

Electricity Governance Initiative of South Africa

RENEWABLE ENERGY INDEPENDENT POWER PRODUCER PROCUREMENT PROGRAMME REVIEW 2014

August 13th 2014



Author: Liz McDaid

Contributor: Yvette Abraham

Editor: Peter Atkins

Findings represent the views of the author and do not necessarily reflect those of WRI, the sponsor of this report.

Acknowledgements: Nomvula Dlamini, Thando Lukuko, Gray Mcquire, Candice Pelser, Jeff Rudin, Davida Wood

This report can be downloaded from the EGI website (Tools and Downloads) at:

<http://www.egi-sa.org.za/downloaded-documents/>

EGI South Africa would like to acknowledge the role of WRI's Electricity Governance Initiative in catalysing renewed interest in governance of the energy sector and supporting attention to the impacts on communities.

The author wishes to thank all those community members who provided information to enable their story to be told. In addition, those in local government as well as industry representatives, and other stakeholders who expressed keen interest, offered additional information – all was gratefully received and processed to the best of my ability. All errors are mine.

The enthusiasm with which people provided additional information combined with a dynamic renewable environment in the country probably means that some aspects of this report were out of date before it was published. Our wish is that this report be received in the spirit in which it is offered, a snapshot in time and space that provides some insights into the challenges on the ground that South Africa must grapple with in order to have a successful renewable energy sector.

Citation

McDaid L. 2014. Renewable Energy Independent Power Producer Procurement Programme Review 2014. Electricity Governance Initiative South Africa, supported by World Resources Institute.

Contents

1. Acronyms	5
2. Introduction	6
a. About the assessment:.....	7
b. Limitations of this review:.....	9
3. Increase of renewable energy uptake and the revised integrated electricity plan.....	10
a. Lessons from REI4P 2013	10
b. Progress for 2014.....	10
c. Conclusions.....	14
d. Recommendations.....	14
4. Government capacity to manage the REI4P	15
a. Lessons from REI4P 2012/13	15
b. Progress for 2014.....	15
c. Conclusion	21
d. Recommendations.....	22
5. The role of local government	22
a. Lessons from REI4P 2012/13	22
b. Progress for 2014.....	22
c. Conclusions and recommendations.....	26
6. Who decides on local benefits for communities – lines of accountability?.....	26
a. Lessons from REI4P 2013	26
b. Progress up to June 2014	26
c. Conclusions.....	33
d. Recommendations.....	35
7. Creating new decent jobs for locals – how local is a local job?.....	36
a. Lessons from 2013 Review.....	36
b. Progress up to June 2014	37
c. Conclusions.....	44
d. Recommendations.....	44
8. Overall concluding comments.....	45
a. Overall Recommendations.....	47

9. Appendices.....	48
Appendix A. Community consultation in this research.....	48
Appendix B: Economic development requirements for local communities	51
Appendix C: Criteria and process for evaluation of RE bids	52
Appendix D: Window one REI4P Economic Development benefits	53
Appendix E: REI4P research area site maps	58
10. References.....	61

Tables

Table 1: Energy mix as per the IRP2010 policy-adjusted, compared to the IRP2010 update base case	11
Table 2: Analysis of MW allocation and remaining (DoE November 2103c)	12
Table 3: Envisaged timetable for REIPPPP	13
Table 4: Envisaged timetable for REIPPPP updated	16
Table 5: The staff allocation to the different DoE branches (National Treasury 2014).....	18
Table 6: Budget allocation (R millions) to the different DoE branches (DoE budget vote 2014).....	19
Table 7: Extract from Appendix B relating to community ownership	27
Table 8: Socio-economic development requirements (from Appendix B)	30
Table 9: Local content per project type (R millions) (Rycroft 2013).....	38
Table 10: A summary of jobs created over the three windows for solar PV, wind and CSP (adapted from Eberhard 2014).....	40
Table 11: Summary of the window 3 jobs per province (DoE 2013)	40

Figures

Figure 1: Location of the renewable energy projects to date.....	8
Figure 2: The organogram for the different branches of the restructured DoE department – (adapted from DoE 2014)	17
Figure 3: The composition of the Evaluation team for the REI4P (DoE 2012, DoE 2013)	18
Figure 4: The weighting allocation for REI4P bids, showing that price counts for 70%	37
Figure 5: Procurement evaluation methodology for Window 1 – Request for Proposal (RFP)	52

1. Acronyms

BRRR	Budgetary Review and Recommendation Report
CCGT	Combined cycle gas turbine
CCS	Carbon Capture and Storage
COP	UN Conference of the Parties
CSP	Concentrated solar power
DFI	Development Finance Institution
DoE	Department of Energy
IPP	Independent Power Producer
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
LED	Local Economic Development
MW	Megawatt
NCCRS	National Climate Change Response Strategy
NCCR White Paper	National Climate Change Response White Paper
NERSA	National Energy Regulator of South Africa
OCGT	Open cycle gas turbine
OCN	Open Climate Network
PPA	Power Purchase Agreement
PPPFA	Preferential Procurement Policy Framework Act
PV	Solar voltaic power
REFIT	Renewable energy feed-in tariff
REI4P	Renewable Energy Independent Power Producers Procurement Programme

2. Introduction

Renewable Energy is the long term future for South Africa, and hence it is important to implement it in the best manner possible. This research is therefore not a critique of renewable energy but a critique of the current form of implementation.

South Africa's Renewable Energy Independent Power Producers Programme Process (REI4P) was one of the programmes identified as a climate change flagship programme in the National Climate Change Response white paper published in 2011.

The programme for renewable energy is the Renewable Energy Independent Power Producers Procurement Programme (REI4P), jointly launched by the DoE and NERSA and Eskom in 2011¹, a procurement programme tasked with deploying 3 725 MW of renewable energy by 2016. The REI4P of the Department of Energy (DoE) aims to contribute to a transition away from South Africa's dependence on fossil fuel generated electricity, and contributes to the climate mitigation targets that President Zuma committed South Africa to in December 2009. This target aims to collectively result in a 34% deviation below its business-as-usual emissions growth trajectory by 2020, and then 42% by 2025 (DEAT 2012). This mitigation goal would enable South Africa's greenhouse gas (GHG) emissions to peak between 2020 and 2025, plateau for approximately a decade, and decline in absolute terms thereafter (DEAT 2012).²

The stated aim of the Renewable Energy Procurement Programme is not solely to increase a supply of electricity to the grid but to achieve a shift towards a more sustainable society. According to the DoE IPP website:

"This IPP Procurement Programme has been designed so as to contribute towards the target of 3 725 megawatts and towards socio-economic and environmentally sustainable growth, and to start and stimulate the renewable industry in South Africa (DoE).³"

In addition, both the National Development Plan and the Dept. of Economic Development identify renewable energy related manufacturing and job creation as a growth area within the South African economy.

In 2013, the electricity governance initiative of South Africa (EGI-SA) produced a case study on the implementation progress of South Africa's Renewable Energy programme (REI4P). The stated aims and ambitions of South Africa towards the roll-out of renewable energy are a laudable start, but EGI-SA's 2013 review report identified a number of challenges that need to be addressed to ensure the success of the REI4P:

¹ Refer to EGI REI4P review 2013.

² Refer to the National Climate Change Response White Paper published by DEAT in 2012.

³ <http://www.ipprenewables.co.za/page/2160#page/303> accessed 23rd May 2014.

Electricity Governance Initiative South Africa – REI4P review 2014

- Renewable constraints contained within the Integrated Resource Plan (IRP) may limit the potential of a new and developing renewable industry
- There was a lack of sufficient staff with sufficient capacity in government to fast track the REI4P
- There was a bias towards foreign jobs, particularly in the operational phase of the projects
- The Importance of involving communities in planning of local socio-economic development should be recognised

This 2014 REI4P review report (referred to here as the 2014 review) looks to see what progress has been made in further implementing the REI4P and the extent to which the challenges identified in the 2013 REI4P review report have been addressed. In 2013, engagement with relevant government departments was limited. For 2014, additional emphasis has been placed on constructive engagement with all stakeholders, including industry and government, in order to share our lessons learnt and so strengthen the development role that renewable energy can play for South Africa.

In reviewing the contribution of renewable energy towards energy security within the country, the 2014 review evaluated the amount of renewable energy capacity procured and examined the Integrated Energy Plan (IEP) and integrated resource plan update (IRP) to gain a sense as to South Africa's long term commitment to renewable energy.

In reviewing government's capacity to manage the REI4P, the assessment looked at the staff complement to manage the increasing number of successful bidders, the ability of the government to monitor progress, and the ability of government to stick to its committed timeframes.

In reviewing the employment figures, the study also investigated the long term and short term jobs, the transfer of skills, and the creation of permanent jobs within the sector.

In reviewing socio-economic development, it was assumed that the principles of good governance, together with the constitution and laws of the country provide for decision-makers to account to people for their decisions, particularly regarding local economic development priorities. The extent to which this process of decision-making was transparent and accountable to the public was part of the research.

a. About the assessment:

During 2012, The Electricity Governance Initiative of South Africa (EGI-SA)⁴ assessed the REIPPP process using an analytic framework (MAPT⁵), developed by the Open Climate Network (OCN), a global network of independent research institutes and civil society working to monitor countries' progress on climate change. The 2013 review was a case study drawn from the 2012 analysis, and included an assessment of the institutional factors on which effective climate policy implementation depends. Please refer to

⁴ [The Electricity Governance Initiative \(EGI\)](#) is a unique network of civil society organizations dedicated to promoting transparent, inclusive and accountable decision-making in the electricity sector. EGI currently has partners in 11 countries around the globe, including South Africa. EGI is coordinated by the Institutions and Governance Program at the World Resources Institute.

⁵ <http://www.wri.org/our-work/project/measurement-and-performance-tracking-developing-countries>

the 2013 review for further information on the assessment (see the EGI-SA web site Tools and Downloads at: <http://www.egi-sa.org.za/downloaded-documents/>).

While the 2013 research team focused on engaging with key government and renewable industry stakeholders, the 2014 review has drawn on focus group discussions and interviews with community representative from various renewable power producer sites, in addition to the publicly available information and insights from government, academic and industry representatives.

The research team visited three areas (refer Figure 1 and Appendix E), where REI4P projects have been approved, in order to identify community structures and hold small focus groups and individual interviews. The discussion focused on the experience of the interviewees to date, their knowledge of how the community had been consulted, their understanding of renewable energy projects, particularly of how communities might benefit.

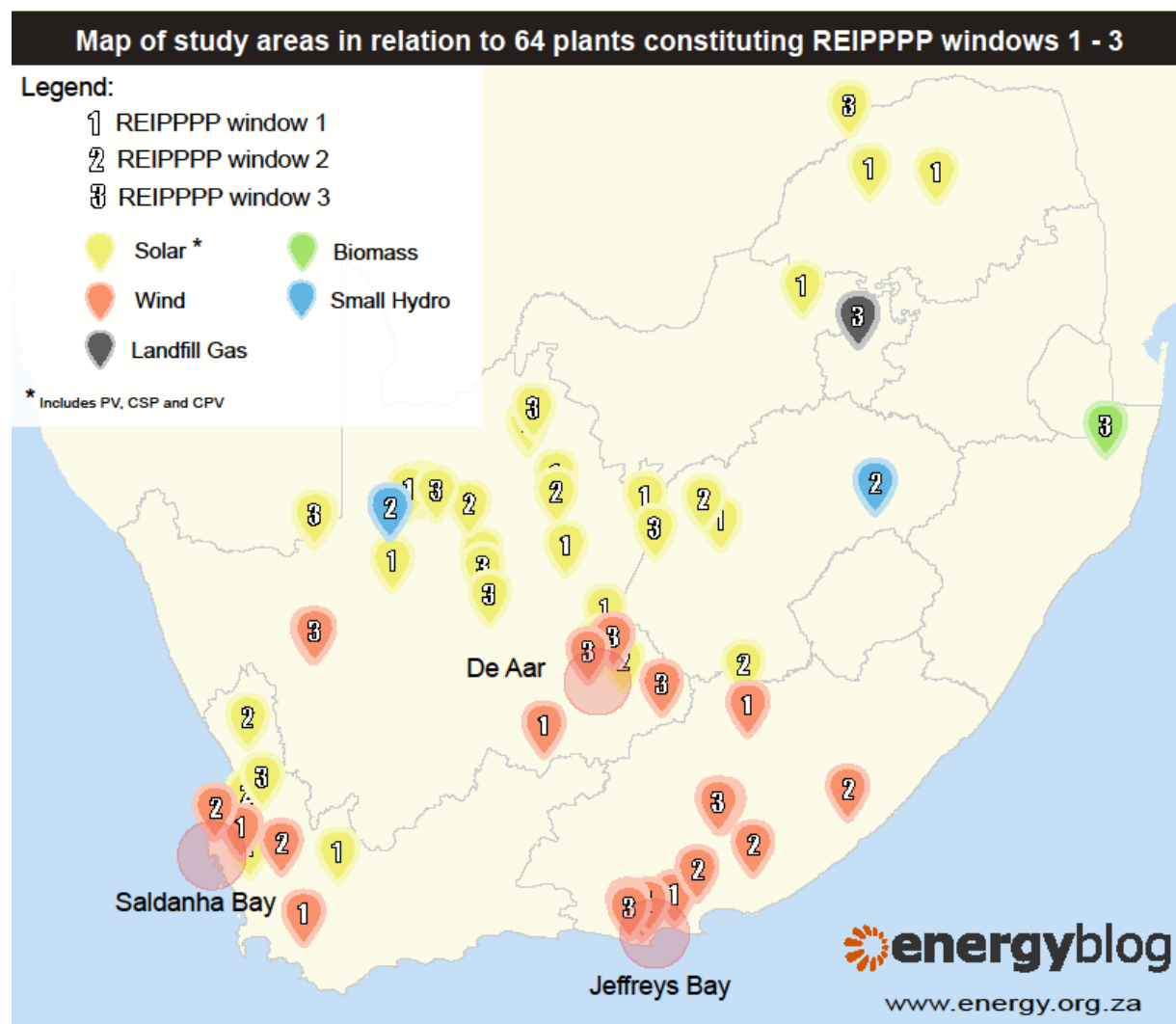


Figure 1: Location of the renewable energy projects to date

Electricity Governance Initiative South Africa – REI4P review 2014

Figure 1 was sourced from the energy blog website, a site that provides independent news and knowledge of matters of interest to the renewable energy sector in South Africa (<http://www.energyblog.co.za>). For further information about the specific projects that are underway in these study sites, please refer to the energy blog website.

The study assumed that community structures are usually consulted over developmental decisions in their areas, either via ward committees or other structures. These community structures included trade unions, political party structures, school principals, local NGOs and civil society groups that participate in ward committees. Also included were local government officials and councillors (see Appendix A. Community).

b. Limitations of this review:

The research focused on the bid window 1 projects as these are mostly generating power and are at a phase in their development where there is added emphasis on engagement with local communities in order to determine how to distribute the financial benefits to communities. The sites were selected in order to provide a geographic spread, one in each of the Western, Eastern and Northern Cape provinces, and to cover diverse technology choices (refer to Appendix E). In the Eastern Cape, the projects selected were wind, with solar in the Northern Cape and a mixture in the Western Cape. Due to resource constraints, the research team opted to visit sites where there was more than one IPP in the area. Given the advanced state of implementation of window 1 projects, the sites were chosen to include mostly bid window 1, although it was also possible to include a number of bid window 2 sites. Of the 28 successful bid window 1 projects, our research covered 6 (about 20%), and three (about 16%) of the 19 bid window 2 projects. In addition, we obtained feedback regarding community involvement and employment for a further 3 projects outside of our interview sites.

