

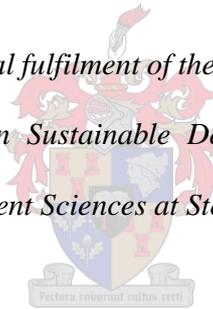
**Addressing community energy challenges with utility-
scale renewables:**

A case study of Hopefield Wind Farm

by

Kyle Swartz

*Thesis presented in partial fulfilment of the requirements for the degree of
Master of Philosophy in Sustainable Development in the Faculty of
Economic and Management Sciences at Stellenbosch University*



Supervisor: Prof. Mark Swilling

Co-supervisor: Dr Holle Linnea Wlokas

April 2019

Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Kyle Swartz

Date: April 2019

Copyright © 2019 Stellenbosch University

All rights reserved

Abstract

This thesis documents how a utility-scale renewable energy project has addressed community energy challenges through the development of a wind farm as part of South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP).

The implementation of the REIPPPP in South Africa has been designed for the procurement to secure additional renewable energy capacity and makes allowance for local beneficiation to the country. The procurement framework mandates successful independent power producers (IPPs) to spend a percentage of annual income in local communities found within a 50-kilometre radius of a renewable energy project site. It prescribes that this percentage of annual income be used on socio-economic development (SED) and enterprise development (ED) in surrounding communities that are commonly implemented through the practice of community development. Despite well-intended community beneficiation stemming from the programme, early reports have highlighted several challenges that IPPs experience in integrating social and economic development as part of their core business operations. Challenges range from a lack of guidance from the government regarding the practice of social and economic development to poor engagement with communities over upliftment projects accrued to them. These challenges hamper the potentially transformative social and economic development considerations of the REIPPPP.

This masters research study showcases how the SED and ED funds, stemming from the Hopefield Wind Farm (owned by Umoya Energy) and arising as a result of its participation within the REIPPPP, have addressed community energy challenges experienced in the beneficiary town of Hopefield. Presented as a narrative analysis, the case study showcases the particular leadership style Umoya Energy undertook in its community engagement process. This resulted in positive outcomes for the community in the form of a strategic project that responds to the energy challenges faced in the beneficiary community, while at the same time addressing other common challenges faced, such as unemployment.

Opsomming

Hierdie tesis bestudeer in watter mate 'n hernubare-energieprojek op nutskaal die energie-uitdagings van 'n gemeenskap die hoof bied. Die projek is 'n windkragaanleg wat as deel van Suid-Afrika se program vir die verkryging van hernubare energie van onafhanklike kragprodusente, oftewel die "REIPPPP", ontwikkel is.

Die doel van die REIPPPP is om bykomende hernubare-energievermoë vir Suid-Afrika te skep en terselfdertyd die moontlikheid van plaaslike benefisiëring te ondersoek. Die verkrygingsraamwerk vereis dat suksesvolle onafhanklike kragprodusente ("IPPs") 'n persentasie van hulle jaarlikse inkomste in plaaslike gemeenskappe binne 'n omtrek van 50 km vanaf die perseel van die hernubare-energieprojek bestee. Volgens projekvoorskrifte moet hierdie geld aangewend word vir sosio-ekonomiese en sakeontwikkeling in die omliggende gemeenskappe, welke inisiatiewe oor die algemeen deur die praktyk van gemeenskapsontwikkeling geïmplementeer word. Ondanks hierdie goed bedoelde programelement van gemeenskapsbenefisiëring, dui aanvanklike terugvoering op verskeie uitdagings vir IPP's om maatskaplike en ekonomiese ontwikkeling by hulle kernsakebedrywighede te integreer. Uitdagings wissel van gebrekkige leiding van die regering om maatskaplike en ekonomiese ontwikkeling teweeg te bring, tot swak skakeling met gemeenskappe oor die opheffingsprojekte wat vir hulle op die been gebring word. Hierdie uitdagings verhinder die potensieel lewensveranderende maatskaplike en ekonomiese ontwikkeling wat die REIPPPP beoog.

Hierdie magisternavorsingstudie toon hoe die sosio-ekonomiese en sakeontwikkelingsfinansiering uit die Hopefield-windkragaanleg (wat deur Umoya Energy besit word) die energie-uitdagings van die begunstigdedorp Hopefield die hoof bied as deel van dié kragprodusent se deelname aan die REIPPPP. Die gevallestudie, wat as 'n narratiewe ontleding aangebied word, bring 'n bepaalde leierskapstyl aan die lig wat Umoya Energy in hulle gemeenskapskakelingsproses gebruik. Dít het tot dusver positiewe uitkomstevir die gemeenskap tot gevolg gehad in die vorm van 'n strategiese projek wat nie net op die betrokke gemeenskap se energie-uitdagings reageer nie, maar terselfdertyd ook ander algemene uitdagings soos werkloosheid die hoof bied.

