sensitivity**
-  Agricultural 'No-Go' Areas
-  Avifauna 'No-Go' Areas
-  Ecology 'No-Go' Areas
-  Palaeontology 'No-Go' Areas
-  Visual 'No-Go' Areas
-  Perennial Water Courses
-  Perennial Water Course Buffers (15m)

SOURCE:  
ESKOM, 2012  
NGI, 2014



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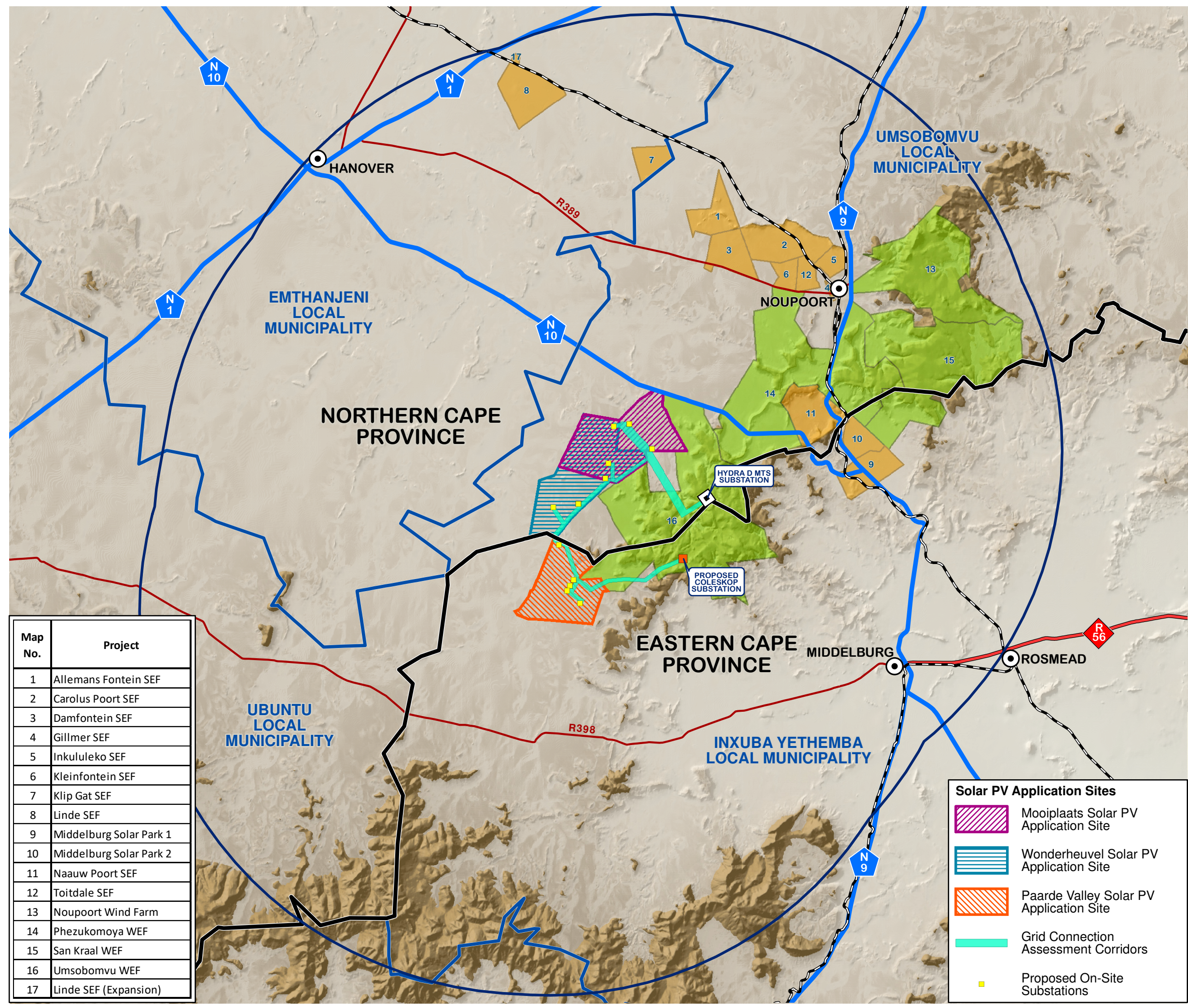
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**PROPOSED CONSTRUCTION OF THREE SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITIES NEAR NOUPOORT, NORTHERN AND EASTERN CAPE PROVINCES**  
**RENEWABLE ENERGY PROJECTS (EXISTING AND PROPOSED)**



**Legend**

- Local Municipal Boundaries
- National Routes
- Main Arterial Routes
- Main Roads
- Railways
- Main Towns
- 35km Radius

**Renewable Energy Application Sites**

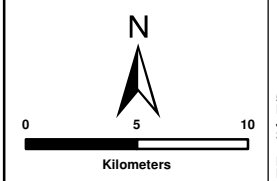
- Solar
- Wind

Map No.	Project
1	Allemans Fontein SEF
2	Carolus Poort SEF
3	Damfontein SEF
4	Gillmer SEF
5	Inkululeko SEF
6	Kleinfontein SEF
7	Klip Gat SEF
8	Linde SEF
9	Middelburg Solar Park 1
10	Middelburg Solar Park 2
11	Naauw Poort SEF
12	Toitdale SEF
13	Noupoot Wind Farm
14	Phezukomoya WEF
15	San Kraal WEF
16	Umsobomvu WEF
17	Linde SEF (Expansion)