The views presented here are the perceptions of various stakeholders during our fieldwork. Appendix A listed the communities which were consulted and provides a list of questions that were used to guide the conversations. The list of questions was developed on the basis that representatives of community organisations would be serving on the community trusts, but this was not the case and many of the questions were therefore not relevant. Although it was beyond the scope of this research to study any individual project beyond the perceptions of community, labour, and local government stakeholders, the overall trend of results was confirmed with those within the renewable industry. At individual case level, where possible, the views were checked against other stakeholders or available documentation to verify the substance. This document is therefore regarded as work in progress and additional examples of local community engagements within the renewable energy sector have been added, particularly examples that might be some form of best practice or lessons learnt which could guide meaningful participatory community engagement for REI4P sites in future.

Documents such as the social development plans for each project are not publicly available, neither are the commitments that IPPs have made to the community. Even the detailed tender requirements for such social development plans etc. are only accessible to people who have signed up to the Independent Power Producer (IPP) website. Such registration comes with an R 15 000 fee, and our information is thus sourced from secondary sources where available.

3. Increase of renewable energy uptake and the revised integrated electricity plan

a. Lessons from REI4P 2013

From the 2013 REI4P review report, challenges that were identified included:

- The extent of Ministerial discretion influences coordination and implementation of REIPPP programme within DoE.
- The importance of a flexible approach in the IRP that would enable incremental renewable energy new build as needed, rather than the imposition of a “cap “ on renewable energy that limits the growth potential of renewables industry

Box 1 highlights the balancing of predictability and flexibility rationale.

Box 1: WRI 10Questions Paper 2014

While flexibility can make an RE policy more effective over the long term, predictability is equally important, especially for stakeholder confidence and cost efficiency. Review processes that are guided by clear triggers and criteria for modifications can help balance the flexibility and predictability dimensions of the RE plan. (WRI 2014)

b. Progress for 2014

South Africa’s Department of Energy (DoE) is responsible for implementing RE policies and measures.

In 2011, the DoE gazetted the Integrated Resource Plan (IRP2010) an electricity supply plan that proposed 42 % of new electricity capacity initiated between 2010 and 2030 must be generated from renewable energy. In November 2013, the DoE published the IRP2010 update for comment. The IRP2010 update contains a base case and a number of alternative scenarios.

Positively, if officially recognised, the IRP update offers a decision-making tree approach, that enables flexibility in securing supply options that is dependent on demand; and suggests delays and amendments to nuclear and coal technologies, while continuing to support the current renewable bid programme with additional rounds of renewable energy each year (of 1000MW PV, 1000MW wind and 200MW CSP capacity) (DoE⁶ 2013a).

As outlined below in Table 1, the IRP update maintains a commitment to renewable energy but has been adjusted to acknowledge a reduced demand for electricity, and to allow for changes in technology and costs. However, the artificial cap from the IRP2010 is maintained with a max of 1 600 MW wind and 1 000 MW solar PV additional capacity allowed each year. The IRP update explains the wind restriction based on construction rates in Spain and the solar PV restriction is there to limit a switch to increasing solar PV at some future tipping point. The IRP update acknowledges that these restrictions are arbitrary constraints and need to be tested (DoE 2014). It is suggested that criteria need to be developed against which decisions about adding additional renewable energy to the grid can be assessed.

Given the cumulative impact of adding renewable energy to the grid each year, it is important that there are explicit criteria by which to determine the allocation of renewable energy capacity within the energy mix. For example, a wind turbine manufacturer in South Africa needs to know the proposed annual increment in wind energy demand in order to ensure financial sustainability. The IRP update reduces the proposed wind capacity substantially compared to the IRP2010, from 9 200 MW by 20130 to 4 360 MW by 2030. At the time of writing, the status of the IRP2010 update was not clear, in terms of how it guides future energy procurement processes. Table 1 provides the IRP2010 energy options from the original IRP2010 compared to the IRP2010 update base case scenario.

Table 1: Energy mix as per the IRP2010 policy-adjusted, compared to the IRP2010 update base case⁷

Technology option	IRP 2010 (MW)	Base Case (MW)
Existing Coal	34 746	36 230
New Coal	6 250	2 450
CCGT	2 370	3 550
OCCGT / Gas Engines	7 330	7 680
Hydro Imports	4 109	3 000
Hydro Domestic	700	690
PS (including imports)	2 912	2 900

⁶ DoE irp2010 update – November 2013.

⁷ DoE 2013 page 20.

Nuclear	11 400	6 660
PV	8 400	9 770
CSP	1 200	3 300
Wind	9 200	4 360
Other	915	640
Total	89 532	81 350

According to the DoE (2014), wind capacity has been reduced due to the incorporation of new wind data and the application of an annual wind cap. Questions regarding such limits were raised in the 2013 review, due to concerns about the viability of a renewable energy industry, with its accompanying job creation and local business development, if demand continues to be restricted.

According to Eberhard (2014), industry players, initially sceptical of renewable energy, seeing its successful roll out and falling electricity costs, are now asking why South Africa is not contracting increased amounts of renewables, particularly when bids are oversubscribed. In particular, the small scale renewable programme has been delayed. According to government, it is not viable to implement large numbers of small projects with each individually financed, through the current financing model reliant on private financing. Although outside of the scope of this research, the use of state pension funds might be a source of public financing.

The REI4P had an initial goal of 3 725 MW of renewable energy by 2016 (DoE 2012a), subsequently adjusted upwards through a ministerial announcement of an additional 3 200 MW in December 2012⁸ (Creamer 2012). A further ministerial determination of 308 MW for bid window 3 in 2012 was also made (DoE 2013b). The REI4P has committed the government to 6 724 MW⁹ of renewable energy, with 3 916 MW having now been allocated (see Table 2, taken from DoE presentation (DoE 2013b).

Table 2: Analysis of MW allocation and remaining (DoE November 2103c)

Technology	MW capacity allocated in First Bid window	MW capacity allocated in Second Bid window	MW capacity allocated in Third Bid window	MW capacity remaining
------------	---	--	---	-----------------------

⁸ <http://www.engineeringnews.co.za/article/sas-renewables-procurement-programme-to-be-enlarged-by-a-further-3-200-mw-2012-10-09>

⁹ The IRP2010 included 41% of new build capacity to be renewable (excluding hydro), whereas the IRP update allows for 46%.

Solar photovoltaic	632	417	435	1 041
Wind	634	563	787	1 336
Concentrated solar	150	50	200	200
Small Hydro (<- 40MW)	0	14	0	121
Landfill gas	0	0	18	7
Biomass	0	0	16	43
Biogas	0	0	0	60
Total	1 416	1 044	1 456	2 808

The number of successful bids is detailed in Table 3. The REI4P management team, of technical expert consultants used by government, has contracted 3 922 MW of renewable energy over an impressive two and a half year period, offering a professional service to the renewable energy industry (Eberhard 2014). The value of the bids, according to then Minister Ben Martins, is estimated at approximately R 150 billion¹⁰.

The REIPPP was envisaged to be implemented in 5 bidding windows over 2 years (Table 3), but over time, the original dates for the requests for proposals (RFPs) have slipped.

Table 3: Envisaged timetable for REIPPPP¹¹

	Original RFP date (DoE 2011)	Actual RFP date (DoE 2013)	Megawatts (DoE 2013)	Number of bids accepted out of the number of bids received
Window 1	4 November 2011	4 November 2011	1 415.52 (28 agreements)	28 out of 53
Window 2	25 November 2011	5 March 2011	1 043.9 (19 agreements)	19 out of 70
Window 3	14 May 2012	5 November 2013	1 456 (17 agreements)	17 out of 93

¹⁰ Summary of window 3 projects – Industry News – Energise December 2013.

¹¹ Data for table found at DoE: <http://www.ipprenewables.co.za/> accessed 29 July 2014.

Window 4	29 October 2012	26 May 2014 opening date and 18 August 2014 closing date		
Window 5	13 May 2013	-		

c. Conclusions

Although the latest electricity plan for 2013, the IRP2010 update, continues to impose technical constraints on the amount of renewables that can be accepted onto the grid, the IRP2010 update report does acknowledge that such a constraint may not be justified and proposes that it should be tested for its legitimacy.

The number of renewable energy bids received by the DoE is increasing, and there appears to be some acknowledgement of the potential for increasing the renewable energy capacity through the ministerial determinations of 2012.

d. Recommendations

Our recommendations remain similar to the 2013 review: to remove the restrictions and allow increased amounts of renewables in the integrated resource plan, and to analyse and adjust the bidding process to weight manufacturing and localised renewable industry development in a way that maximises long term socio-economic potential, including job creation for the country. In addition, attention should be paid to weighting to increase the participation of women in the industry.

There is also a need to fast track the small scale renewable energy programme that has been delayed for two years. This should also contain an explicit commitment to empower women entrepreneurs, who are more likely to benefit from small-scale programs.

As part of promoting transparency in government processes, there is a necessity for the REI4P tender documents to be placed in the public arena.

Given the paucity of general public awareness in the general population, there is an urgent need for a communication programme that provides detailed information on the intended benefits as well as the opportunities for engagement in the authorisation process, and subsequent governance process for REI4P. Government is facilitating the implementation of this programme and such a public awareness programme should be part of their responsibility.

A transparent participatory engagement process needs to be undertaken within each community regarding the benefits and challenges of the REI4P process, with meaningful communication regarding the involvement of local communities, the timeframes etc. Guidelines for such a process could be developed as a partnership between NGOs, government and the renewable industry, and international and local examples of good practice could be drawn upon. The use of specialist NGOs, whose focus in

participatory community development planning, would greatly assist the project developer in meeting the REI4P community development requirements and would result in more appropriate community projects. Ideally the use such specialists should be a bid requirement.

4. Government capacity to manage the REI4P

a. Lessons from REI4P 2012/13

Challenges that were identified from the 2013 REI4P review report included:

- Delays in implementation of the bidding process due to lack of experience and capacity within DoE
- Lack of priority given to the REI4P in its planning and budgeting
- The confirmation that Parliament must play an important role in monitoring progress.
- There is a lack of clarity surrounding the role municipalities should play and divergent interpretations of stakeholder roles and responsibilities

b. Progress for 2014

As discussed in our 2013 review, by its own admission, the very success of the first bidding window somewhat overwhelmed the DoE, and it was unable to finalise any Purchase Power Agreements (PPAs) within the announced timeframes (McDaid L. & Wood D. 2013).

The updated Table 4 indicates how the initial timeframe for bid windows and financial closure has been delayed, over almost a year in some cases. Although renewable energy developers and investors have praised the REI4P for its achievement, and highlighted its ability to meet deadlines (Eberhard 2014), it should be acknowledged that the original schedule of dates has slipped – for example, Bid window 4 is about 18 months delayed (Table 4). Please note that these delays are not due to developers failing to meet the deadlines, but rather due to internal schedule adjustments from Government.

Given that the REI4P is identified as one of the government flagship projects to address climate change, the delays in implementing the programme are likely to delay the implementation of South Africa's climate change response strategy. Failure to address the delays at this stage would exacerbate the problem into the future.

The REIPPP was envisaged to be implemented in five bidding windows over two years (Table 4), but over time the original dates for the request for proposals (RFP) have slipped.

Table 4: Envisaged timetable for REIPPPP updated¹²

	Original RFP date (DoE 2011)	Actual RFP date (DoE 2013)	Megawatts (DoE 2013)
Window 1	4 November 2011	4 November 2011	1 415.52 (28 agreements)
Window 2	25 November 2011	5 March 2011	1 043.9 (19 agreements)
Window 3	14 May 2012	5 November 2013	1 456 (17 agreements)
Window 4	29 October 2012	26 May 2014 open with 18 August to close	
Window 5	13 May 2013	-	

As indicated in Table 4, government still intends to process further bids and we would therefore expect to see a corresponding increase in capacity within the DoE.

As highlighted in our 2013 review, the parliamentary Budgetary Review and Recommendation Report (BRRR) process found delays in various energy-related programmes (McDaid L. & Wood D. 2013). In its progress report presented to Parliament, the DoE painted the picture of a department trying to deliver a number of key energy services but with limited institutional capacity. The new organogram (Figure 1) of the DoE clearly sets out a number of branches, for example, clean energy, or energy programmes and projects, which should incorporate elements of renewable energy.

¹² Data for table found at DOE: <http://www.ipprenewables.co.za/> accessed 29 July, 2014.
Electricity Governance Initiative South Africa – REI4P review 2014

Department of Energy Organisational Structure

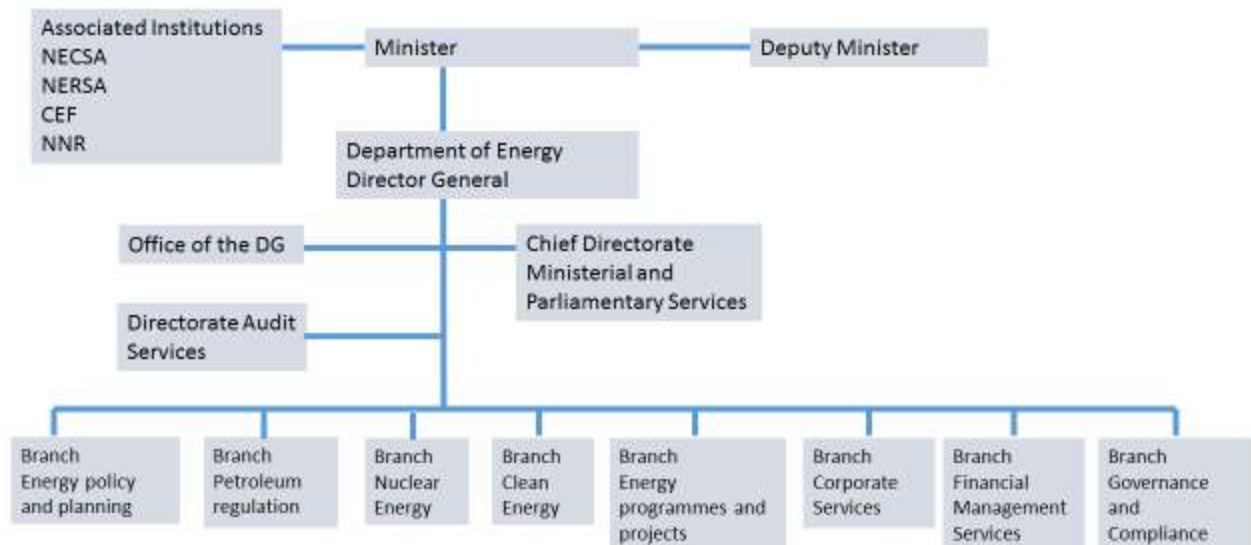


Figure 2: The organogram for the different branches of the restructured DoE department – (adapted from DoE 2014)

Our 2013 review found that, only as a result of the strategic review at the end of 2012 – well after the launch of REIPPP – was the DoE structure revised to align with climate change and alternative energy strategies, making clean energy a branch in its own right. Further, the estimated R 4 million of IPP unit set-up costs has only recently been approved¹³. The largely ad hoc nature of the DoE IPP unit to date has enabled a flexible approach that overcame private sector mistrust and brought extensive expertise to the REI4P process (Eberhard 2014). However, in order to ensure the sustainable implementation of renewable energy procurement, government needs to build internal capacity to manage the REI4P.

Figure 3 provides an indication of the private sector skills involved in adjudicating the bids. However, as will be discussed in Chapter 6 of the report, there are no social science specialist skills on this team to properly evaluate the socio-economic plans. There has also been no analysis of gender and such expertise should also be recruited into the team.