Acknowledgements

I'd like to acknowledge the following people who have made the completion of this thesis possible:

To my parents, Charlene and Manfred, for their full support and encouragement during this personal and educational journey. To my twin sisters, Kelly and Kaitlyn, the Swartz and Symons families, and Darrin: you have all played key roles in the achievement of this milestone.

To my late grandmother, Bridget Marlene Swartz, to whom I dedicate this thesis, thank you for being a guiding light during challenging times during this journey.

Thank you to Mikayla, Adli, and extended family and friends, for your constant encouragement, perspective and time during hours of directionless or incoherent rambling.

To my supervisors, Prof. Mark Swilling and Dr Holle Linnea Wlokas, thank you for your guidance, time, patience and support during this research journey, as well as for including me as part of the Renewable Energy for Transitions research team at the Centre for Complex Systems in Transition.

To Umoya Energy, thank you for permitting me to conduct this study. To the research participants who all openly and willingly shared their time and experiences, I am grateful for your contributions. Your insights have been invaluable.

To the Managing Infrastructure Investment Reform and Regulation in Africa at the Graduate School of Business, University of Cape Town, thank you for giving me an employment opportunity that has enhanced my insights into the renewable energy industry, and for affording me opportunities to rub shoulders and converse with key professionals in this industry who have expanded my perspective on this research topic.

To my funders, the Doug Banks Renewable Energy Vision Initiative, thank you for affording me an opportunity to pursue this degree. Without your generous support, this would not have been possible.

Table of Contents

Declaration	i
Abstract	ii
Opsomming	iii
Acknowledgements	iv
Table of Contents	v
List of Acronyms and Abbreviations.....	viii
List of Figures.....	x
List of Tables.....	xi
Chapter 1: Introduction.....	1
1.1 Brief overview of the REIPPPP.....	3
1.2 Emergence of the research topic and research journey	5
1.3 Problem statement	7
1.4 Research aims, objectives and significance.....	11
1.5 Research design, methodology and conceptual framework	12
1.6 Limitations of the study.....	13
1.7 Chapter outline	13
Chapter 2: Renewable Energy Independent Power Producer Procurement Programme (REIPPPP).....	15
2.1 Overview: REIPPPP procurement design and requirements.....	18
2.1.1 REIPPPP bid evaluation stages: Stage 1 and 2.....	18
2.2 REIPPPP’s local community beneficiation	21
2.3 REIPPPP community development challenges	23
2.4 Chapter conclusion and applicability to study.....	28
Chapter 3: Community development and local economic development	31
3.1 Community development	31
3.1.1 Towards understanding community development	31
3.1.2 Community development frameworks.....	35
3.1.3 Private sector-led community development.....	38
3.2 Local economic development.....	39
3.2.1 Understanding LED	40
3.2.2 Emergence of LED	40
3.2.3 Local economic development in South Africa	41
3.2.4 LED approaches and strategies.....	44

3.2.5 Partnerships that drive LED through community-based approaches	45
3.2.6 LED and REIPPPP.....	49
3.3 Chapter conclusion	50
Chapter 4: Research Methodology	53
4.1 Research design and strategy.....	53
4.1.1 The case: Hopefield Wind Farm.....	53
4.1.2 Description of the case.....	54
4.1.3 Selection of case study.....	54
4.1.4 Research question and aims	55
4.1.5 Research objectives and limitations.....	57
4.2 Research approach: Narrative inquiry	58
4.2.1 Narrative inquiry.....	58
4.2.2 Research method: Semi-structured interviews.....	59
4.2.3 Coding and thematic analysis	61
4.3 Chapter conclusion	62
Chapter 5: Hopefield Wind Farm case study.....	63
5.1 Overview of Hopefield	64
5.1.1 Community of Hopefield.....	64
5.1.2 Umoya Energy / Hopefield Wind Farm.....	69
5.1.3 Umoya obligations as part of the wind farm.....	70
5.1.4 Overview of challenges facing Hopefield and emerging opportunities.....	72
5.2 Community development	73
5.2.1 Community engagement.....	73
5.2.2. Hopefield Wind Farm Community Development Company	76
5.3 Flagship community development initiative: Home Improvement Project.....	77
5.3.1 HIP Phase 1	80
5.3.2 HIP Phase 2.....	83
5.4 Benefits of the HIP	88
5.5 Community development challenges/shortcomings	89
5.6 Case study analysis and chapter conclusion	93
Chapter 6: Conclusion	98
6.1 Summary of findings	98
References	103
Appendix A: Interview (Semi-structured) questions.....	109

