# OWNERSHIP IN THE RENEWABLE ENERGY INDEPENDENT POWER PRODUCER PROCUREMENT PROGRAMME (REI4P)

PROJECT 90
BY 2030

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The Friedrich-Ebert-Stiftung (FES) has been promoting the values of the Social Democracy in Africa for over 40 years. We work for social justice, democracy, peace and international solidarity on the continent. FES, as an independent and non-profit organization, is rooted in a rich tradition of social democracy dating back to its foundation in 1925 and the political legacy of its namesake Friedrich Ebert, the first democratically elected German President. FES has encouraged and nurtured political exchange between Africa, Germany and Europe for many years, acting as partner to political parties, parliaments, trade unions, media, civil society groups and the interested public.

FES South Africa is working with a broad range of likeminded partners, developing strategies and programs designed to overcome political, social and economic challenges in South Africa. Our common goals are a sustainable and inclusive socio-economic transformation, broad-based civic political participation and a democratic South Africa fulfilling its role as a soft power regionally and internationally. Our instruments for achieving these goals comprise targeted political education, information and training programs, public dialogues, action-oriented research as well as publications and political consultation.

Project 90 by 2030 (Project 90) is a Non-Profit Organisation established in Cape Town in 2007 with the vision of inspiring and mobilising society towards a sustainably developed and equitable low-carbon future. Project 90 strives to spark significant, positive and lasting changes in responding to climate change and dealing with energy issues. Our unique three-pronged approach sees us engaging with the following actors

- Aspiring young South Africans: to nurture them in becoming tomorrow's climate and energy informed leaders
- Strengthened communities: by enhancing their energy access and capacity to engage with local government on energy service delivery
- Network of civil society organisations: to amplify collaborative efforts in the call for good governance and national climate change and energy policies that lead South Africa to a just and low carbon energy system.

# Preface

This report came out in November 2018, while the Department of Energy was finalising its Integrated Resource Plan (IRP), which maps out electricity infrastructure requirements for South Africa into the future. It is no exaggeration to say that there has been a sea of change in the energy sector since 2010, when the IRP was initially published. The relative costs of electricity generation technologies have changed significantly, and there is a move toward smaller, decentralised and distributed electricity generators. Research continues to highlight the urgent need for ambitious action to tackle climate change and that we must rapidly reduce greenhouse gas emissions. It is clear that we need to decarbonise our economy, and in particular the generation of electricity, much faster than the current plans envision.

For economic and environmental reasons we must shift to a low carbon energy sector as soon as possible, and the social aspects of such a transition must be addressed through a just and fair plan. This is a complex topic, involving many aspects in addition to the re-training and re-skilling of workers in the fossil fuel sector. Ownership is one of these another key issues in the transition. Following on from a general study on energy ownership models[1], Project 90 by 2030 wanted to investigate ownership specifically within the South African renewable energy (RE) programme.

Since 2010, after four bidding rounds, over R200 billion has been invested in the Renewable Energy Independent Power Producer Procurement Programme (REI4P), which has added 6 323MW of renewable power to South Africa's grid through the construction of 92 new utility-scale RE facilities. A vitally important part of the success of RE now and in the future is ownership – the extent to which the RE programme helps to create jobs, provides social upliftment, and increases opportunities for economic ownership for a wide group of South Africans.

This report tracks ownership patterns in the REI4P so far, based on publically available information, and makes recommendations for future bidding rounds. The purpose is to help ensure that the benefits of RE go beyond only the economic and environmental impacts, and that the social aspects of a just energy transition, such as ownership, are also considered.

# Acronyms

| | |
|---|---|
| BBBEE | Broad-based black economic empowerment |
| BEE | Black economic empowerment |
| CSP | Concentrated solar power |
| DBSA | Development Bank of Southern Africa |
| IDC | Industrial Development Corporation |
| IPP | Independent power producer |
| IPPPP | Independent Power Producers Procurement Programme |
| IRP | Integrated Resource Plan |
| kWh | Kilowatt hour |
| MW | Megawatt |
| NERSA | National Energy Regulator of South Africa |
| PV | Photovoltaic |
| RE | Renewable energy |
| REI4P | Renewable Energy Independent Power Producer Procurement Programme |
| UCT | University of Cape Town |

[1] Published April 2018, available at https://90by2030.org.za/wp-content/uploads/2018/06/Just-Energy-Transition-low-res.pdf

# Contents

# 1
# Introduction

This short research report explores the state of ownership within the South African government's Renewable Energy Independent Power Producer Procurement Programme (REI4P) which was initiated in 2010. The REI4P was designed to serve two stated objectives:

**1. To provide secure electricity from renewable sources;**

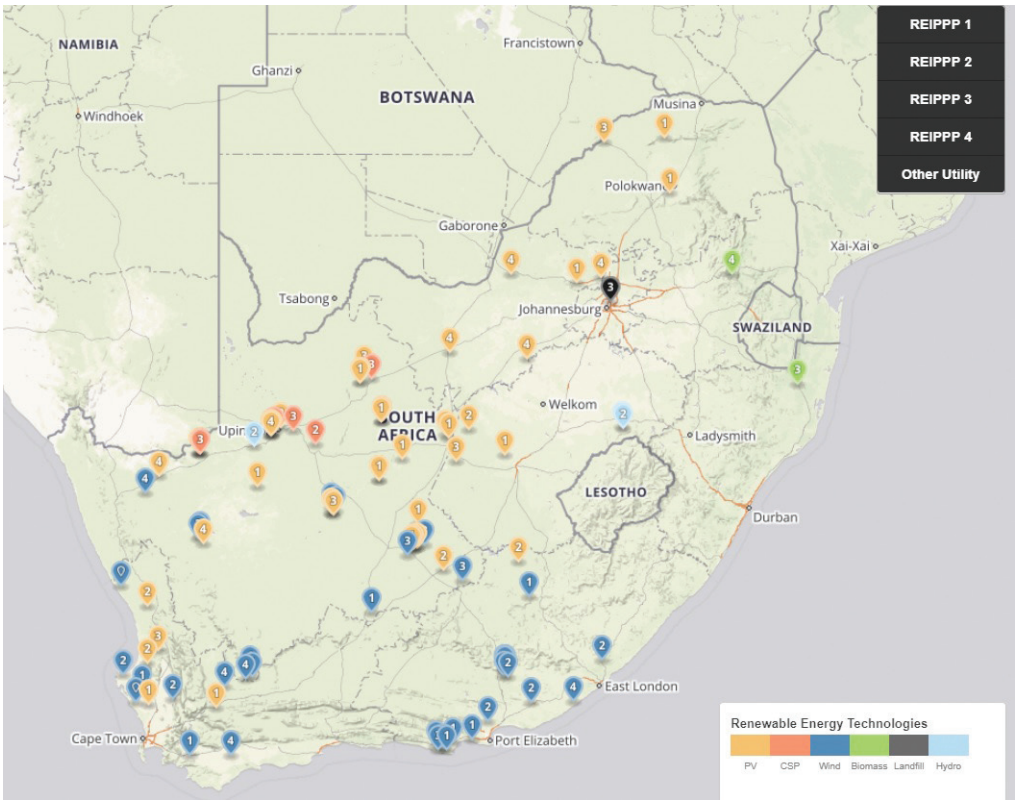
and

**2. "To go beyond the procurement of energy to also contribute to broader national developmental objectives such as job creation, social upliftment and increasing opportunities for economic ownership."** [1]

To date, after four bidding rounds, over R200 billion has been invested in REI4P, which has added 6 323 MW of renewable power to South Africa's grid through the construction of 92 new utility-scale renewable energy facilities.[2] Across the four bid rounds, the average price of renewable energy across all technologies has fallen dramatically, as the table below illustrates.

| Bid Round | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| R/kWh[3] | 2.65 | 1.74 | 1.42 | 0.86 |

**Map showing the location of the 92 projects**




*Source: The Energy Blog* [4]

By meeting the first objective, the programme has been a success in purely technical terms. However, concerns have been raised by labour unions and civil society more widely that the second objective has not been adequately met.[5] These concerns have revolved around a number of issues, and particular attention has been drawn to the ownership of the 92 new utility-scale energy projects that have been completed or are in the process of being completed.

The Independent Power Producers Procurement Programme (IPPPP), which manages the REI4P, states that "the importance of retaining shareholding in IPPs [independent power producers] for South Africans was recognised and incorporated into the procurement conditions". As such, at least 40% of each project should be "owned by South African entities" with at least Level 5 Black Economic Empowerment (BEE) status.[6] In terms of direct black ownership, the procurement conditions are set out in the table below:

| | Bid Windows 1 - 4[7] | |
|---|---|---|
| | Min (%) | Target (%) |
| Shareholding by black people and/ or black enterprises in the seller | 12 | 30 |
| Shareholding by local communities in the seller | 2.5 | 5 |
| Shareholding by black people and/ or black enterprises in the construction company | 8 | 20 |
| Shareholding by black people and/ or black enterprises in the operations company[8] | 8 | 20 |

For the purposes of this research report, the last two criteria listed in this table were not considered because they do not relate to the actual ownership of completed projects. Instead, this research report set out to ascertain:

1. **The percentage of foreign ownership;**
2. **The percentage of local ownership;**
3. **The percentage of community ownership; and.**
4. **The percentage of BEE ownership.**

"Local ownership" is defined as companies which are based in South Africa, that is, companies that have their head office here. "Foreign ownership" is defined as those companies which are based outside South Africa and have their head offices overseas. According to the rules governing REI4P, local ownership refers to a "South African entity". However, the author was unable to find any information that specifies how a South African entity is defined in the REI4P.

# 2
# Research methodology

## 2.1 Scope of information

The research methodology for this report was specifically designed to use information available to the "general public" regarding ownership in the REI4P. A simple methodology was followed which involved using the internet to try to source the ownership details of the 92 projects approved so far. This obviously assumes being in the privileged position of having an internet connection and the time and data to undertake the necessary internet searches.

As the aim of the research report was to gather publicly available information, no attempt was made to gain additional information directly from any of the companies associated with the 92 projects.

The research attempted to source the following information for each project:

### General information

- Name of project.
- Location of project.
- Type of renewable energy.
- Size of project (both in MW and rand tender amount).

### General details of owners

- Registered company name.
- Location of registration.
- Location of headquarters.
- Company website (if available).
- A short description of the work the company undertakes.

### The nature of the ownership

- Single company, consortium of companies, or subsidiary company – a statement to indicate the type of ownership. If the owner is a consortium of companies or a subsidiary of a larger company, general details of those companies were included.
- Public or private companies – a statement as to whether the company is listed as private or public.
- Local or international.

### Shareholders

- Percentage of shareholders that are juristic persons versus natural persons.
- Percentage of shareholders that are located within South Africa versus outside of South Africa.
- Percentage of shareholders from local communities.
- Percentage of BEE shareholders.

### Finances

- Details of where the finances for the project originated from – name(s) and location(s) of funder(s).
- Details of where the profits are going. If split, what percentage is going out of the country and what is staying in South Africa.
- Broad-based black economic empowerment (BBBEE) status of each company.

## 2.2 Data sources

Extensive use was made of the IPP Projects website (www.ipp-projects.co.za) and the independent Energy Blog website (www.energy.org.za), both of which contain databases of the 92 projects approved across the four completed bid windows. While these websites include useful information relating to the types and location of REI4P projects, neither contains any specific information relating to ownership. Use was made of the World Bank's Private Participation in Infrastructure database (https://ppi.worldbank.org) which includes limited ownership and funding details for a small number of REI4P projects. Newspaper reports and industry publications (e.g. Engineering News) occasionally contained information

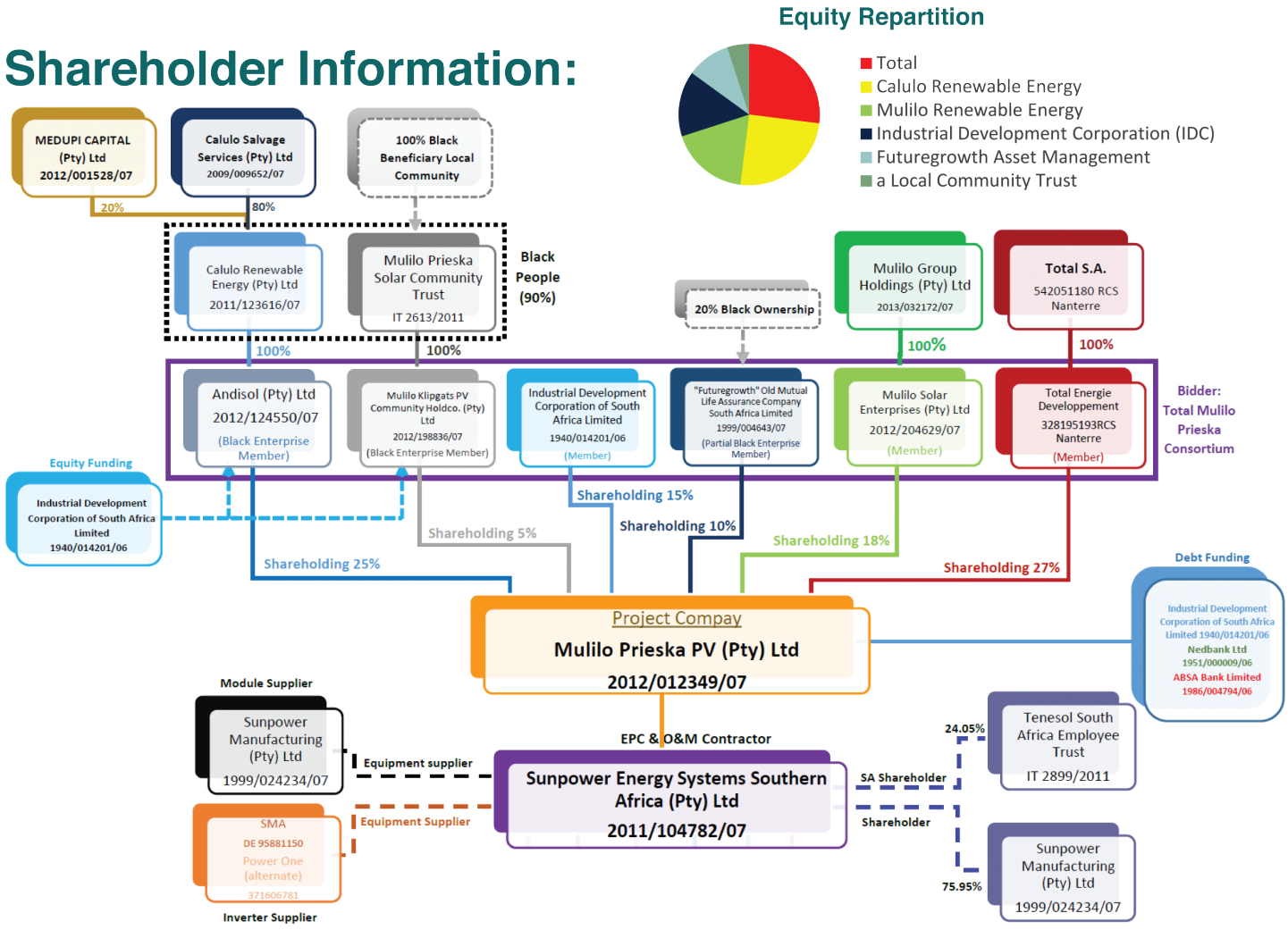
relating to ownership and funding, although, as was the case with the World Bank database, this information was generally quite limited. The sources of information are acknowledged in the endnotes.

Project company and investor websites were accessed (where available). However, as with the sources outlined above, little information about ownership appears on company websites. By far the most important source of information for the report was presentations made by successful bidders to the National Energy Regulator of South African (NERSA) during public hearings. Out of the 92 projects, 67 project presentations to NERSA were found on the NERSA website (www.nersa.org.za). It is not clear why the NERSA website does not contain presentations for the remaining 25 approved projects. While most of the 67 presentations provided information relating to project ownership, the quality and detail of this ownership information differed greatly from project to project. For example, the presentation made in regard to the Amakhala Emoyeni Wind Farm was limited to this:

**PROJECT STRUCTURE: 95% CENNERGI (PTY) LTD • 5% COMMUNITY TRUSTS**

*Source: www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/Amakhala%20Emoyeni%20RE%20Project%201%20(Pty)%20Ltd.pdf*

By contrast, Mulilo Prieska Solar Power provided the following highly detailed information to NERSA:




*Source: www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/Mulilo%20Prieska%20PV.pdf.*

This difference in ownership information can be largely explained by the fact that, from Bid Window 3, developers had to provide additional information during the bidding process "where ultimate ownership was clearly identified based on a Flow-Through principle. It also included identifying (by name) the intermediaries through which final ownership flowed to the priority groups, and the percentages owned by all parties involved".[9] While this requirement relates specifically to the bidding process, there is ample evidence to show that ownership details presented by developers in their public presentations to NERSA have been more comprehensive since Bidding Round 3.