¹³ Set up costs of R4 million for IPP unit - pg 26 of the DoE Annual Report 2012
Electricity Governance Initiative South Africa – REI4P review 2014

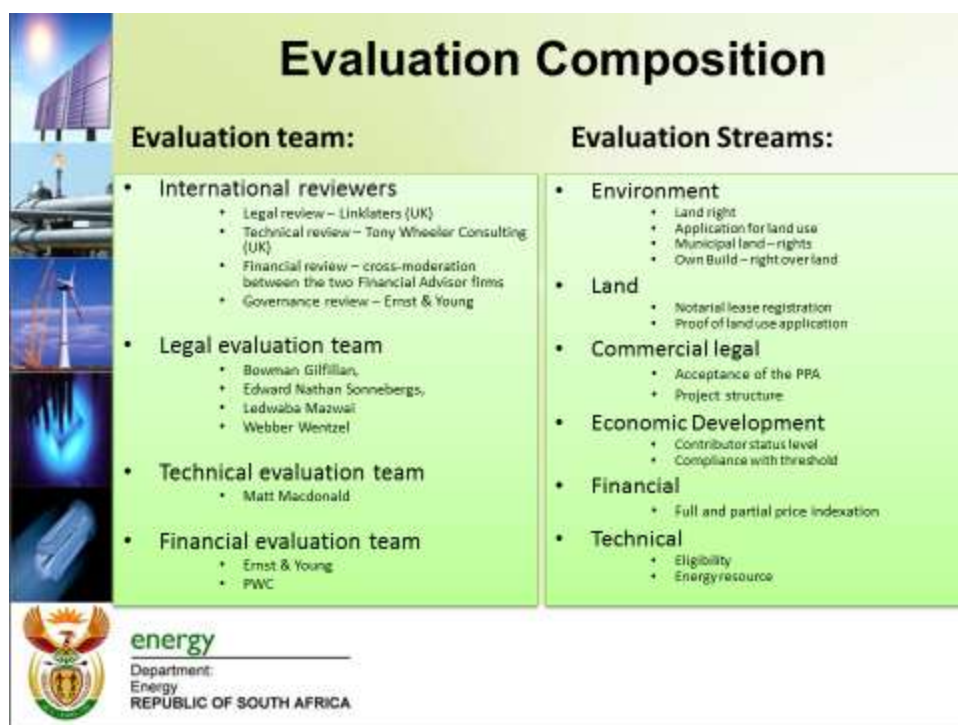


Figure 3: The composition of the Evaluation team for the REI4P (DoE 2012, DoE 2013)

According to the DoE budget 2014 (Table 5) the REI4P has staff in the Electrification and energy department (seven permanent staff and four contract staff), and in the branch named clean energy, five individuals are allocated to Renewable Energy. According to the DoE annual report, the staffing complement proposed for 2015-2016 review has altered slightly but not obviously in favour of renewable energy, despite an almost 100% increase in projects to be managed between bid window 2 and bid window 3. DoE confirmed that excluding the evaluation team of experts, the DoE has only seven staff working on the REI4P (O. Aphane personal communication 2014). By way of contrast, nuclear energy has 25 staff. With increasing amounts of renewable energy projects still to be procured, it would be expected that DoE would increase their human capacity to manage these projects¹⁴.

Table 5: The staff allocation to the different DoE branches (National Treasury 2014)

	DoE branches (number of staff)				
2014/15	Energy Policy and Planning	Petroleum	Electrification	Nuclear Energy	Clean energy

¹⁴ Official written requests via email and follow up telephonic engagement with officials within the DoE, were not successful in providing information such as the number of people that work within the IPP unit. Officials cited the need to follow some due process but also refused to name the senior officials that needed to be consulted in order to release the information. The researchers were fortunate to obtain the relevant information from a senior government official during a chance meeting.

	IEP (3) Energy Plan (oil) (23) Hydrocarbons (20) Policy (RE, Coal Map, ISMO) (8)	Compliance (4) Licensing (33) Fuel pricing (5) Regional office (61)	INEP (20) Energy Reg. office (19) Elec infrastructure, include REI4P (7 + 4 contract staff) Upliftment (6)	Nuclear (25)	Renewable Energy (5) Carbon Capture Storage, Climate Change (8)
Public Entities and other agencies	SANEDI (51)	Central Energy Fund – CEF (2202)		SA nuclear energy corporation/ NECSA (2247)	
	National Energy Regulator SA – NERSA (180)			National Nuclear Regulator (97)	

Table 6: Budget allocation (R millions) to the different DoE branches (DoE budget vote 2014)

Year	Administration	Energy policy and planning	Petroleum regulation	Electrification and energy	Nuclear Energy	Clean Energy
2014/15	244.1	52.6	82.7	4199	850.5	1 986.5
2015/16	255.6	50.3	79.8	5890	682	1 030.3
2016/17	272	53.6	83.6	6203	718.7	1 053.9

A detailed analysis of the budgetary allocation requires additional information which was not available at the time of writing. An initial analysis suggests that the budget allocation from the DoE for the REI4P is almost non-existent. Excluding administration which presumably supports all branches, and excluding electrification which is clearly not related to the REI4P, the remaining budget is split as follows: Petroleum regulation takes 3% of the remaining budget, nuclear energy takes 29% of the remainder, and fracking and carbon capture and storage absorb 65%. Thus, while electrification takes the lion's

Electricity Governance Initiative South Africa – REI4P review 2014

share of the budget, and does include several RE staff, it is unclear how much emphasis the section on Energy policy and planning gives to renewables as their priorities also include ISMO and the coal map. According to DoE, 97% of the Clean Energy section budget is allocated to Carbon Capture and Storage (CCS) and fracking. Some of this remaining 3% may be for renewables but this is also where the DoE Designated National Authority (DNA) for climate market projects sits, and that 3% would need to be shared with climate change CDM projects.

The IRP2010 proposes that 42% of new build capacity should be renewable energy. Given the relative novelty of these technologies, there is much room for technological advances, innovations that improve efficiencies and reduce costs, and a need to focus on issues such as storage. It would therefore be assumed that government resources be given to research and development. However, despite international recognition of success of the REI4P, the low proportion of budget allocated to renewable energy within the DoE is disquieting. For example, Swiss donations were obtained to fund research into smart grids, while SANEDI, the research institution of DoE has 97% of its funding allocated to carbon capture storage and fracking (DoE 2013), instead of allocating more funds to renewable energy research.

The allocation to CCS should be questioned. As per the fifth assessment report of the IPCC, the potential of CCS to address climate change is questionable “... carbon dioxide removal technologies ... are not mature and have biogeochemical and technological limitations to their potential on a global scale and carry side effects and long-term consequences on a global scale...”. The literature highlights the importance of a systemic, cross-sectoral approach to mitigation. Approaches that emphasise only a subset of sectors or a subset of actions may miss synergies between sectors, raise the costs of mitigation, cause unexpected consequences, and prove insufficient to meet long-term mitigation goals.” (IPCC 2014)

As a result of the 2012 BRRR findings, Parliament indicated its interest in keeping a close eye on both the Treasury’s and DoE’s commitment to building the department’s institutional capacity to develop a robust RE program. Poor results in the 2013 BRRR report were of concern to the Parliamentary Portfolio Committee although no concrete recommendations were adopted.

Government provision of access to information:

As part of the Presidential Infrastructure Coordinating Commission, a national strategic environmental assessment is being conducted to identify strategic geographical areas best suited for roll –out of renewable energy. These areas are referred to as Renewable Energy Development Zones (REDZ), and the CSIR claims that it has undertaken an engagement with local communities¹⁵. Neither our research team, nor the affected communities interviewed for this report had heard of this strategic environment

¹⁵ <http://deadp.westerncape.gov.za/news/national-strategic-environmental-assessment-sea> accessed July 29, 2014 and <http://www.infrastructurene.ws/2014/06/05/strategic-search-for-best-renewable-energy-development-zones/> accessed July 29, 2014.

assessment, and there is a need for accessible information and meaningful engagement from government on such an important issue.

The DoE continues to operate in a non-transparent manner, refusing to release the REI4P tender documents unless registered on their website, which costs a fee of R 15 000. Through a civil society organisation, Koeberg Alert, UCT gained access to a copy of the tender documents but only after putting in a promotion of access to information (PAIA) requests. The documents were then provided for a reduced fee, this was still a large amount of R 1 500 fee, beyond the means of marginalised communities. These documents are available from UCT, but Bid window 4 opened (26th May 2014) with an additional administrative step for bidders, that of submitting a Bid notification form. In order to gain a copy of that form, civil society organisations would need to register and pay DoE (R 15 000 unless special concessions were made) again to access this updated information.

Over the last 4 bidding windows, the process has remained totally non-transparent and can be regarded as a structurally flawed as local communities cannot participate in planning their own local development without access to vital information about the project proposed for their area.

Local Government has also not been given access to project developers' social commitments, further frustrating open access to information.

The Eastern Cape provincial government, in a partnership with GIZ have taken pro-active steps to overcome some of the lack of information, through the development of a checklist and guideline which maps the authorisation process for government departments at local and provincial level.

c. Conclusion

The delays in opening the call for proposals, and the delays in adjudicating bids as well as the continued reliance on private sector consultants to evaluate the bids points to a lack of capacity within the DoE. The failure to increase their staff complement over the three year budget cycle calls into question the commitment of DoE to the expansion of the renewable energy sector.

From the DoE budget for 2014, it appears that DoE does not have sufficient capacity to manage the IPP programme. The budgetary allocations outlined above indicate a disparity between the professed support of the renewable energy programme by the DoE and the continuing allocation of the majority of its financial and human resources towards "business as usual" fossil and nuclear energy.

Although the DoE has the responsibility for energy-related climate change programmes such as REI4P, its failure to stick to its schedule could be attributed to the fact that it didn't allocate sufficient resources to enable it to carry out its mandate. Such tensions are likely to result in inertia and undermine the potential of renewable energy to fulfil the stated aims of the programme¹⁶.

¹⁶ According to the Academy of Science of South Africa (May 2014), *the budgetary allocations made to SANEDI since 2011 to date, as well as planned until 2015/2016, are inadequate to execute the SANEDI mandate in terms of Electricity Governance Initiative South Africa – REI4P review 2014*

The DoE registration system to enable access to the REI4P bid documentation, particularly the socio-economic requirements documentation, continues to be inaccessible to the general public. The maintenance of secrecy is counter-productive and undermines the ability of local communities and local government to participate in decisions that affect them.

d. Recommendations

In order to maintain and grow the REI4P, the DoE needs to increase its budgetary proportions for renewable energy research and development, as well as ensuring sufficient personnel with appropriate skills. The evaluation team should include socio-economic expertise and gender specialists.

We also reiterate a key recommendation from 2013 – that in order to parliament to carry out its oversight role, it needs to gain an understanding of the decision-making process for prioritization of budget allocations within the department, and must then hold the DoE to account for their failure to provide sufficiently for renewable energy programmes.

The DoE must increase its staff complement in order to reflect its stated emphasis for renewable energy, and that the small number of specialist skills recruited reflect the identified weaknesses in the programme to date.

In order to address the lack of transparency within the REI4P, it is imperative that DoE should improve their communication and provide public access (with no fees) to the bid criteria and decision-making documentation as part of improving access to information for the public in the renewable sector. Care should be taken that people who have no access to the internet, or who cannot read and write, are included in communications campaigns.

Tools such as those developed by the Eastern Cape should adapted and replicated for all provinces.

5. The role of local government

a. Lessons from REI4P 2012/13

The EGI 2013 review identified the lack of clarity regarding the role of local municipalities in engaging with renewable energy projects within their municipal boundaries.

b. Progress for 2014

A key requirement of the REI4P is that the developer has to set up a structure and process of carrying out socio-economic benefits to the community within 50km radius of the renewable energy project. This poses an additional challenge to the success of the project and the appropriateness of an energy supply project undertaking local economic development has been raised (Tait et al, 2013).

the National Energy Act. The optimal resourcing and placement of SANEDI in the national research agenda is of paramount importance.

According to those interviewed, there is no structured partnership with the local municipality and local government is only engaged in a fragmented, peripheral and uncoordinated manner with the renewable energy projects. Additional challenges are that several projects are developed in one area (refer to Figure 1). This means that several developers are potentially engaging with the same community to determine socio-economic needs, but, given that the bid process is a competitive bidding process, no developer wants to share their socio-economic development plans and there is a resulting confusion amongst all parties.

Local Government has formal legal processes to consult communities in the development of general local government development plans (Municipal Systems Act, Act 32 of 2000). This is articulated in the integrated development plan (IDP) updated annually, and revised every 5 years. Public meetings are required in the wards, and ward committees are conceived as the formal conduit for community structures to engage with political leadership around local development. However, our ground level discussions revealed that not only is the ward committee system not operating optimally, but that renewable projects are operating outside such structures, effectively creating multiple parallel private sector driven processes for determining economic priorities within the same geographic locality as that governed supposedly by local authorities.

Given the failure of local government structures to operate transparently and to meaningfully consult with the public, it is perhaps not surprising that renewable energy developers should also be sceptical of engaging local government. The amounts of money that will flow into communities for economic benefits are substantial¹⁷, and there is a perception that this money will not find its way into community projects. In general, communities (ordinary members of the public) can get involved in local development planning through IDP engagements, and more regularly, through ward committee meetings. Although stakeholders such as labour, community project leadership, and community organisation leaders have meetings with their own members, which are well attended, all stakeholders felt that IDP and ward committee meetings were not well attended.

From community and local government perspective, the meetings, while providing a space for individuals to raise their grievances, were often “talk shops”, with little follow-up action. Local government officials felt that people might be tired of coming to IDP meetings to say the same thing over again and with no action that results, and community leaders felt that even if projects were accepted at ward committee meetings, there was manipulation through the local councillors where projects are taken off the agenda, at the local councillors’ discretion, even if in opposition to the ward committee wishes.

As one community representative put it, the IDP is simply a cut and paste from one year to the next, but nothing gets implemented.

¹⁷ Specific numbers for particular projects are not available as that is part of the information that is not in the public domain. However, according to DoE, the average value of adjusted socio-economic development contribution per MW would be R1 769 475 (see appendix D).

According to local community leadership in one area that was visited for this research, that particular municipality has established a development trust into which large project developers should pay for community development. This might be a model to use in renewable energy sector. However, how much money is paid, who decides how it is allocated etc. is not known to the community leaders, despite their position on the ward committee.

In another area, the local government officials said that it was quite difficult to engage with renewable energy developers. The developers do come to the local authorities but, until their project is approved through the REI4P bidding process, officials see no reason to interact further. One official had a map with a range of projects indicating potential sites where renewable developers had applied. In this municipality, the local economic development officer had a range of projects and their mode of operating was to link up projects with sponsors. The identification of potential projects was ostensibly through the IDP, unfortunately, not a participative process that is well supported by community members.

Municipalities do have databases of local SMME's and labour databases of job seekers. In one area, the database was provided to the renewable energy developers but, according to the local government official no-one benefited.

In another area, community representatives who had put their names onto the database and who had not benefited queried how up to date the database might be. They related cases of individuals who had moved out of the area, and who might then return and get the jobs or business. In one area, community representatives spoke of matriculants who have the skills but don't have the transport money to get to the local municipality to put their names on the database.

There were reports of politicians who were engaging with the renewable energy developers in order to negotiate a fair deal for the beneficiary communities, with various levels of success. Overall, local government officials and councillors interviewed for this study were not happy with the current process of implementing renewable energy projects, although local governments in all areas were attempting to engage with the renewable developers. One area of dissatisfaction was the attempts of developers to maintain control of the trusts, while claiming that they were community trusts "owned" by the community. Another area of dissatisfaction was that that social investment projects were implemented in an ad hoc manner, and the quality of the delivery is questionable. As one local official stated "the work cannot be regarded as commendable at all".

Local government officials expressed frustration in that they do not have access to the commitments that REI4Ps have made to DoE, these documents are confidential. This increases tensions at local government level where the public are attempting to get information and may not believe officials who claim they have no information to offer. Due to the competitive bidding process, RE developers keep their social development plans close to their chests, and this atmosphere of secrecy leads to increasing distrust at community level. In addition, renewable energy developers raised a concern that funds that are directed into the local government bank accounts cannot be ring-fenced and there would be no

Electricity Governance Initiative South Africa – REI4P review 2014

guarantee that the funds would then be used as intended (Tait et al 2013). Such unintended consequences of the competitive bidding process are felt at the local level but can only be corrected through adjustments at the national level. The removal of a requirement for a detailed socio-economic development plan as part of the competitive bidding process, and its requirement to be developed openly with local government and community stakeholders, post acceptance of the bid, would address some of these tensions. The development of such a plan and its verification by DoE could be aligned with the financial close deadlines, providing a window of 6 to 9 months for meaningful community engagement.