Appendix B: Pictures of beneficiary home with an installed solar water heater from the home improvement project..... 111

List of Acronyms and Abbreviations

ABCD	Asset-Based Community Development
BEE	Broad-based Black Economic Empowerment
CEO	Chief Executive Officer
CFL	Compact Fluorescent Lights
CSR	Corporate Social Responsibility
DSD	Department of Social Development
ED	Enterprise Development
DFI	Development Finance Institute
HIP	Home Improvement Project
HWFLCDC	Hopefield Wind Farm Local Community Development Company
IDP	Integrated Development Plan
IA	Implementation Agreement
IPP	Independent Power Producer
LED	Local Economic Development
MTSF	Medium Term Strategic Framework
MW	Megawatt
NDP	National Development Plan
NGP	National Growth Plan
REIPPPP	Renewable Energy Independent Power Producer Procurement Programme
RDP	The Reconstruction and Development Programme
RFP	Request for Proposals
RSA	Republic of South Africa
PPA	Power Purchase Agreement
SEC	Social and Ethics Committee
SDG	Sustainable Development Goals
SLA	Sustainable Livelihoods Approach

SMME	Small to Medium Size Enterprise
SSN	South-South North
StatsSA	Statistics South Africa
SWH	Solar Water Heater
Umoya	Umoya Energy

List of Figures

Figure 1: Map location of the town of Hopefield and the Hopefield Wind Farm	65
Figure 2: Yearly household income in Hopefield.....	67
Figure 3:Household access to energy sources in Hopefield in 2011	68
Figure 4: Umoya Energy community development spend (2014–2017).....	71

List of Tables

Table 1. Alignment of NDP outcomes and REIPPPP bid obligations.....	15
Table 2. Elements of the economic development criteria of the REIPPPP	20
Table 3: Sub-inquiries of research aims	56
Table 4: Research participant anonymity categorisation.....	61
Table 5: Three main components of the Home Improvement Project.....	79
Table 6: Number of installations per intervention.....	82
Table 7: Contracting installers during Phase 2 of the HIP	85

Chapter 1: Introduction

Investment into renewable energy infrastructure in the Global South (developing countries) requires a different developmental approach from that experienced in the Global North. Developing countries are faced with a multiplicity of social, economic and technical challenges. They need to consider leapfrogging carbon-intensive energy models while at the same time considering local social and economic development (Batinge, Musango and Brent, 2017). Comparatively, developed countries need only pursue a least cost, low carbon energy development model (Kruger and Eberhard, 2018). Essentially, developing countries are faced with the challenge of pursuing the complex goal of sustainable development.

As a concept and practice, sustainable development is a vital principle in a globalised effort to reduce human environmental impact while also promoting equality and development in the modern world (Sneddon, Howarth and Norgaard, 2006). Renewable energy sources have great potential to contribute to sustainable development by providing a wide variety of socio-economic benefits, including diversification of energy supply, enhanced regional and rural development opportunities, the creation of a domestic industry and employment opportunities (Del Río and Burguillo, 2009). Thus, developing countries are faced with the mammoth challenge of implementing this multiplicity of factors in achieving sustainable development. This challenge has gained increased attention in both academic and non-academic research (Batinge *et al.*, 2017) Despite it being a mammoth task, developing countries can achieve this through the investment and construction of utility scale renewable energy projects.

The Renewable Energy Independent Power Producer Procurement Programme (henceforth referred to as the REIPPPP) implemented in South Africa represents a progressive renewable energy auction programme that drives the development of cost-competitive, utility-scale renewable energy projects, while at the same time considering the social and economic conditions facing the country (Eberhard and Naude, 2017). Implemented by the South African Department of Energy (DoE), the REIPPPP encourages private sector investment – through independent power producers (IPPs) – in the construction of utility-scale renewable energy generation technologies, such as onshore wind, solar photovoltaics, concentrated solar power, biomass, biogas and small-scale hydropower (DoE, 2011).

