Appendix 5
Maps

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

NEAR NOUPOORT, NORTHERN CAPE PROVINCE

REGIONAL CONTEXT

Proposed Grid Connection

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

HANOVER
NOUPOORT
MIDDELBURG
ROSMEAD
HYDRA D MTS SUBSTATION

UMSOBOMVU LOCAL MUNICIPALITY
EMTHANJENI LOCAL MUNICIPALITY
INXUBA YETHEMBA LOCAL MUNICIPALITY
UBUNTU LOCAL MUNICIPALITY

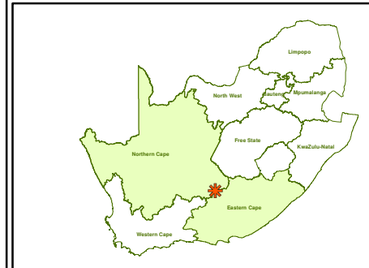
NORTHERN CAPE
EASTERN CAPE

N1
N9
N10
R56
R389
R398
P0617
P2433

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



N

0 2.5 5

Kilometers

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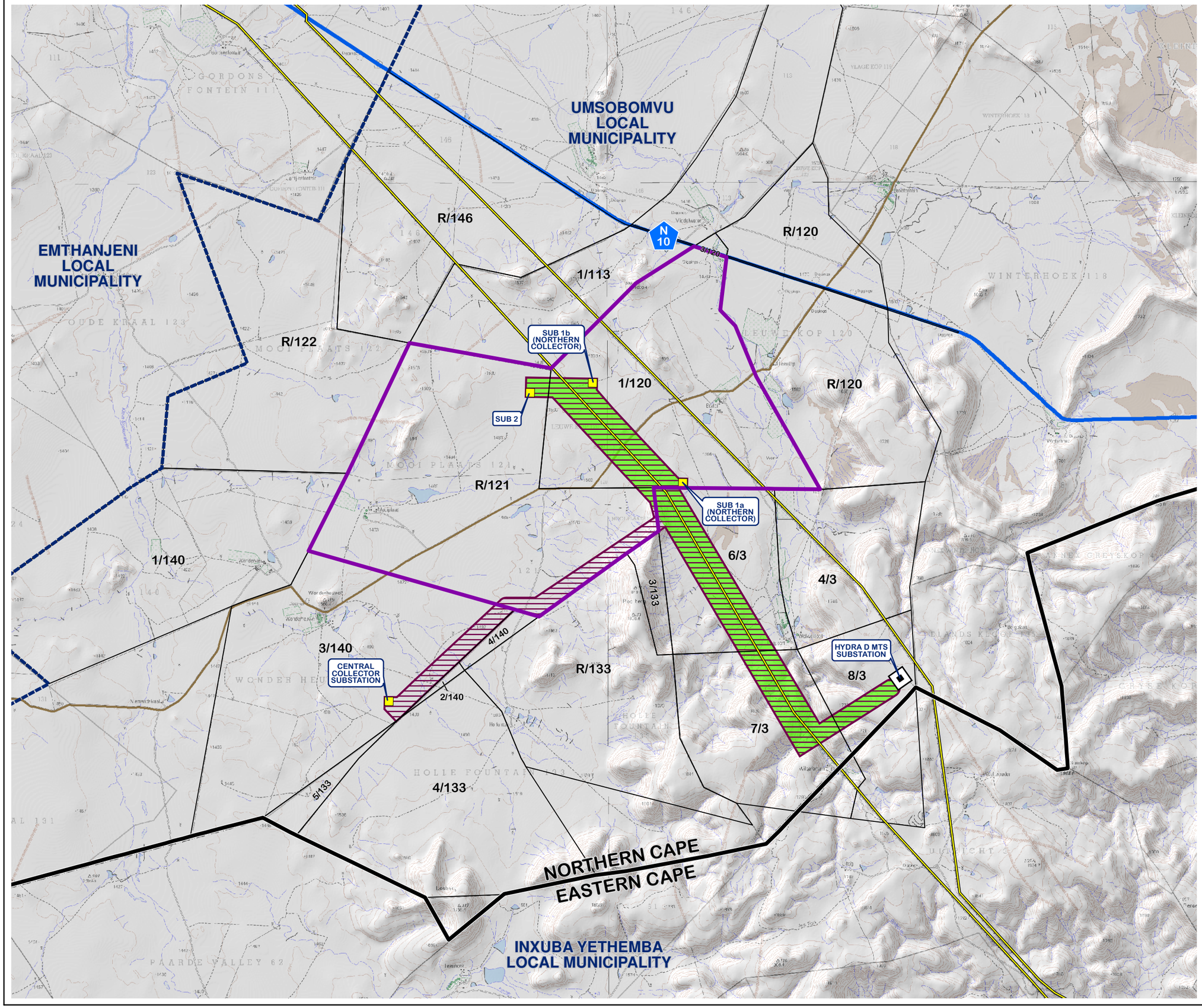
PROPOSED GRID CONNECTION FOR MOOI PLAATS SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITY

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

N

0 1 2

Kilometers

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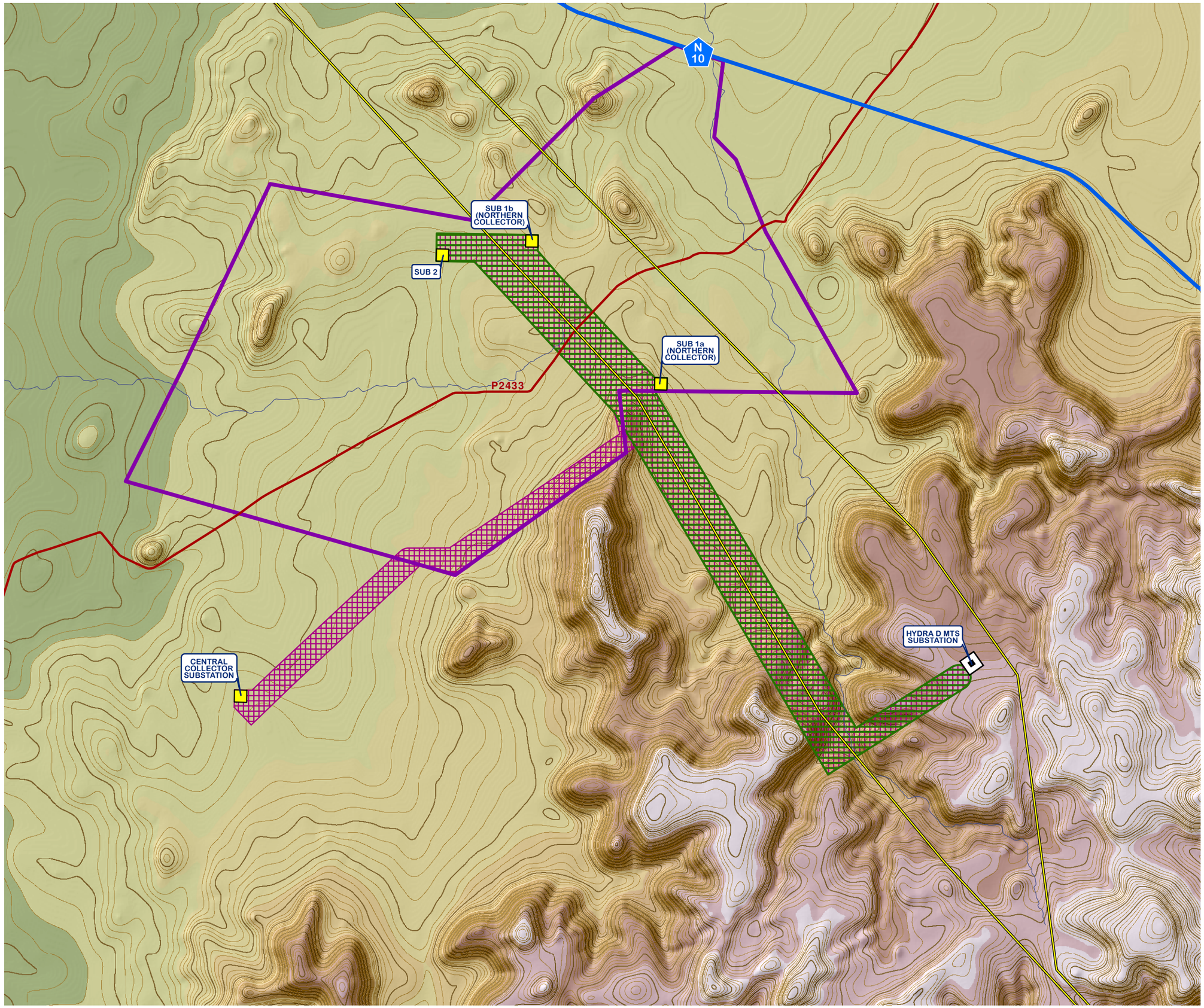