There was very little trust between councillors and community representatives. There were party political tensions, and accusations of politicians using their influence to retain benefits for their friends. For example, in one area, the director of a women's shelter was informed by the local government official in charge of social development that NGO's were not going to benefit from the community trusts at all, since all the money was going to go via the municipality itself.

Community representatives that sit on ward committees did not regard these structures as transparent decision-making structures and there was general unhappiness with the selection of projects for funding, either related to the IDP or the ward committees. As one municipal official stated, "it is a political decision" and subject to politician whim.

In one area, the municipality has set up one trust with the idea that all social investment (CSI) could be put into that fund. This enables an integrated approach to development, enables the municipality to ensure that funds are in effect ring-fenced and are not lost in general local government finances.

Such an approach enables cooperation amongst IPPs and local government while retaining a paper trail whereby IPPs can track the expenditure on a variety of projects. The involvement of the local municipality ensures that projects that are identified are aligned with the IDP.

Importantly, at a provincial level, industry and government stakeholders have acknowledged the challenges and are attempting to address them. Recent initiatives by the Eastern Cape, in partnership with GIZ, to produce a guide to the renewable energy project development process that illustrates how and where local government needs to be involved in the process have provided some transparency and guidance for local government¹⁸. In addition, there should also be a guide which explains how women can benefit, and details how gender equality principles be mainstreamed in the development trusts.

The setting up of a sustainable energy forum involving local industry, the provincial department of economic development and including the NGO coalition will also hopefully assist in ensuring that the

¹⁸ Mapping of Provincial and Municipal Permitting and Authorisation Processes for IPP projects in the Eastern Cape, November 2013, province of the Eastern Cape, Economic Development Environmental Affairs and Tourism, GIZ (German Cooperation).

experiences of local communities are brought into the discussions of addressing the various challenges of ensuring local benefits reach their target audience.

c. Conclusions and recommendations

The challenges of local government in the renewable energy sector are very much linked to community benefits and are therefore addressed as part of the conclusions and recommendations of section 6 below.

6. Who decides on local benefits for communities – lines of accountability?

a. Lessons from REI4P 2013

In the EGI 2013 review report, various industry and academic stakeholders had identified a number of challenges in trying to realise community benefits, including: time lags of several years between initiation of community involvement and any monetary benefits; difficulties with collaboration, identifying communities, overlap, etc...; and one unanimous grievance with DoE for failing to provide feedback on how the socio-economic aspects of the bid had been evaluated.

The EGI 2013 REI4P review identified the need for community benefit specialists in the REI4P design and evaluation team. From 2011 until 2013, the DoE has at various intervals, presented on its team of assessors and the lengthy list still does not include social scientists or labour specialists, but only specialist lawyers and accountants (refer to Figure 3).

The lack of clarity regarding the role of local municipalities in engaging with renewable energy projects within their municipal boundaries was also identified in 2013 (ERC 2013). Other challenges identified included:

- Identifying early benefits for communities
- Involving communities directly in the conceptualization and planning stages

b. Progress up to June 2014

The lack of guidance regarding the implementation of socio-economic benefits has not been addressed, and despite a lack of guidance at national government level, the industry has taken the lead and is now engaging in discussion over how best to implement its socio-economic programmes. One example was a workshop held by the SAWEA in May 2014, which focused on local socio-economic benefits.

The possibility that renewable energy projects may not be able to deliver on expected development outcomes remains a risk for future renewable energy projects, in part due to the requirement that

project developers must ensure that 1% of revenues are invested in community development but few project developers have expertise in such programme design (Eberhard 2014).

In our fieldwork meetings, community representatives stated that they had no knowledge of socio-economic requirements of the REI4P projects and were not aware of the difference between corporate social spending, enterprise development funds or development funds from the trusts (see appendix B). In all three areas, community representatives had assumed that the promised “benefits” were short term construction jobs, and believed that once the wind or solar farms were up, there were no further jobs nor any other benefits. Only one group had attended public meetings connected with the REI4P projects, although one leader of a sports association recalled attending an EIA meeting where promises of “millions of Rands” had been made.

One group had been told of potential income flows as they had attended an EIA public meeting where the developer had “sold” his project on its ability to create jobs and generate income for the community. However, the detailed process of how this would happen was not revealed and there had been very little further contact.

In another area the three organisations present at the EGI SA workshop had never heard of the REI4P process, and had no idea of the developmental benefits supposed to be flowing from this. It was the opinion of those present that knowledge and information had been restricted to certain parts of the community while this section (the poorest in the area) had been deliberately excluded because they were not ‘connected’ to influential figures in the community. It is noteworthy that this was an area where certain companies had already set up their community trusts, rented offices and appointed officials.

Shareholding by local community - decision-making mechanisms of trusts

According to the DoE requirements, the aim of the community trusts is to ensure that a proportion of the renewable energy project income is directed towards local economic development of communities (refer to Appendix B, an extract from which is reproduced in Table 7 below). There is also a mandatory provision for communities to hold equity or ownership of wind and solar farms. Our reading of the aims of the REI4P is then to provide a mechanism for the community to have control of their future, to make decisions about their needs and to have some resources to implement their decisions.

Table 7: Extract from Appendix B relating to community ownership

Shareholding by local community	2.5% – 5% of project shareholding	The defined local community will have an ownership share in the project company. There are no explicit requirements on how these contributions should be spent, but would probably need to be developmental in nature.
---------------------------------	-----------------------------------	--

There would be an expectation that if this is the aim, then the representation of trustees on the trust would be in proportion to their equity share in the trust. In other words, if the community owns 5% of the solar farm, then the community representatives would make up 5% of the number of trustees. However, from our discussions with community leadership and local government representatives on the ground, there is no consistency in how trusts are implemented, and no evidence that thought has been given to implementing gender equity in representation. In one area, the developers are proposing to “give” community shareholding of 25% but only give one out of ten trustee places to the community representative, while in another area, community representatives believed that a former politician had become the community trustee but no-one was aware of any transparent process through which this had happened. In one area, the community explained that they had been told that trustees could apply for the position of trustee – i.e. individuals with no accountability to the broader public – could then end up representing the “community”. Developers have also reported conflict at community level due to such appointments (Tait et al 2013).

Two examples of the consequences of such non-transparent, non-accountable processes are provided from our fieldwork. In one area, the trust office was an empty building where the head of the trust had appointed his family member to run the trust office, and where one of the identified community projects had been to upgrade a hotel belonging to a senior member of the renewable energy company in question. This trust had been formed through a few selected individuals being brought together to form a trust but without any broader public consultation with the community.

In another example, community representatives had been called to a meeting where one individual had attempted to persuade them to join him in forming a trust. The community members recalled that the individual had appeared very knowledgeable about the potential income streams that would flow through the trust but they had been suspicious of the suggestion that the individual had wanted to be the sole executive director. They felt they had not been given sufficient information and had rejected the offer.

In the NERSA 2014 licence hearings for REIPPs, some developers indicated that trustees would be “professionals”, appointed by the developer and/or the financier that would manage the trust on behalf of the community. Concerns have been raised by developers that unrealistic expectations might be raised if community engagement about future development projects is undertaken before the bid has been accepted, and that if a developer failed to win the bid, this might sour future engagement (Tait et al 2013). However, as has been pointed out, attempting to create a needs assessment and planning process without the involvement of the broader community would not be conducive to long term effective community trust and engagement (Tait et al 2013). Box 2 offers a salutary lesson from the mining sector.

Box 2: Learning from the mining sector

Case study - Anglo-platinum Mogalakwena mine and engagement with the surrounding community.

A case study of how a mining company engaged with surrounding community provides some lessons for the renewable energy industry (Farrell et al 2011). In the mining case, the company was to relocate a community for a mine, and instituted community representative structures, with a community development trust into which financial benefits from the mine could be deposited. There was also a commitment to 30% local employment. The company did not meet its employment targets, claiming that there were insufficient skills in the community, community representatives were largely not accountable to the community. The company relied on the trust representatives to communicate with the communities, and failed to consider the voices of other stakeholders. This highly centralised approach led to increased tension and distrust.

In addition, the company paid the trustees, thereby creating incentives for such representatives to want to claim to represent the community and this undermined the broader community's trust in the representatives. In addition, the monitoring system was largely quantitative and there was insufficient attention given to complex social realities. The resettlement project manager asked for social scientists to be brought on board to help with community engagement, but this was refused by senior mine management. The company focused on legal compliance, rather than "a more holistic approach to community engagement focused on dialogue, negotiation, inclusiveness and human rights".

After increased conflict, and an investigation by the South African Human Rights Commission (SAHRC), Anglo Platinum implemented organisational reform. The need for social expertise was acknowledged and the company built internal capacity in this area, to ensure social expertise is incorporated into all mining operations. The company resolved to communicate transparently, "we need to inform anybody that is anybody about anything we are doing; we need to become relentless and boring about communications"

The researchers concluded that a new kind of worldview is needed, and that "fostering improved corporate-community relations is always going to require more than regulatory compliance" (Farrell et al 2012).

Various development finance institutions have played an important role in financing the equity shares of communities. Recognising that the manner in which community trusts were established could be flawed, one of these DFIs has embarked on a post bid acceptance process, rectifying the democratic flaws in trustee selection– refer to Box 3.

Box 3: Democratic governance example of election of trustees

Various development finance institutions have been involved in funding the projects to date. This case study describes how an initially flawed process is being proactively addressed by DFIX¹⁹.

In projects where the DFIX is involved, a community trust is set up to hold shares and manage distribution of funds to the target community beneficiaries for the purpose of funding community

¹⁹ The DFI concerned requested anonymity and has been referred to as DFIX.
Electricity Governance Initiative South Africa – REI4P review 2014

development initiatives. (oversee the flow of finance from the community equity in the project). The DFIX, IPP company, and community beneficiaries will be represented on the trust.

There would be a number (approximately between 5 to 7 trustees) of trustees to be agreed upon to constitute the Board of Trustees. The trustees will come from different background, experience and skills. Some of the trusts are constituted in line with Broad Based Ownership Scheme (BBOS) and the BBOS stipulate that the trust must be constituted by at least 50% independent trustees, 25% women, and 50% black.

Independent trustees are not linked to the project or funder or founder.

Trusts for DFIX funded projects were set up at bidding stage without undergoing intensive community engagement, the reason being, not wanting to raise expectations amongst identified community beneficiaries due to the fact that the process is competitive (bidding process). The DFIX is now embarking on a process to properly constitute the Board of Trustees and plan to properly engage with the identified community beneficiaries. The Board of Trustees would be represented by Community beneficiaries, DFIX and the Project Company. Some of the Board of Trustees would also be represented by independent trustees.

Each sector nominates trustees to the board. The nominations were received and a public meeting was then held where the nominees were introduced to the community. This meeting was well advertised throughout the community and transport was provided to ensure that community members could attend. An elections process was then held where community members elected the community trustees.

The trustees will then work through the trustee documentation, and a consultative process will be undertaken to develop a community development plan.

Socio-economic spending:

As indicated in Appendix B: Economic development requirements for local communities (an extract reproduced in Table 8 below), the DoE requirements for RE projects include that a certain proportion of project revenue should be spent in the community to encourage socio-economic development.

Table 8: Socio-economic development requirements (from Appendix B)

Socio-economic development	1 – 1.5% of project revenue	These contributions should be directed towards activities that facilitate sustainable access to the economy for beneficiaries. These contributions can go towards a wide range of activities including rural development, the environment, infrastructure, enterprises, reconstruction of underdeveloped areas, development programmes for women or youth, education, health care as well as arts and culture and sports.
----------------------------	-----------------------------	---

According to interviewees in our study sites, they had experience of other social responsibility spend by non-energy large scale developers, e.g. a dairy company, or steel factory, had social responsibility programmes. Community organisations were aware of the process whereby the company asked for proposals, the community organisations then need to apply to a specific developer for funds, and the developer would then decide who to give the money too.

For renewable energy developers, RE developers are not given guidance from DoE for how to develop their socio-economic plans, and have received no feedback on the community benefit part of their projects, leading to less inclination to do anything beyond minimum compliance (Tait et al 2013). Our engagement with community leaders provided several examples of inappropriate spending, as well as potential misinformation reported by the RE project developer regarding how their SI funds are being spent.

Some examples are listed here:

In one area, a building labelled as a “skills training centre” established by one of the developers was completely unheard of by COSATU and the Department of Labour and the EGI-SA fieldworkers who actually visited the site discovered that it was in fact merely the offices for a labour broker and the building had never been used for training purposes.

One case concerned a media release on the project’s website that spoke of a formal assessment of community needs, and that benefits would be spent to meet identified community needs. However, on the ground, community groups spoke of this particular developer who came to ask what they wanted, went away with no agreed priority list, and then came back and implemented something that was not on the community list of needs at all. One developer failed to consult with the community structures, and erected some children’s play equipment on a remote sports field. Women in the community were alarmed as the location of the sports equipment would attract kids to an area that was not safe for them to play in. It is not clear why the needs of the community were ignored, or who made the decision to implement the play equipment. It might have been done with the best of intentions but its unintended consequences are that children are now potentially at an increased risk of harm than if nothing had been done. A meaningful engagement process with the communities on the ground could have provided a community asset, rather than placing an additional burden on an already stressed community.

Another example was the assurance by a developer’s representative that a number of projects had been identified for funding. However, the field researchers were only able to track down one of the projects, a school that admitted that they were in discussion with the developer but that nothing had been agreed.

In another area, a developer’s website had photos of children from a local school receiving school shoes. Individuals who knew of these projects voiced scepticism. The truth of the social project was

Electricity Governance Initiative South Africa – REI4P review 2014

questioned as one community representative professed to know the children in the photo and knew that they didn't go to the same school.

In our discussions with various community structures, no-one could inform us of any criteria that were used to select projects. In one case, an organisation that had received funding from a renewable energy project for a local youngster to receive a scholarship refused to speak to the fieldworkers as he felt that this might jeopardise his chances of further support.

Monitoring the implementation of the REI4P commitments

The renewable energy programme implementation has been loaded with a number of socio-development commitments that other energy projects have not had to comply with. RE project developers have highlighted that they have received little feedback on their socio economic plans, and the specialist skills in the evaluation team do not include social science skills. Ensuring transparent processes of communication can assist with monitoring the flow of community benefits, as reported from a case study in Indonesia, see Box 4 (Banerjee 2014).

Box 4: Transparency of Information increases benefits to local communities.

Economists conducted studies to investigate whether the provision of information to a group of marginalised people could assist them to address food insecurity.

In a large scale field experiment of 550 villages in Indonesia, researchers found that providing information about a subsidised rice programme (through distributing cards with information about that rights of the beneficiaries) to the targeted beneficiaries increased the amount of rice received. The Indonesian villages study showed that providing information to potential beneficiaries about their rights boosted their negotiating power with authorities and resulted in a 25% increase in benefits received (Banerjee et al 2014).

When people are informed of their rights, they take steps to ensure them. Therefore much more needs to be done pro-actively to inform potential beneficiary communities of the social development provisions of REI4P, and channels need to be set up for regular public engagement. Judging from our research it would seem as if quite deliberate attempts are being made to restrict benefits to a select few. The technical term for this is 'elite capture' which often happens at local level unless specific steps are taken to ensure that local elites do not take over the benefits for themselves.

At an international level, financial institutions have accountability mechanisms which could, in theory, be drawn on by local communities to hold re projects accountable. Box 5 provides an example of such a mechanism for a company that is involved in the REI4P projects in South Africa (names were removed to avoid singling out any specific developer). Most of the successful RE bidders have international partners, often international renewable energy developers and/or international financiers for the projects. International financing companies have made their own attempts to be accountable to affected

communities. However, such procedures may not be appropriate for a developing country. One example is provided here:

Box 5. Accountability of renewable developers through international standards:

Company Z supports its clients in addressing environmental and social issues arising from their business activities by requiring them to set up and administer appropriate grievance mechanisms and/or procedures to address complaints from Affected Communities.