Under the REIPPPP framework, successful bidders are mandated to consider local beneficiation as part of their project bids and the operation of renewable energy plants. One example of local beneficiation under the REIPPPP is the requirement for IPPs to spend a percentage of annual revenues on socio-economic development (SED) and enterprise development (ED) in local communities, as well as to allocate part-shareholding ownership to an entity representing the community (DoE, 2011). The local benefaction aspects of this programme support the developmental agenda of the South African government.

The REIPPPP aligns with key national development policies and plans, including the South African National Development Plan (NDP) and the National Growth Plan (NGP). These are central developmental plans that guide national objectives of growing the economy, creating jobs and encouraging social upliftment by eliminating poverty and reducing inequality by the year 2030 (Wlokas, 2017). The REIPPPP is one example of a policy instrument – in the form of a programme – that operationalises government goals through the widespread development of utility-scale renewable energy projects by the private sector in the country. Wlokas (2017) notes that the REIPPPP contributes to ten of the national outcomes of the NDP. McEwan (2017) observes that the development of utility-scale renewable energy plants in South Africa has been set up to maximise economic and social benefit for the country. However, despite well-intended social and economic consideration having been integrated into the REIPPPP policy framework, operational challenges experienced by IPPs have emerged from the programme.

These operational challenges centre around the practice of community development by IPPs. Challenges range from lack of guidance from the government regarding the practise community development to poor engagement with communities over upliftment projects accrued to them (Montmasson-Clair and Ryan, 2014; Tait, Wlokas and Garside, 2013; Wlokas, Westoby and Soal, 2017). These operational problems hinder the developmental potential of the REIPPPP.

The intention of this research study is, firstly, to document and present how an IPP within the REIPPPP has been able to mitigate a few of these emerging community development challenges effectively and strategically.

The study examines how Umoya Energy (henceforth referred to as Umoya) has innovatively engaged with and implemented locality-specific community development initiatives in the rural (beneficiary) town of Hopefield in the Western Cape. This done as part of the Umoya's SED and ED mandate as per their participation within the REIPPPP.

Secondly, this research study aims to showcase the story of Umoya's community engagement process and the flagship community development project, the Home Improvement Project (HIP), established in the beneficiary town of Hopefield. The HIP upgrades eligible low-income homes with sustainable energy interventions that improve the living conditions of locals' homes.

Umoya has identified and effectively responded to local challenges faced in the community through several innovative community engagement approaches and processes, which have resulted in the emergence of the HIP. This thesis will provide a narrative account of how the HIP emerged from Umoya's unique community engagement processes, and how it responded to the collective needs of Hopefield residents in novel ways. Furthermore, this thesis provides an analysis of the impact that the project has had in the community between 2011 and 2017.

This chapter provides an introduction to this research study.

1.1 Brief overview of the REIPPPP

The REIPPPP is South Africa's utility-scale renewable energy auction programme that attracts private sector investment towards the development of a renewable energy generation fleet for the country. The programme supports and builds upon existing national energy policies that encourage macroeconomic development by diversifying electricity generation capacity, such as the NDP, NGP and Integrated Resource Plan (IRP) (Wlokas, 2017). These national government plans aim to promote a green economy, encourage poverty alleviation and reduce inequality, while at the same time supporting low carbon sustainable development through the widespread development of utility-scale renewable energy projects across South Africa.

Socio-economic development factors are considered throughout the REIPPPP process, and are brought about through several programme stipulations and conditions that consider local community level benefits, as well as national social and economic beneficiation and transformation (McEwan, 2017) that are complemented by the aforementioned government development plans. Del Río and Burguillo (2008: 1342) state that, "...regional development policies have long been justified and implemented in developed countries to reduce regional disparities and increase the quality of life in depressed regions." Del Río and Burguillo (2008) argue that such a regional cohesion policy along with a renewable energy policy have positive synergies that could bring several local social and economic benefits that should be exploited.

Community level socio-economic benefit stems from annual local community investments directed at socio-economic development (SED) and enterprise development (ED) initiatives that are implemented through community development practices by IPPs. Furthermore, communities have part project ownership of the renewable energy project. Dividends from the operation of the project are paid to communities once the buy-in loan, usually from a development finance institution (DFI), is paid off (Eberhard and Naude, 2017; Montmasson-Clair and Ryan, 2014).

