NERSA PUBLIC HEARING – September 2015
DROOGFONTEIN 2 SOLAR PARK
Agenda

- General Introduction
  - Introduction to SunEdison
  - Background to the Project
- Project structures
  - Ownership
  - O&M
  - EPC
- Technical Information
- Permitting Update
- Publication Information
- Project Finance and Funding Information
- Economic Development Information
- Value for Money
Early to mid 2000s – demand increase catches up with generation capacity and as a consequence breakdowns have increased dramatically...

...and reserve margins are at a minimum (at times less than 8% vs NERSA-recommended 19%)

Consequence: near daily LOAD SHEDDING / CURTAILMENT

Solution: INCREASED ALLOTTMENT IN IPP WINDOWS

New build necessary but lack of financial resources (Medupi, Kusile and Ingula initial cost close to R300 bn)

Shift in the valuation of the asset base - from depreciated historical to depreciated replacement cost

Intensive use of expensive fuel-fired plants

EVER-ACCELERATING INCREASE IN PRICE / kWh; CAGR of 13.1% (2004 – 2014)

RES IS BECOMING AN ATTRACTIVE VALUE PROPOSITION (CHEAPER AND MORE PREDICTABLE)
ESKOM's capacity can't provide for high-growing demand for energy

Increased use of expensive diesel generators

S Africa's Sibanye Gold may spend USD 260m on solar capacity

Sibanye Gold aims for energy independence

Harmony Gold Plans Solar Power, Biofuels Plants in South Africa

RISK OF CARBON TAX: “The introduction of a carbon tax in 2016 will provide an additional tool to deal more sustainably with the current electricity shortage, while lowering the electricity levy” (Finance Minister, budget speech)

Expansion of REIPPP Program

Alternatives to ESKOM become more appealing

Increased Prices and decreased security of supply for consumers

Costly diesel increases ESKOM's financial difficulties

ESKOM's financial difficulties hinders needed expansion and maintenance

Power Sector situation is alarming private sector users

Sector Overview
Round IV total allocation - 2,176 MW (*)
  • Round IV extra allocation (June ‘15) – up to 1,085 MW

Round IV.5 – RFP for an additional 1,800 MW from existing Bid Submissions (bid submission date: October 6)

Round V and forward will procure an additional 6,300 MW from RE IPP’s (R.V RfP in Q2/3 2016)

Small IPP – announcement in Q3. Rumour is 120 MW.

ESKOM capacity shortfall leads to 1.3x more capacity than what it has been allocated so far.

(*) Note: Solar and PV allocated in Round IV
SunEdison is proving to have the right pricing, and economic development strategy.

### Project Name	Sponsor	Capacity (MWh)
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De Wildt	SunEdison	50
Bokamoso	SunEdison	68
Zeerust	SunEdison	75
Greefspan 2	SunEdison	55
Waterloo	SunEdison	75
Droogfontein 2	SunEdison	75
Subtotal SunEd	398
Subtotal competitors	415
TOTAL	813

SunEdison had a 49% market share in solar PV in Round IV.
55 years experience building the solar value chain and innovating the solar industry

 Listed on the NYSE (NYSE: SUNE) and a Fortune 1000 company

 Global company = global reach: present in more than 35 countries; manufacturing sites on 3 continents

 Unsurpassed track record in the industry:

 2.4GW of solar engineered, built, financed, constructed, and under O&M – more than 1,000 plants
 3.6GW of solar capacity under management
 1.1GW of wind capacity under operation
 Nearly 6 USD bn of innovative structured financing
 Successful IPO on the NASDAQ of YieldCo, Terraform Power (NASDAQ: TERP)
 Filing of S1 for Emerging Market YieldCo, Terraform Global
 Rapidity of execution: in 2010 built 70 MWp in 9 mths; in 2012 60MWp in 6 mths; in 2013 100MWp in 6 mths*

 Maximizing value while minimizing risk for clients: from the mining industry (CAP, AMSA) to the retail sector (Kohl’s, Walmart), we deliver hassle-free energy and take care of feasibility, engineering, financing construction, operation and maintenance
SunEdison has created a constellation of key capabilities to become a RES IPP and transform the power sector.