The two examples provided above reveal just how difficult it is to actually answer the questions that this research project set out to address. There is simply too little information to say anything meaningful in the first example cited above, while the second example reveals how complex certain ownership structures can be. Complex ownership is a feature of the significant majority of the REI4P projects included in this research.

As academic Lucy Baker notes, "project companies demonstrate a complexity of ownership structures involving international, national, private and public players and technical, financial, black and local community shareholdings". She observes that "a project company may be head-quartered in one country, have offices and assets in various others, and be listed somewhere else". All this, she argues, leads to "difficultly in attributing project ownership".[10] Her comments are echoed by South African energy experts Chris Yelland and Pierre Potgieter who have bemoaned the complexity of REI4P project ownership.[11]

Both the paucity of, and sometimes overwhelming complexity of, project ownership information present a significant barrier to any "ordinary" South African who is trying to obtain information relating to REI4P project ownership. This represents a serious obstacle to transparency regarding ownership of projects which are mandated to "go beyond the procurement of energy to also contribute to broader national developmental objectives" and it hampers attempts to hold the REI4P accountable for meeting its developmental, as well as its energy, commitments.

## 2.3 Analysis of information

Despite the limitations outlined above the following analysis of the available information was possible. It is presented in the following order:

1. **Solar photovoltaic (PV) – Bid Windows 1 – 4 in reverse bid order.**
2. **Concentrated solar power (CSP) - Bid Windows 1 – 3.5 in reverse bid order.**[12]
3. **Onshore wind - Bid Windows 1 – 4 in reverse bid order.**
4. **'Other' projects (Hydro, biomass etc.) - Bid Windows 1 – 4 in reverse bid order.**

In order to ensure that this report's findings are as accurate as possible, great care was taken in the selection of valid data from the data sources outlined above. Only those projects where reliable data could be sourced were included in the analysis. In the case of local and foreign ownership, a reliable sample size was defined as the set of projects where available local and foreign ownership information added up to 100%. For example, while there were 12 projects in total in Bid Window 4 Solar PV, reliable information relating to only 11 projects could be found as it relates to foreign or local ownership details. The analysis in this case therefore only refers to those 11 projects. In similar fashion, only 11 projects had community ownership information, while only eight had information relating to BEE ownership for Bid Window 4 Solar PV. Therefore, analysis was undertaken on only 11 and eight projects respectively. For all energy types and for each bid round, a similar methodology has been used.

All percentages throughout the report are calculated as weighted means. This means each project in each specific sample is given the same weight, so as to ensure that the importance of any sample is not exaggerated. This also applies to the consolidated tables, so the total average rate of ownership is weighted by the sample size for each bid round (i.e. equivalent to taking the average ownership of all the projects across a technology type with reliable information).

# 3
# Results

## 3.1 Solar PV Bid Rounds

### Solar PV Bid Round 4

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 4 | 12 | 11 | 60% | 40% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 11 | 17% | 5% to 40% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 8 | 32% | |

### Solar PV Bid Round 3

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 3 | 6 | 4 | 52% | 48% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 4 | 8% | 5% to 10% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 4 | 25% | |

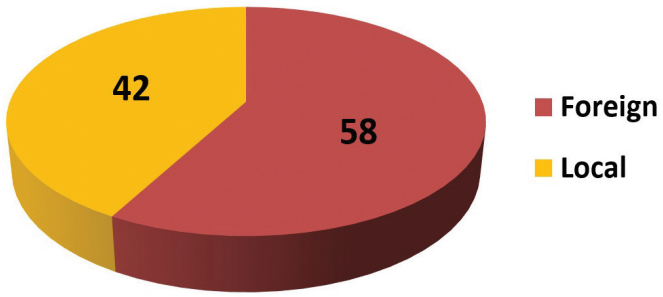
## Solar PV Bid Round 2

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 2 | 8 | 4 | 55% | 45% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 4 | 6.25% | 2.5% to 10% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 4 | 34% | |

## Solar PV Bid Round 1

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 1 | 19 | 3 | 60% | 40% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 12 | 12% | 4% to 20% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | Unknown | |

## Consolidated Solar PV Ownership Bid Rounds 1-4 (Average Percentage)




| Local ownership: Community-owned vs BEE-owned | Average percentage |
|---|---|
| Community owned | 12% |
| BEE-owned (excluding community owned) | 31% |

## 3.2 CSP Bid Rounds

### CSP Bid Round 3.5

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 3.5 | 2 | 1 | 48.5% | 51.5% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 0 | Unknown | Unknown |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | Unknown | |

### CSP Bid Round 3

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 3 | 2 | 2 | 30% | 70% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 2 | 17.5% | 15% to 20% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | Unknown | |

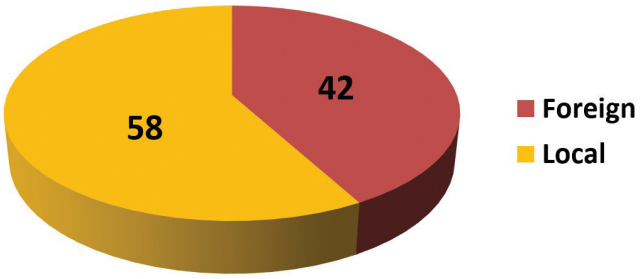
### CSP Bid Round 2

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 2 | 1 | 1 | 40% | 60% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 1 | 5% | Not applicable (only one data point) |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | Unknown | |

### CSP Bid Round 1

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 1 | 2 | 2 | 51% | 49% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 2 | 20% | Both projects 20% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | Unknown | |

**Consolidated CSP Ownership Bid Rounds 1-3.5 (Average Percentage)**




| Local ownership: Community-owned vs BEE-owned | Average percentage |
|---|---|
| Community owned | 16% |
| BEE-owned (excluding community owned) | unknown |

## 3.3 Wind Bid Rounds

### Wind Bid Round 4

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 4 | 12 | 10 | 58% | 42% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 10 | 11% | 2.5% to 15% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 10 | 26% | |

## Wind Bid Round 3

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 3 | 7 | 7 | 51% | 49% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 7 | 13% | 5% to 40% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 6 | 13% | |

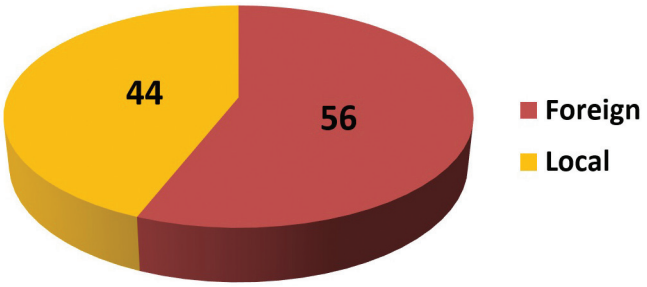
## Wind Bid Round 2

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 2 | 7 | 5 | 56% | 44% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 6 | 16% | 5% to 26% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | Unknown | |

## Wind Bid Round 1

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 1 | 8 | 5 | 57% | 43% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 6 | 10% | 2.5% to 26.1% |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | Unknown | |

### Consolidated Wind Ownership Bid Rounds 1-4 (Average Percentage)




| Local ownership: Community-owned vs BEE-owned | Average percentage |
|---|---|
| Community owned | 12% |
| BEE-owned (excluding community owned) | 12% |

## 3.4 'Other' Bid Rounds

### 'Other' Bid Round 4

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 4 | 2 | 0 | unknown | unknown |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 1 | 5% | Not applicable (only one data point) |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | unknown | |

### 'Other' Bid Round 3

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 3 | 2 | 1 | 51% | 49% |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 1 | 2.5% | Not applicable (only one data point) |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | unknown | |

### 'Other' Bid Round 2

| Bid Round | Total projects | Projects with foreign and local ownership information | Average foreign ownership | Average local ownership |
|---|---|---|---|---|
| 2 | 2 | 0 | unknown | unknown |
| | | **Projects with community ownership information** | **Average community ownership** | **Range of community ownership** |
| | | 1 | 15% | Not applicable (only one data point) |
| | | **Projects with BEE ownership information** | **Average BEE ownership** | |
| | | 0 | unknown | |

### Consolidated REI4P Bids Round 2 - 4 'Other'

Since there was only one project with local and foreign ownership information, the consolidated value is just the one project in Round 3.

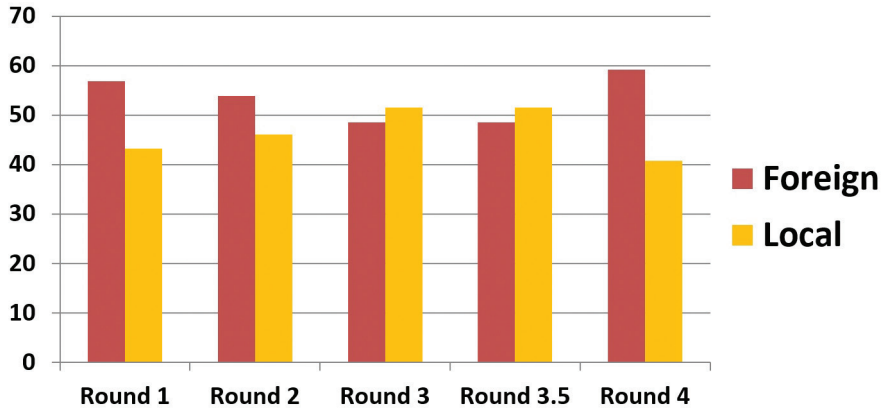
| Local ownership: Community-owned vs BEE-owned | Average percentage |
|---|---|
| Community-owned | 7.5% |
| BEE-owned (excluding community-owned) | unknown |

## 3.5 Ownership patterns across all Bid Rounds

### Overall foreign and local ownership

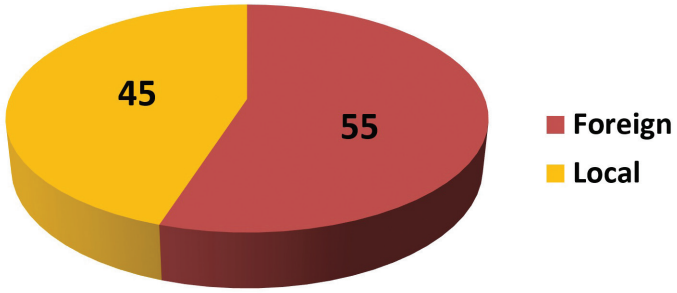
| Technology | Average foreign ownership (%) | | | | |
|---|---|---|---|---|---|
| | Round 1 | Round 2 | Round 3 | Round 3.5 | Round 4 |
| Solar PV | 60 | 55 | 52 | - | 60 |
| Solar CSP | 51 | 40 | 30 | 48.5 | - |
| Wind | 57 | 56 | 51 | - | 58 |
| 'Other' | - | - | 51 | - | - |
| **Technology** | **Average local ownership (%)** | | | | |
| | **Round 1** | **Round 2** | **Round 3** | **Round 3.5** | **Round 4** |
| Solar PV | 40 | 45 | 48 | - | 40 |
| Solar CSP | 49 | 60 | 70 | 51.5 | - |
| Wind | 43 | 44 | 49 | - | 42 |
| 'Other' | - | - | 49 | - | - |

## Consolidated Ownership across all Bid Rounds (Average Percentage)




*Figures have been equally weighted by project number to reflect the spread within each bid window.*

## Overall Ownership across all Bids (Average Percentage)




Despite the limitations in available information, the overall figures relating to foreign and local ownership do not differ significantly from the IPP Office's statistics. In its latest report, the IPP Office states:

*The South African local equity shareholding across BW1 [Bid Window 1] to BW4 … equates to 48% … which is substantially more than the 40% requirement. Foreign equity amounts to R35.7 billion and contributes 52% of total equity.*[13]

In April 2018 the Minister of Energy, Jeff Radebe, stated that in Bid Windows 3.5 and 4, South Africans owned 57.8 % of shareholdings overall, while 42.2% was foreign-owned.[14] This contrasts sharply with the findings of this research which shows that foreign interests held 48.5 and 59.2% interests in Bid Windows 3.5 and 4 respectively. This would seem to indicate just how difficult it is to accurately judge local and foreign ownership interests given the quality of information that is in the public realm.

## 3.6 Emerging foreign ownership patterns

A distinct feature of the foreign ownership has been the growing concentration of ownership by fewer international companies. The following tables illustrate this trend for Solar PV and Wind for Bid Rounds 1 – 3:

### Wind ownership: Bid Rounds 1 to 3

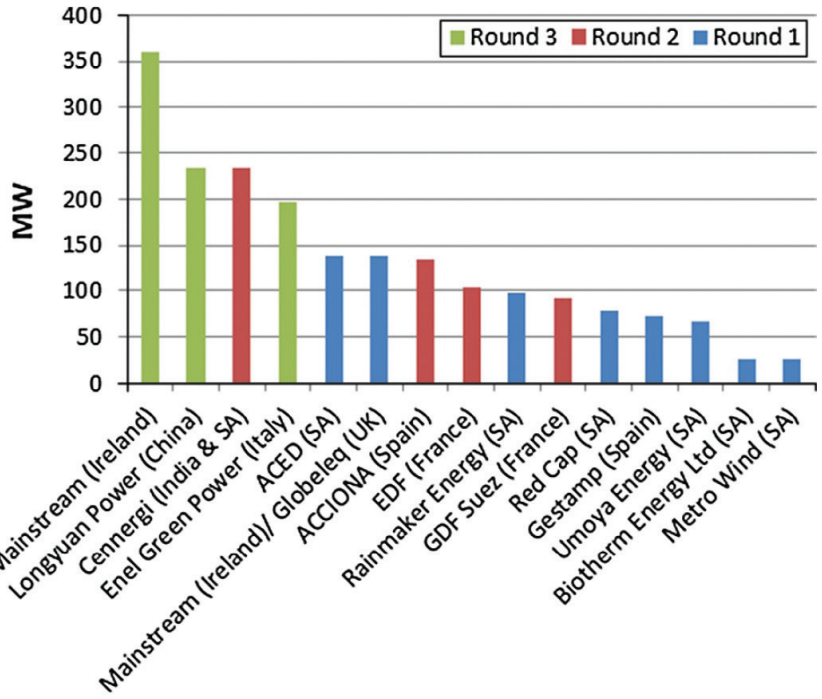



*Figure 1: From Baker, The growing role of finance in South Africa's renewable energy sector', Geoforum, August 2015, p. 151.*