Macro-level socio-economic considerations include a percentage of local broad-based black economic empowerment (BEE) shareholding of the portfolio company and local content conditions (Tait *et al.*, 2013). During the submission phase — once project proposals are submitted to the DoE by IPPs — project bids are chosen according to pricing criteria (given a weighting of 70%) and economic development criteria (weighted 30%) (Montmasson-Clair and Ryan 2014). Collectively, each socio-economic development criterion needed for a project bid is considered an equally important role in the success of the bid (Tait *et al.*, 2013; WWF, 2015).

The outcomes of four REIPPPP bidding rounds between 2011 and 2018 has resulted more than 6309 megawatts (MW) of renewable energy capacity being signed through 91 projects, valued in excess of R194 billion funded mostly through private sector investment. The IPP office (2018) notes that an excess of R58

billion has been allocated towards community beneficiation over the next 20 years through the current projects that have been procured (IPP Office, 2018).

Despite socio-economic considerations deeply embedded within the REIPPPP framework, challenges around community development hinder the developmental potential of translating these funds into meaningful projects that improve the lives of many and drive much-needed sustainable development.

A detailed analysis of the REIPPPP will be provided in Chapter 3.

1.2 Emergence of the research topic and research journey

This research topic emerged from a personal interaction between the researcher and a professional in the renewable energy industry in 2014. This professional explained the ‘complex context’ in which business must operate in the roll-out and adoption of utility-scale renewable energy across Africa, saying that:

“In Africa, we are still faced with a dynamic that, if I have an R1 billion, do I spend it on the latest [renewable energy] technologies or build houses? Or do I use it to upgrade schools? This is a dynamic that is not faced in Europe or the US.”

This conversation left me with a personal inner tension in which I questioned, “Why can’t Africa develop large-scale renewables and address local developmental challenges?”

This ‘complex context’ is a common perception and has been noted in academia. Byrne and Ockwell (2013) noted that there is a modern perception that pursuing low carbon development and addressing developmental challenges are two separate challenges and cannot be mutually addressed. They expressed their position that there are multiple synergies between human and economic development priorities and poverty alleviation interventions when dealing with renewable energy technologies and similar sustainability-oriented innovations (SOI’s).

In my opinion, the envisioned social and economic development at community level through mandated profit sharing and ownership with beneficiary communities, as embedded within the REIPPPP, is essential in dealing with the ‘complex context’ of sustainable development in an African context. I support the view of Del R o and Burguillo (2009) that improving the social and economic condition of developing regions is best addressed through the integration of regional policies aimed at reducing social and economic disparities. In other words, national development policies and plans can together accelerate the growth of the formal economy, while at the same time address social and economic disparities. In the case of South Africa, the NDP, NGP and IRP are interlinked. The IRP makes provision for renewable energy development to ensure national energy security, while the NDP and NGP support the growth of the economy and address inequality. The REIPPPP is one form of an integrated government policy that takes Del R o and Burguillo's (2009) argument into account.

Despite SOIs having developmental synergies between human and economic development, Berger (2014) expresses that developing countries – as are found in much of Africa – are faced with a trilemma of challenges when dealing with a developmental approach. Key challenges include keeping inequality under control, maximising economic growth and ensuring fiscal restraint (i.e. maintaining fiscal sustainability) (Burger, 2014) . However, it can be argued that the REIPPPP has been set up to address this developmental complexity in South Africa.

After completing my Postgraduate Diploma in Sustainable Development, Planning and Management and being exposed to the industry has fostered in me a solution-based drive to not only understand but to settle this inner tension. My postgraduate studies and work experience at the Managing Infrastructure Investment, Reform and Regulation in Africa (MIRA)¹ Research Centre at the University of Cape Town’s Graduate School of Business provided me with a perfect platform to gain exposure to and an understanding of the REIPPPP and its associated processes.

¹ MIRA is a research centre that aims to enhance the understanding and building capacity in infrastructure investment, reform and regulation in support of sustainable development.

This platform has provided me with new insights that, to some extent, have settled the frustration of this ‘complex context’ perspective within which the private sector renewable energy industry must operate within Africa. While it has highlighted the developmental potential and importance of the REIPPPP in the country, this platform has also exposed the operational challenges that inhibit the REIPPPP from reaching its full developmental potential and from being a model of sustainable development in the Global South.

The Hopefield case suggests elements of a more hopeful alternative.