In addition, Affected Communities have unrestricted access to the Compliance Advisor..... mandated to address complaints from people affected by Company Z²⁰-supported business activities in a manner that is fair, objective, and constructive, with the goal of improving environmental and social project outcomes and fostering greater public accountability of Company Z.

*Compliance Advisor/Ombudsman
Company Z,
USA address*

The compliance advisor/ombudsman receives and addresses complaints in accordance with the criteria set out in its Operational Guidelines which are available at the website of the ombudsman.

The appointment of an independent ombudsperson to address complaints from affected communities is laudable, but how are local South African rural communities informed of this right? If they find out about their right to complain, they will need to read the “operational guideline” available on a website, and then write their complaint to an address in the USA. They will have to possess the language skills and abilities to express their complaint in English, and to communicate to an ombudsperson in America, and to then expect the distant ombudsman or woman to understand the circumstances and be able to meaningfully engage with the affected community.

The barriers are formidable.

The possibility of setting up a hotline where communities can report irregularities in the implementation of the IPPs would be one method of encouraging communities to watchdog developers in the area. However the success of such an initiative would depend on the extent of public awareness of the DoE requirements.

c. Conclusions

Across all areas surveyed, there was little communication, and no transparency regarding the process of how local economic development priorities would be decided, either with or without the involvement of the local municipal institutions. There is no transparent, accountable mechanism whereby the broader public is informed of the details of the REIPPP benefits community stakeholders interviewed were not aware of the potential financial benefits that would flow from the solar and wind projects.

²⁰ Names have been changed to preserve anonymity
Electricity Governance Initiative South Africa – REI4P review 2014

The research failed to uncover any trusts that had been established and were operating in a manner that complied with good governance. While acknowledging the limitations of the research, in general, to date, the practice of community involvement in trusts has been characterised by a lack of transparency and lessons from the mining sector indicate that such actions are likely to increase conflict and distrust amongst and between stakeholders.

Renewable Energy project socio-economic development plans are developed outside any participatory processes, including meaningful engagement with local government.

The manner in which the REI4P programme has been implemented at national level appears to reflect a priority of electricity generation project with an add-on requirement of local economic benefit. With no clear guidance for interacting with local governments, it creates the potential for a multiplicity of ad hoc development plans at local government level, potentially in conflict with statutory local government development planning. Such plans are often located within the same 50km geographic area.

The competitive bidding process exacerbates local participatory development weaknesses, and although local government and communities bear the brunt of this process, a systemic solution can only be affected at the national level.

Local statutory planning process, for example the IDP, often do not involve meaningful participation of local communities, and identified projects are not implemented, and funds are spent elsewhere. This is despite guidelines on socio-economic development and gender equality.

The experience of communities on the ground is that there is no transparency in the process, that decision-making structures are ad hoc and manipulated by local elites and that socio-economic benefits are likely to be diverted into the hands of unscrupulous agents who have operated in a corrupt manner in non-energy sectors and are now turning their talents to the renewable energy sector.

The expectation from government that renewable energy producers should take on a complex and onerous responsibility for local economic development, something that other energy producers are not required to do, imposes an additional barrier for the renewable energy sector in South Africa. It reflects the inequities in the manner in which different energy technology choices are dealt with by government. It further imposes an additional burden on local government whose decision-making and participative processes of engaging with the local communities are inadequate.

After hearing from community structures on the ground, within three provinces, it is clear that experiences of further marginalisation of marginalised communities are not restricted to the renewable energy sector, but the lack of expertise displayed by the renewable energy sector in general has exacerbated an unhappy situation.

This 2014 review highlights that the introduction of streams of money that will flow into previously marginalised communities is significant and long term – potentially millions of Rands over 25 years²¹

²¹ See Appendix D

(one example mentioned for one project was R84 million). Experience to date is that the developer's manner of engaging with local communities is at best weak and ineffectual and at worst, leads to increasing conflict and divisions and a lack of trust within already marginalised and vulnerable communities.

In some cases, engagement between industry and local and provincial government has led to initiatives to improve transparency and to build capacity of local government as to their role.

d. Recommendations

Local governments need to improve their institutional planning processes, increase transparency around local development decision making processes and emphasise meaningful public participatory processes. There is a focus within the Ministry of Co-operative Governance and Traditional Affairs on action to improve financial management of municipalities, and this process could usefully include monitoring and evaluation of REI4P trust monies in this process.

Social economic plans, developed by RE projects, need to be aligned with local government development planning processes.

Local Economic Development responsibilities of local government need to be retained by local government rather than within the ambit of RE developers. Such local economic development could be financed in part through the IPP financial flows.

The national REI4P bidding process needs adjustment in order to reduce the unintended consequences at local level. Increased transparency and meaningful engagement in the production of socio-economic plans would be facilitated if such plans were not part of the competitive bidding process but a condition of approval, to be implemented within specific timeframe of the finalization of the bid.

Provinces that have taken the initiative to improve relations between stakeholders particularly local and provincial government should be commended and their lessons applied to the rest of the country. Organisations like SALGA, trade unions and NGOs should also be involved in such initiatives. Some of the trust funding can also be allocated specifically to build the capacity of local communities and organizations to engage with industry and government.

The DoE IPP unit should set up a multi-stakeholder task team (including national, provincial and local government, renewable industry, labour, NGOs and affected community organisations) to review the current REI4P framework in order to address the unintended consequences of the current bidding and implementation process on affected communities. Such a task team would need to consider the advisability of forcing the private sector to implement local economic development, the timing of community trust formation (possibly delayed until after the bid is accepted in order to allow for a cooperative approach to community development rather than a competitive one), the role of local government and the need for monitoring of effective implementation.

Electricity Governance Initiative South Africa – REI4P review 2014

There needs to be a comprehensive evaluation of the governance structures of trusts that have been established to date, and part of that review should consider the need for and/or nature of alternative models of community ownership in renewable energy procurement. Such evaluation should identify examples of good practice and draw up a guide to establishing and running the trusts, and ensure that this is communicated to each and every IPP. Where trusts are found to have been established in a non-accountable manner, such trusts must be reviewed and good governance practice implemented to correct the situation.

As a matter of urgency, DoE must embark on a communication programme that provides detailed information on the intended benefits as well as the opportunities for engagement in the authorisation process, and subsequent governance process for REI4P.

A transparent participatory engagement process must be undertaken within each community regarding the benefits and challenges of the REI4P process, with meaningful communication regarding the involvement of local communities, the timeframes etc. Such guidelines could be developed as a partnership between NGOs, government and the renewable industry, and international and local examples of good practice could be drawn upon. The use of specialist NGOs, whose focus in participatory community development planning, should be mandatory.

Part of the community benefits that derive from the REI4P should be directed towards capacity building within affected communities, addressing conflictual relations that have arisen due to current developers' engagement practice, and to prepare them for a participatory development process. Such capacity building should include financial management, development planning for their community, and should capacitate them to monitor developmental benefit roll out within their communities.

7. Creating new decent jobs for locals – how local is a local job?

a. Lessons from 2013 Review

As per our 2013 review, on 5 November 2012, the DoE released a fact sheet on potential jobs that would be created in Window 1 of the REIPPP. Bidders were asked to propose the jobs in both construction and operation that their project, if successful, would yield. According to the DoE's figures drawn from successful bids, the first window would create a total 23 883 jobs – 13 069 in construction and 10 814 in operations (DoE 2012b). However, a disappointing number of operational jobs (only 463) would go to South Africans (see Appendix D), which are considered longer term and more valuable than construction jobs²². This implies little long-term benefit for South Africans.

²² Such a reliance on foreigners for electricity power plant operations is not unusual. For example, Alstom was contracted for a major maintenance contract in 2010 (Euro 1.5 million) and brought in 110 specialists from Europe:

<http://www.engineeringnews.co.za/article/alstom-mobilising-for-big-koeberg-unit-1-shutdown-2010-07-30>

Electricity Governance Initiative South Africa – REI4P review 2014

The 2013 review also highlighted that jobs should be examined across the value chain, and made a recommendation that skills gaps would be determined and training applied to fill the gaps. The localisation requirements of the REI4P must include the employment of South African nationals, with an assumption that these would largely be drawn from the vicinity of the IPP site.

b. Progress up to June 2014

As described in the 2013 review report the REI4P bid evaluation is a phased implementation process. Appendix C provides a description of the elements of each project bid, the weight allocated to community development, community ownership and local job creation. However, as Figure 4 shows, the assessment is evaluated on 70% price. The 70% price weighting is a departure from the Preferential Procurement Policy Framework Act (PPPFA) which required price to be allocated 90% of the weighting, theoretically offering business potential in rural areas due to the distributed nature of renewable energy resources (Eberhard et al 2014).

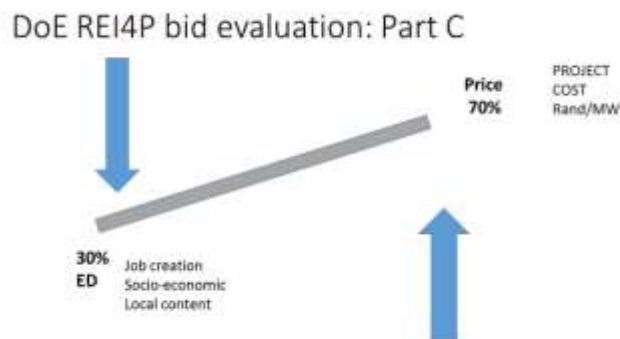


Figure 4: The weighting allocation for REI4P bids, showing that price counts for 70%

Each successive round, in theory, increased the level of localisation.

Table 9: Local content per project type (R millions) (Rycroft 2013)

	Bid window 1	Bid window 2	Bid window 3
Wind			
Local content value	R2391-m	R1638-m	R5627-m
Local content	21,7%	36,7%	46,9%
Solar PV			
Local content value	R6261-m	R5727-m	R3698-m
Local content	28,5%	47,5%	53,8%
CSP			
Local content value	R2391-m	R1638-m	R5627-m
Local content	21,0%	36,5%	44,3%

Table 9: Local content per project type.

Eberhard et al (2014) describes the detailed changes that were made from bid windows 2 to 3 in order to increase local content requirements. For example, local content threshold requirements for onshore wind increased from 25% to 40%, while for CSP, the threshold increased from 35% to 45%. Table 9 shows the projected local content value created over the three bid windows according to the bids received. However, In our fieldwork, local government representatives and other renewable energy experts expressed frustration that few local contractors had benefited from the renewable energy projects.

According to a press article, the DTI reported that, despite stringent procurement rules for state entities formulated to strengthen local manufacturing, many government tenders were in breach of the rules, with imported products sourced through BEE intermediaries preferred over local products (Creamer 2014b). However, a small case study provides some hope for localised production: A firm that manufactures a widget called “fasteners” reported a decline due to mining and power industries that have failed to expand (Baloyi 2014). But the same company is now supplying the renewable energy sector and has experienced an increase in business (Baloyi 2014b).

For the solar PV industry, a study into job creation along different parts of the solar PV value chain, and found that for South Africa, the assembly line was the labour intense part of the value chain (16-19% of total jobs), but only represents a small portion of the overall cost (6%) (Mulcahy 2012). A local²³ solar PV manufacturing plant has been set up in South Africa but they are located in Cape Town as the South African demand for panels is too small for their commercial viability, they are focused on the export market and therefore located near ports and transport infrastructure that enables them to access

²³ In terms of the BEE legislation, BEE is automatically “local” regardless of the vicinity to the project. Local is not defined as within the local area.

northern markets, rather than at the solar farm site²⁴. Similarly, a wind manufacturer has opened a manufacturing plant in Atlantis, as a result of a strategy where government prepared the land, undertook the Environmental Impact Assessment and other approvals, allowing the company to set up within 4 months²⁵.

International renewable energy developers are full of praise for the renewable energy bidding programme and the future of renewables in the country, and the Deputy Minister of Science and Technology, Mr Michael Masutha, indicated that they envisaged a further 5 000 MW solar in a solar corridor from Upington to De Aar (Creamer 2014a).

Various German wind manufacturers look to invest increasingly in South African wind industry. In addition, the Trade and Industry Department and Economic Development departments have created various incentives, such as the manufacturing competitiveness enhancement programme, foreign investment shipping grants and tax incentives, to attract foreign investment into this sector (Greve 2014).

However, concerns have been raised that some RE project developers are manipulating the localisation requirements. "For example, some projects have scored well on local content, but are allegedly importing fully assembled PV panels. These high scores are probably only possible if panels are sold by parent companies to local subsidiaries at below market prices, and then the local mark-up on the panels is counted as part of local content value addition." (Eberhard et al 2014 page 29)

As the renewable energy share of the energy mix increases, the job creation in manufacturing is set to increase. One example of a Chinese firm that has set up a solar PV manufacturing plant and has created skilled South African jobs, while GRI Wind Steel has established South Africa's new 12 000 m² wind tower mast production facility will start up in October 2014 in the Western Cape²⁶ (See Box 6)

Box 6. Job Creation and skills transfer

The Chinese firm, Jinko Solar has set up a factory in Cape Town which has a capacity to manufacture 300 MW. The factory employs 250 people, of which only 7 are Chinese. There was a skills transfer programme where 20 South Africans were taken to China for training and then brought them back to South Africa to then become trainers in the South African manufacturing plant and to train other South Africans.

Another Chinese firm, Powerway are a civil works company and have created 600 jobs, of which only 10 are Chinese. This firm brought their head office Chinese management to South Africa to understand the local conditions, and culture, and then sent South African semi-skilled employees to China for training.

²⁴ Presentations made by Jinko and Goldwind at the WWF conference 6th, 7th August 2014.

²⁵ Mike Mulcahy WWF conference 6th, 7th August 2014.

²⁶ Green Times 20th June 2014.

In Atlantis, Western Cape, Spanish firm Gestamp Renewable Industries has set up a wind tower mast production factory in the Green Technology Industrial Park in Atlantis and will provide 200 direct local jobs (Phakathi 2014).

According to the IDC (Maia et al 2011), who conducted a green jobs study, the job creation projections for expanding “green energy generation” would provide 130 000 job opportunities.

The total job figures for the three bidding windows are presented in Table 10. DoE has indicated that their definition of a job for window 3 is 12 person months but it is not clear if that definition applies to previous windows and if the figures are directly comparable. DoE (2013) reported to parliament on the jobs created per province, as projected by the preferred bidders for window 3 (refer to Table 11).

Table 10: A summary of jobs created over the three windows for solar PV, wind and CSP (adapted from Eberhard 2014)²⁷

Technology	Bid Window 1	Bid Window 2	Bid Window 3
Local construction jobs	6 074	5 221	7 813
Local operations jobs	9 960	7 227	17 749
Total	16 034	12 448	25 562

Table 11: Summary of the window 3 jobs per province (DoE 2013)²⁸

Province	Jobs during construction	Jobs during operations period (one job = 12 person-months)
Eastern Cape	512	4 908
Free State	414	1 442
Gauteng	6	240

²⁷ The numbers of jobs for window 1 and 2 are different to the info provided by DoE but the 3rd window is approximately the same. It is assumed that this is due to differences in which jobs are counted, direct, indirect, local, foreign etc.

²⁸ Although jobs during operations appear to be greater than construction, the construction jobs are jobs for the duration of the construction while operations jobs are calculated as 12 person-months.

Kwazulu-Natal	96	240
Limpopo	160	1 366
Northern Cape	6 502	8 736
Western Cape	223	1 295
TOTAL	7 915	18 228

There are a variety of ways of defining jobs and for bid window 3, the DoE has indicated that a job has been defined as 12 person-months. However, the RE4P job figures are difficult to understand and it may be that the number of the jobs presents an inflated picture of jobs created particularly from the view of the general public.

Engaging with labour unions, and community structures provided useful insights to how jobs are being created and the kinds of jobs that are being created, and the labour practice that is taking place at the renewable energy sites.