On average, PV plants are overperforming at 105% of underwritten investment.

PV plants we manage show an average 105% overperformance to drive customer returns.

**Investor Performance Ratio (IPR)**  
(IPR) = actual energy production / expected energy production  
(the higher the better)
First solar PPA (2003)

First utility-scale solar project in USA (2007)

First utility-scale solar project in Canada (2008)

First solar ‘sale & leaseback’ agreement in USA (2009)

Largest solar plant in Europe (70 MW in 2010)

Largest solar PV plant in Bulgaria (60 MW in 2012)

Largest solar plant in Latin America (100MW in 2014)

First ‘merchant’ solar PV plant (50 MW in 2014)
SunEdison has recently begun its expansion into the wind energy industry in South Africa and has many other Wind Projects in the pipeline under the REIPPP Programme and plans are in place to rapidly progress its wind presence in Southern Africa.

### Geographical Diversification***

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Province</th>
<th>Capacity</th>
<th>Technology</th>
<th>Development Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Witkop Solar PV Plant</td>
<td>Limpopo</td>
<td>33 MWp</td>
<td>Solar PV</td>
<td>Commercial Operation</td>
</tr>
<tr>
<td>Soutpan Solar PV Plant</td>
<td>Limpopo</td>
<td>31 MWp</td>
<td>Solar PV</td>
<td>Commercial Operation</td>
</tr>
<tr>
<td>Boshof Solar PV Plant</td>
<td>Free State</td>
<td>66 MWp</td>
<td>Solar PV</td>
<td>Commercial Operation</td>
</tr>
</tbody>
</table>

***List not comprehensive
Local Projects in South Africa

South African Projects

- Witkop, Limpopo 30MW
- Soutpan, Limpopo 28MW
- Boshof, Free State 60MW
- Roscherville, Gauteng 400 KW
Project Background

- Location: +- 6km South of Riverton, Northern Cape
- Technology: Solar PV with single-axis tracker
- Capacity: 75 MW AC
- Grid connection: New 132kV s/station + 10km LILO into existing KDS-McFarlane 132kV OHL
- Expected COD – 10 July 2018
Overview of Services provided by SunEdison

**Contracting Structure**

- **SunEdison O&M Entity** (Operations and Maintenance and Asset Management Entity)
  - Operations and maintenance services

- **SunEdison Green Power Southern Africa (Pty) Ltd** (Construction Entity)
  - Engineering and construction

- **PROJECT COMPANY**
  - Development and management services

- **SunEdison Energy Southern Africa (Pty) Ltd** (Development and Operations Entity)
Ownership Structure

- **Siyakhula Women’s Opportunity Trust**: 35%
- **SunEdison**: 60%
- **Local Community Trust**: 5%

- (Black Women and Women Enterprise Beneficiaries)
- (Black Beneficiaries from a 50km radius of Project)
SunEdison South Africa operations and maintenance service provider will provide O&M services to the Project Company.

Services to be provided include, but are not limited to:

- Day to day operations of the facility;
- Reporting;
- Scheduled and unscheduled maintenance;
- On-site and remote monitoring;
- Security;
- Health and safety services.
O&M Contractor Ownership Overview

SunEdison

60%

BEE Entity

40%

Prime O&M Contractor – SunEdison O&M entity
EPC Contractor Ownership Overview

SunEdison

75%

BEE Entity

25%

Prime EPC Contractor –
SunEdison Green Power (Pty) Ltd
### Technical

Project Schedule as at bid submission: FC and dates subject to DOE

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Notice to Proceed</td>
<td>15-Jan-15</td>
</tr>
<tr>
<td>Interconnection</td>
<td>28-Mar-18</td>
</tr>
<tr>
<td>PV Plant Construction</td>
<td>06-Jun-17</td>
</tr>
<tr>
<td>COD</td>
<td>10-Jul-18</td>
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</table>
## Permitting