1.3 Problem statement

Based on a review of several academic sources, Carley, Lawrence, Brown, Nourafshan and Benami (2011) conclude that the argument between energy and socio-economic development has been mostly theoretical. The authors note that academic standpoint has focused predominantly on the need and potential benefits of energy-based economic development, with little reference to local development or benefit. On the other hand, Del Río and Burguillo (2009: 1342) state that, “...previous papers have considered only some of the socio-economic benefits of renewable energy deployment for local communities and, although some of them have even provided anecdotal evidence of their existence, an integrated conceptual framework to analyse them has been absent.” These views have substantiated my personal experience during the early stages of this research endeavour, and have ignited a showcase case study evidence of how socio-economic development can be achieved.

During my initial literature review, I came across few publications that presented case studies or anecdotal evidence of the link between economic development and energy policy and planning. I noted a particular lack of evidence around local community development benefit stemming from the adoption of utility-scale renewables. This was also evident in the literature around the REIPPPP as well. It is, however, worthy of mention that there was a larger discourse on the local community development practice, experience and potential benefits stemming from renewable energy projects in the early development and operations stages of the REIPPPP. However, the REIPPPP literature has also highlighted many challenges associated with the community development practices experienced by IPPs within the REIPPPP.

IPPs are faced with a multiplicity of challenges when practising community development within the REIPPPP. Challenges highlighted range from ineffective community engagement with beneficiaries to the difficulty of directing SED and ED funds towards meaningful and sustainable community development projects that address unique challenges faced by beneficiaries.

McDaid (2014), WWF (2015) and Tait *et al.* (2013) have noted that poor engagement between IPPs and beneficiary communities exists. McDaid (2014) expresses that poor engagement has resulted in confusion, frustration and potentially chaotic development. Tait *et al.* (2013) note that communities who do know that benefits have accrued to them often have expectations of employment and basic service delivery (such as electrification of communities). Tait *et al.* (2013) note this perception has developed from poor communication between IPPs and communities.

In addition, there is a lack of institutional guidance and feedback from the IPP office and both local and national government on economic development plans and the practice thereof, as well as unwillingness of IPPs to engage with local government (Tait *et al.* 2013, WWF, 2015). This lack of institutional guidance gives IPPs full autonomy regarding community projects submitted and the processes used to implement them. IPPs' core practice is not community development; they therefore lack the necessary skills and capacity to handle the workload associated with communities' development (Boulle, Boyd and Cunliffe, 2015). Furthermore, Eberhard, Kolker and Leigland (2014) notes that the 50-kilometre radius rule may be problematic as it divides and excludes certain towns, villages and communities from benefits, a feature which may cause social unrest.

As mentioned, community development funds accrued to communities over the first four bidding windows will accumulate to R58 billion over the lifespan of the already-signed projects. These funds will stem from annual revenue and dividends derived from community shareholding in these projects.

With large sums of community development funds being available from projects procured during the first four bidding windows, as well as the potential for more funds if future bid windows are procured, a challenge that

can be expressed as a question is emerging: “How can we (as practitioners, academics and members of beneficiary communities) collectively mitigate against these challenges so we can effectively use this transformative opportunity to improve the livelihoods of those living in beneficiary communities?”

WWF (2015) notes that a stand-out feature of REIPPPP is the envisaged contribution to local and regional economic development. Even though the DoE may want to encourage autonomy among developers in the community development space, some direction could be useful to align development efforts more closely to national goals.

One developmental challenge that can be addressed, which is outlined in the NDP and as part of the national Strategic Integrated Projects, is ensuring electricity transmission and distribution for all by 2030 (Government of South Africa, 2013). McEwan, Mawdsley, Banks and Scheyvens (2017) note that inadequate energy provision is a common challenge faced in communities, particularly those located in close proximity to REIPPPP project sites. This may result in animosity in communities located next to utility-scale energy generation plants because their energy needs are unlikely to be factored into community development. Although this may be a common context, it is worth noting that, while energy access and energy poverty alleviation forms part of the government’s mandate, it does not necessarily form part of the IPP.

Winkler (2006) and Byrne and Ockwell (2013) note that access to modern energy services is a critical human development priority as it can act as an enabler towards transforming the livelihoods of poor people and their economic potential. Painuly (2001) considers renewable energy technology as the strongest contender for improving the standard of living for at least 2 billion people around the world. However, illustrations of the potential and the practice of implementing energy access through renewable energy technologies (RETs) are few and far between. In the draft IRP 2018, the DoE (2018) broadly expresses that improving access to energy is a continuous challenge for governments and development organisations, and that access to energy is a function of availability and affordability.