### Solar PV ownership: Bid Rounds 1 - 3

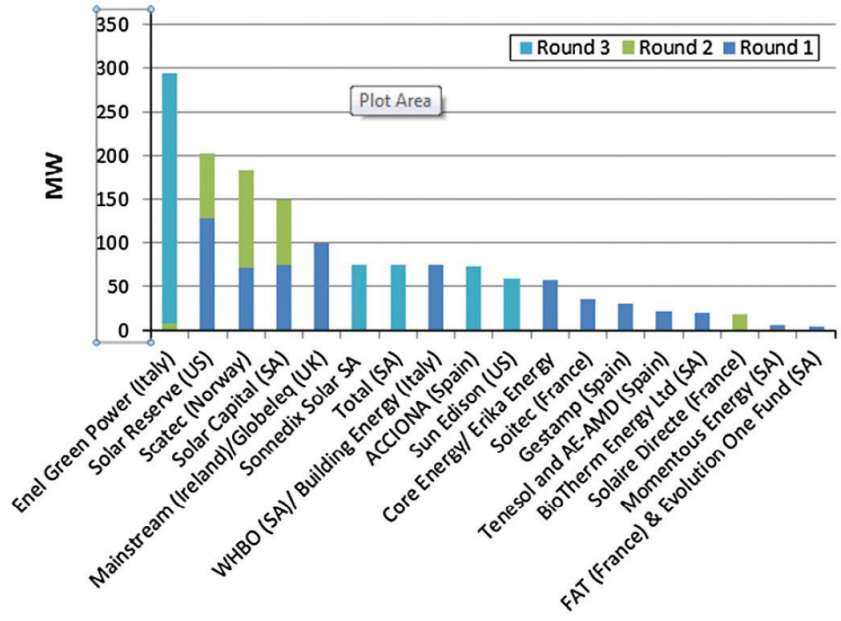
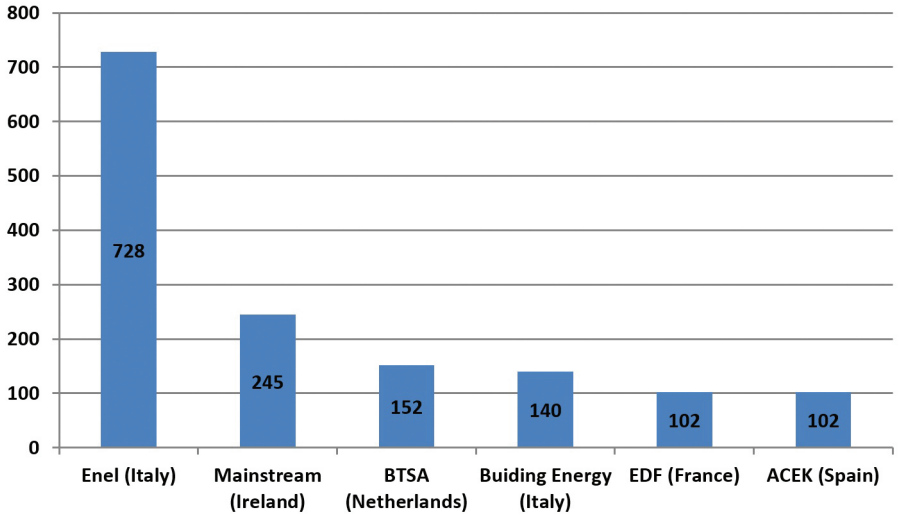


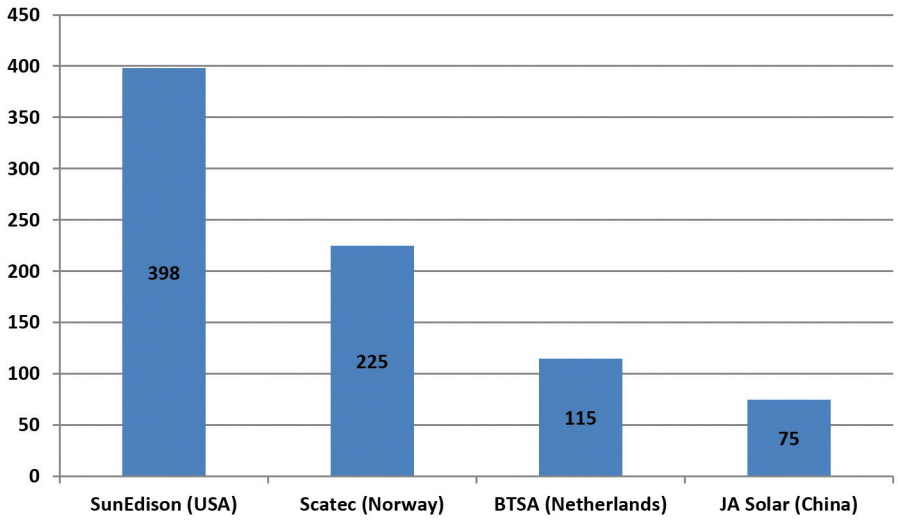

*Figure 2: From Baker, The growing role of finance in South Africa's renewable energy sector', Geoforum, August 2015, p. 151.*

Research undertaken for this report reveals that this process of concentration of ownership has continued in Bid Window 4:

## Ownership by MW – Wind




## Ownership by MW - Solar PV




Baker argues that this concentration of ownership is a sign that South African companies are finding it increasingly difficult to break into the bidding rounds. She argues:

*Despite attempts by the South African government to create an industry with national interests at its heart, increased competition by round four has seen smaller national players priced out of the market and unable to compete with the low costs offered by foreign companies.*

She contends that this situation is likely to get worse as equity holders get sold on by projects owners after the three-year limitation on such sales expires for each project.[15]

## 3.7 Emerging community ownership patterns

A University of Cape Town (UCT) research report from 2017 provided the following information from 53 out of 92 projects.[16]

| Technology | Average local community ownership (%) | | | | |
|---|---|---|---|---|---|
| | Round 1 | Round 2 | Round 3 | Round 3.5 | Round 4 |
| Solar PV | 9 | 6 | 14 | - | 16 |
| Solar CSP | 20 | 5 | 18 | 8 | - |
| Wind | 11 | 5 | 13 | - | 11 |
| 'Other' | - | 9 | 2.5 | - | 4 |

It is not possible to give an accurate account of the percentage of local community ownership for each energy type across *all* bid rounds. This information is not provided in the UCT report, which makes weighting the community ownership percentages per round impossible.

### Total community ownership per bid round (UCT report)

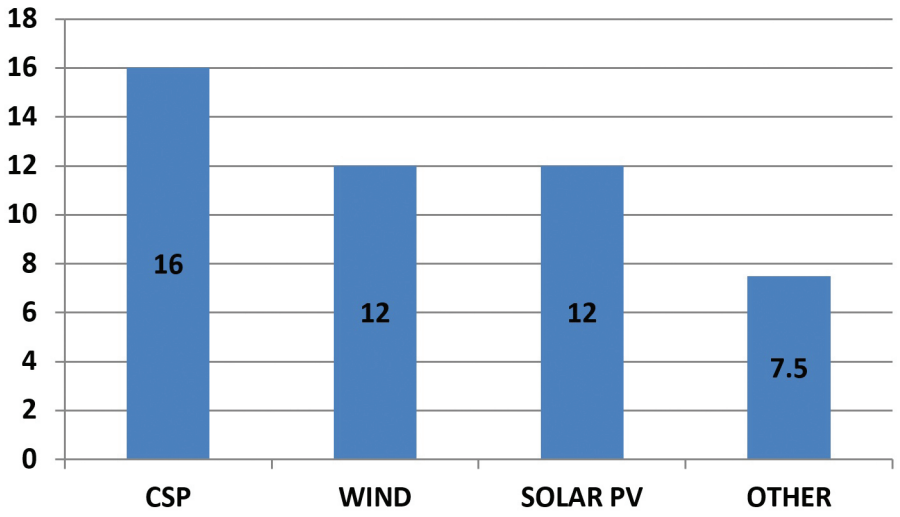
| | Average local community ownership (%) | | | | |
|---|---|---|---|---|---|
| | Round 1 | Round 2 | Round 3 | Round 3.5 | Round 4 |
| All RE technologies | 13 | 16 | 11 | 8 | 10 |

Thus the average community ownership for these 53 projects is approximately 9.6%. This cannot be judged with any accuracy because, as has been said, an absence of information makes weighting the respective community ownership percentages per round impossible.

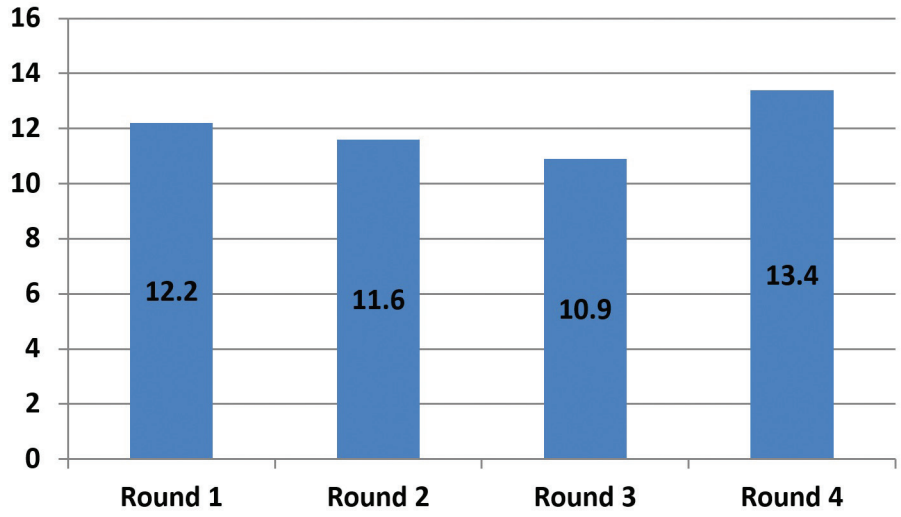
Figures ascertained for this research, based on available data from 73 of the 92 projects throughout the bid rounds indicates the following community ownership:

| Technology | Average local community ownership (%) | | | | |
|---|---|---|---|---|---|
| | Round 1 | Round 2 | Round 3 | Round 3.5 | Round 4 |
| Solar PV | 12 | 6.25 | 8 | - | 17 |
| Solar CSP | 20 | 5 | 17.5 | - | - |
| Wind | 10 | 16 | 13 | - | 11 |
| 'Other' | - | 15 | 2.5 | - | 5 |

### Average community ownership per technology for all rounds (this research)




### Average community ownership per bid round (this research)




Thus, the average community ownership for these 73 projects is 12.2%. The IPP Office states that local communities hold 11% of equity in total over the four bidding rounds.[17] However, the situation is confused by Minister Radebe's assertion in April 2018 that communities hold 7.1% of shareholdings overall in projects from bid rounds 3.5 and 4.[18] This figure is significantly less than reported in both the UCT analysis and in the analysis in this report. If the Minister's figures are correct, and given that the IPP Office states an overall community shareholding of 11% across all four rounds, the community shareholding appears to have fallen dramatically in Rounds 3.5 and 4.

These figures should, however, be measured against the REI4P minimum threshold of 2.5% and target of 5%. When measured against these, it is clear that community ownership has exceeded the targets set by the IPP Office. Despite this, concerns have been raised by both civil society and industry representatives that community ownership is largely passive, in that communities have no real say in the running of projects, or in the decisions that are taken in how money allocated to community development is spent.[19] As Mthembi argues, "the strategy of choice is to give community trusts economic interest without decision-making power".[20]

## 3.8 Emerging black economic empowerment and ownership patterns

As has already been said, it is very difficult to accurately state the amount of BEE or black ownership for each REI4P round. Interestingly, while the UCT report from 2017 notes that black ownership of project companies is one of the key criteria for bid selection, it offers no statistical information relating to black ownership (outside of community ownership) at all.[21] This would appear to confirm the difficulty of finding accurate and reliable information relating to this criterion.

From the information that is available, the following BEE companies have equity interests in more than one REI4P project.

| Company | Number of projects |
|---|---|
| Pele Green Energy | 6 |
| Thebe Investment Corporation | 6 |
| Siyakhula Women's Opportunity Trust | 5 |
| Ramizest (Letsatsi Trust) | 4 |
| Royal Bafokeng Holdings | 4 |
| Jay & Jayendra | 2 |
| Khana Energy | 2 |
| H1 Holdings | 2[22] |

Outside of this basic information it is not possible to make any reliable estimates of black ownership with the information that is publicly available. The IPP Office states that the target of 30% black ownership has been met. It states, "black South Africans own, on average, 30% of projects that have reached financial close". It does note, however, that this statistic includes local community ownership.[23] This means that companies can increase their community ownership to enable them to meet both BEE and community requirements.[24] Mthembi argues that

*this is not inherently problematic, but can only be an appropriate strategy in cases where individuals who have the fund-raising and deal-making experience to negotiate on behalf of their communities represent the community trust in question.*[25]

She contends that this ownership structure can lead to a situation whereby a project developer can manage a project without any input from black owners because community trusts are, in general, passive.[26]

Another concern this author raises is the largely passive role that black owners play as BEE finance partners, both in terms of project finance, and in terms of being passive investors in construction and operations companies. She argues that ownership must move beyond passivity, to capability. She states:

*to convert the element of ownership into a capability that can be reproduced by South Africans it needs to be approached not just as a question of the outcome, that is, whether or not a Black person receives a dividend when profits are declared. Instead, ownership needs to be approached as a question of capabilities, which are expressed in multiple processes, and life stages of an IPP: from project development to fund-raising to deal-making and, crucially, to operational involvement in the core business of the IPP.*[27]

# 4

# Conclusions

This research has demonstrated that there is a lack of transparency and clarity in the REI4P programme when it comes to information in the public domain that relates to ownership.
However, is it reasonable to expect detailed ownership information from a programme that is being largely driven by the private sector? The answer to this question is a resounding yes, for the following reasons:

**1 The REI4P has a clear developmental mandate built into the bidding process, so much so that 30% of each bid evaluation by the IPP Office is based on socio-economic and enterprise development criteria. To be able to properly evaluate the success or otherwise of successful bidders in terms of the applicable developmental mandate, access to accurate and meaningful ownership information is essential.**

**2 Much of the funding which is supporting community and black ownership within the REI4P programme comes from taxpayers' money from South African government sources such as the Development Bank of Southern Africa (DBSA) and the Industrial Development Corporation (IDC). Transparency around ownership is essential to provide effective oversight of how taxpayers money is being utilised.**

**3 South Africa is defined as a middle-income country. To be able to pursue a developmental trajectory which increases income and equality for its residents, investment needs to take place in the South African economy. To maximise the potential of this investment in terms of job creation and general economic growth, this investment (revenue) needs to be retained as much as possible within South Africa rather than sent overseas. Clear ownership information is therefore necessary to be able to calculate how much revenue from the REI4P programme is actually being retained in South Africa – both in terms of revenue from electricity sales, and in terms of the operation and maintenance of REI4P projects.**

**4 As Baker has shown, part of the reason for the lack of clarity in ownership within REI4P is due to the nature of international finance capital within the global economy. Baker suggests that, if the REI4P follows international trends, it is likely to experience the on-selling of both debt and equity. This, she warns results in "more opaque financing structures and, by implication, lines of responsibility".[28] Baker's warning is yet more evidence that ownership structures need to be transparent. However, it should be pointed out that evidence to date suggests that the on-selling that has taken place of both debt and equity has been predominantly restricted to South African financing entities which are themselves already major pre-existing role-players in the REI4P programme.[29]**

In recent months, Minister Radebe has indicated that changes are being planned in how both black and community ownership works within REI4P. In April 2018 he stated that

*we believe that there is so much more we can do to optimise black ownership and ensure active participation in the energy sector … ownership without getting the necessary opportunity to develop skills and participate in the projects is of no value.*

As part of this process, the Minister has proposed the creation of an Energy Transformation Charter.[30]

These recent comments follow on from plans from as early as 2015 to revise the ownership aspects of REI4P. In a Department of Energy presentation from 2015, changes were being planned in relation to the definition of local communities; how mechanisms would be put in place to ensure early, efficient and equitable benefits to the communities; and how the "local content and industrialisation regime" needed to be reworked.[31]

In June 2018, it was announced that Bid Window 5 was to be launched with the intention of securing a further 1 800MW of renewable power through the REI4P.[32] It is hoped that the revisions to the REI4P programme take place before Bid Window 5 opens.

# 5
# Recommendations

## 5.1 REI4P ownership register

Information relating to ownership has improved significantly from Bid Round 3, which is clearly a positive development. However, as this research indicates, there is still a lack of adequate and complete information. The IPP Office should establish a freely available online database which provides comprehensive details for each and every REI4P project. As a minimum requirement, this database should include clear and transparent information relating to project ownership (debt and equity), project management, and project operation and maintenance. As ownership of both debt and equity in projects changes, such changes should be regularly updated in the database.

## 5.2 Community ownership

The passive role of community owners within many projects should be addressed as a matter of urgency. Research should be undertaken to identify REI4P projects where community members are actively involved in the running of projects and in the selection of developmental initiatives. Such examples should be used as the basis for all community ownership arrangements. In addition, the selection of community representatives should be carried out in a transparent manner, in order to mitigate the risk of elite capture of trustee positions.

## 5.3 BEE

Black ownership should move beyond passive investment interests. As Mthembi argues, there should be "ownership **PLUS** operational involvement" to meaningfully transform the renewable energy sector. [33] To this end, the specific operational roles of Black owners in IPPs, construction companies and full top management structures ... should be interrogated in the assessments of bids and monitored throughout the life of the power plant. [34]

## 5.4 NERSA

It is not clear why public hearing presentations for 25 successful project bids do not appear on the NERSA website. In the interests of transparency and accountability, NERSA should ensure that it publishes all presentations on its website.