<table>
<thead>
<tr>
<th>Main Permit</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>Environmental Authorization</td>
<td>Obtained</td>
</tr>
<tr>
<td>No objection - Civil Aviation</td>
<td>Obtained</td>
</tr>
<tr>
<td>Subdivision of Agricultural Land</td>
<td>In process of obtaining</td>
</tr>
<tr>
<td>South African Heritage Resources</td>
<td>Obtained</td>
</tr>
<tr>
<td>No objection - Section 53</td>
<td>Obtained</td>
</tr>
<tr>
<td>Rezoning</td>
<td>Obtained</td>
</tr>
</tbody>
</table>
• Notice for Generation License application published in two different newspapers.
• First Notice published in English - The New Age 6 August 2015.
• Second Notice published in Afrikaans – Rapport 9 August 2015.
• No objection were received.
Project Finance and Funding Structure

Lender

Equity providers
- SunEdison
- Siyakhula Women’s Opportunity Trust
- Local Community Trust

70-80% of project cost

20-30% of project cost

Project Company
Total funding requirements covered through –
  • long term debt;
  • and equity.

Long term debt will be approximately 70-80% of the total project cost.

The long term debt will be –
  • non-recourse project finance; and
  • provided by one of the leading South African banks.

Equity will represent 20-30% of the total project costs

Equity provided by the shareholders –
  • SunEdison;
  • Siyakhula Women’s Opportunity Trust; and
  • the Local Community Trust.
Community assessment exercise have been conducted - insight on socio-economic development needs in the region.

Compliance with all elements on the economic development -

- Job creation (commitment to female employment, skills development & transference of skills)
- Ownership (local community)
- Local content (preferential procurement),
- Black top management
- Enterprise Development
- Socio-Economic Development
Economic Development

- **Job creation (high)**
  - commitment to female employment
  - skills development & transference of skills
  - South Africa local skilled & unskilled employment (including from local communities)

- **Local content (preferential procurement)**
  - Local economy boost (retail, transport, real estate & hospitality economic sector – additional job creation / income generation)

- **Ownership in Project Company (including Local Community)**
  - Shareholding by the local community (Trust to be created) – beneficiaries: black people within 50km radius of Project Site
  - Siyakhula Women’s Opportunity Trust (SWOT) shareholder – beneficiaries: black women & black women owned enterprises (trust objective - skills development, education initiatives & general support to black women that compliment national initiatives).
Job creation (low)
- Employment reduce drastically as focus is on Enterprise development
- Commitment to female employment and women owned enterprises

Socio-Economic Development
- Commitment to use a % of revenue towards strategic initiatives including –
  - education,
  - early childhood development; and
  - health services
- Further socio-economic needs analysis to inform spend on socio-economic development initiatives.

Enterprise Development
- Commitment to use a % of revenue towards strategic enterprise development initiatives throughout the province over 20 years
- Assisting existing enterprises, or start-up enterprises
- Assisting in agricultural and Greenfields initiative development
Local Content: Local business development - Enterprise Development
Socio-Economic Development: Health services
Socio- Economic Development: Education
Local Content - Local business development: Basadi Tsogang Kamahobe Bakery
Socio-Economic development – community needs analysis
CO2 Reduction and Provision of Electricity

Competitive Tariffs

- **Competitive Tariffs**: Round 4 produced record low tariffs with clean energy competitive to other forms of generation
- **Optimized cost**: Global best practice to secure best in class capital and operational expenditures matched to competitive long term financing

Job Creation

- **Sustainable job creation** focused on the local community

Local Content and Preferential Procurement

- **Project sources locally** to the degree possible to encourage industrialization and focuses on buying from BBBEE contributors

Socio-Economic Development and Enterprise Development

- **Percentage of Revenue** dedicated to SED and ED over the project lifetime

Quality

- **Proven and Reliable Technology**
- **IPP with significant track record**: SunEdison is the largest renewable energy developer in the world with a focus on solar PV