For Westoby (2014), community development is an endogenous process that should be a bottom-up practice that can work alongside and inform top-down initiatives. Westoby (2014: 34) further substantiates this view by noting that community development should include people who “...collectively, associatively, cooperatively and individually...” have control of development that can ultimately impact their lives, as opposed to only a predetermined set of solutions set forth by practitioners. Although Westoby (2014) does note advantages to a top-down approach to community development, he also explicitly notes that the primary focus should be on the perspectives of community members and the inclusion of locals in contributing to the community development process.

Wlokas *et al.* (2017) discuss the practice of community development within REIPPPP, arguing that community development does not need to be reinvented but should, preferably, be supplemented by best practice from around the world. The authors note that the SED, ED and local ownership models used represent diverse, if not contradictory, notions of development. This contradiction allows practitioners the freedom to interpret an appropriate practice in each context. Despite this, Wlokas *et al.* (2017) emphasise that there is no silver bullet for the best practice of community development across all project locations and projects. The authors further note that the essentials are: building relationships, being observant, listening, consulting, responding and adapting (Wlokas *et al.*, 2017). This type of community development practice is essentially collaboration between actors across the beneficiary and community development space, such as community members, community development practitioners, academics, IPPs and government.

Despite the progression of renewable energy in South Africa, some challenges need to be overcome regarding effective planning and engagement with respect to the REIPPPP community development mandate. The literature suggests that the community development practice by IPPs appears to be a box-ticking exercise instead of a collaborative effort towards creating relevant and significant solutions for rural communities. In other words, challenges exist in the REIPPPP whereby funds accrued to communities towards community beneficiation are not fully understood and utilised. Developers are unaware of the depth of detail required for engagement when developing SED and ED strategies (Tait *et al.*, 2013).

Based on the multiplicity of factors presented through the lessons learnt in the practice of community development in REIPPPP, a broad research question (as stated in the following section) is deemed adequate. Such a question allows the research to touch on different yet interlinking aspects that assist in understanding the academic context better, while at the same time developing appropriate solutions based on the academic perspectives presented.

Thus, based on the overview above, the problem statement in this thesis is:

IPP's are face a multiplicity of challenges in the practice community development as per their mandate within the REIPPPP.

1.4 Research aims, objectives and significance

Narrowing down research objectives was not a straightforward task as several pre-conceived objectives emerged throughout the research, thus making it an iterative process. Although this made for an interesting and dynamic research journey, it did not assist in clearly defining the objectives of the study.

After much contemplation, guidance and reflection, original objectives for this study was whittled down to those that were useful and researchable.

The finalised objectives of this study are to:

1. Provide an overview of the emerging discourse on the local community development potential of the REIPPPP;
2. Showcase effective community development practices undertaken by Umoya in Hopefield; and
3. Showcase how local social and economic development considerations implemented in a utility-scale renewable energy auction programme can address community energy challenges (relating to energy poverty and energy access) in local communities found adjacent to project sites.

Based on these research objectives, the research question for this investigation is as follows:

How can IPPs meet the developmental requirements of the REIPPPP by effectively providing sustainable energy solutions to beneficiary communities?

1.5 Research design, methodology and conceptual framework

A qualitative research approach was undertaken. Purposive stakeholder sampling was used to select relevant participants to partake in semi-structured interviews. Purposive stakeholder sampling is a qualitative research “...strategy that involves identifying who the major stakeholders are who are involved in designing, giving, receiving, or administering the program or services being evaluated, and who might otherwise be affected by it” (Palys, 2008: 2). Semi-structured interviews were conducted with stakeholders of the flagship community development project implemented in Hopefield by the company Umoya. Due to the existence of several actors and the varying themes present in the case study area, a conceptual framework was developed to guide the selection of relevant participants for interview.

The research design allows for an explanatory case study in the form of a narrative enquiry that seeks to document the thought processes of key stakeholders involved in Umoya. The case study seeks to uncover how stakeholders effectively responded to the needs of the community as per their REIPPPP community development requirements. Clandinin and Connelly (2000) define a narrative inquiry as a qualitative methodology that studies the real-life experience of people and depicts the inquiry as a story. Following this approach, the case study uses the form of a story in seeking to uncover the factors and actors that led to the appropriate community development approach, implementation strategy and establishment of the flagship programme in Hopefield.

Furthermore, participant observation was used in this study to supplement the narratives documented from the interviews. However, this method was not extensively applied during the data-gathering process and did not make a significant contribution to the overall research study.