## 5.5 Skills transfer

Implicit in both meaningful community development and the transformation of the energy sector is the transfer of skills from foreign to local individuals throughout the work and value chains. Skills transfer is a necessary precondition to more meaningful ownership roles and is an essential component of a just energy transition.

## 5.6 Policy certainty

It is self-evident that if the renewable energy sector is to flourish in South Africa, in terms of its wider transformation and the wholesale localisation of manufacturing, operation and maintenance, then policy certainty is a necessary precondition. The first step to realising this goal is the release of the long-overdue Integrated Resource Plan (IRP), the current draft of which is in the public domain for comment. The IRP must also be regularly updated as per the legislative rules governing the IRP process, i.e. every two years.

In terms of ownership, the IRP could set specific targets. For example, rather than simply stating how many MW of power are to be produced from each renewable source, it could indicate specific ownership requirements for each renewable energy source.

# 6
# Endnotes

1. *Independent Power Producers Procurement Programme (IPPPP): An Overview,* Department of Energy, National Treasury & Development Bank of Southern Africa, 31 March 2018, p. 1.
2. *Independent Power Producers Procurement Programme* (2018), p. 2.
3. *Independent Power Producers Procurement Programme* (2018), p. 16.
4. http://www.energy.org.za/map-south-african-generation-projects. Accessed 9 Aug. 2018.
5. See: *"A just transition to a low-carbon and climate resilient economy: COSATU policy on climate change - A Call to Action"*, Congress of South African Trade Unions, 2016; L. McDaid, *Where are the jobs?* Alternative Information and Development Centre, 2017; *Motivations for a socially-owned renewable energy sector*, National Union of Metalworkers of South Africa, October 2012; L. Steyn, SA green energy hit by doubt', *Mail & Guardian*, 15 September 2017, https://mg.co.za/article/2017-09-15-00-sa-green-energy-hit-by-doubt, accessed 30 July 2018; H. Wlokas, A. Boyd, M. Andolfi, Challenges for local community development in private sector-led renewables energy project in South Africa: An evolving approach, *Journal of Energy in Southern Africa,*23(4): 46–51. , November 2012; H. Wlokas, *A review of the local community development requirements in South Africa's Renewable Energy Procurement Programme*, World Wide Fund For Nature, 2015.
6. *Independent Power Producers Procurement Programme* (2018), p. 32.
7. *Independent Power Producers Procurement Programme* (2018), p. 11.
8. In this instance, "operations" refers to the ongoing maintenance of each project.
9. A. Eberhard & R. Naude, *The South African Renewable Energy IPP Procurement Programme: Review of lessons learned & proposals to reduce transaction costs*, Graduate School of Business, University of Cape Town, 2017, p. 115.
10. L. Baker, The evolving role of finance in South Africa's Renewable Energy Sector, *Geoforum*, 64: 146–156, 2015, p. 150.
11. C. Yelland & P. Potgieter, Analysis: SA's Department of Energy in a quandary as SunEdison files for bankruptcy protection, *Daily Maverick*, 25 April 2016, https://www.dailymaverick.co.za/article/2016-04-25-analysis-sas-department-of-energy-in-a-quandary-as-sunedison-files-for-bankruptcy-protection/, accessed 30 July 2018.
12. No CSP bids were accepted in Round 4.
13. *Independent Power Producers Procurement Programme (IPPPP): An Overview*, 2018, p. 32.
14. Speech by the Minister of Energy, Hon Jeff Radebe, MP at the Renewable Energy Independent Power Producer Programme (REIPPPP) Bid Windows 3.5 and 4 Contractual Close Signing Ceremony, 4 April 2018, http://www.energy.gov.za/files/media/speeches/2018/Speech-by-Minister-at-the-REIPPPP-Bid-Windows3.5-and4Contractual-Close-signing-ceremony-04042018.pdf, accessed 30 July 2018.
15. Baker (2015), p. 149.
16. Eberhard & Naude (2017), p. 117.
17. *Independent Power Producers Procurement Programme* (2018), pp. 16 & 33.
18. M. Arnoldi, Radebe lauds REIPPPP, Bepa's role in transforming the energy sector, *Engineering News*, 13 April 2018, http://www.engineeringnews.co.za/article/radebe-lauds-reipppp-bepas-role-in-transforming-the-energy-sector-2018-04-13/rep_id:4136, accessed 30 July 2018.
19. L. McDaid (2017); F. Mthembi, Lost in procurement: An assessment of the development impact of the Renewable Energy Procurement Programme' in L. Mytelka (et al), *Earth, wind and fire: Unpacking the political, economic and security implications of discourse on the green economy*, Green Economy Research Report for the Department of Environmental Affairs, January 2016.
20. Mthembi (2016), p. 95. She states, "most actors in the RE sector think it perfectly reasonable to remove the function of thought from community members", p. 101.
21. Eberhard & Naude (2017), p. 115.
22. The company's website states that it has interests in five REI4P projects. See, http://www.h1holdings.co.za/portfolio/, accessed 29 July 2018.
23. *Independent Power Producers Procurement Programme* (2018), p. 33.
24. Baker (2015), p. 153.
25. Mthembi (2016), p. 95.
26. Mthembi (2016), p. 95.
27. Mthembi (2016), p. 95. See also: S. Njobeni, It's missed empowerment opportunity in energy sector'", *IOL News*, 23 April 2018, https://www.iol.co.za/business-report/

energy/its-a-missed-empowerment-opportunity-in-energy-sector-14599127, accessed 31 July 2018.

28. Baker (2015), p. 154.
29. Personal email correspondence between Wikus Kruger, Graduate School of Business, University of Cape Town, and the author, 31 July 2018.
30. Radebe (2018).
31. Department of Energy Renewable Energy IPP Procurement Programme (REIPPPP) for South Africa, 2015, http://sastela.org/wp-content/uploads/2015/10/DoE-REIPPPP-for-South-Africa.pdf, accessed 31 July 2018.
32. E. Bellini, South Africa to launch new 1.8GW REIPPPP round this year, *PV Magazine*, 1 June 2018, https://www.pv-magazine.com/2018/06/01/south-africa-to-launch-new-1-8-gw-reippp-round-this-year/, accessed 31 July 2018.
33. Mthembi (2016), p. 91 (original emphasis).
34. Mthembi (2016), p. 97.

# Appendix 1

## REIPPPP Bid Round 4 – SOLAR PV

Aggeneys Solar Project[1]

| GENERAL | |
|---|---|
| Name | Aggeneys Solar Project |
| Location | Aggeneys, Northern Cape |
| Size MV | 40 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Main Street 957 (RF) Proprietary Limited and BioTherm Energy (www.biothermenergy.com) Johannesburg |
| Parent Company/Developer | BTSA Netherlands (the parent company to BioTherm Energy) |
| OWNERSHIP | % |
| Friedshelf 1294 – 100% owned by the Aggeneys Solar Facility Community Trust | 12.5 |
| BTSA Netherlands (the parent company to BioTherm Energy) | 60 |
| Ramizest (PTY) Ltd which is 100% owned by the Letsatsi Trust | 27.5 |
| FUNDING | % |
| BTSA Netherlands (the parent company to BioTherm Energy) | 60 |
| Ramizest (PTY) Ltd which is 100% owned by the Letsatsi Trust | 27.5 |
| Friedshelf 1294 – 100% owned by the Aggeneys Solar Facility Community Trust | 12.5 |
| BBBEE | % |
| Ramizest (PTY) Ltd which is 100% owned by the Letsatsi Trust | 27.5 |
| Friedshelf 1294 – 100% owned by the Aggeneys Solar Facility Community Trust | 12.5 |

Bokamoso[2]

| GENERAL | |
|---|---|
| Name | Bokamoso |
| Location | Leeudoringstad, North West |
| Size MV | 68 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | SunEdison Energy Southern Africa & SunEdison Green Power Southern Africa (both Cape Town based local subsidiaries of SunEdison USA) |
| Parent Company/Developer | SunEdison (USA)[3] |
| OWNERSHIP | % |
| SunEdison | 60 |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |
| FUNDING | % |
| Unnamed 'lender' | 70-80 |
| Equity from SunEdison & Siyakhula Women's Opportunity Trust & Local Community Trust | 20-30 |
| BBBEE | % |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |

De Wildt[4]

| GENERAL | |
|---|---|
| Name | De Wildt |
| Location | Brits, Northwest Province |
| Size MV | 50 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | SunEdison Energy Southern Africa & SunEdison Green Power Southern Africa (both Cape Town based local subsidiaries of SunEdison USA |
| Parent Company/Developer | SunEdison (USA) |
| OWNERSHIP | % |
| SunEdison | 60 |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |
| FUNDING | % |
| Unnamed 'lender' | 70-80 |
| Equity from SunEdison & Siyakhula Women's Opportunity Trust & Local Community Trust | 20-30 |
| BBBEE | % |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |

Droogfontein 2 Solar[5]

| GENERAL | |
|---|---|
| Name | Droogfontein 2 Solar |
| Location | Kimberley, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | R1.5 bn |
| COMPANY | |
| South African Company | SunEdison Energy Southern Africa & SunEdison Green Power Southern Africa (both Cape Town based local subsidiaries of SunEdison USA |
| Parent Company/Developer | SunEdison (USA) |
| OWNERSHIP | % |
| SunEdison | 60 |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |
| FUNDING | % |
| Unnamed 'lender' | 70-80 |
| Equity from SunEdison & Siyakhula Women's Opportunity Trust & Local Community Trust | 20-30 |
| BBBEE | % |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |

Dyason's Klip 1[6]

| GENERAL | |
|---|---|
| Name | Dyason's Klip 1 |
| Location | Uppington, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | Scatec Solar (Cape Town) |
| Parent Company/Developer | Scatec Solar (www.scatecsolar.com) Norway |
| OWNERSHIP | % |
| Scatec Solar | 42 |
| Trust HoldCo Scatec Solar SA 325 (Pty) Ltd (100% owned by Scatec Solar Upington Local Community Trust) | 40 |
| Norfund | 18 |
| FUNDING | % |
| Unnamed | |
| BBBEE | % |
| Trust HoldCo Scatec Solar SA 325 (Pty) Ltd (100% owned by Scatec Solar Upington Local Community Trust) | 40 |

Dyason's Klip 2[7]

| GENERAL | |
|---|---|
| Name | Dyason's Klip 1 |
| Location | Uppington, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | Scatec Solar (Cape Town) |
| Parent Company/Developer | Scatec Solar (www.scatecsolar.com) Norway |
| OWNERSHIP | % |
| Scatec Solar | 42 |
| Trust HoldCo Scatec Solar SA 325 (Pty) Ltd (100% owned by Scatec Solar Upington Local Community Trust) | 40 |
| Norfund | 18 |
| FUNDING | % |
| Unnamed | |
| BBBEE | % |
| Trust HoldCo Scatec Solar SA 325 (Pty) Ltd (100% owned by Scatec Solar Upington Local Community Trust) | 40 |

Greefspan PV Power Plant No. 2 Solar Park

| GENERAL | |
|---|---|
| Name | Greefspan PV Power Plant No. 2 Solar Park |
| Location | Douglas, Northern Cape |
| Size MV | 55 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | SunEdison Energy Southern Africa & SunEdison Green Power Southern Africa (both Cape Town based local subsidiaries of SunEdison USA) |
| Parent Company/Developer | SunEdison (USA) |
| OWNERSHIP | % |
| SunEdison | 60 |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |
| FUNDING | % |
| Unnamed 'lender' | 70-80 |
| Equity from SunEdison & Siyakhula Women's Opportunity Trust & Local Community Trust | 20-30 |
| BBBEE | % |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |

Konkoonsies II Solar Facility

| GENERAL | |
|---|---|
| Name | Konkoonsies II Solar Facility |
| Location | Pofadder, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | Ramizone (RF) Proprietary Limited |
| Parent Company/Developer | BioTherm Energy (www.biothermen-ergy.com)<br><br>Johannesburg |
| OWNERSHIP | % |
| Main Street 958 (Pty) Ltd– 100% owned by the Konkooncies II Solar Facility Community Trust | 12.5 |
| BTSA Netherlands (the parent company to BioTherm Energy) | 60 |
| Ramizest (PTY) Ltd which is 100% owned by the Letsatsi Trust | 27.5 |
| FUNDING | % |
| BTSA Netherlands (the parent company to BioTherm Energy) | 60 |
| Ramizest (PTY) Ltd which is 100% owned by the Letsatsi Trust | 27.5 |
| Main Street 958 (Pty) Ltd– 100% owned by the Konkooncies II Solar Facility Community Trust | 12.5 |
| BBBEE | % |
| Ramizest (PTY) Ltd which is 100% owned by the Letsatsi Trust | 27.5 |
| Main Street 958 (Pty) Ltd– 100% owned by the Konkooncies II Solar Facility Community Trust | 12.5 |

Sirius Solar PV Project One[8]

| GENERAL | |
|---|---|
| Name | Sirius Solar PV Project One |
| Location | Uppington, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | Scatec Solar (Cape Town) |
| Parent Company/Developer | Scatec Solar (www.scatecsolar.com) Norway |
| OWNERSHIP | % |
| Scatec Solar | 42 |
| Trust HoldCo Scatec Solar SA 325 (Pty) Ltd (100% owned by Scatec Solar Upington Local Community Trust) | 40 |
| Norfund | 18 |
| FUNDING | % |
| Unnamed | |
| BBBEE | % |
| Trust HoldCo Scatec Solar SA 325 (Pty) Ltd (100% owned by Scatec Solar Upington Local Community Trust) | 40 |

Solar Capital Orange[9]

| GENERAL | |
|---|---|
| Name | Solar Capital Orange |
| Location | Loeriesfontein, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | Solar Capital Orange (Pty) Ltd, Cape Town |
| Parent Company/Developer | JA Solar Investment Ltd (China) and Phelan Group (Ireland) |
| OWNERSHIP | % |
| Solar Capital Orange Pty Ltd | 30 |
| JA Solar Investment Ltd | 30 |
| Solar Capital Orange Community Trust | 12.5 |
| Phakwe Power (Pty) Ltd | 27.5 |
| FUNDING | % |
| Equity Funding from (30% Solar Capital Orange Pty Ltd, 27.5% Phakwe Power (Pty) Ltd, 30% JA Solar Investment Ltd, 12.5% Solar Capital Orange Community Trust ) | |
| Debt funding from (70 % Deutsche Bank, 30% DBSA) | |
| BBBEE | % |
| Phakwe Power (Pty) Ltd | 27.5 |
| Solar Capital Orange Community Trust | 12.5 |

Waterloo Solar Park

| GENERAL | |
|---|---|
| Name | Waterloo Solar Part |
| Location | Vryburg, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | SunEdison Energy Southern Africa & SunEdison Green Power Southern Africa (both Cape Town based local subsidiaries of SunEdison USA) |
| Parent Company/Developer | SunEdison (USA) |
| OWNERSHIP | % |
| | |
| | |
| | |
| FUNDING | % |
| | |
| | |

Zeerust[10]

| GENERAL | |
|---|---|
| Name | Zeerust |
| Location | Vryburg, North West |
| Size MV | 75 |
| SIZE VALUE | ?? |
| COMPANY | |
| South African Company | SunEdison Energy Southern Africa & SunEdison Green Power Southern Africa (both Cape Town based local subsidiaries of SunEdison USA) |
| Parent Company/Developer | SunEdison (USA) |
| OWNERSHIP | % |
| SunEdison | 60 |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |
| FUNDING | % |
| Unnamed 'lender' | 70-80 |
| Equity from SunEdison & Siyakhula Women's Opportunity Trust & Local Community Trust | 20-30 |
| BBBEE | % |
| Siyakhula Women's Opportunity Trust | 35 |
| Local Community Trust | 5 |

# REIPPPP Bid Round 3 – SOLAR PV

Adams Solar PV 2[11]

| GENERAL | |
|---|---|
| Name | Adams Solar PV 2 |
| Location | Hotazel, Northern Cape |
| Size MV | 82.5 |
| SIZE VALUE | $110 m (2015) |
| COMPANY | |
| South African Company | Adams Solar PV Project Two (Pty) Ltd, Johannesburg and Enel Green Power South Africa EGPSA (Johannesburg) |
| Parent Company/Developer | Enel Green Power S.p.A. (Italy) |
| OWNERSHIP | % |
| EGPSA which is 100% owned by Enel Green Power S.p.A. (Italy) | 60 |
| Royal Bafokeng Nation Development Trust via Lisinfo245 Investments | 30 |
| Hotazel Community Trust | 10 |
| FUNDING | % |
| NEDBANK | |
| BBBEE | % |
| Royal Bafokeng Nation Development Trust via Lisinfo245 Investments | 30 |
| Hotazel Community Trust | 10 |