PROPOSED GRID CONNECTION FOR MOOI PLAATS SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITY

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)

- High: >1,800m
- Low: <=1,400m

SOURCE:
ESKOM, 2012
NGI, 2014

N

0 0.75 1.5

Kilometers

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

NEAR NOUPOORT, NORTHERN CAPE PROVINCE

SLOPE CLASSIFICATION

N 10

SUB 1b (NORTHERN COLLECTOR)

SUB 2

SUB 1a (NORTHERN COLLECTOR)

P2433

CENTRAL COLLECTOR SUBSTATION

HYDRA D MTS SUBSTATION

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

N

0 0.75 1.5

Kilometers

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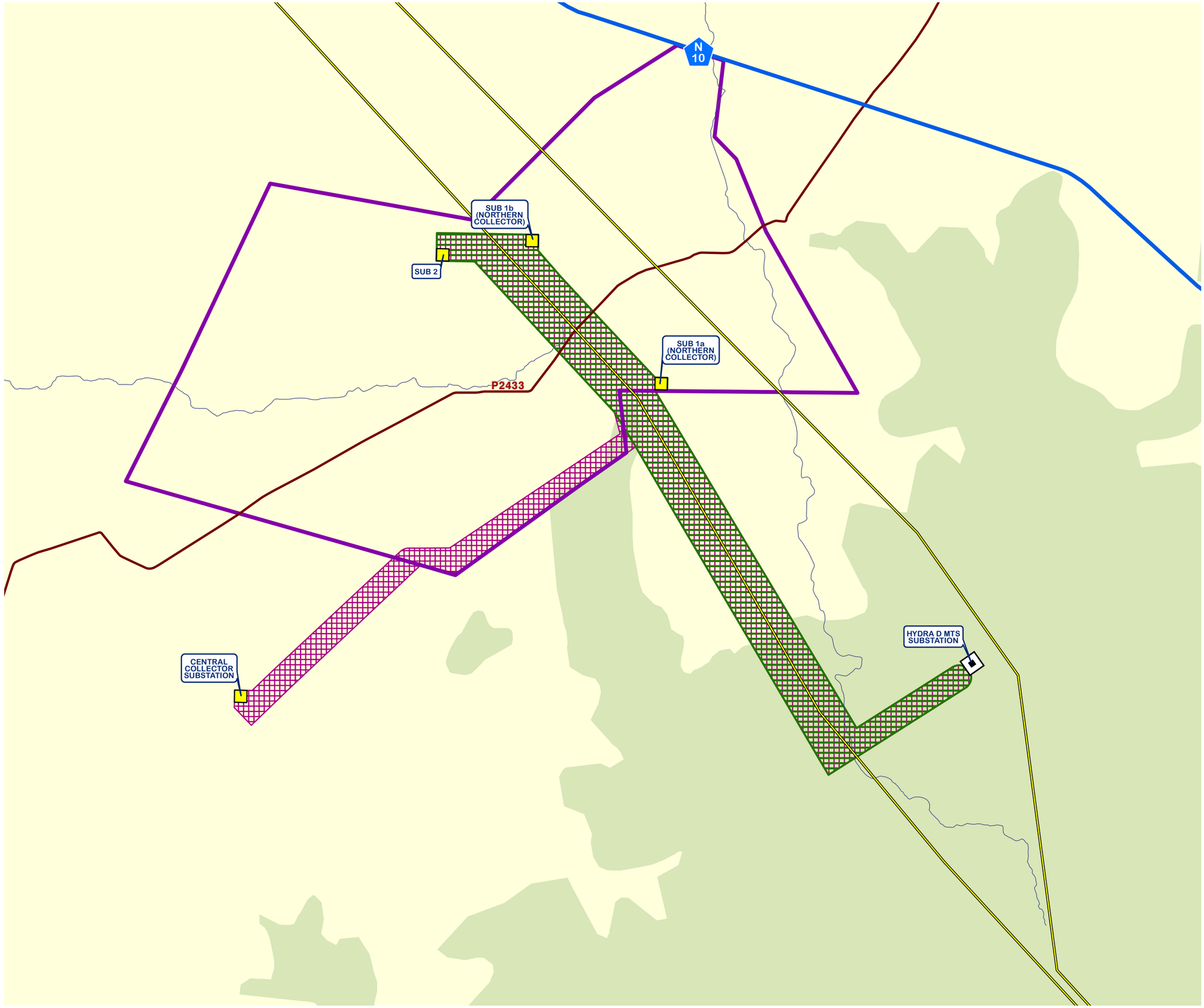
PROPOSED GRID CONNECTION FOR MOOI PLAATS SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITY

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

N

0 0.75 1.5

Kilometers

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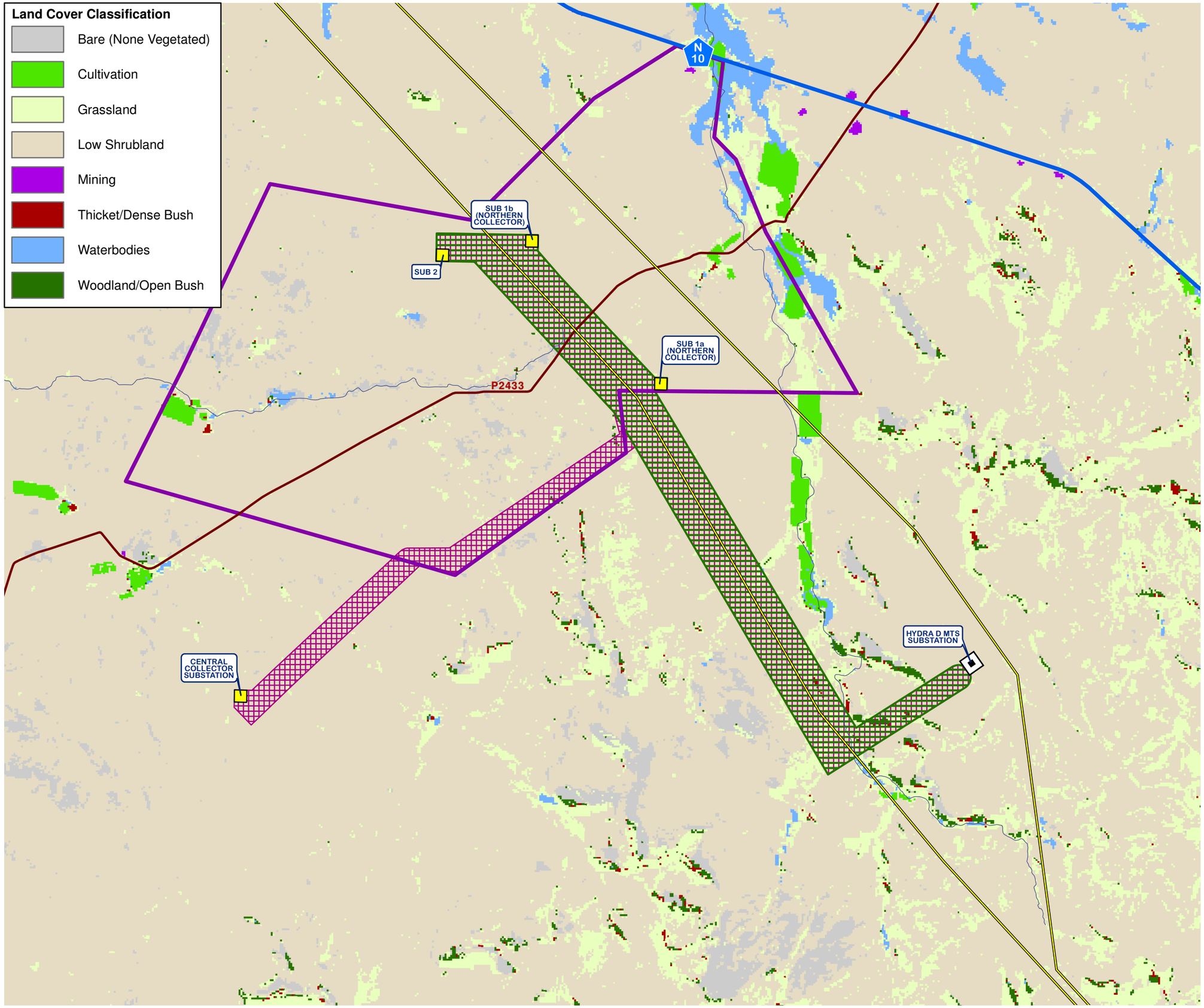

PROPOSED GRID CONNECTION FOR MOOI PLAATS SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITY

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)