Jobs had been created in all areas we visited, but the number varied from area to area, and the manner in which job seekers had been identified and recruited was diverse. Again, the lack of transparency was evident. In one area, there were three different versions of how people were appointed for the construction of a renewable energy project. The first version was that potential job seekers put their name on a list, and the list was given to the renewable project developer. The second version was that jobs were allocated on a ward by ward basis, and that the local government identified the job-seekers and that councillors were responsible for confirming that such job-seekers were living in their ward. The third version was that individual jobseekers should approach their councillor and if the councillor liked you or you were aligned with his interests, you would get the job. This example is provided to illustrate how the lack of transparent accountable processes creates mistrust.

The trade union representative had no knowledge of how job seekers had been engaged, but had seen many people going off to work each day, while a local councillor indicated that such transport businesses were one useful positive small business development opportunity.

There were large discrepancies between the quoted jobs associated with the project and the number of local people that were known to have been employed – for example, 300 compared to 6.

In all areas, community representatives knew of contractors that brought their own labour from KZN or Johannesburg. Such contractors are local in a sense of South African, but they have their own skilled workforce and have no need to hire many additional people from the local area.

One trade union knew of accredited welders who had not got jobs in the construction phase because the company had asked for an international qualification which local welders did not have. In some cases, local people were tested and accepted if they could pass the international standard. Training was not offered to those that were not successful.

Community representatives also spoke of conflict that had arisen in the community, where individual community leaders had been asked to identify potential workers, leading to divisions within the community, and accusations of favouritism or nepotism.

A brief Google search revealed that while many of the renewable project owners are international firms with local/ South African partners, and many of the subcontractors firms are also not from the local area, and presumably bring their own workforce with them. It is not clear if the jobs specified as being created for each project take into account that such jobs might result from one firm travelling with its own workforce. The implication is that these jobs are not additional local jobs, but longer permanent jobs for few people who are South Africans but not necessarily in the vicinity of the RE site, i.e. the benefits do not accrue to the local area.

In one study area discussion, participants felt that although there may not many jobs in renewable energy, it could be a space to train people. Post construction, those that had got jobs would have received skills and could then be employed on the next project, and possibly remain employed more or less permanently. An example was given of those who had received training in Uptington would potentially find work in Namibia should that country take up CSP renewable energy generation.

Large-scale RE expansion also requires a skilled labour force.

If job creation is an explicit policy objective, an employment potential assessment should be conducted (i.e., assessing the amount and type of jobs required to implement the RE plan, as well as assessing whether the requisite know-how exists). Employment opportunities might be found along the life cycle of RE deployment, such as upstream jobs in manufacturing and downstream jobs in installation, system design, and project management. Downstream jobs largely depend on the scale of RE deployment. (WRI 2014)

Although, some transfer of skills took place, each area presented a diverse range of responses. In one area, skilled workers were brought in from outside, rather than training up potential workers locally. In another area, it was reported that about three people had been trained and received permanent jobs. In all areas, it is clear that women received very few jobs, with most of the heavy construction work going to men, and the operational jobs going to skilled individuals where women remain a small minority.

There are a number of jobs being created in the sector. However, an examination of their location shows that manufacturing jobs are renewable energy related but the benefits accrue outside the IPP site

area. This is not necessarily a negative result but it is unclear how the DoE is monitoring such developments. Positively, solar PV manufacturing sector jobs are mostly given to women²⁹.

The use of labour brokers was prevalent, and workers were employed by sub-contractors such as the security firm, or the company digging the ditches for cabling. In one area, 600 workers were fired two weeks before Christmas after 7 months of stable employment with one week's worth of notice. The municipality emphasised that employees had to be tested for drugs etc. before being employed on site. However, various community structure representatives indicated the people who were drunk or on drugs had got jobs.

In another case, a pregnant woman was fired because she refused to work outside in a remote location at night, while in one area, the trade union and police had been involved in incidents of civil unrest due to unhappiness with the working conditions.

In two areas, the influx of foreign workers were held responsible for social ills such as drugs and prostitution, and violence in the community. In one area, a woman had been raped allegedly by foreign workers brought in to work on renewable energy projects. See Box 7 for a case study from one of the REI4P sites.

Community stakeholders provided specific cases of crime increase due to an influx of foreigners, not necessarily related to the wind or solar projects. In one area, the councillor related how crime statistics had decreased as local employment had risen, directly due to the renewable projects, and in another area, the local municipality raised a concern about community members when projects ended, as many workers had become indebted while working and then could no longer service their debts.

Box 7. Impact of Development projects on women at one of the REI4P sites

According to a local women's shelter in one study area, they had recorded an increase in the number of gender-based violence cases coming in as construction began. This was due to the rapid influx of single male migrants as well as from sudden increase in employment on the part of locals. A rise in alcohol and drug use in some communities was put forward as an explanatory factor for this.

In addition concern was expressed about the sudden rise in teen-age pregnancies and number of single mothers post-REI4P. Questions were asked about whether an increase in HIV/AIDs infection rates could be traced, but this will only be verifiable in 2015. Rents and food costs had risen rapidly in the town, and in some cases rents had risen by a factor of three. While this was good for those who owned property, it had made life very difficult for those too poor to buy their own houses who were dependent on cheap rental stock.

²⁹ Solar PV factory example in Cape Town presented at WWF conference 6th, 7th August 2014 and author's own observations at another solar assembly plant in 2013.

From our fieldwork, it appears that women may not enjoy many of the benefits of the development, for example jobs, but may bear a disproportionate amount of the burden. Such impacts need attention and strategies developed to prevent such inequities.

c. Conclusions

Although the weighting of the evaluation of the REI4P bids allocates 30% for jobs, social development and localisation (a departure from the government's preferential procurement rules of 10%) (Creamer 2011), little local manufacturing and sustainable local economic development has been realised to date.

The IRP2010 update proposes to implement a fixed amount of renewables each year which could be an attempt to provide a sustained demand for renewables that would drive local manufacturing. But without commercial analysis it is not clear if this is sufficient to kick start an industry³⁰.

In addition, there is a need for a stringent monitoring programme that ensures that expected levels of localisation take place, and that corrupt practice is prevented.

In all areas, most community representatives were under the impression that the renewable energy project's benefits were short term construction jobs, and that once the projects were operational, there were no more jobs, and no further benefits.

There was very little skills transfer and the definition of local appears to have become South African, rather than within the 50 km radius of the project.

The quality of employment conditions appears poor (not specifically related to renewable energy companies) and the social impacts of large numbers of outside workers has not been investigated, and varying impacts are experienced both positive and negative.

Large development projects attract job seekers who often settle in the area after the project. There is already some indications of the broader social impacts of indebtedness, violence, increased pregnancies etc. and there is a need to document these impacts in order to address them.

d. Recommendations

Corrupt practice that seeks to undermine the localisation benefits needs to be investigated and stopped. The DoE as part of the review of the REI4P process must implement measures taken to prevent its occurrence in future.

Additional government staff capacity is needed to monitor, and address irregular or corrupt practice.

³⁰ International firms indicated that a stable policy that created a sustainable demand were necessary criteria for investment. One individual company indicated that they would need 300MW per year to justify setting up a manufacturing plant (WWF conference 2014). Conference proceedings were not available at time of publication.

The REI4P framework should be reviewed and amended to provide for a transfer of skills specifically within the local 50 km area of the project even if the subcontractors for the project are sourced from elsewhere in the country.

Local government and IPP developers should engage regarding the type of skills needed, and local government should ensure that their database is up to date, and monitor the inclusion of local contractors within the project. All unskilled workers should be drawn from the local area.

On the basis that local government is centrally involved in economic development, local government should take responsibility for informing trade unions and community organisations of the potential employment opportunities and the possible transfer of skills. Such up skilling should also include enterprise training to enable local entrepreneurs to emerge once the short term employment opportunities are finished.

In addition, consideration could be given to expanding the public works programmes within local municipalities.

As a matter of urgency, DoE should launch an investigation into the social impacts that have occurred to date within affected communities. Contractors guilty of transgressions of good Labour practice and other social norms should be black-listed so as to ensure that developers take responsibility for their sub-contractors behaviour on site. Particular attention should be paid to gender related impacts.

Additional budget should be allocated to DoE to enable it to address identified challenges and follow best practice.

The actual employment experience within the renewable energy sector should be drawn on to inform localisation studies that form part of the DoE Integrated Energy Planning process. A key part of such studies must include a report on the gender distribution of employment and SMME development.

8. Overall concluding comments

Since the start of the REI4P in 2011, the number of renewable projects in the country has increased to 64, with the Kalkbult 75MW PV power station being the first connected to the grid in 2013. Despite formidable hurdles of administrative process, and teething problems, the REI4P has successfully brought renewable energy into the South African electricity mix.

Although the REI4P roll-out schedule has been postponed by DoE (Table 4), the renewable energy developers have met the amended timeframes and have remained within their budgets, in contrast with other energy projects (for example, the Medupi power station was originally due to come on line in September 2011 with a budget of R 78 billion and has been delayed until 2014 and the budget is expected to be about R 130 billion³¹). The renewable sector is financially and technically capable of

³¹ <http://www.infrastructurene.ws/2012/09/10/medupi-power-station-r77-1bn-over-budget/>

providing electricity to contribute to energy security in South African, and the extent of oversubscription of the bid windows demonstrates the potential for a much faster and much greater contribution (For Bid window 3, 93 bids were received, of which 58 qualified but only 17 were awarded preferred bidder status (Green Business Journal 2014) status³²).

However, the socio-economic aspects of the REI4P have shown less progress. This 2014 review highlights that there is a consistent failure across the study area to engage with communities transparently and to set up meaningful institutions that can allow local communities to participate in their own local economic development planning. It highlights that existing local economic planning frameworks such as the IDP are not participative and in such cases, there is the risk of ad hoc development plans for specific geographic areas, none of which are driven by the local communities.

Despite its good intentions, the manner in which the REI4P has been designed has resulted in a number of unintended consequences which, if not addressed urgently, will undermine the progress made to date.

Unintended consequences of REI4P local development criteria

- The REI4P is a competitive bidding process, and there is no incentive for renewable energy project developers to collaborate in drawing up their socio-economic plans. In fact, there is an incentive for companies to maintain secrecy for competitive purposes.
- Although community trusts should be controlled by local communities in order that they can make decisions about their own future, the RE project company is held liable to pay penalties if the planned local socio-economic development does not happen, with the consequence that RE companies are reluctant to hand over control (Tait et al 2013).
- Each project needs to set up a separate community trust, and with many renewable energy projects operating in the same geographic area, this can only lead to chaotic development where several different development plans (produced with a few community people in secret) all attempt to be implemented in the same area. An additional but related challenge is that there may be existing legitimate community trusts operating in the area but DoE/IDC require that new trusts be established.
- Given that such trusts potentially control millions of Rands, which would then be available to spend within an impoverished community, the control of such funds are likely to be contested and to exacerbate existing power struggles within a community if not managed sensitively (Tait et al 2013).

³² According to the article..."the Department is considering the appointment of additional Preferred Bidders for those Technologies from the remaining Compliant Bidders. The Department will make a further announcement regarding its decision in this regard in due course, and is intending to do so by not later than 31 December 2013". At the time of writing, no further announcement had been made.

a. Overall Recommendations

EGI offers this critique of the renewable energy programme as part of constructive engagement that aims to accelerate the uptake of renewable energy in South Africa, and to strengthen the REI4P framework in order to derive maximum developmental benefits for society. While detailed recommendations are presented under the relevant subheading in this 2014 review, the following cross-cutting recommendations are listed here.

- Adequate budget and staff allocations within the DoE are needed to address current inequities and to reflect the stated importance that government puts on renewable energy development. Such adjustment must ensure that funds from the fiscus are directed towards renewable energy research and implementation and that the sector does not have step child status, reliant on donor funds and industry levies. The DoE needs to urgently recruit appropriately skilled staff that can address the socio-economic issues that are the current challenges.
- The amount of renewable energy designated in the IRP2010 update must be increased, in order to maximise national energy security and associated local socio-economic development.
- National Government should set up a multi-stakeholder task team that reviews the current REI4P framework in order to address the unintended consequences of the current process on affected communities. Such a task team would need to consider the advisability of continuing with a non-participatory process which places responsibility for local economic development planning decisions under the control of the private sector,
- The model of renewable energy procurement which relies largely on the private sector to implement not only electricity generation but with the additional responsibility of implementing Local Economic Development and community advancement needs review. To this end, a meeting of all relevant government departments, trade unions, NGOs, community organisations and renewable energy industry stakeholders needs to be convened. Such a meeting should be led by the Ministers of Energy and Local Government.
- It is the responsibility of the DoE to promote a culture of transparency along the REI4P chain of decision-making, enabling local government and affected communities to participate meaningfully in the REI4P framework. This should include accessible communication materials to ensure that all stakeholders are aware of their rights and responsibilities, drawing on best practice across country and internationally.
- An evaluation must be conducted as a matter of urgency to assess progress in localisation of renewable energy industry and in assessing the skills required, and SMME contractors that have benefited from the REI4P to date. This evaluation should be used to pro-actively implement skills transfer programmes within renewable energy development zones to prepare for future renewable energy employment and associated opportunities.
- In addition, there is a need for a stringent monitoring programme that ensures that expected levels of localisation take place, and that corrupt practice is prevented.
- Given that local government is responsible for service delivery and both local and provincial government have economic development responsibilities, all tiers of government, together with

industry and civil society stakeholders need to have space to engage. Horizontal learning could enable provinces, cities and local government to develop and implement best practice.

9. Appendices

Appendix A. Community consultation in this research

Sites Investigated	Number of people who participated in focus groups and interviews	Stakeholder groups
Western Cape - Saldanha Langebaan	Nine	Local Government officials Trade union representatives Community groups participating in ward committees Renewable Energy project community trustees
Eastern Cape – Jeffreys Bay and surrounds	Sixteen	Local Government officials Local Councillors Trade union representatives Community leadership (political, community groups, ward committee participants) NGOs in environmental sector Sports associations
Northern Cape – De Aar	fifteen	Local government officials Renewable Energy project management staff Local community groups, civics (SANCO) South African Police Service (SAPS)

Electricity Governance Initiative South Africa – REI4P review 2014

		Local Press reporters Department of Labour Trade unions
--	--	---

Semi-formal interview questions for community and representatives

Possible questions to see how communities participated in governance of RE derived benefits in their local area;

Please note, as most community organisation representatives interviewed had very little knowledge and had not been involved with any REI4P governance to date, only a few questions had relevance for them.

Research Question:

This research investigates the nature of representation in the development of the REIPPP implementation in South Africa.

Questions –

Carried out in Afrikaans or Xhosa or English in different areas (using translator if necessary)

Ethics Statement:

Explain who EGI is.

Explain that purpose of research is to strengthen renewable energy programme and we are specifically looking at how communities have benefited or how much they know about potential benefits from the REI4P

Your participation in this research is entirely voluntary. Any information provided will be treated as confidential and anonymity is assured.

Thank you very much for your participation.

March/April 2014

To understand the level of knowledge about the RE IPP process...and its relevance for the lives of the communities?

1. *Were you aware of the existence of RE IPP, and if so, how did you hear about it?*
 - Never heard of it
 - Press/radio/tv/ other members of community/ committee/ govt official/ other
 - When did you hear?
 - 2006.....2013
 - Government representatives
 - Business developer/ project team
 - EIA
 - NGOs if NGOS which ones
 - Other? E.g. researchers

Electricity Governance Initiative South Africa – REI4P review 2014

2. What do you think of the eventual outcome of the REIPP process?

Impacts/ benefits – do you think you will benefit or be impacted? if yes, how and when will this happen?

If no, why do you think this RE IPP will not benefit you? Will it affect other community members?