Electra Capital - Paleisheuwel Solar Park[12]

| GENERAL | |
|---|---|
| Name | Electra Capital - Paleisheuwel Solar Park |
| Location | Clanwilliam, Western Cape |
| Size MV | 75 |
| SIZE VALUE | $110 (2015) |
| COMPANY | |
| South African Company | Electra Capital (Pty) Ltd Cape Town and Enel Green Power South Africa EGPSA (Johannesburg) |
| Parent Company/Developer | Enel Green Power S.p.A. (Italy) |
| OWNERSHIP | % |
| EGPSA which is 100% owned by Enel Green Power S.p.A. (Italy) | 60 |
| Royal Bafokeng Nation Development Trust via Lisinfo245 Investments | 30 |
| Paleisheuwel Community Trust | 10 |
| FUNDING | % |
| NEDBANK | |
| BBBEE | % |
| Royal Bafokeng Nation Development Trust via Lisinfo245 Investments | 30 |
| Paleisheuwel Community Trust | 10 |

Mulilo Prieska PV[13]

| GENERAL | |
|---|---|
| Name | Mulilo Prieska PV |
| Location | Prieska, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | $70 m (2014) |
| COMPANY | |
| South African Company | Mulilo Solar Enterprises (Cape Town) - www.mulilo.com |
| Parent Company/Developer | Total Energie Developpement (France) |
| OWNERSHIP | % |
| Total Energie Developpement | 27 |
| Andisol (Pty) Ltd (via various other companies) (Equity from IDC) | 25 |
| Mulilo Solar Enterprises | 18 |
| Industrial Development Corporation (IDC) | 15 |
| Futuregrowth (Old Mutual) | 10 |
| Mulilo Prieska Solar Community Trust (Equity from IDC) | 5 |
| FUNDING | % |
| IDC | |
| NEDBANK | |
| ABSA | |
| BBBEE | % |
| Mulilo Prieska Solar Community Trust (Equity from IDC) | 5 |
| Andisol (Pty) Ltd (via various other companies) (Equity from IDC) | 25 |

Mulilo Sonnedix Prieska PV[14]

| GENERAL | |
|---|---|
| Name | Mulilo Sonnedix Prieska PV |
| Location | Prieska, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | $133 m (2015) |
| COMPANY | |
| South African Company | Mulilo Solar Enterprises (Cape Town) - www.mulilo.com |
| Parent Company/Developer | Sonnedix Solar Solutions (USA) |
| OWNERSHIP | % |
| Sonnedix Solar South Africa Holdings (Pty) Ltd (100% owned by Sonnedix Solar Solutions) | 60 |
| Mulilo Sonnedix Solar Enterprises (Pty) Ltd | 20 |
| Ixowave (Pty) Ltd (equity from Sonnedix Solar LP) | 15 |
| Mulilo Prieska Solar Community Trust | 5 |
| FUNDING | % |
| NEDBANK | |
| BBBEE | % |
| Mulilo Prieska Solar Community Trust | 5 |
| Ixowave (Pty) Ltd (equity from Sonnedix Solar LP) | 15 |

Pulida Solar Park[15]

| GENERAL | |
|---|---|
| Name | Pulida Solar Park |
| Location | Kimberley, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | $266 m (2015) |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | Enel Green Power S.p.A. (Italy) |
| OWNERSHIP | % |
| Phembani [16] | 20 |
| FUNDING | % |
| | |
| BBBEE | % |
| Phembani | 20 |

Tom Burke Solar Park[17]

| GENERAL | |
|---|---|
| Name | Tom Burke Solar Park |
| Location | Lephalale, Limpopo |
| Size MV | 60 |
| SIZE VALUE | $88 m (2015) |
| COMPANY | |
| South African Company | Tobivox (Pty) Ltd, Johannesburg |
| Parent Company/Developer | Enel Green Power S.p.A. (Italy) |
| OWNERSHIP | % |
| | |
| FUNDING | % |
| NEDBANK | 20 |
| ABSA | 20[18] |
| BBBEE | % |
| | |

# REIPPPP Bid Round 2 – SOLAR PV

Aurora Solar Project[19]

| GENERAL | |
|---|---|
| Name | Aurora Solar Project |
| Location | Aurora, Western Cape |
| Size MV | 10.35 |
| SIZE VALUE | R212m |
| COMPANY | |
| South African Company | Aurora-Rietvlei Solar Power (Pty) Ltd, Northern Cape |
| Parent Company/Developer | Solairedirect South Africa (SDSA) which is 100% owned by Solairedirect (France) |
| OWNERSHIP | % |
| Solairedirect South Africa | 57.5 |
| Jay & Jayendra (Pty) Ltd | 40 |
| Aurora Solar Community Trust | 2.5 |
| FUNDING | % |
| Equity (57.5% from SDSA, 40% from J&J, 2.5% from Aurora Solar Community Trust – free carry) | 31 |
| Debt | 69 |
| BBBEE | % |
| Jay & Jayendra (Pty) Ltd | 40 |
| Aurora Solar Community Trust | 2.5 |

Boshoff Solar Park[20]

| GENERAL | |
|---|---|
| Name | Boshoff Solar Park |
| Location | Boshoff, Free State |
| Size MV | 60 |
| SIZE VALUE | R2.4 bn |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | SunEdison (USA) |
| OWNERSHIP | % |
| SunEdison (USA) | 51 |
| Nehawu Investment Holdings | 20 |
| Public Investment Corporation (PIC) | 19 |
| Community Trust (administered by Kurisani the investment arm of LoveLife) | 10 |
| FUNDING | % |
| Overseas Private Investment Corporation (USA) facilitated by ABSA | 75 |
| Equity from participants | 25 |
| BBBEE | % |
| Community Trust (administered by Kurisani the investment arm of LoveLife) | 10 |
| Nehawu Investment Holdings | 20 |

Dreunberg[21]

| GENERAL | |
|---|---|
| Name | Dreunberg |
| Location | Dreunberg, Eastern Cape |
| Size MV | 75 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Scatec Solar (Cape Town) |
| Parent Company/Developer | Scatec Solar (www.scatecsolar.com) Norway |

| OWNERSHIP | % |
|---|---|
| Scatec Solar ASA (Norway) | |
| Norfund (Norway) | |
| KLP (Norway) | |
| Standard Bank South Africa Ltd | |
| Simacel (S.A)[22] | |
| FUNDING | % |
| | |
| BBBEE | % |
| | |
| | |

Jasper Power Company[23]

| GENERAL | |
|---|---|
| Name | Jasper Power Company |
| Location | Postmasburg, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | $332 (2013) |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | SolarReserve (USA) |

| OWNERSHIP | % |
|---|---|
| | |
| | |
| | |
| FUNDING | % |
| Google | |
| Rand Merchant Bank | |
| SolarReserve (USA) | |
| Kensani Capital Investments | |
| Intikon Energy (Australia) | |
| Public Investment Corporation | |
| Development Bank of South Africa | |
| PEACE Humansrus  Community Trust | |
| BBBEE | % |
| Kensani Capital Investments | |
| PEACE Humansrus  Community Trust | |

Linde[24]

| GENERAL | |
|---|---|
| Name | Linde |
| Location | Hanover, Northern Cape |
| Size MV | 36.8 |
| SIZE VALUE | $386 m (2013) |
| COMPANY | |
| South African Company | Scatec Solar (Cape Town) & Linde Solar Project Company |
| Parent Company/Developer | Scatec Solar (www.scatecsolar.com) Norway |
| OWNERSHIP | % |
| Scatec Solar ASA (Norway) | |
| Norfund (Norway) | |
| KLP (Norway) | |
| Old Mutual Life Assurance Company SA Ltd (RSA) | |
| Standard Bank South Africa Ltd (RSA)[25] | |
| FUNDING | % |
| | |
| BBBEE | % |
| | |

Sishen Solar Facility[26]

| GENERAL | |
|---|---|
| Name | Sishen Solar Facility |
| Location | Sishen, Northern Cape |
| Size MV | 74 |
| SIZE VALUE | $240 m (2013) |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | ACCIONA (Spain) |
| OWNERSHIP | % |
| ACCIONA Energy | 54.9 |
| Royal Bafokeng Holdings | 25.1 |
| Soul City | 10 |
| Dibeng Community Solar Energy Trust[27] | 10 |
| FUNDING | % |
| | |
| | |
| BBBEE | % |
| Royal Bafokeng Holdings | 25.1 |
| Dibeng Community Solar Energy Trust[28] | 10 |
| Soul City | 10 |

Upington Solar PV[29]

| GENERAL | |
|---|---|
| Name | Upington Solar PV |
| Location | Upington, Northern Cape |
| Size MV | 8.9 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | Enel Green Power S.p.A. (Italy) |
| OWNERSHIP | % |
| | |
| FUNDING | % |
| | |
| BBBEE | % |
| | |

Vredendal Solar Power Park[30]

| GENERAL | |
|---|---|
| Name | Vredendal Solar Power Park |
| Location | Vredendal, Western Cape |
| Size MV | 8.8 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Vredendal Solar Power Park (Pty) Ltd. |
| Parent Company/Developer | Solairedirect South Africa (SDSA) which is 100% owned by Solairedirect (France) |
| OWNERSHIP | % |
| Solairedirect South Africa | 57.5 |
| Jay & Jayendra (Pty) Ltd | 40 |
| Vredendal Solar Community Trust | 2.5 |
| FUNDING | % |
| Equity | 31 |
| Rand Merchant Bank | 69 |
| BBBEE | % |
| Jay & Jayendra (Pty) Ltd | 40 |
| Vredendal Solar Community Trust | 2.5 |

# REIPPPP Bid Round 1 – SOLAR PV

Aries Solar[31]

| GENERAL | |
|---|---|
| Name | Aries Solar |
| Location | Kenhardt, Northern Cape |
| Size MV | 9.7 |
| SIZE VALUE | $34 (2012) |
| COMPANY | |
| South African Company | BTSA Netherlands (the parent company to BioTherm Energy) |
| Parent Company/Developer | BioTherm Energy |
| OWNERSHIP | % |
| BioTherm Energy | |
| Ikamva Labantu Empowerment Trust | |
| Malibongwe Womens Development Trust | |
| Winners Circle | |
| Aurora Power Solutions | |
| Aries Solar Facility Community Trust | 5 |
| FUNDING | % |
| NEDBANK | |
| Industrial Development Corporation | |
| BBBEE | % |
| Aries Solar Facility Community Trust | 5 |
| Ikamva Labantu Empowerment Trust | |
| Malibongwe Womens Development Trust | |
| Winners Circle | |

De Aar Solar Power[32]

| GENERAL | |
|---|---|
| Name | De Aar Solar Power |
| Location | De Aar, Northern Cape |
| Size MV | 50 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | De Aar Solar Power |
| Parent Company/Developer | Globeleq (70% owned by UK govt CDC development finance institution and 30% owned by Norfund) |
| OWNERSHIP | % |
| The Sibona Ilanga Community Trust | 8 |
| FUNDING | % |
| Globeleq | |
| Thebe Investment Corporation | |
| The Sibona Ilanga Community Trust | 8 |
| Enzani Technologies | |
| Usizo Engineering | |
| BBBEE | % |
| Thebe Investment Corporation | |
| The Sibona Ilanga Community Trust | 8 |
| Enzani Technologies | |
| Usizo Engineering | |

Droogfontein Solar Power[33]

| GENERAL | |
|---|---|
| Name | Droogfontein Solar Power |
| Location | Kimberley, Northern Cape |
| Size MV | 50 |
| SIZE VALUE | $150 m (2012) |
| COMPANY | |
| South African Company | Droogfontein Solar Power |
| Parent Company/Developer | Globeleq (70% owned by UK govt CDC development finance institution and 30% owned by Norfund) |
| OWNERSHIP | % |
| The Letsatsi Borutho Community Trust (with DBSA loan) | 4 |
| FUNDING | % |
| Globeleq | |
| Thebe Investment Corporation | |
| Droogfontein Communal Property Association | |
| The Letsatsi Borutho Community Trust (with DBSA loan) | 4 |
| Enzani Technologies | |
| Usizo Engineering | |
| BBBEE | % |
| The Letsatsi Borutho Community Trust (with DBSA loan) | 4 |
| Thebe Investment Corporation | |
| Droogfontein Communal Property Association | |
| The Letsatsi Borutho Community Trust (with DBSA loan) | |
| Enzani Technologies | |
| Usizo Engineering | |

Greefspan PV Power Plant[34]

| GENERAL | |
|---|---|
| Name | Greefspan PV Power Plant |
| Location | Douglas, Northern Cape |
| Size MV | 10 |
| SIZE VALUE | $48 m (2012) |
| COMPANY | |
| South African Company | AE – AMD Renewable Energy (Pty) Ltd (Cape Town) |
| Parent Company/Developer | AMDA Energia (Spain) |
| OWNERSHIP | % |
| Greefspan Educational Trust | 5 |
| FUNDING | % |
| Old Mutual | |
| Standard Bank | |
| DBSA | |
| AE – AMD Renewable Energy (Pty) Ltd (Cape Town) | |
| BBBEE | % |
| Greefspan Educational Trust | 5 |
| | |

Herbert PV Power Plant[35]

| GENERAL | |
|---|---|
| Name | Herbert PV Power Plant |
| Location | Douglas, Northern Cape |
| Size MV | 19.9 |
| SIZE VALUE | $98 M (2012) |
| COMPANY | |
| South African Company | AE – AMD Renewable Energy (Pty) Ltd (Cape Town) |
| Parent Company/Developer | AMDA Energia (Spain) |
| OWNERSHIP | % |
| Herbert Educational Trust | 5 |
| FUNDING | % |
| Old Mutual | |
| Standard Bank | |
| DBSA | |
| AE – AMD Renewable Energy (Pty) Ltd (Cape Town) | |
| BBBEE | % |
| Herbert Educational Trust | 5 |

Kalkbult[36]

| GENERAL | |
|---|---|
| Name | Kalkbult |
| Location | De Aar, Northern Cape |
| Size MV | 72.5 |
| SIZE VALUE | $259 m (2012) |
| COMPANY | |
| South African Company | Kalkbult Project Company (pty) LTD |
| Parent Company/Developer | Scatec Solar AS (Norway) |
| OWNERSHIP | % |
| Scatec Solar AS (Norway) | 60 |
| Standard Bank | 10 |
| Old Mutual | 10 |
| Black Women Community Trust | 10 |
| Kalkbult Local Community Trust | 10 |
| FUNDING | % |
| | |
| BBBEE | % |
| Kalkbult Local Community Trust | 10 |
| Black Women Community Trust | 10 |

Kathu Solar Energy Facility[37]

| GENERAL | |
|---|---|
| Name | Kathu Solar Energy Facility |
| Location | Kathu, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | $396 m (2012) |
| COMPANY | |
| South African Company | Building Energy (Cape Town) & REISA (Renewable Energy Investments South Africa) |
| Parent Company/Developer | Building Energy (Italy) |
| OWNERSHIP | % |
| REISA (Renewable Energy Investments South Africa) | |
| Ventusa Energy (South Africa) | |
| FUNDING | % |
| | |
| BBBEE | % |
| | |

Konkoonsies Solar[38]

| GENERAL | |
|---|---|
| Name | Konkoonsies Solar |
| Location | Pofadder, Northern Cape |
| Size MV | 9.7 |
| SIZE VALUE | $34 m (2012) |
| COMPANY | |
| South African Company | BioTherm Energy |
| Parent Company/Developer | BTSA Netherlands (the parent company to BioTherm Energy) |
| OWNERSHIP | % |
| Konkoonsies Solar Facility Community Trust | 5 |
| FUNDING | % |
| BTSA Netherlands | |
| Ikamva Labantu Empowerment Trust | |
| Malibongwe Womens Development Trust | |
| Konkoonsies Solar Facility Community Trust | |
| Winners Circle | |
| Aurora Power Solutions | |
| NEDBANK | |
| IDC | |
| BBBEE | % |
| Konkoonsies Solar Facility Community Trust | 5 |
| Winners Circle | |
| Ikamva Labantu Empowerment Trust | |
| Malibongwe Womens Development Trust | |

