African Clean Energy Developments
Cookhouse Wind Farm (138.6MW)
NERSA Presentation
March 2012
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ACED INTRODUCTION AND OVERVIEW
African Clean Energy Developments (Pty) Limited (“ACED”) is a South African registered company dedicated to the development of renewable energy projects in Sub-Saharan Africa.

ACED’s shares are held as follows:

- 50% by African Infrastructure Investment Managers (“AIIM”), a 50/50 joint venture between Macquarie Africa (Pty) Ltd and Old Mutual Investment Group South Africa (Pty) Ltd (“OMIGSA”); and
- 50% by AFPOC Limited, a Mauritian registered company incorporated for the sole purpose of its investment in ACED.

The business, with dedicated staff members based in Cape Town, has been in operation for over 3 years and is at the forefront of renewable energy development in South Africa.

The Cookhouse Wind Farm has been as a Preferred Bidder in the first phase of the South African Renewable Energy IPP Procurement Programme.

- Cookhouse Wind Farm will be the largest wind farm project in South Africa with an installed capacity of 138.6MW (66 x Suzlon S88 2.1MW).

ACED has made significant progress in establishing a platform for the development of renewable energy assets in South Africa over the long term and its portfolio is in excess of 1,500MW of wind and solar projects positioned for delivery under future rounds of the RE IPP Procurement Programme.
ACED Stakeholders

**AFPOC: African Power Corporation**
AFPOC Limited brings significant development expertise in the wind and solar industry.
Management of AFPOC comprises leading figures in the renewable energy sector in Australia.
AFPOC Management have developed and operate a total installed wind energy capacity of 508MW.

**Nimbus Clean Energy**
Nimbus Clean Energy ("Nimbus") is an Australian registered renewable energy development company incorporated for the sole purpose of investment in the ACED projects.
Nimbus, similar to AFPOC, brings renewable energy development expertise to the ACED portfolio.

**Old Mutual Investment Group (SA)**
OMIGSA is a multi-boutique asset management and investment business.
Old Mutual is listed on the London Stock Exchange ("LSE") and brings the global expertise and long term asset management.
Old Mutual has a diversity of interests in Africa, and specifically in South Africa is a recognised advocate of a sustainable renewable energy industry.

**Macquarie**
Globally, Macquarie manages USD 330bn of funds.
Macquarie’s advisory capabilities span multiple sectors, with its key centre of expertise being in infrastructure advisory.
Macquarie is recognised as a global leader in infrastructure advisory and infrastructure management.

**AIIM**
AIIM is a 50:50 joint venture between Macquarie and OMIGSA.
AIIM manages c. ZAR 3bln of funds:
SAIF ("South Africa Infrastructure Fund") – USD 166mm
AIIF ("African Infrastructure Investment Fund") – USD 86mm
KIEF ("Kagiso Infrastructure Empowerment Fund") – USD 88mm
AIIF 2 ("African Infrastructure Investment Fund 2") – USD 320mm

**AIIM**
Nimbus Clean Energy is an Australian registered renewable energy development company incorporated for the sole purpose of investment in the ACED projects.
Nimbus, similar to AFPOC, brings renewable energy development expertise to the ACED portfolio.
ACED’s Wind and Solar Portfolio

- ACED’s renewable energy project portfolio comprises wind and solar energy projects in excess of 1,500MW located in the Western, Eastern and Northern Cape provinces of South Africa.
- ACED’s RE projects are well advanced in terms of key project drivers and favourable site characteristics:
  - Excellent solar and wind resource availability
  - Proximity to large substations with available connection capacity
  - Proximity to major transport routes
  - Low environmental sensitivity
- ACED’s renewable energy projects are at the forefront of possible development timelines and are well positioned for delivery under future rounds of the RE IPP Procurement Programme.
Cookhouse Wind Farm
The Cookhouse Wind Farm project is South Africa’s largest wind farm selected as a Preferred Bidder in the First Round of the RE IPP Procurement Programme
- 138.6 MW (66 x Suzlon S88 V3A-2.1 turbines)
- 135.14 MW (net of assumed electrical losses of 2.5%)

Cookhouse Wind Farm is located near the town of Cookhouse in the Eastern Cape province, approximately 180km NNE of Port Elizabeth

Cookhouse will connect at Poseidon substation at 132kV, which is located immediately adjacent to the site

Cookhouse will provide 138.5MW renewable electricity to the South African electricity network by Q4 2013

NERSA Generation license application was made on 07 December 2011 and Cookhouse has received no objections to its application.
Cookhouse Wind Farm Site Layout
# Cookhouse Project Overview

## Project size and connection

<table>
<thead>
<tr>
<th>Environmental Approvals</th>
<th>Environmental authorisation for construction of 200 turbines (May 2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed Capacity</td>
<td>138.6 MW (66 x Suzlon S88 V3A-2.1 turbines)</td>
</tr>
<tr>
<td>Capacity</td>
<td>135.14 MW net of assumed electrical losses of 2.5%</td>
</tr>
<tr>
<td>Connection</td>
<td>132kV directly into spare feeder bay within the Poseidon substation (located immediately adjacent to the Project Site)</td>
</tr>
</tbody>
</table>