**Solar PV Application Sites**

- Mooiplaats Solar PV Application Site
- Wonderheuvel Solar PV Application Site
- Paarde Valley Solar PV Application Site
- Grid Connection Assessment Corridors
- Proposed On-Site Substations

SOURCE: DEA, 2018 MUNICIPAL DEMARCATION BOARD, 2011 NGI, 2014



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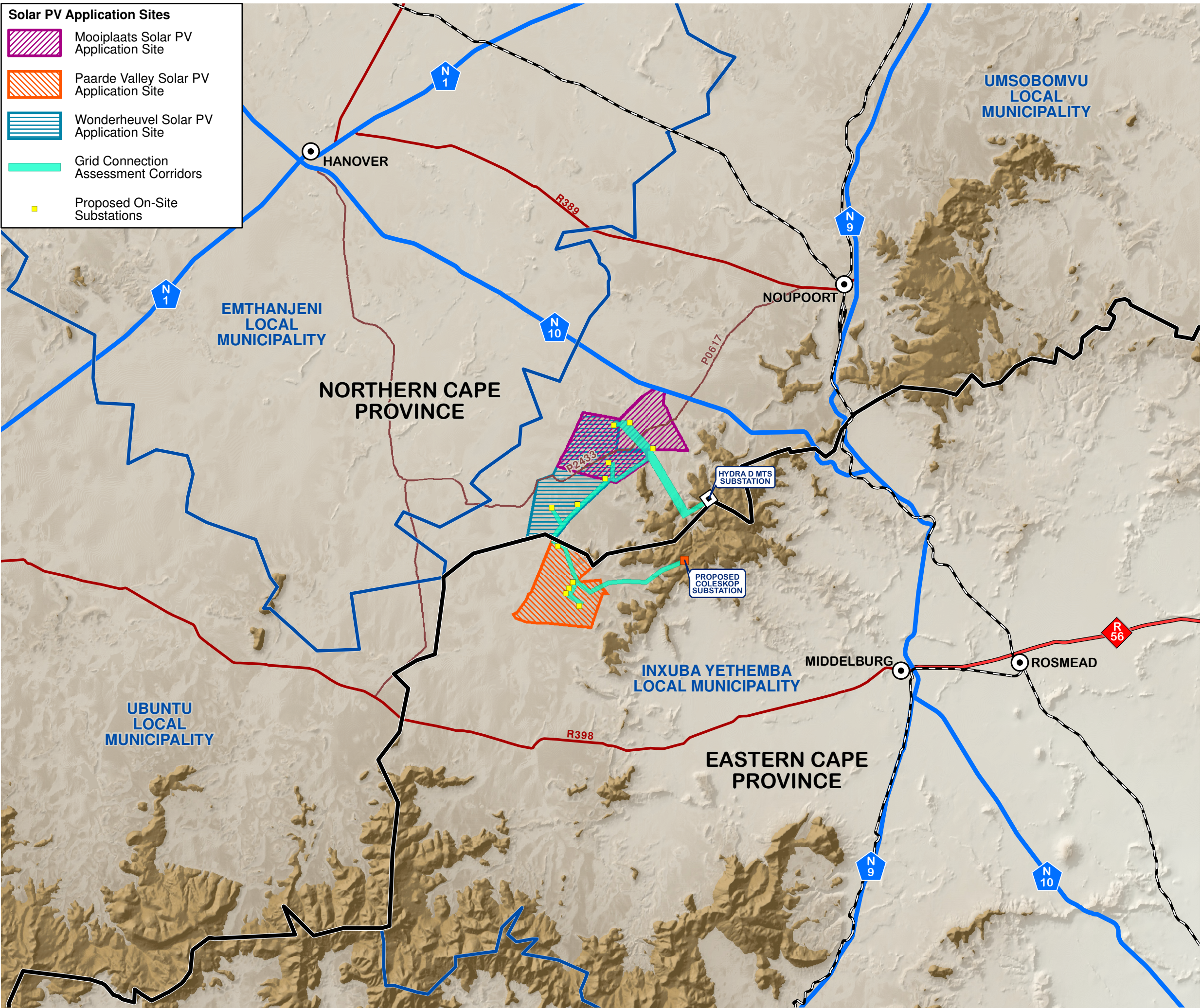
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- Solar PV Application Sites**
-  Mooiplaats Solar PV Application Site
  -  Paarde Valley Solar PV Application Site
  -  Wonderheuvél Solar PV Application Site
  -  Grid Connection Assessment Corridors
  -  Proposed On-Site Substations



**PROPOSED CONSTRUCTION OF THREE SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITIES NEAR NOUPOORT, NORTHERN AND EASTERN CAPE PROVINCES REGIONAL CONTEXT**

- Legend**
-  Provincial Boundary
  -  Local Municipal Boundaries
  -  National Routes
  -  Main Arterial Routes
  -  Main Roads
  -  Secondary Roads
  -  Railways
  -  Main Towns
  -  Hydra D MTS Substation
  -  Proposed Coleskop WEF Substation

SOURCE: MUNICIPAL DEMARCATION BOARD, 2011  
NGI, 2014



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