Lesedi Power Company[39]

| GENERAL | |
|---|---|
| Name | Lesedi Power Company |
| Location | Postmasburg, Nothern Cape |
| Size MV | 64 |
| SIZE VALUE | $294 (2012) |
| COMPANY | |
| South African Company | Lesedi Power Company |
| Parent Company/Developer | SolarReserve (USA) & Intikon Energy (Australia) |

| OWNERSHIP | % |
|---|---|
| | |
| FUNDING | % |
| Kensani Capital Investments | |
| Rand Merchant Bank | |
| Old Mutual | |
| BBBEE | % |
| Kensani Capital Investments | |

Letsatsi Power Company[40]

| GENERAL | |
|---|---|
| Name | Letsatsi Power Company |
| Location | Bloemfontein, Free State |
| Size MV | 64 |
| SIZE VALUE | $280 (2012) |
| COMPANY | |
| South African Company | Letsatsi Power Company |
| Parent Company/Developer | SolarReserve (USA) & Intikon Energy (Australia) |

| OWNERSHIP | % |
|---|---|
| Intikon Energy (Australia) | |
| Old Mutual | |
| Kensani Capital Investments | |
| SolarReserve (USA) | |
| GCL Solar Energy[41] | |
| FUNDING | % |
| Rand Merchant Bank | |
| Old Mutual | |
| DBSA[42] | |
| BBBEE | % |
| Kensani Capital Investments | |

Mulilo Renewable Energy Solar PV De Aar[43]

| GENERAL | |
|---|---|
| Name | Mulilo Renewable Energy Solar PV De Aar |
| Location | De Aar, Northern Cape |
| Size MV | 10 |
| SIZE VALUE | $35 m (2012) |
| COMPANY | |
| South African Company | Mulilo Renewable Energy Solar PV De Aar (Pty) Ltd & Mulilo Renewable Energy (Pty) Ltd |
| Parent Company/Developer | Gestamp Asetym Solar SL (Spain) |
| OWNERSHIP | % |
| Gestamp Asetym Solar SL (Spain) | 60 |
| Mulilo Renewable Energy (Pty) Ltd | 20 |
| Mulilo De Aar Solar Community Trust (Funded by IDC) | 20 |
| FUNDING | % |
| NEDBANK | |
| IDC | |
| BBBEE | % |
| Mulilo De Aar Solar Community Trust (Funded by IDC) | 20 |

Mulilo Renewable Energy Solar PV Prieska[44]

| GENERAL | | |
|---|---|---|
| Name | Mulilo Renewable Energy Solar PV Prieska | |
| Location | Prieska, Northern Cape | |
| Size MV | 20 | |
| SIZE VALUE | | |
| COMPANY | | |
| South African Company | Mulilo Renewable Energy (Pty) Ltd | |
| Parent Company/Developer | Gestamp Asetym Solar SL (Spain) | |
| OWNERSHIP | | % |
| | | |
| FUNDING | | % |
| | | |
| BBBEE | | % |
| | | |

RustMo1 Solar Farm[45]

| GENERAL | |
|---|---|
| Name | RustMo1 Solar Farm |
| Location | Rustenburg, North West |
| Size MV | 6.8 |
| SIZE VALUE | $25 m (2012) |
| COMPANY | |
| South African Company | RustMo1 Solar Farm (Pty) Ltd<br><br>Momentous Energy (Johannesburg) |
| Parent Company/Developer | |
| OWNERSHIP | % |
| Momentous Foundation Community Trust | 17 |
| FUNDING | % |
| Equity from Norfund (Norway), Momentous Technologies, Momentous Solar Farm and Momentous Foundation Community Trust | |
| Debt from NEDBNK and the IDC | |
| BBBEE | % |
| Momentous Foundation Community Trust | 17 |
| | |

SlimSun Swartland Solar Park[46]

| GENERAL | |
|---|---|
| Name | SlimSun Swartland Solar Park |
| Location | Swartland, Western Cape |
| Size MV | 5 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Slimsun (Pty) Ltd & Franco Afrique Technologies |
| Parent Company/Developer | |
| OWNERSHIP | % |
| Franco Afrique Technologies | 40 |
| Evolution One Fund | 40 |
| Swartland Solar Community Trust | 20 |
| FUNDING | % |
| Debt from NEDBANK and the IDC | |
| BBBEE | % |
| Swartland Solar Community Trust | 20 |

Solar Capital De Aar (Pty) Ltd[47]

| GENERAL | |
|---|---|
| Name | Solar Capital De Aar |
| Location | De Aar, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | R2.2 bn |
| COMPANY | |
| South African Company | Solar Capital (Cape Town) |
| Parent Company/Developer | Phelan Energy Group Ltd (Ireland) |
| OWNERSHIP | % |
| | |
| FUNDING | % |
| | |
| BBBEE | % |
| | |

Solar Capital De Aar 3[48]

| GENERAL | |
|---|---|
| Name | Solar Capital De Aar 3 |
| Location | De Aar, Northern Cape |
| Size MV | 75 |
| SIZE VALUE | R2.6 bn |
| COMPANY | |
| South African Company | Solar Capital (Cape Town) |
| Parent Company/Developer | Phelan Energy Group Ltd (Ireland) |
| OWNERSHIP | % |
| | |
| FUNDING | % |
| | |
| BBBEE | % |
| | |

Soutpan Solar Park[49]

| GENERAL | |
|---|---|
| Name | Soutpan Solar Park |
| Location | Mokopane, Limpopo |
| Size MV | 28 |
| SIZE VALUE | $184 m (2012) |
| COMPANY | |
| South African Company | Erika Energy (Pty) Ltd |
| Parent Company/Developer | |
| OWNERSHIP | % |
| Kurisani Soutpan Trust | 10 |
| Izingwe International Fund (Pty) Ltd, Sub. of Izingwe Capital | |
| CHINT Solar (China) | |
| SunEdison | |
| FUNDING | % |
| PIC | |
| BBBEE | % |
| Kurisani Soutpan Trust | 10 |
| Izingwe International Fund (Pty) Ltd, Sub. of Izingwe Capital | |

Touwsrivier Project[50]

| GENERAL | |
|---|---|
| Name | Touwsrivier Project |
| Location | Touwsrivier, Western Cape |
| Size MV | 36 |
| SIZE VALUE | $150 m (2012) |
| COMPANY | |
| South African Company | Soitec (Cape Town) & CPV Power Plant No. 1 (Pty) Ltd |
| Parent Company/Developer | Soitec (France) |
| OWNERSHIP | % |
| Soitec Solar | 60 |
| Pele Green Energy (Pty) Ltd | 35 |
| Touwsrivier Solar Community Trust | 5 |
| FUNDING | % |
| Debt (Investec) | 70 |
| Equity | 30 |
| | |
| BBBEE | % |
| Pele Green Energy (Pty) Ltd | 35 |
| Touwsrivier Solar Community Trust | 5 |

Witkop Solar Park[51]

| GENERAL | |
|---|---|
| Name | Witkop Solar Park |
| Location | Polokwane, Limpopo |
| Size MV | 30 |
| SIZE VALUE | R1.56 bn |
| COMPANY | |
| South African Company | Core Energy (Pty) Ltd |
| Parent Company/Developer | |

| OWNERSHIP | % |
|---|---|
| CHINT Solar (China) | |
| SunEdison | |
| Symphony Trade & Invest 39 (Pty) Ltd, Sub of Videovision Investments | |
| Kurisani Witkop Trust | |

| FUNDING | % |
|---|---|
| PIC | |

| BBBEE | % |
|---|---|
| Symphony Trade & Invest 39 (Pty) Ltd, Sub of Videovision Investments | |
| Kurisani Witkop Trust | |

# Appendix 1 Endnotes

[1] http://www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/Mainstreet%20957%20%20(RF)%20Proprietary%20Limited.pdf Accessed 19 July 2018.

[2] http://www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/SunEdison-%20Zeerust%20,%20Bokamoso%20and%20De%20Wildt%20%20Solar%20Park.pdf. Accessed 19 July 2018.

[3] Note that SunEdison recently filed for bankruptcy in the United States.

[4] http://www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/SunEdison-%20Zeerust%20,%20Bokamoso%20and%20De%20Wildt%20%20Solar%20Park.pdf Accessed 19 July 2018.

[5] http://www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/SunEdison-%20Droogfontein.pdf and http://www.ee.co.za/wp-content/uploads/2014/06/energize-june-pgs-8-9.pdf. Accessed 19 July 2018.

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# Appendix 2

## REIPPPP Bid Round 3.5 – CSP[1]

Kathu Solar Park[2]

| GENERAL | |
|---|---|
| Name | Kathu Solar Park (www.kathusolarpark.co.za) |
| Location | Kuruman, Northern Cape |
| Size MV | 100 |
| SIZE VALUE | R9 bn |
| COMPANY | |
| South African Company | Kathu Solar Power Park (Pty) Ltd |
| Parent Company/Developer | Engie (France) |
| OWNERSHIP | % |
| Engie (France) | 48.5 |
| SIOC Community Development Trust | |
| DBSA | |
| PIC | |
| Investec | |
| Lereko Metier | |
| Kathu Trust[3] | |
| FUNDING | % |
| Debt (Rand Merchant Bank, NEDBANK, ABSA, Investec and DBSA) | 70 |
| Equity | 30 |
| BBBEE | % |
| SIOC Community Development Trust | |
| Kathu Trust | |

Redstone CSP[4]

| GENERAL | |
|---|---|
| Name | Redstone CSP |
| Location | Postmasburg, Northern Cape |
| Size MV | 100 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | SolarReserve, USA & Acwa Power (Saudi Arabia) |
| OWNERSHIP | % |
| Community Trust | 2.5 |
| Pele Green Energy | 10 |
| Unknown BBBEE partner | 16 |
| FUNDING | % |
| | |
| BBBEE | % |
| Unknown BBBEE partner | 16 |
| Pele Green Energy | 10 |

# REIPPPP Bid Round 3 - CSP

Ilanga CSP 1 (Karoshoek Consortium)[5]

| GENERAL | |
|---|---|
| Name | Ilanga CSP 1 (Karoshoek Consortium) |
| Location | Kimberley, Northern Cape |
| Size MV | 100 |
| SIZE VALUE | $688.4 m (2012) |
| COMPANY | |
| South African Company | Karoshoek Solar One (Pty.) Ltd. & Ilangalethu Solar Power & Emvelo |
| Parent Company/Developer | ACS Cobra Energia (Spain) |
| OWNERSHIP | % |
| IDC | 20 |
| ACS Cobra Energia (Spain) | 20 |
| PIC | 20 |
| Emvelo | 15 |
| The Karoshoek Community Trust | 15 |
| Investec | 10 |
| FUNDING | % |
| Equity from IDC, ACS Cobra Energia (Spain), PIC, Emvelo, Investec & The Karoshoek Community Trust | |
| Loans from NEDBANK, ABSA, Investec, DBSA, IDC and Standard Bank | |
| BBBEE | % |
| Emvelo | 15 |
| The Karoshoek Community Trust | 15 |

Xina CSP South Africa[6]

| GENERAL | |
|---|---|
| Name | Xina CSP South Africa |
| Location | Pofadder, Northern Cape |
| Size MV | 100 |
| SIZE VALUE | R9.4 bn |
| COMPANY | |
| South African Company | XINA SOLAR ONE RF (PTY) LTD |
| Parent Company/Developer | Abengoa (Spain) |
| OWNERSHIP | % |
| Abengoa (Spain) | 40 |
| IDC | 20 |
| PIC | 20 |
| KaXu Community Trust | 20 |
| FUNDING | % |
| | |
| BBBEE | % |
| KaXu Community Trust | 20 |

## REIPPPP Bid Round 2 – CSP

Bokpoort CSP Project[7]

| GENERAL | |
|---|---|
| Name | Bokpoort CSP Project |
| Location | Groblershoop, Northern Cape |
| Size MV | 50 |
| SIZE VALUE | R5 bn |
| COMPANY | |
| South African Company | ACWA Power Solafrica Bokpoort CSP Power Plant (Pty) Ltd |
| Parent Company/Developer | Acwa Power (Saudi Arabia) |
| OWNERSHIP | % |
| Acwa Power (Saudi Arabia) | 40 |
| PIC | 25 |
| Lereko Metier | 25 |
| Kurisani Solafrica Investments | 5 |
| Solafrica Community Investment Company | 5 |
| FUNDING | % |
| Investec | |
| ABSA | |
| Old Mutual | |
| BBBEE | % |
| Lereko Metier | 25 |
| Kurisani Solafrica Investments | 5 |
| Solafrica Community Investment Company | 5 |

# REIPPPP Bid Round 1 – CSP

KaXu Solar One[8]

| GENERAL | |
|---|---|
| Name | KaXu Solar One |
| Location | Pofadder, Northern Cape |
| Size MV | 100 |
| SIZE VALUE | $844 m (2012) |
| COMPANY | |
| South African Company | KaXu Solar One (Pty) Ltd |
| Parent Company/Developer | Abengoa (Spain) |

| OWNERSHIP | % |
|---|---|
| Abengoa (Spain) | 51 |
| IDC | 29 |
| KaXu Community Trust | 20 |

| FUNDING | % |
|---|---|
| Abengoa (Spain) | |
| International Finance Corporation (World Bank Group) | |
| DBSA | |
| First Rand | |
| Investor Direct Capital | |
| NEDBANK | |
| European Investment Bank | |

| BBBEE | % |
|---|---|
| KaXu Community Trust | 20 |

Khi Solar One[9]

| GENERAL | |
|---|---|
| Name | Khi Solar One |
| Location | Upington, Northern Cape |
| Size MV | 50 |
| SIZE VALUE | $424 m (2012) |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | |

| OWNERSHIP | % |
|---|---|
| Abengoa (Spain) | 51 |
| IDC | 29 |
| Khi Community Trust | 20 |

| FUNDING | % |
|---|---|
| African Development Bank | |
| DBSA | |
| International Finance Corporation (World Bank Group) | |
| IDC | |
| ABSA | |
| NEDBANK | |
| First Rand | |

| BBBEE | % |
|---|---|
| Khi Community Trust | 20 |

Note World Bank dataset from Private Participation in Infrastructure Database, search terms used: 2011 – 2017; energy; electricity; total investment; South Africa. See, https://ppi.worldbank.org/customquery.