## Construction and commissioning

<table>
<thead>
<tr>
<th>Financial Close</th>
<th>On or before 19 June 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction commencement</td>
<td>19 June 2012</td>
</tr>
<tr>
<td>Target Commercial Operations Date</td>
<td>November 2013</td>
</tr>
<tr>
<td>Tower height</td>
<td>79 metres (hub)</td>
</tr>
</tbody>
</table>

## Equipment supplier

<table>
<thead>
<tr>
<th>EPC Contractor (Turnkey EPC Contract)</th>
<th>Suzlon Wind Energy South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbine design life</td>
<td>20 years</td>
</tr>
<tr>
<td>Turbine model selection</td>
<td>Suzlon S88 V3A-2.1MW</td>
</tr>
<tr>
<td>Service and Maintenance Agreement and Warranty</td>
<td>5 years (with an option to extend for years 6-10)</td>
</tr>
</tbody>
</table>
Key Partners and Stakeholders

Suzlon has been appointed as EPC Contractor and Service and Maintenance Contractor for the first 5 years of the project’s life. Suzlon’s S88 2.1MW turbines are considered ‘world class’ and extremely reliable with in excess of 4000 MW installed globally.

Globeleq brings to the project an experienced sustainable energy company with a long track record of active investments in the emerging markets of Africa, the Americas and Asia.

IDEAS, an equity participant, is a socially responsible investment vehicle managed by Old Mutual Investment Group South Africa (Pty) Ltd which aims to invest in assets that are developmental in nature and contribute to the upliftment of disadvantaged communities.

The equity participants AIIF2 (South Africa) and AIIF2 (Mauritius) recently reached financial close with commitments of USD500million and have a main focus of investment within African infrastructure projects.

The IDC’s Green Industries Unit provided Mezzanine to the project as well as funding for the BBBEE stakeholders in the project. The IDC’s participation in the Cookhouse project aligns to the objectives of contributing to the creation of balanced, sustainable economic growth in South Africa.

Nedbank Limited, acting through its Nedbank Capital division is a Tier 1 lender to the project.

Standard Bank Limited, acting through its Corporate and Investment Banking division is a further Tier 1 lender to the project.

Aurecon South Africa has been appointed as the Owners’ Engineer responsible for commissioning of the turbines. The Aurecon group has extensive experience in Wind Energy and this will be capitalised on by the South African division.

ACED has been working with the Blue Crane Development Agency for over 3 years, it will be a key partner in facilitating community development through the projects socio-economic development contributions.
Suzlon Global Track Record

- Suzlon has significant experience delivering wind infrastructure projects globally.
- With a presence in over 32 countries (13,000 people with 35 nationalities) and totalled installed capacity of 17GW power installations makes Suzlon market leaders in wind power.
- In respect to the proposed turbines selected for the site (2.1MW S88 V3), Suzlon has a very extensive deployment across major global markets which includes Australia, Brazil, Spain, USA and India totalling almost 4,000MW of installed capacity.
Economic Development

- The Cookhouse Wind Farm project strongly supports the Government’s objective to achieve socio-economic development in South Africa. The Cookhouse Wind Farm has developed a comprehensive Economic Development Plan that satisfies legislative and policy instruments of Government that are relevant to this important objective.

- ACED as placed immense value in addressing the socio-economic conditions in the local communities surrounding the Cookhouse project through the following:
  - Local job creation through construction and operations phase of the project
  - Local content through assembly and construction activities
  - Rural development and community involvement through direct investment
  - Plans to expand education & development skills given active project involvement
  - Extensive BEE enterprises being established
  - Socio-economic development in the Cookhouse region

- ACED and its Partners, the IDC and the Blue Crane Development Agency, have established:

  **Cookhouse Wind Farm Community Trust**
  - Cookhouse Wind Farm Community Trust will hold 15% equity in the Cookhouse Wind Farm
  - The local communities located within the 50km radius of the Cookhouse Wind Farm, including Cookhouse, Bedford and Somerset East will also benefit from the funds flowing into Community Development Programmes from the Community Trust
  - The Trust will use the Community Development Programmes to deliver real change in the community, with specific focus on healthcare, education and job creation through supporting the local agriculture sector
Socio-Economic Development

The Cookhouse Wind Farm project will contribute significantly to local economic development and job creation through the development of local industry and local and regional economic stimulus through jobs and training during the construction phase and over the twenty year life of the project.

In addition the project will actively invest in socio-economic development initiatives, focusing on, although not limited to:

- Education
- Health and HIV/AIDS
- Skills development and
- Environmental conservation
Thank you

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Cookhouse Wind Farm