N

0 0.75 1.5

Kilometers

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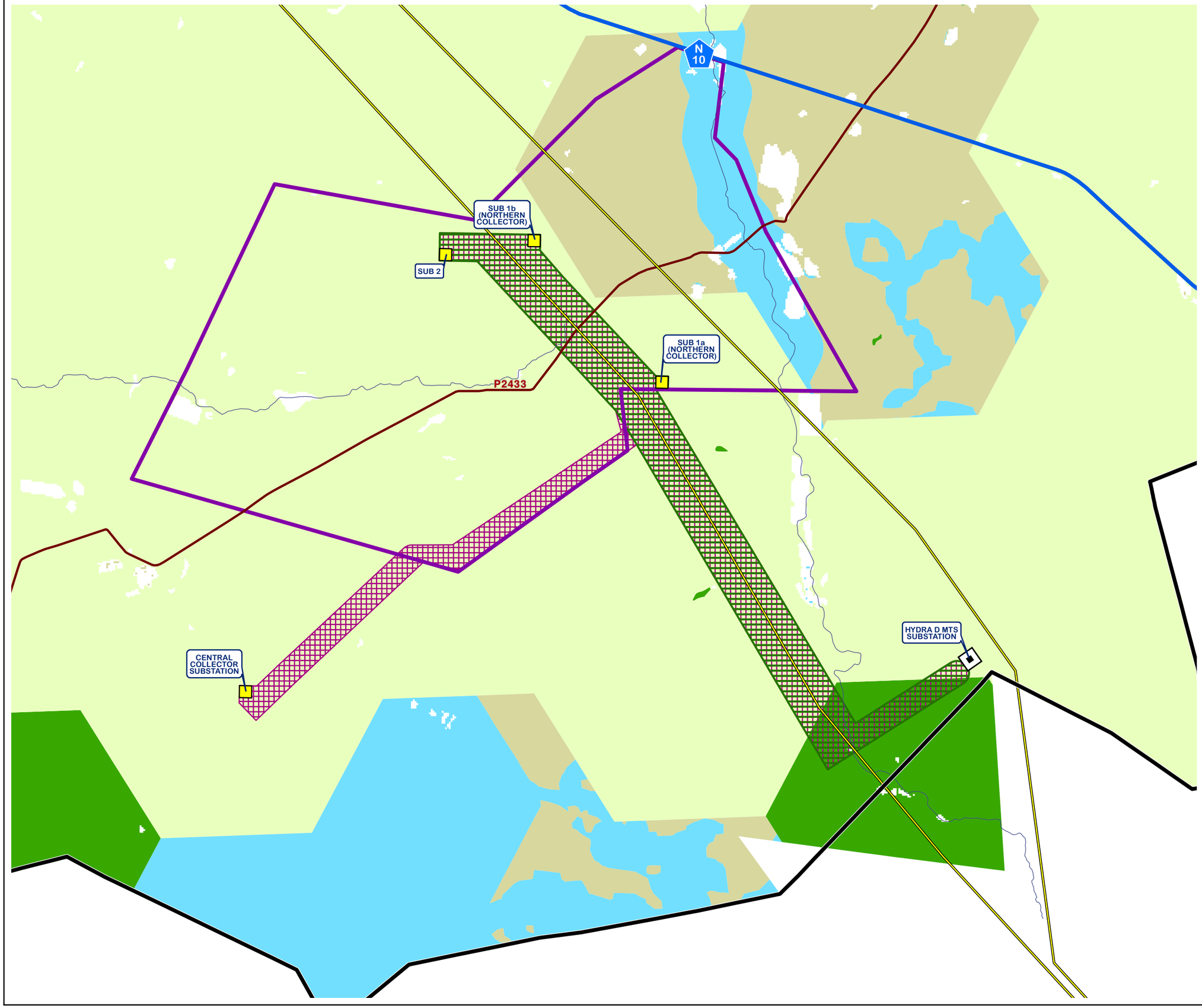
PROPOSED GRID CONNECTION FOR MOOI PLAATS SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITY

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

N

0 0.75 1.5

Kilometers

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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