# Appendix 2 Endnotes

1 Please note that there were no CSP bids for Round 4.

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# Appendix 3

## REIPPPP Bid Round 4 – Wind

Copperton Windfarm[1]

| GENERAL | |
|---|---|
| Name | Copperton Windfarm |
| Location | Copperton, Northern Cape |
| Size MV | 102 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | Elawan Energy / Gestamp Renewables (subsidiary of ACEK Renewables – Spain) |
| OWNERSHIP | % |
| | |
| FUNDING | % |
| | |
| BBBEE | % |
| | |

Excelsior Wind Energy Facility[2]

| GENERAL | |
|---|---|
| Name | Excelsior Wind Energy Facility |
| Location | Swellendam, Western Cape |
| Size MV | 32 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Amstilite (RF) Proprietary Limited & BioTherm Energy |
| Parent Company/Developer | BTSA Netherlands |
| OWNERSHIP | % |
| BTSA Netherlands | 60 |
| Letsatsi Trust via Ramizest (Pty) Ltd | 27.5 |
| The Excelsior Wind Farm Community Trust | 12.5 |
| FUNDING | % |
| | |
| BBBEE | % |
| Letsatsi Trust via Ramizest (Pty) Ltd | 27.5 |
| The Excelsior Wind Farm Community Trust | 12.5 |

## Garob Wind Farm[3]

| GENERAL | |
|---|---|
| Name | Garob Wind Farm |
| Location | Copperton, Northern Cape |
| Size MV | 136 |
| SIZE VALUE | R2.6 bn |
| COMPANY | |
| South African Company | ENEL Green Power RSA - subsidiary of ENEL Green Power (Italy) |
| Parent Company/Developer | ENEL Green Power (Italy) |

| OWNERSHIP | % |
|---|---|
| ENEL Green Power RSA | 60 |
| Khana Energy | 30 |
| Community Trust | 10 |

| FUNDING | % |
|---|---|
| | |
| | |
| | |

| BBBEE | % |
|---|---|
| Khana Energy | 30 |
| Community Trust | 10 |

## Golden Valley[4]

| GENERAL | |
|---|---|
| Name | Golden Valley |
| Location | Cookhouse, Eastern Cape |
| Size MV | 120 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Amstilite (RF) Proprietary Limited & BioTherm Energy |
| Parent Company/Developer | BTSA Netherlands |

| OWNERSHIP | % |
|---|---|
| BTSA Netherlands | 60 |
| Letsatsi Trust via Ramizest (Pty) Ltd | 27.5 |
| The Golden Valley Wind Facility Community Trust | 12.5 |

| FUNDING | % |
|---|---|
| | |

| BBBEE | % |
|---|---|
| Letsatsi Trust via Ramizest (Pty) Ltd | 27.5 |
| The Golden Valley Wind Facility Community Trust | 12.5 |

Kangnas Wind Farm[5]

| GENERAL | |
|---|---|
| Name | Kangnas Wind Farm |
| Location | Springbok, Northern Cape |
| Size MV | 137 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Mainstream Renewable Power South Africa – subsidiary of Mainstream Renewable Power Limited (Ireland) |
| Parent Company/Developer | Mainstream Renewable Power Limited (Ireland) |

| OWNERSHIP | % |
|---|---|
| Community Trust | 15 |
| African Rainbow Energy and Power | 11.25 |
| H1 Holdings | 11.3 |
| Lekela | ? |

| FUNDING | % |
|---|---|
| Rockefeller Brothers Fund | |
| ABSA | |
| International Finance Corporation | |
| Old Mutual | |

| BBBEE | % |
|---|---|
| Community Trust | 15 |
| H1 Holdings | 11.3 |

Karusa Wind Farm[6]

| GENERAL | |
|---|---|
| Name | Karusa Wind Farm |
| Location | Sutherland, Northern Cape |
| Size MV | 140 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | ACED Renewables Hidden Valley (Pty) Ltd & ENEL Green Power RSA - subsidiary of ENEL Green Power (Italy) |
| Parent Company/Developer | ENEL Green Power (Italy) |

| OWNERSHIP | % |
|---|---|
| ENEL Green Power RSA | 60 |
| Pele Green Energy | 30 |
| Karusa Wind Farm Community Trust | 10 |

| FUNDING | % |
|---|---|
| | |

| BBBEE | % |
|---|---|
| Pele Green Energy | 30 |
| Karusa Wind Farm Community Trust | 10 |

Nxuba Wind Farm[7]

| GENERAL | |
|---|---|
| Name | Nxuba Wind Farm |
| Location | Cookhouse, Eastern Cape |
| Size MV | 140 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Nxuba Wind Farm (RF) (Pty) Ltd ENEL Green Power RSA - subsidiary of ENEL Green Power (Italy) |
| Parent Company/Developer | ENEL Green Power (Italy) |
| OWNERSHIP | % |
| ENEL Green Power | 53 |
| Pele Green Energy | 30 |
| Nxuba Wind Farm Community Trust | 10 |
| Request Renewables (Pty) Ltd | 7 |
| FUNDING | % |
| | |
| BBBEE | % |
| Pele Green Energy | 30 |
| Nxuba Wind Farm Community Trust | 10 |

Oyster Bay Wind Farm[8]

| GENERAL | |
|---|---|
| Name | Oyster Bay Wind Farm |
| Location | Oyster Bay, Eastern Cape |
| Size MV | 140 |
| SIZE VALUE | R2.4 bn |
| COMPANY | |
| South African Company | Oyster Bay Wind Farm (Pty) Ltd & ENEL Green Power RSA - subsidiary of ENEL Green Power (Italy) |
| Parent Company/Developer | ENEL Green Power (Italy) |
| OWNERSHIP | % |
| ENEL Green Power | 60 |
| Khana Energy | 30 |
| Oyster Bay Project Onshore Wind Community Trust | 10 |
| FUNDING | % |
| | |
| BBBEE | % |
| Khana Energy | 30 |
| Oyster Bay Project Onshore Wind Community Trust | 10 |

Perdekraal East Wind Farm[9]

| GENERAL | |
|---|---|
| Name | Perdekraal East Wind Farm |
| Location | Matjiesfontein, Western Cape |
| Size MV | 108 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | South Africa Mainstream Renewable Power Perdekraal East Pty Limited |
| Parent Company/Developer | Lekela Power (United Kingdom) a Joint Venture of Mainstream Renewable Power Ltd (Ireland) & Actis Capital (United Kingdom) |
| OWNERSHIP | % |
| Lekela Power | 60 |
| Old Mutual Ideas Fund | 25 |
| Local Community Trust | 15 |
| FUNDING | % |
| ABSA | |
| | |
| | |
| BBBEE | % |
| Local Community Trust | 15 |
| | |

Roggeveld[10]

| GENERAL | |
|---|---|
| Name | Roggeveld |
| Location | Sutherland, Northern Cape |
| Size MV | 140 |
| SIZE VALUE | R3.42 bn |
| COMPANY | |
| South African Company | Roggeveld Wind Power(Pty) Ltd Building Energy Development Africa 3 srl (100% subsidiary of Building Energy SPA (Italy)) |
| Parent Company/Developer | Building Energy SPA (Italy) |
| OWNERSHIP | % |
| Building Energy Development Africa 3 srl | 51 |
| GEPF (Africa) 100% owned by the PIC | 23.25 |
| H1 Capital | 23.25 |
| Local Community Trust | 2.5 |
| FUNDING | % |
| Rand Merchant Bank | |
| DBSA | |
| Old Mutual | |
| BBBEE | % |
| H1 Capital | 23.25 |
| Local Community Trust | 2.5 |

The Soetwater Wind Farm[11]

| GENERAL | |
|---|---|
| Name | The Soetwater Wind Farm |
| Location | Laingsburg, Western Cape |
| Size MV | 139 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Soetwater Wind Farm (Pty) Ltd & ENEL Green Power RSA - subsidiary of ENEL Green Power (Italy) |
| Parent Company/Developer | ENEL Green Power (Italy) |
| OWNERSHIP | % |
| ENEL Green Power | 60 |
| Pele Green Energy | 30 |
| Soetwater Wind Farm Community Trust | 10 |
| FUNDING | % |
| | |
| | |
| | |
| BBBEE | % |
| Pele Green Energy | 30 |
| Soetwater Wind Farm Community Trust | 10 |

Wesley-Ciskei Wind Farm[12]

| GENERAL | |
|---|---|
| Name | Wesley-Ciskei Wind Farm |
| Location | Peddie, Eastern Cape |
| Size MV | 33 |
| SIZE VALUE | R1.03 bn |
| COMPANY | |
| South African Company | Riverbank Wind Power (Pty) Ltd & InnoWind Pty Ltd (100% subsidiary of EDF EN Group (France)) |
| Parent Company/Developer | EDF EN Group (France) |
| OWNERSHIP | % |
| InnoWind Pty Ltd | 60 |
| Telagystix (being a subsidiary of the BEE company Calulo Renewable Energy) | 22.5 |
| Riverbank Winds of Change BBBEE Co (RF) (Pty) Ltd (Local Community Trust) | 12.5 |
| Uncedo Lwethu Winds of Change (Pty) Ltd (community landowners) | 5 |
| FUNDING | % |
| Standard Bank | |
| BBBEE | % |
| Telagystix (being a subsidiary of the BEE company Calulo Renewable Energy) | 22.5 |
| Riverbank Winds of Change BBBEE Co (RF) (Pty) Ltd (Local Community Trust) | 12.5 |
| Uncedo Lwethu Winds of Change (Pty) Ltd (community landowners) | 5 |

# REIPPPP Bid Round 3 – Wind

Khobab Wind Farm[13]

| GENERAL | |
|---|---|
| Name | Khobab Wind Farm (www.khobabwind.co.za) |
| Location | Loeriesfontein, Northern Cape |
| Size MV | 138 |
| SIZE VALUE | $281 (2015) |
| COMPANY | |
| South African Company | South Africa Mainstream Renewable Power Khobab Wind Pty Ltd |
| Parent Company/Developer | Mainstream Renewable Power SARL (Luxembourg) |

| OWNERSHIP | % |
|---|---|
| Mainstream Renewable Power SARL (Luxembourg) | 40 |
| Old Mutual | 30 |
| Genesis Khobab Wind (Pty) Ltd. | 15 |
| Thebe Investment Corporation | 10 |
| The Khobab Renewable Energy Community Trust | 5 |
| FUNDING | % |
| ABSA | |
| DBSA | |
| EKF (Denmark Export Credit Agency) | |
| BBBEE | % |
| Thebe Investment Corporation | 10 |
| The Khobab Renewable Energy Community Trust | 5 |

Loeriesfontein 2 Wind Farm[14]

| GENERAL | |
|---|---|
| Name | Loeriesfontein 2 Wind Farm (www.loeriesfontein-wind.co.za) |
| Location | Loeriesfontein, Northern Cape |
| Size MV | 138 |
| SIZE VALUE | $281 (2015) |
| COMPANY | |
| South African Company | Mainstream Renewable Power Loeriesfontein 2 (Pty) Ltd |
| Parent Company/Developer | Mainstream Renewable Power SARL (Luxembourg) |

| OWNERSHIP | % |
|---|---|
| Mainstream Renewable Power SARL (Luxembourg) | 40 |
| Old Mutual | 30 |
| Genesis Loeriesfontein 2 Wind (Pty) Ltd | 15 |
| Thebe Investment Corporation | 10 |
| The Loeriesfontein Renewable Energy Community Trust | 5 |
| FUNDING | % |
| ABSA | |
| DBSA | |
| EKF (Denmark Export Credit Agency) | |
| BBBEE | % |
| Thebe Investment Corporation | 10 |
| The Loeriesfontein Renewable Energy Community Trust | 5 |

Longyuan Mulilo De Aar 2 North Wind Energy Facility[15]

| GENERAL | |
|---|---|
| Name | Longyuan Mulilo De Aar 2 North Wind Energy Facility |
| Location | De Aar, Northern Cape |
| Size MV | 139 |
| SIZE VALUE | $252 m (2015) |
| COMPANY | |
| South African Company | Longyuan Mulilo De Aar 2 North (Pty) Ltd & Longyuan South Africa Renewables (Pty) Ltd – 100% subsidiary of China Longyuan Power Group Corporation Limited |
| Parent Company/Developer | China Longyuan Power Group Corporation Limited |
| OWNERSHIP | % |
| Longyuan South Africa Renewables (Pty) Ltd | 60 |
| Mulilo Wind Enterprises (Pty) Ltd | 20 |
| Mulilo De Aar 2 North Wind Community (Pty) Ltd | 12.5 |
| Mulilo De Aar 2 South Wind Community (Pty) Ltd t/a Ule Energy | 7.5 |
| FUNDING | % |
| Debt (NEDBANK 37.55, IDC 37.5%) | 75 |
| Equity (Mulilo Wind Enterprises (Pty) Ltd 20%; Mulilo De Aar 2 North Wind Community (Pty) Ltd 12.5%; Ule Energy 7.5% & Longyuan South Africa Renewables (Pty) Ltd 60%) | 25 |
| BBBEE | % |
| Mulilo De Aar 2 North Wind Community (Pty) Ltd | 12.5 |
| Mulilo De Aar 2 South Wind Community (Pty) Ltd t/a Ule Energy | 7.5 |

Longyuan Mulilo De Aar Maanhaarberg Wind Energy Facility[16]

| GENERAL | |
|---|---|
| Name | Longyuan Mulilo De Aar Maanhaarberg Wind Energy Facility |
| Location | De Aar, Northern Cape |
| Size MV | 96 |
| SIZE VALUE | $180 m (2015) |
| COMPANY | |
| South African Company | Longyuan Mulilo De Aar Wind Power (Pty) Ltd & Longyuan South Africa Renewables (Pty) Ltd – 100% subsidiary of China Longyuan Power Group Corporation Limited |
| Parent Company/Developer | China Longyuan Power Group Corporation Limited |
| OWNERSHIP | % |
| Longyuan South Africa Renewables (Pty) Ltd | 60 |
| Mulilo Wind Enterprises (Pty) Ltd | 20 |
| Mulilo De Aar Wind Community (Pty) Ltd | 12.5 |
| ETU Energy Resources (Pty) Ltd | 7.5 |
| FUNDING | % |
| Debt (NEDBANK 37.55, IDC 37.5%) | 75 |
| Equity (Mulilo Wind Enterprises (Pty) Ltd 20%; Mulilo De Aar Wind Community (Pty) Ltd 12.5%; ETU Energy 7.5% & Longyuan South Africa Renewables (Pty) Ltd 60%) | 25 |
| BBBEE | % |
| Mulilo De Aar Wind Community (Pty) Ltd | 12.5 |
| ETU Energy Resources (Pty) Ltd | 7.5 |

Nojoli Wind Farm[17]

| GENERAL | |
|---|---|
| Name | Nojoli Wind Farm |
| Location | Cookhouse, Eastern Cape |
| Size MV | 87 |
| SIZE VALUE | $266 (2015) |
| COMPANY | |
| South African Company | Nojoli Wind Farm (RF) (Pty) Ltd & ENEL Green Power RSA - subsidiary of ENEL Green Power (Italy) |
| Parent Company/Developer | ENEL Green Power (Italy) |
| OWNERSHIP | % |
| ENEL Green Power | 60 |
| Pele Green Energy | 30 |
| Nojoli Wind Farm Community Trust | 10 |
| FUNDING | % |
| | |
| BBBEE | % |
| Pele Green Energy | 30 |
| Nojoli Wind Farm Community Trust | 10 |

Noupoort Mainstream Wind[18]

| GENERAL | |
|---|---|
| Name | Noupoort Mainstream Wind (www.noupoortwind.co.za) |
| Location | Noupoort, Northern Cape |
| Size MV | 79 |
| SIZE VALUE | $160 m (2015) |
| COMPANY | |
| South African Company | South Africa Mainstream Renewable Power Noupoort Pty Ltd |
| Parent Company/Developer | Mainstream Renewable Power SARL (Luxembourg) |
| OWNERSHIP | % |
| Mainstream Renewable Power SARL (Luxembourg) | 40 |
| Old Mutual | 30 |
| Genesis Noupoort Wind (Pty) Ltd | 15 |
| Thebe Investment Corporation | 10 |
| The Noupoort Renewable Energy Community Trust | 5 |
| FUNDING | % |
| ABSA | |
| DBSA | |
| EKF (Denmark Export Credit Agency) | |
| BBBEE | % |
| Thebe Investment Corporation | 10 |
| The Noupoort Renewable Energy Community Trust | 5 |

Red Cap - Gibson Bay[19]

| GENERAL | |
|---|---|
| Name | Red Cap - Gibson Bay |
| Location | St. Francis Bay, Eastern Cape |
| Size MV | 111 |
| SIZE VALUE | R2.25 bn |
| COMPANY | |
| South African Company | Redcap Innovating Energy & ENEL Green Power South Africa subsidiary of ENEL Green Power (Italy) |
| Parent Company/Developer | ENEL Green Power (Italy) |
| OWNERSHIP | % |
| ENEL Green Power South Africa | 60 |
| Gibson Bay Community Trust (Pty) Ltd | 40 |
| FUNDING | % |
| KfW German Development Bank | |
| BBBEE | % |
| Gibson Bay Community Trust (Pty) Ltd | 40 |

# REIPPPP Bid Round 2 – Wind

Amakhala Emoyeni (Phase 1)[20]

| GENERAL | |
|---|---|
| Name | Amakhala Emoyeni (Phase 1) |
| Location | Bedford, Eastern Cape |
| Size MV | 134.4 |
| SIZE VALUE | R3.9 bn |
| COMPANY | |
| South African Company | Cennergi (Pty) Ltd - subsidiary of Exxaro |
| Parent Company/Developer | Exxaro and Tata Power (India) |

| OWNERSHIP | % |
|---|---|
| Cennergi (Pty) Ltd - subsidiary of Exxaro and Tata Power (India) | 95 |
| The Bedford Community Trust | 2.5 |
| Cookhouse Community Trust | 2.5 |

| FUNDING | % |
|---|---|
| Standard Bank | |

| BBBEE | % |
|---|---|
| Cennergi (Pty) Ltd - subsidiary of Exxaro and Tata Power (India) | 95 |
| The Bedford Community Trust | 2.5 |
| Cookhouse Community Trust | 2.5 |