3. How is your organisation involved in development plans in your area?

- a. part of ward committees
- b. part of community structures
- c. not involved
- d. ad hoc meetings, engage with local government other

4. How is the local government involved in planning for local development?

- a. is there a job seekers database
- b. how does participation in the IDP take place
- c. what has been the involvement of the local government with the REI4P process

5. What do you know about the numbers of jobs that have been created through the renewable projects?

- a. how many local jobs?
- b. skills training – do you know of this?

6. What do you think of the eventual outcome of the REI4P engagement process (if not structure, then any engagement that has taken place)?

- a. Knowledge of the details of the REIPP
- b. Does the project benefit you?
- c. Do you know how?
- d. Any specific content of the contract/documentation about project benefits that you know about?
- e. REIPP benefits – do you think you will benefit? if yes, how and when will this happen?
- f. If no, why do you think this RE IPP will not benefit you?

Representatives on the governance structure questions: (only if there is a community trust structure where community reps are involved)

7. To understand the basis for community stakeholder representatives selection?

- a. What were the criteria for their selection
- b. How did your representative get involved in the RE IPP?
- c. What were the representatives' roles and mandates, as perceived by the communities, the government/ project developer and the representatives themselves?

8. Effectiveness of representative:

- a. Did you experience any difficulties in representing the views and concerns of your community?
- b. Were there any barriers that prevented you from performing even better?
- c. What were the strengths/benefits of having a representative being part of the process?

Electricity Governance Initiative South Africa – REI4P review 2014

- d. Was it sufficient consultation to have a representative on a RE IPP governance structure?
- e. If not, what other consultation was needed, took place? Why?
- f. How did you benefit from being part of the RE IPP governance structure?

Specific questions for local government:

1. Which branch of local municipality is dealing with the IPP programme?
2. When were they approached to be involved?
3. How was the munic involved in selecting people for construction jobs, operational jobs if at all?
4. Are you aware of how many local people actually got jobs?
5. Are you aware of how many local small businesses got contracts?
6. Is anyone at local govt focused on monitoring whether ipps comply with their stated commitments?
7. How is the munic involved with the setting up of the community trusts?
8. At what time, if at all, has the broader community who is to benefit from the trusts, been involved in their establishment?
9. How were decisions made about who should be the beneficiaries of the trust funds?
10. Is there some sort of forum or link between local government and provincial and/or national government where munics can get information/advice for implementing the renewable projects?

Appendix B: Economic development requirements for local communities³³

Element	Requirements	Description
Shareholding by local community	2.5% – 5% of project shareholding	The defined local community will have an ownership share in the project company. There are no explicit requirements on how these contributions should be spent, but would probably need to be developmental in nature.
Employment	12% - 20% of South African employees	This requirement requires that a percentage of the South African employees in the project should come from the local community.
Enterprise development	0 – 0.6% of project revenue	Enterprise development refers to contributions to black-owned businesses with the specific objective of assisting or accelerating the development, sustainability and ultimate financial and operational independence of that enterprise.
Socio-economic development	1 – 1.5% of project revenue	These contributions should be directed towards activities that facilitate sustainable access to the economy for beneficiaries. These contributions can go towards a wide range of activities

³³ Tait et al 2013. . Table provided by Louise Tait, Energy Research Centre, UCT. Adapted from part C of the phased assessment REIPPP Request for Proposals document
Electricity Governance Initiative South Africa – REI4P review 2014

		including rural development, the environment, infrastructure, enterprises, reconstruction of underdeveloped areas, development programmes for women or youth, education, health care as well as arts and culture and sports.
--	--	--

Appendix C: Criteria and process for evaluation of RE bids

The designers of the REIPPP bid evaluation created a phased process. All bids for each window were to be assessed in this phased approach (Table 3). Phase A ensured that all bids had met the specified criteria, for example, submitted relevant permits and financial information. Phase B then assessed bids on their ability to meet various technical requirements; decisions were made based on price. Phase C assessed all bids that had met the price barrier (under a ceiling price) and the bids were then judged on their commitment to job creation and socio-economic development.

Most of the successful RE bidders have international partners, often international renewable energy developers and/or international financiers for the projects. International financing companies have made their own attempts to be accountable to affected communities. However, such procedures may not be appropriate for a developing country. One example is provided here:

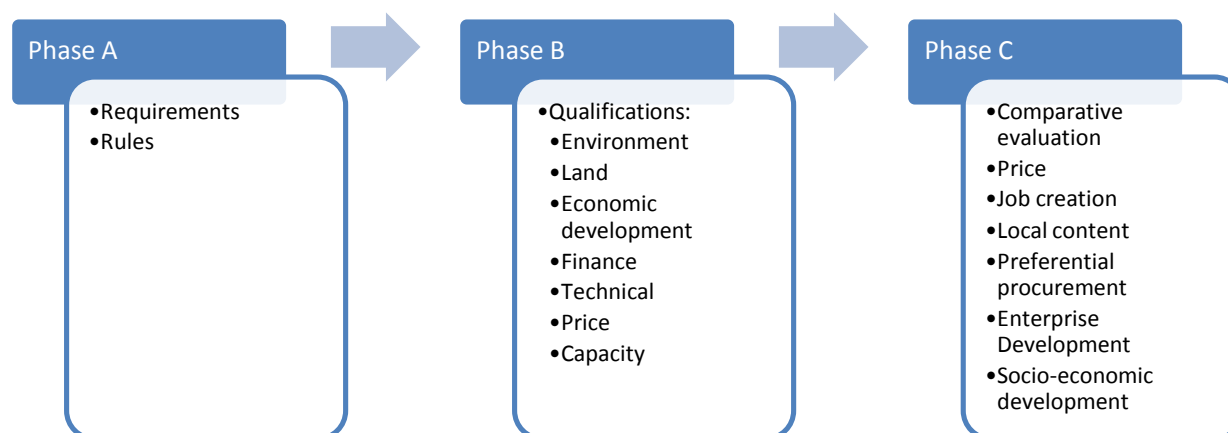


Figure 5: Procurement evaluation methodology for Window 1 – Request for Proposal (RFP)

Adapted from DoE briefing to Parliament, 4 November 2013

Appendix D: Window one REI4P Economic Development benefits

Facts sheet Window one REIPP Economic Development benefits 05 November 2012

Background

This information represents the commitments made by window one preferred bidders. The Department included these commitments in the implementation agreement for each preferred bidder. Each preferred bidder will be required to comply with its commitments and obligations, failing which, penalties will be applied which may lead to termination of the Power Purchase Agreement. The power purchase agreement will be in force for a period 20 years from the operation date.

Job creation

Job creation was a mandatory requirement in the Request for Proposals. All bidders were required to meet certain minimum thresholds and compete thereafter on additional jobs offered. The figures below outline the commitments made per technology during both construction and operation.

Total Jobs (Persons):

	Solar CSP Construction	Operations	Solar Photovoltaic Construction	Operations	Wind Construction	Operations
Eastern Cape	0.0	0.0	0.0	0.0	1196.3	1090.3
Free State	0.0	0.0	167.5	225.0	0.0	0.0
Limpopo	0.0	0.0	259.2	1480.0	0.0	0.0
Northern Cape	2353.7	1400.0	7540.6	3024.8	642.0	1040.0
North-West Province	0.0	0.0	307.6	780.7	0.0	0.0
Western Cape	0.0	0.0	403.4	1353.3	198.6	420.0
Total	2,354	1,400	8,679	6,864	2,037	2,550
					Construction	Operation
Grand Total					13,069	10,814

Table 1: Jobs created for South African Citizens

Province	Solar CSP		Solar Photovoltaic		Wind	
	Construction	Operations	Construction	Operations	Construction	Operations
Eastern Cape	0.0	0.0	0.0	0.0	1049.0	43.5
Free State	0.0	0.0	83.8	5.6	0.0	0.0
Limpopo	0.0	0.0	207.3	44.4	0.0	0.0
Northern Cape	1882.9	69.1	5451.0	133.3	642.0	52.0
North-West Province	0.0	0.0	228.6	35.0	0.0	0.0
Western Cape	0.0	0.0	380.2	64.9	167.4	15.6
Total	1,883	69	6,351	283	1,858	111
					Construction	Operation
Grand Total					10,092	463

Province	Solar CSP		Solar Photovoltaic		Wind	
	Construction	Operations	Construction	Operations	Construction	Operations
Eastern Cape	0.0	0.0	0.0	0.0	719.2	25.4
Free State	0.0	0.0	50.3	3.4	0.0	0.0
Limpopo	0.0	0.0	129.6	27.8	0.0	0.0
Northern Cape	1386.2	41.7	3095.5	95.9	541.5	40.0
North-West Province	0.0	0.0	141.1	26.4	0.0	0.0
Western Cape	0.0	0.0	209.9	29.9	108.2	7.6
Total	1,386	42	3,626	183	1,369	73
					Construction	Operation
Grand Total					6,381	298

Local content

Most jobs in the renewable energy space can be established in boosting local manufacturing. Therefore the programme outlines minimum requirements in terms of local content. The programme provides minimum thresholds per technology with regards to local content. It is our intention to gradually increase these thresholds in the subsequent windows. The table below gives an overview of money to be spent on local products during construction of the different renewable plants as procured in window one.

Table 3: Local content

Local Content:			
Rands		Average Value per MW	
Construction Period	Operations Period	Construction Period	Operations Period
11,472,384,725.00		7,854,569.85	

Table 4: QSE and EME Procurement

Value of Qualifying Small Entities and EMEs procurement:				Value of Women Owned Vendors procurement:			
Total Value (R):		Average Value per MW(R):		Total Value (R):		Average Value per MW(R):	
Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period
895,677,925.00	871,265,982.00	613,226.02	596,512.38	354,012,240.00	451,464,502.00	242,374.53	309,095.24

Enterprise Development

The department requires that each preferred bidder contributes towards enterprise development especially in communities located closer to the renewable plant. This can only be demonstrated through money spent during both construction and operation period. The table below outlines the amount of money to be spent during construction and operation of the renewable energy power plants.

Table 5: Enterprise Development

Enterprise Development											
Total Revenue (R)		Average Revenue (R) per MW		Value of Enterprise Development (R)		Average value of Enterprise Development per MW (R)		Adjusted Enterprise Development (R)		Average Adjusted Enterprise Development Value per MW (R)	
Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period
30,104,780.00	161,301,295,554.00	20,611.24	110,434,949.03	160,629.00	819,290,307.00	123.67	629,362.24	343,849.00	1,113,666,849.00	166.96	762,659.08

Social Economic Development

It is our requirement that at least 1 percent of the total revenue must be spent on social economic development. However, a bidder may spend more but not less than the 1 percent. See the table below for commitments on social economic development.

Table 6: Socio-Economic Development

Socio-Economic Development											
Total Revenue Value (R)		Average Revenue Value per MW (R)		Value of Socio-Economic Development Contribution (R)		Average Value of Socio-Economic Development Contribution per MW (R)		Value of Adjusted Socio-Economic Development Contribution (R)		Average Value of Adjusted Socio-Economic Development Contribution per MW (R)	
Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period	Construction Period	Operations Period
30,104,780.00	161,301,295,554.00	20,611.24	110,434,949.03	451,572.00	2,885,847,672.00	359.17	1,427,802.19	609,622.00	2,584,895,622.00	417.38	1,766,475.76

	Allocation to Preferred Bidders: Window 1	MW allocation per Determination
	MW	
Solar PV	631.53	1450.00
Solar CSP	150.00	200.00
Wind	633.99	1850.00
Biomass	0.00	12.50
Biogas	0.00	12.50
Landfill gas	0.00	25.00
Small Hydro	0.00	75.00
Total MW	1415.52	3625.00
Total Capacity - Bids Received	2127.66	
Percentage Preferred Bidders	66.5%	
Number of Passing Bids	28	

IPPID159	Kalkbult	72.50
IPPID444	Kathu Solar Energy Facility	75.00
IPPID564	Solar Capital De Aar (Pty) Ltd	75.00
No. of Preferred Bidders for Solar Photovoltaic: 18		631.53

Preferred Bidders – Onshore Wind

Wind		
Project_ID	Project_Name	Capacity (MW)
IPPID123	Dassiesklip Wind Energy Facility	26.19
IPPID138	MetroWind Van Stadens Wind Farm	26.19
IPPID202	Hopefield Wind Farm	65.40
IPPID036	Noblesfontein	72.75
IPPID148	Red Cap Kouga Wind Farm - Oyster Bay	77.60
IPPID043	Dorper Wind Farm	97.00
IPPID186	Jeffreys Bay	133.86
IPPID225	Cookhouse Wind Farm	135.00

No. of Preferred Bidders for Wind: 8	633.99
--------------------------------------	--------