N

0 0.75 1.5

Kilometers

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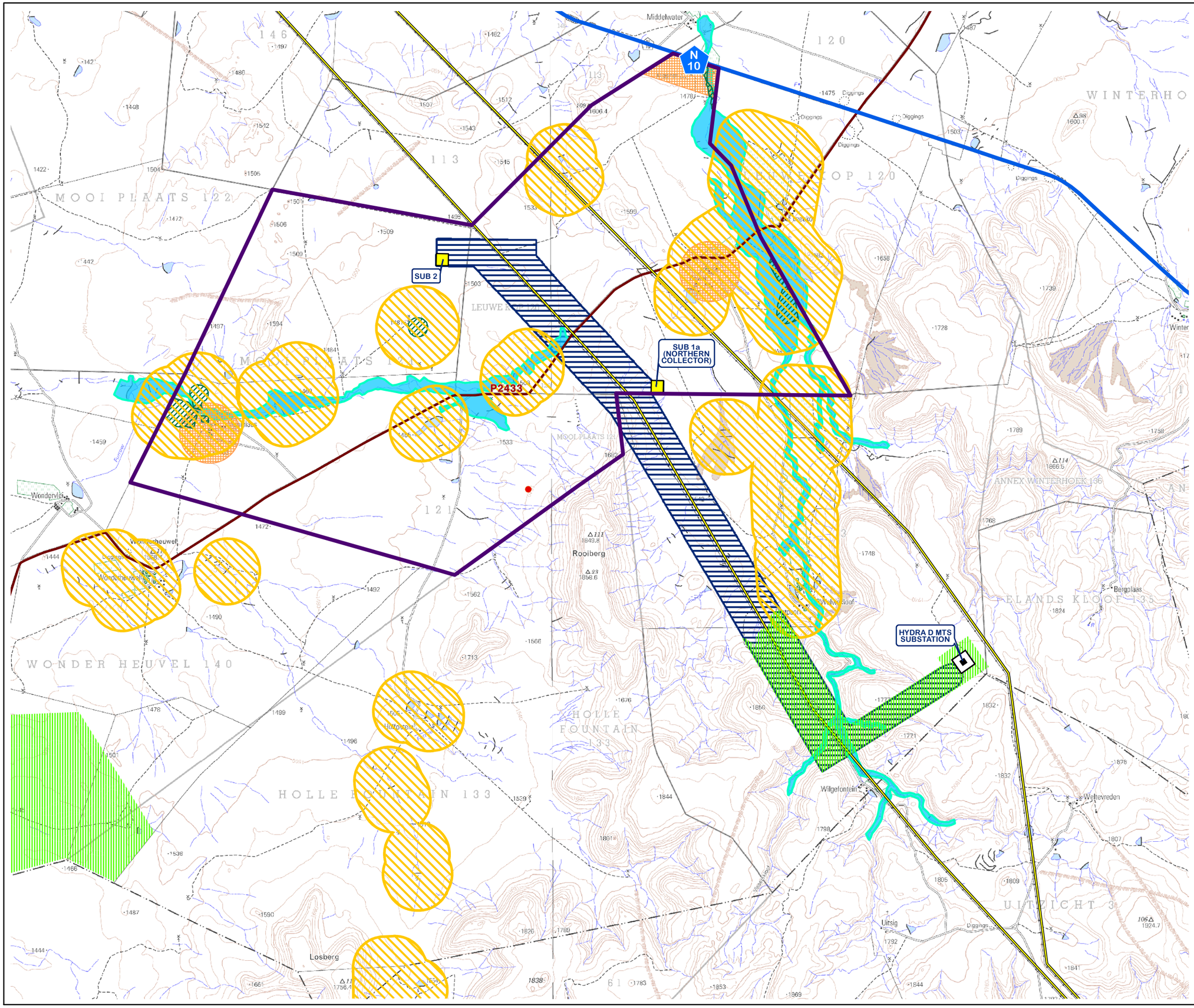
PROPOSED GRID CONNECTION FOR MOOI PLAATS SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITY

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 '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