Chaba[21]

| GENERAL | |
|---|---|
| Name | Chaba |
| Location | Komga, Eastern Cape |
| Size MV | 20.6 |
| SIZE VALUE | $43 m (2013) |
| COMPANY | |
| South African Company | Chaba Wind Power (RF) (Pty) Ltd & InnoWind Pty Ltd (100% subsidiary of EDF EN Group (France)) |
| Parent Company/Developer | EDF EN Group (France) |

| OWNERSHIP | % |
|---|---|
| InnoWind Pty Ltd | 60 |
| Chaba Winds of Change BBBEE Co. (Community Trust) (funded by IDC) | 26 |
| IDC | 14 |

| FUNDING | % |
|---|---|
| IDC | |
| EDF Investments Group | |
| | |

| BBBEE | % |
|---|---|
| Chaba Winds of Change BBBEE Co. (Community Trust) | 26 |
| | |

Gouda Wind Facility[22]

| GENERAL | |
|---|---|
| Name | Gouda Wind Facility |
| Location | Gounda, Western Cape |
| Size MV | 135.2 |
| SIZE VALUE | R2.7 bn |
| COMPANY | |
| South African Company | Gouda Wind Facility & Aveng (Africa) Pty Ltd |
| Parent Company/Developer | Accconia (Spain) |
| OWNERSHIP | % |
| Accconia (Spain) | 54.9 |
| Royal Bafokeng Holdings | 25.1 |
| Soul City Broad Based Investment Company | 10 |
| Gouda Wind Energy Community Trust | 10 |
| FUNDING | % |
| | |
| BBBEE | % |
| Soul City Broad Based Investment Company | |
| Local Community Trust | |

Grassridge[23]

| GENERAL | |
|---|---|
| Name | Grassridge |
| Location | Port Elizabeth, Eastern Cape |
| Size MV | 59.8 |
| SIZE VALUE | R1.2 bn |
| COMPANY | |
| South African Company | Grassridge Wind Power (RF) (Pty) Ltd & InnoWind Pty Ltd (100% subsidiary of EDF EN Group (France)) |
| Parent Company/Developer | EDF EN Group (France) |
| OWNERSHIP | % |
| InnoWind Pty Ltd | 60 |
| Grassridge Winds of Change BBBEE Co. (Community Trust) (funded by IDC) | 26 |
| IDC | 14 |
| FUNDING | % |
| IDC | |
| EDF Investments Group | |
| BBBEE | % |
| Grassridge Winds of Change BBBEE Co. (Community Trust) | 26 |
| | |

Tsitsikamma Community Wind Farm[24]

| GENERAL | |
|---|---|
| Name | Tsitsikamma Community Wind Farm |
| Location | Tsitsikamma, Eastern Cape |
| Size MV | 94.8 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Cennergi (Pty) Ltd - subsidiary of Exxaro and Tata Power (India) |
| Parent Company/Developer | Exxaro & Tata Power (India) |
| OWNERSHIP | % |
| Cennergi (Pty) Ltd  subsidiary of Exxaro and Tata Power (India) | 75 |
| Watt Energy | 16 |
| Tsitsikamma Community Trust | 9 |
| FUNDING | % |
| | |
| | |
| | |
| BBBEE | % |
| Cennergi (Pty) Ltd | 75 |
| Tsitsikamma Community Trust | 9 |

Waainek[25]

| GENERAL | |
|---|---|
| Name | Waainek |
| Location | Grahamstown, Eastern Cape |
| Size MV | 23.4 |
| SIZE VALUE | $60 m (2013) |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | |
| OWNERSHIP | % |
| InnoWind Pty Ltd | 60 |
| Makana Winds of Change Community Trust | 26 |
| IDC | 14 |
| FUNDING | % |
| IDC | |
| EDF Investments Group | |
| | |
| BBBEE | % |
| Makana Winds of Change Community Trust | 26 |
| | |

West Coast 1[26]

| GENERAL | |
|---|---|
| Name | West Coast 1 |
| Location | Vredenburg, Western Cape |
| Size MV | 90.8 |
| SIZE VALUE | R3 bn |
| COMPANY | |
| South African Company | Micawber 862 (Pty) Ltd |
| Parent Company/Developer | Engie (France) |
| OWNERSHIP | % |
| Engie (France) | 43 |
| Investec | 34.5 |
| Tiso Resources (Pty) Ltd (part of Kagiso Tiso Holdings) | 20 |
| Micawber 860 (Pty) Ltd (BBBEE Trust) | 2.5 |
| FUNDING | % |
| Investec | |
| | |
| | |
| BBBEE | % |
| Tiso Resources (Pty) Ltd (part of Kagiso Tiso Holdings) | 20 |
| Micawber 860 (Pty) Ltd (BBBEE Trust) | 2.5 |

# REIPPPP Bid Round 1 – Wind

Cookhouse Wind Farm[27]

| GENERAL | |
|---|---|
| Name | Cookhouse Wind Farm (www.cookhousewind.co.za) |
| Location | Cookhouse, Eastern Cape |
| Size MV | 135 |
| SIZE VALUE | $300 (2012) |
| COMPANY | |
| South African Company | African Clean Energy Developments (Pty) Ltd |
| Parent Company/Developer | Globeleq Generation (United Kingdom) |
| OWNERSHIP | % |
| Globeleq Generation (United Kingdom) | 39 |
| Cookhouse Wind Farm Community Trust | 15 |
| IDEAS Old Mutual | 14.5 |
| IDC | 10 |
| AFPOC (South Africa) | 7.5 |
| AIIF2 (Mauritius) | 7.1 |
| AIIF2 (South Africa) | 6.9 |
| FUNDING | % |
| NEDBANK | |
| Standard Bank | |
| IDC | |
| BBBEE | % |
| Cookhouse Wind Farm Community Trust | 15 |

Dassiesklip Wind Energy Facility[28]

| GENERAL | |
|---|---|
| Name | Dassiesklip Wind Energy Facility |
| Location | Caledon, Western Cape |
| Size MV | 26.2 |
| SIZE VALUE | $85 m (2012) |
| COMPANY | |
| South African Company | BioTherm Energy (South Africa) |
| Parent Company/Developer | BTSA Netherlands |
| OWNERSHIP | % |
| BTSA Netherlands | 60 |
| Malibongwe Womens Development Trust | |
| Ikamva Labantu Empowerment Trust | |
| Community Trust | 5 |
| FUNDING | % |
| | |
| BBBEE | % |
| Malibongwe Womens Development Trust | |
| Ikamva Labantu Empowerment Trust | |
| Community Trust | 5 |

Dorper Wind Farm[29]

| GENERAL | |
|---|---|
| Name | Dorper Wind Farm (www.dorperwindfarm.co.za) |
| Location | Molteno, Eastern Cape |
| Size MV | 97 |
| SIZE VALUE | $259 (2012) |
| COMPANY | |
| South African Company | Dorper Wind Farm (Pty) Ltd (Rainmaker Energy Company) |
| Parent Company/Developer | Sumitomo (Japan) |
| OWNERSHIP | % |
| Sumitomo (Japan) | 60 |
| Dorpor Wind Development (Pty) Ltd | 15 |
| Broad Based Holding Company | 12.8 |
| BEE Holding Company | 12.2 |
| FUNDING | % |
| | |
| BBBEE | % |
| Broad Based Holding Company | 12.8 |
| BEE Holding Company | 12.2 |

Hopefield Wind Farm[30]

| GENERAL | |
|---|---|
| Name | Hopefield Wind Farm |
| Location | Hopefield, Western Cape |
| Size MV | 65.4 |
| SIZE VALUE | R1.5 bn |
| COMPANY | |
| South African Company | Umoya Energy (Pty) Ltd – owned by Old Mutual |
| Parent Company/Developer | |
| OWNERSHIP | % |
| African Infrastructure Investment Managers (AIIM) – owned by Old Mutual and Macquarie | |
| Tomlo Commodities (Pty) Ltd | |
| Hopefield Wind Farm Local Community Company | |
| FUNDING | % |
| | |
| BBBEE | % |
| Hopefield Wind Farm Local Community Company | |
| | |

Jeffreys Bay Wind Farm[31]

| GENERAL | |
|---|---|
| Name | Jeffreys Bay Wind Farm (www.jeffreysbaywindfarm.co.za) |
| Location | Jeffreys Bay Wind Farm |
| Size MV | 138 |
| SIZE VALUE | $296 m (2012) |
| COMPANY | |
| South African Company | South African Mainstream Renewable Jeffreys Bay Pty Ltd |
| Parent Company/Developer | Mainstream Renewable Power SARL (Luxembourg) |
| OWNERSHIP | % |
| Mainstream Renewable Power SARL (Luxembourg) | 60 |
| Old Mutual | 20 |
| Thebe Investment; Usizo Engineering (Pty) Ltd; Enzani Molene Technologies (Pty) Ltd | 14 |
| Jeffreys Bay Renewable Energy Community Trust | 6 |
| FUNDING | % |
| ABSA | |
| BBBEE | % |
| Thebe Investment; Usizo Engineering (Pty) Ltd; Enzani Molene Technologies (Pty) Ltd | 14 |
| Jeffreys Bay Renewable Energy Community Trust | 6 |

Kouga Wind Farm - Oyster Bay[32]

| GENERAL | |
|---|---|
| Name | Kouga Wind Farm - Oyster Bay (www.kougawindfarm.co.za) |
| Location | St Francis Bay, Eastern Cape |
| Size MV | 80 |
| SIZE VALUE | R2 bn. |
| COMPANY | |
| South African Company | Redcap Innovating Energy & ENEL Green Power South Africa subsidiary of ENEL Green Power (Italy) |
| Parent Company/Developer | ENEL Green Power (Italy) |
| OWNERSHIP | % |
| Stanlib | 40.6 |
| TriAlpha Investment Management | 26.6 |
| Kouga Wind Farm Community Development Trust | 26.1 |
| Redcap Investments | 5.5 |
| Eurocape Renewables | 1.2 |
| FUNDING | % |
| Standard Bank | |
| Liberty Group | |
| NEDBANK | |
| IDC | |
| BBBEE | % |
| Kouga Wind Farm Community Development Trust | 26.1 |

MetroWind Van Staadens Wind Farm[33]

| GENERAL | |
|---|---|
| Name | MetroWind Van Staadens Wind Farm (www.metrowind.co.za) |
| Location | Van Staadens, Eastern Cape |
| Size MV | 27 |
| SIZE VALUE | $50 m (2012) |
| COMPANY | |
| South African Company | Metrowind |
| Parent Company/Developer | |
| OWNERSHIP | % |
| Old Mutual | 30 |
| Spilled Water Renewable | 25 |
| BRE | 20 |
| AfriCoast SA (Tewa Power (Pty) Ltd) | 20 |
| BEE Community Trust | 5 |
| FUNDING | % |
| | |
| BBBEE | % |
| BEE Community Trust | 5 |
| AfriCoast SA (Tewa Power (Pty) Ltd) | 20 |

Noblesfontein[34]

| GENERAL | |
|---|---|
| Name | Noblesfontein (www.noblesfonteinwindfarm.co.za) |
| Location | Noblesfontein, Northern Cape |
| Size MV | 72.8 |
| SIZE VALUE | $220 m (2012) |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | Gestamp Wind (Spain) |
| OWNERSHIP | % |
| Gestamp Wind (Spain) | 60 |
| Shanduka Group | 25 |
| SARGE | 12.5 |
| Nobelsfontein Educational Trust | 2.5 |
| FUNDING | % |
| Standard Bank | |
| BBBEE | % |
| Shanduka Group | 25 |
| Nobelsfontein Educational Trust | 2.5 |

# Appendix 3 Endnotes

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11 http://www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/Soetwater%20Wind%20Farm.pdf. Accessed 22 July 2018.

12 http://www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/Riverbank%20Wind%20Power%20(Pty)%20Ltd-%20Wesley-Ciskei%20Wind%20Project.pdf. This particular presentation notes that local community members own 26% of the wind farm, then it notes they own 20%. The correct amount appears to be 17.5%. See also, http://www.energy.org.za/news/standard-bank-continues-to-drive-diversification-of-south-africa-s-energy-supply. Accessed 22 July 2018.

13 http://www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/South%20Africa%20Mainstream%20Renewable%20Power%20Khobab%20Wind%20%28Pty%29%20LTD.pdf and https://ppi.worldbank.org/customquery. Accessed 23 July 2018.

14 http://www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/South%20Africa%20Mainstream%20Renewable%20Power%20Loeriesfontein%202%20%28Pty%29%20LTD.pdf and https://ppi.worldbank.org/customquery. Accessed 23 July 2018.

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# Appendix 4

## REIPPPP Bid Round 4 – 'Other'

Ngodwana Biomass Power Station[1]

| GENERAL | |
|---|---|
| Name | Ngodwana Biomass Power Station |
| Location | Ngodwana, Mpumalanga |
| Size MV | 62 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | Ngodwana Energy (RF) Pty Ltd |
| Parent Company/Developer | |
| OWNERSHIP | % |
| Sappi Southern Africa Ltd | 30 |
| Fusion Energy (Pty) Ltd | 30 |
| KC Africa (Pty) Ltd | 30 |
| Ngodwana Energy Employees Trust | 5 |
| Ngodwana Energy Community Trust | 5 |
| FUNDING | % |
| ABSA | |
| NEDBANK | |
| BBBEE | % |
| Ngodwana Energy Employees Trust | 5 |
| Ngodwana Energy Community Trust | 5 |

Kruisvallei Hydro[2]

| GENERAL | |
|---|---|
| Name | Kruisvallei Hydro |
| Location | Bethlehem, Free State |
| Size MV | 4.5 |
| SIZE VALUE | |
| COMPANY | |
| South African Company | |
| Parent Company/Developer | Building Energy (Italy) |
| OWNERSHIP | % |
| H1 Capital | |
| FUNDING | % |
| | |
| BBBEE | % |
| | |

# REIPPPP Bid Round 3 – 'Other'

Mkuze[3]

| GENERAL | |
|---|---|
| Name | Mkuze Biomass Project |
| Location | Mkuze, Kwa-Zulu Natal |
| Size MV | 16 |
| SIZE VALUE | R1.06 bn |
| COMPANY | |
| South African Company | Navosync(Pty) Ltd |
| Parent Company/Developer | Building Energy (Italy) |
| OWNERSHIP | % |
| Building Energy Development Africa 3 SRL | 51 |
| Tiestamax (Pty) Ltd | 30 |
| H1 Capital | 16.5 |
| Local Community Trust | 2.5 |
| FUNDING | % |
| | |
| BBBEE | % |
| | |

Johannesburg Landfill Gas to Electricity[4]

| GENERAL | |
|---|---|
| Name | Johannesburg Landfill Gas to Electricity |
| Location | Johannesburg |
| Size MV | 18 |
| SIZE VALUE | R292 m |
| COMPANY | |
| South African Company | Ener·G Systems Joburg (PTY) LTD |
| Parent Company/Developer | |
| OWNERSHIP | % |
| Ener·G Systems Joburg (PTY) LTD | 51.675 |
| CEF (SOE) (PTY) LTD | 28.275 |
| Secure Rock Enterprises (PTY) LTD | 17.55 |
| ENER-G Educational Community Trust | 2.5 |
| FUNDING | % |
| | |
| BBBEE | % |
| | |
| ENER-G Educational Community Trust | 2.5 |

# REIPPPP Bid Round 2 – 'Other'

Neusberg Hydro Electric Project A[5]

| GENERAL | |
|---|---|
| Name | Neusberg Hydro Electric Project A |
| Location | Kakamas, Northern Cape |
| Size MV | 10 |
| SIZE VALUE | $56 m (2013) |
| COMPANY | |
| South African Company | Hydro 1 SA |
| Parent Company/Developer | |
| OWNERSHIP | % |
| Hydro 1 SA | |
| Hydro Tasmania South Africa | |
| Old Mutual | |
| IDC | |
| Kakamas Hydro Community Trust | 15 |
| FUNDING | % |
| | |
| BBBEE | % |
| Kakamas Hydro Community Trust | 15 |
| | |

Stortemelk Hydro (Pty) Ltd[6]

| GENERAL | |
|---|---|
| Name | Stortemelk Hydro (Pty) Ltd |
| Location | Clarens, Free State |
| Size MV | 4.3 |
| SIZE VALUE | R190 m |
| COMPANY | |
| South African Company | REH Project Development |
| Parent Company/Developer | |
| OWNERSHIP | % |
| H1 Capital | |
| Vapotouch (Pty) Ltd | 30 |
| REH Project Development | |
| FUNDING | % |
| Rand Marchant Bank | |
| Mertech Group | |
| BBBEE | % |
| | |

# Appendix 4 Endnotes

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