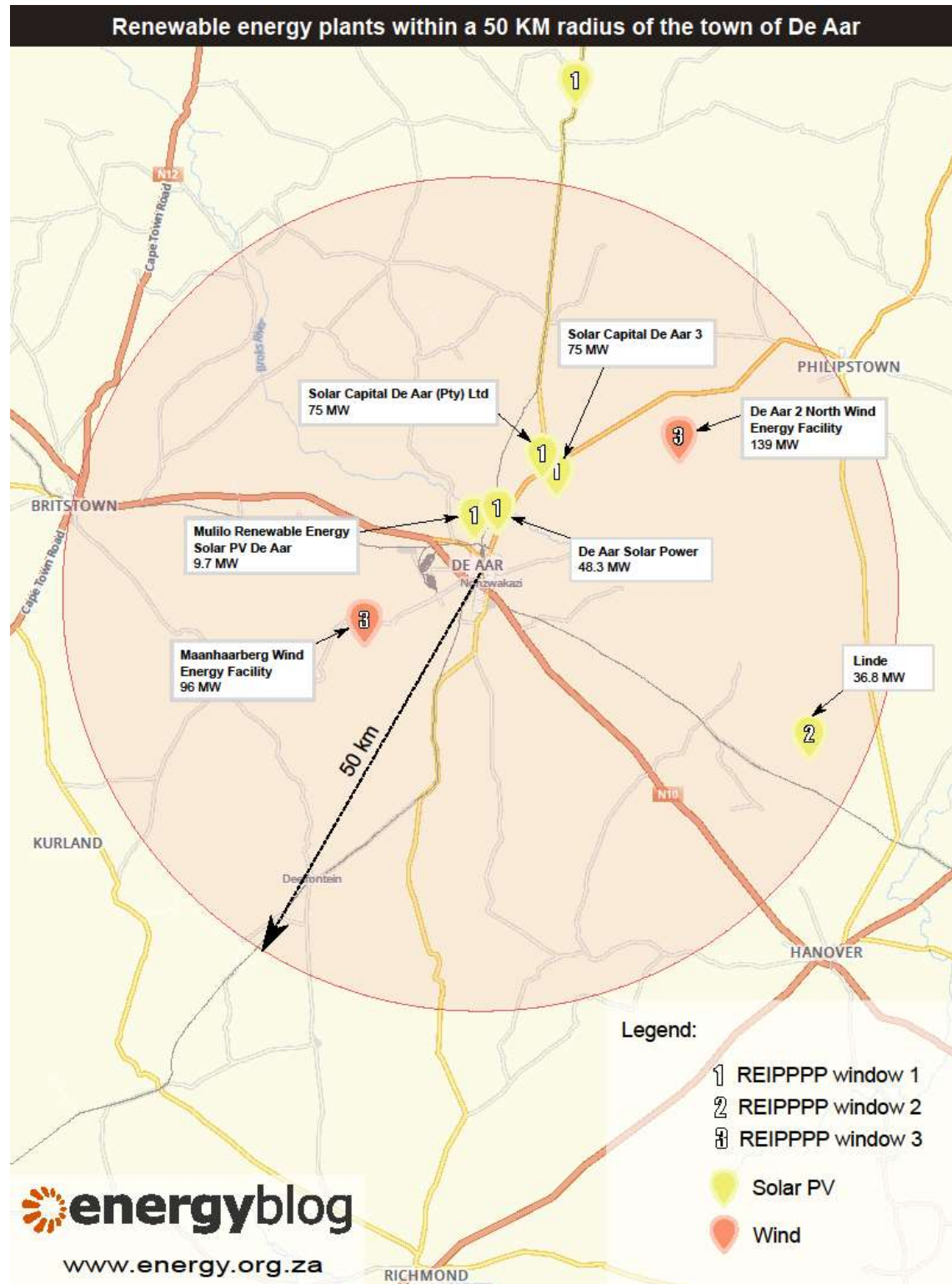
Preferred Bidders – CSP

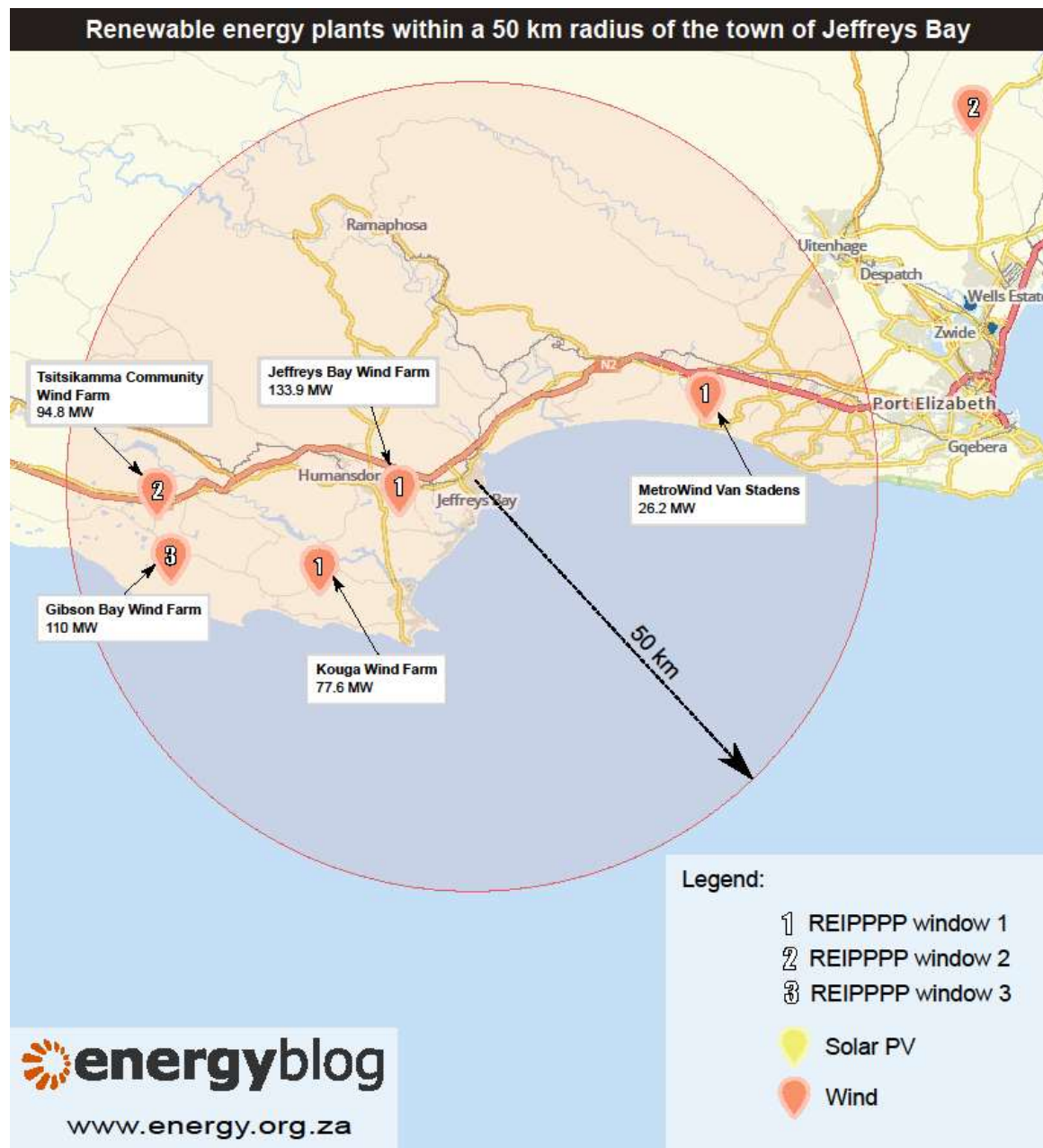
Solar CSP		
Project_ID	Project_Name	Capacity (MW)
IPPID798	Khi Solar One	50.00
IPPID118	KaXu Solar One	100.00
No. of Preferred Bidders for Solar CSP: 2		150.00

Preferred Bidders Solar PV

Solar Photovoltaic		
Project_ID	Project_Name	Capacity (MW)
IPPID164	SlimSun Swartland Solar Park	5.00
IPPID155	RustMo1 Solar Farm	6.76
IPPID064	Mulilo Renewable Energy Solar PV De Aar	9.65
IPPID128	Konkoonsies Solar	9.65
IPPID163	Aries Solar	9.65
IPPID443	Greefspan PV Power Plant	10.00
IPPID696	Herbert PV Power Plant	19.90
IPPID065	Mulilo Renewable Energy Solar PV Prieska	19.93
IPPID052	Soutpan Solar Park	28.00
IPPID035	Witkop Solar Park	30.00
IPPID037	Touwsrivier Project	36.00
IPPID182	De Aar Solar PV	48.25
IPPID572	SA Mainstream Renewable Power Droogfontein	48.25
IPPID031	Letsatsi Power Company	64.00
IPPID032	Lesedi Power Company	64.00

Appendix E: REI4P research area site maps





Renewable energy plants within a 50 km radius of the town of Saldanha Bay



10. References

- Audat, T. 2012. "Progress with the REIPPP Programme". *Parliament Briefing on at the Department of Energy*. 7 June 2012.
- Baloyi P. 2014. "Local faster manufacturing in Decline" *Engineering News* volume 34 no 23. June 20-26 2014 pp 48-49
- Baloyi P. 2014b. "Company manufactures fasters for renewable energy sector". *Engineering News* volume 34 no 23. June 20-26 2014 pp 48-49
- Banerjee, A., Hanna, R., Kyle J., Olken, B., Sumarto S. 2014. *Information is Power: Identification Cards and Food Subsidy Programs in Indonesia*. No Publisher supplied.
- Barua, P., L. Tawney and L. Weischer. 2012. "Delivering on the Green Economy: The role of policy in developing successful domestic solar and wind industries." *World Resources Institute*. Available at: <http://www.wri.org/publication/delivering-on-the-cleanenergy-economy> accessed 12 August, 2014.
- Cloete K. 2014. "More to Come". *Engineering News* volume 34 no 20. May30-June5 2014 pg 22.
- Creamer T. 2011. SA finally sets renewables bidding process in motion. *Engineering News* July 31, 2011. <http://www.engineeringnews.co.za/article/sa-finally-sets-renewables-bidding-process-in-motion-2011-07-31/> accessed 15 May 2014.
- Creamer T. 2012. SA's Renewables procurement programme to be enlarged by a further 3200 MW. *Engineering News* October 2012. <http://www.engineeringnews.co.za/article/sas-renewables-procurement-programme-to-be-enlarged-by-a-further-3-200-mw-2012-10-09>. Accessed 14 May 2014.
- Creamer T. 2010. Alstom mobilising for big Koeberg Unit 1 shutdown. *Engineering news* August 06 2010. <http://www.engineeringnews.co.za/article/alstom-mobilising-for-big-koeberg-unit-1-shutdown-2010-07-30> accessed 29 July 2014
- Creamer T. (Ed.) 2014. "Ready to Bid". *Engineering News* volume 34 no 20. May30-June5 2014 pg 8.
- Creamer T. (Ed.) 2014b. "Beyond Law-making". *Engineering News* volume 34 no 20. May30-June5 2014 pg 7.
- Creamer T. (Ed.) 2014a. "SA moves on solar atlas as project momentum builds". *Engineering News* volume 34 no 20. May30-June5 2014 pg 8.
- Department of Economic Development, Environmental Affairs and Tourism, GIZ (German Cooperation). 2013. *Mapping of Provincial and Municipal Permitting and Authorisation Processes for IPP projects in the Eastern Cape*, November 2013, published by the province of the Eastern Cape, Economic Development Environmental Affairs and Tourism, with GIZ (German Cooperation).
- Electricity Governance Initiative South Africa – REI4P review 2014

Department of Energy, Republic of South Africa. 2011a. "Integrated Resource Plan for Electricity 2010-2030: Revision 2 Final Report" March 2011.

Department of Energy, Republic of South Africa. 2011b. "Request for qualification and proposals for new generation capacity under the IPP procurement programme, Part A: General requirements, rules and provisions" 2011.

Department of Energy, Republic of South Africa. 2012a. "Annual Report 2011-2012" Online at: <http://www.pmg.org.za/report/20121130-department-energy-their-annual-report-and-financial-statements-201112>

Department of Energy, Republic of South Africa. 2012b. "Facts sheet: Window 1, REIPPP Economic Development Benefits". November 2012.

Department of Energy, Republic of South Africa. 2012c. "Preferred Bidders - Window 2" Online at: <http://www.ipprenewables.co.za/#page/1209>

Department of Energy, Republic of South Africa. 2012d. "Renewable Energy Independent Power Producer Procurement Programme: Milestones" Online at: <http://www.ipprenewables.co.za/#index.php>

Department of Energy, Republic of South Africa. 2013. "Integrated Resource Plan for Electricity (IRP) 2010-2030. Update Report 2013".

Department of Energy, Republic of South Africa. 2013b "Renewable Energy IPP Procurement Programme Bid Window 3 preferred Bidders Announcement. Presentation to National Parliament of South Africa. 4 November 2013.

Department of Environment Affairs, Republic of South Africa. 2011. "Defining South Africa's Peak, Plateau and Decline Greenhouse Gas Emission Trajectory - draft for discussion only" 2011.

Department of Environment Affairs, Republic of South Africa. 2012. "National Climate Change Response White Paper" 2012.

National Treasury 2014. Budget 2014. Estimates of National expenditure. Vote 29. Energy.

Department of Performance Monitoring and Evaluation (in the Presidency), Republic of South Africa. 2012. "Overview of Progress made by the Department of Energy with respect to Commitments to Outcomes" Presented to National Parliament Energy Portfolio Committee. October 2012.

Diemont, M., R. Nowak and J. Van der Poel. 2012. "Renewable Energy in South Africa: Chapter 28" March 2012. Online at: http://www.webberwentzel.com/wwb/action/media/downloadFile?media_fileid=7598

Eberhard A., Kolker J., & Leigland J. 2014 "South African's Renewable Energy IPP Procurement Program: Success factors and Lessons. Public-Private Infrastructure Advisory Facility (PPIAF), World Bank Group.

Electricity Governance Initiative South Africa – REI4P review 2014

Electric Power Research Institute (EPRI), 2010. *Addressing Solar Photovoltaic Maintenance and Operations Challenges: A Survey of Current Knowledge and Practice*, <http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=00000000001021496&Mode=download>

Fakir, Saliem. "Status of Renewables in South Africa Presentation." WWF. Alternative Information Development Centre, Cape Town. 6 Sept 2012.
<http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CC0QFjAA&url=http%3A%2F%2Fwww.climatejobs.org.za%2Findex.php%2Fdownloads%2Fcategory%2F27-r-e%3Fdownload%3D225%3Ar-e%26start%3D20&ei=zdnRUbCpls3C4APtvYHACw&usg=AFQjCNEu5s8p41aNUICTwhNPP8veADdYhQ&sig2=13Dc55yBPOecltRgUMaXLw>

Farrell L., Hamann R. and Mackres E. 2012. "A clash of cultures (and lawyers): Anglo Platinum and mine-affected communities in Limpopo Province, South Africa". *Resources Policy* 37 (2012) 194-204.
www.elsevier.com/locate/resourpol

Green Business Journal 2014. "An update on the Renewable Energy Independent Power Producer Procurement Programme". <http://www.greenbusinessjournal.co.za/articles/an-update-on-the-renewable-energy-independent-power-producer-procurement-programme-10254.html> accessed on 29 July 2014.

Green Times 2014. "Incentive plan for Atlantis kicks off with wind tower factory" <http://thegreentimes.co.za/incentive-plan-for-atlantis-kicks-off-wind-tower-factory/> accessed 29 July 2014.

Greve N. 2014. "Attractive Market". *Engineering News* volume 34 no 20. May30-June5 2014 pg 22.

Inter-governmental Panel On Climate Change (IPCC), Working Group II, Final draft, *Treatment of Uncertainties in IPCC Assessment Reports: a Brief History Fifth Assessment Report*, United Nations Environment Program and World Meteorological Institute, Geneva, 2014, pp. 22. Available at ipcc-wg2.gov/AR5/images/uploads/WGIIAR5-Chap1_FGDall.pdf

Infrastructurene.ws 2010. "Medupi Power Station R77.1bn over budget". <http://www.infrastructurene.ws/2012/09/10/medupi-power-station-r77-1bn-over-budget/> accessed 15 May 2014.

Maia, J., Giordano T., Kelder, N., Bardien, G., Bodibe, M., Du Plooy, P., Jafta, X., Jarvis, D., Kruger-Cloete, E., Kuhn, G., Lepelle, R., Makaulule, L., Mosoma, K., Neoh, S., Netshitomboni, N., Ngozo, T., Swanepoel, J. (2011): *Green Jobs: An estimate of the direct employment potential of a greening Aouth African economy*. Industrial Development Corporation, Development Bank of Southern Africa, Trade and Industrial Policy Strategies."

McDaid L., Pienaar G., DuBois N. and Fischer R. 2012. "Policy Assessment Framework: Policy – Entry of Renewable Energy Generators into the National Grid" *Electricity Governance Initiative South Africa*, 2012.

Electricity Governance Initiative South Africa – REI4P review 2014

McDaid, L. and Wood, D. 2013. Open Climate Network Case Studies in Climate/Low Carbon Policy Implementation: South Africa's Renewable Energy Independent Power Producer Program. Electricity Governance Initiative South Africa.

Mulcahy, M. 2012. "Review of the competitive bid for PV in South Africa – Is South Africa maximizing job creation and value for money from its photovoltaic industry?" *MPhil Thesis*. 2012.

National Renewable Energy Laboratory (NREL), 2004. *The Potential Economic Impact of Constructing and Operating Solar Power Generating Facilities in Nevada*, <http://www.nrel.gov/csp/pdfs/35037.pdf>

[National Treasury Republic of South Africa, 2011. "Preferential Procurement Policy Framework Act \(/2000\): Preferential Procurement Regulations," National Treasury, June 8, 2011.](#)

Phakathi B. 2014. "Western Cape in pursuit of energy security". Business Day Live 26th March 2014. <http://www.bdlive.co.za/business/energy/2014/03/26/western-cape-in-pursuit-of-energy-security>. Accessed 29th July 2014.

Rycroft, M. 2013. Summary of REIPPP round three projects. Industry news. Energise December 2013 pp 7-9.

Tait, L., Wlokas, H., and Garside, B. 2013. Making Communities Count. Maximising local benefit potential in South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). International Institute for Environment and Development, London.

Wiesegart, Dr. Kurt et al. 2011. "Options for the Establishment of a South African Wind Energy Centre (SAWEC): with Lessons Learnt from China and Germany" Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Centre for Renewable and Sustainable Energy Studies (CRSES), Stellenbosch University. June 2011.

Weischer et al. 2011. "Grounding Green Power: Bottom-Up Perspectives on Smart Renewable Energy Policy in Developing Countries" *World Resources Institute*. 2011.

Wood, D., Martin, S., Jairaj, B., Dixit, S., and Tawney, L. 2014. "10 Questions to Ask About Scaling On-Grid Renewable Energy." Working Paper. Washington, D.C.: World Resources Institute. Available online at [Wri.org/publication/10-questions-scaling-on-grid-renewable-energy](http://wri.org/publication/10-questions-scaling-on-grid-renewable-energy). World Resources Institute 2014.