N

0 0.75 1.5

Kilometers

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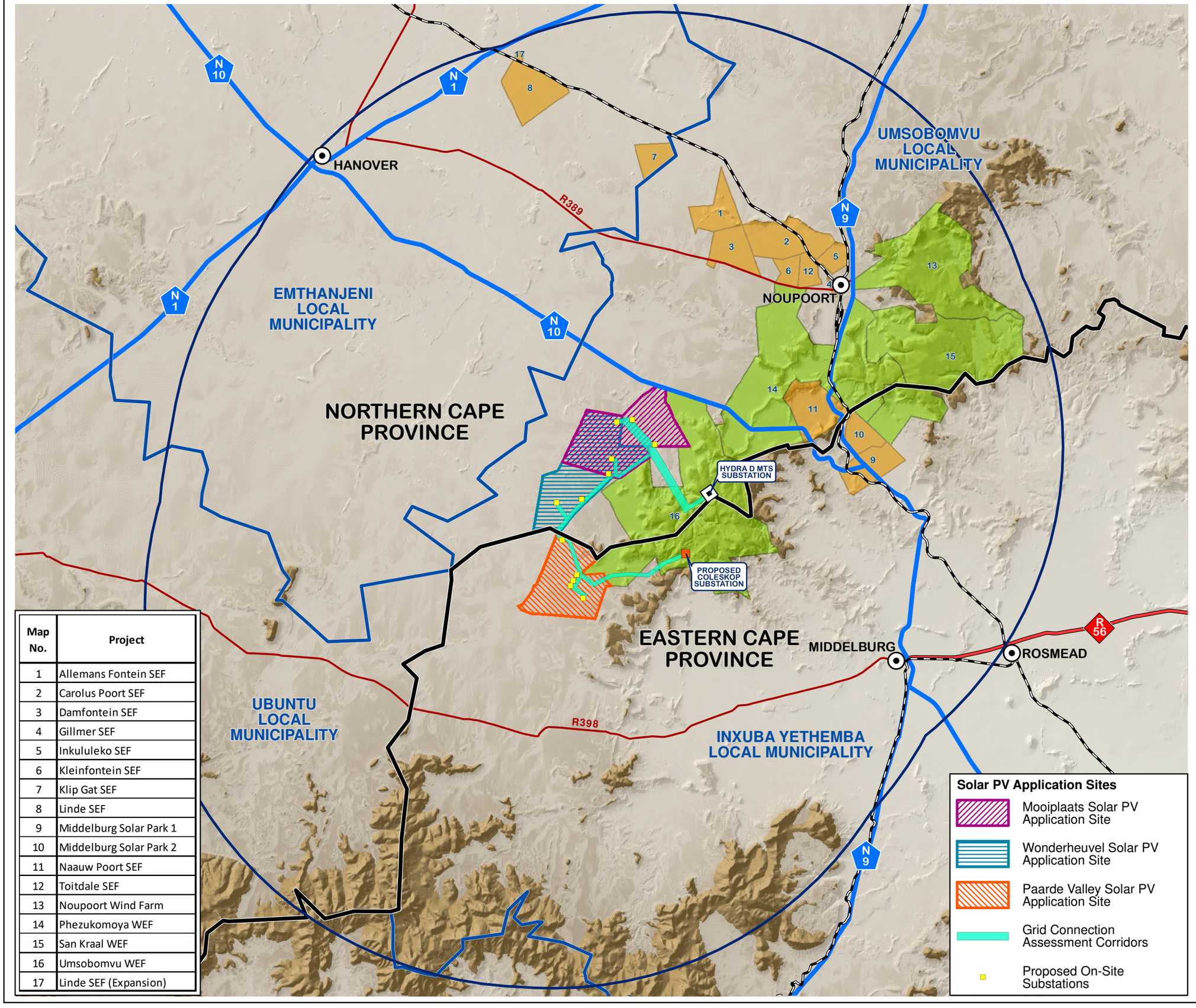
PROPOSED CONSTRUCTION OF THREE SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITIES

NEAR NOUPOORT, NORTHERN AND EASTERN CAPE PROVINCES

RENEWABLE ENERGY PROJECTS (EXISTING AND PROPOSED)



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	Noupoort Wind Farm
14	Phezukomoya WEF
15	San Kraal WEF
16	Umsobomvu WEF
17	Linde SEF (Expansion)

Legend

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

Renewable Energy Application Sites

- Solar
- Wind

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

N

0 5 10
Kilometers

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PROPOSED CONSTRUCTION OF THREE SOLAR PHOTOVOLTAIC (PV) ENERGY FACILITIES

NEAR NOUPOORT, NORTHERN AND EASTERN CAPE PROVINCES

REGIONAL CONTEXT

Solar PV Application Sites

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

HANOVER
NOUPOORT
MIDDELBURG
ROSMEAD
HYDRA D MTS SUBSTATION
PROPOSED COLESKOP SUBSTATION
EMTHANJENI LOCAL MUNICIPALITY
UMSOBOMVU LOCAL MUNICIPALITY
INXUBA YETHEMBA LOCAL MUNICIPALITY
UBUNTU LOCAL MUNICIPALITY
NORTHERN CAPE PROVINCE
EASTERN CAPE PROVINCE
N1
N9
N10
R389
R398
R56
P0617
P2433

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

N

0 5 10
Kilometers

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