1.6 Limitations of the study

Given the dynamic, ongoing context of the REIPPPP, many research limitations are present. However, the specific limitations of this research study include the following:

- A relatively early overview of the REIPPPP industry is given.
- One REIPPPP community development case study will be presented in this research endeavour.
- The data presented in this paper has the potential to be outdated at the time of publication.
- Only the energy needs of communities will be explored.
- The interview data expressed by participants may come across as biased.

1.7 Chapter outline

Chapter 1: Introduction

This introductory chapter provides an overview of the research context, including a brief overview and analysis of the REIPPPP, the emergence of the research project, the associated problem and the research methods undertaken in the study. It also provides a brief overview of the research undertaken and the complexities that exist in this assignment, and further guides the reader on the steps undertaken to arrive at the findings and associated conclusions drawn from case study research.

Chapter 2: The Renewable Energy Independent Power Producer Procurement Programme (REIPPPP)

This chapter explores and discusses the REIPPPP auction design and the stipulations mandated within the programme. The focus will be predominantly on the social and economic stipulations integrated into the programme, from the Request for Qualification and Proposal (RFP) stage to the signing of power purchase, implementation and direct agreements. The chapter explores how economic development aspects are considered throughout the auction process.

Chapter 3: Community development and local economic development

This chapter reviews the available literature on the purpose of social and economic transformation, and how it can be achieved in underdeveloped areas. Community development and local economic development (LED) are the main theoretical frames that form the focus of the review, as these academic themes complement the

practice and intention of community beneficiation of the programme. An analysis is made of each theme, and an explanation given on how each concept fits into the mandate and purpose of the socio-economic development considerations in the REIPPPP. Furthermore, a conceptual framework, based on the empirical findings in Chapters 2 and 3, is provided in the conclusion. This describes how these paradigms fit into the context of this research assignment.

Chapter 4: Methodology

This chapter provides details on the research approach and design undertaken in this endeavour. The methods used are detailed and substantiated. Furthermore, the process of gathering empirical data is discussed, while a detailed analysis of the data is provided in Chapter 6. The qualitative methods used to conduct the research are discussed, and substantiation of these methodological choices is provided. The data collection and analysis process is detailed, preceding the findings discussed in Chapter 7.

Chapter 5: Case Study: Hopefield Wind Farm

This describes the community development approach and flagship initiative at the Hopefield Wind Farm. The case study documents the efforts made by Umoya in the small rural town of Hopefield as part of their REIPPPP mandated through the development of the Hopfield Wind Farm. The case study provides a narrative on how Umoya responded to developmental needs (mostly energy access and energy poverty needs) while also driving upskilling and entrepreneurship for the local community members in Hopefield through their community development operations. This chapter also aims to tell the story of how the HIP had emerged and the practical impact that the project has had in the community between 2014 and 2017.

Chapter 6: Conclusion and discussion

This thesis concludes with a summary of the findings presented in the preceding chapters, provides a conclusion and recommendations whilst answering the research question posed in this thesis.

Chapter 2: Renewable Energy Independent Power Producer Procurement Programme (REIPPPP)

The Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) is a competitive technology specific renewable energy auction programme that is designed to attract private sector investment into the development utility-scale grid-connected renewable energy projects in South Africa (Eberhard and Naude, 2017). Independent Power Producers (IPPs) – built, financed, owned and operated by the private sector – are invited to submit bids for onshore wind, solar photovoltaic (PV), concentrated solar power, small hydropower, biomass, biogas or landfill projects. Introduced in 2011, the REIPPPP is the result of several attempts to introduce a constitutionally sound feed-in-tariff mechanism that abides by local and international climate change policies and frameworks, and complements national economic development outcomes such as are included in the NDP. The alignment between NDP outcomes and REIPPPP obligations is illustrated in Table 1 below.

Table 1. Alignment of NDP outcomes and REIPPPP bid obligations

Alignment of NDP outcomes and REIPPPP obligations		
National Development Plan Outcomes	Primary focus	REIPPPP bid categories addressing the specific outcome
Outcome 4	Decent employment through inclusive economic growth	<ul style="list-style-type: none"> • Job creation • Enterprise development • Ownership • Preferential procurement • Local content
Outcome 5	A skilled and capable workforce to support inclusive growth	<ul style="list-style-type: none"> • Job creation • Socio-economic development • Ownership • Enterprise development

Outcome 7	Vibrant, equitable, sustainable rural communities contributing towards food security for all. Reduction of rural unemployment rate. Increased access to quality infrastructure and services, specifically education, healthcare and public transport	<ul style="list-style-type: none"> • Job creation • Socio-economic development • Ownership • Enterprise development
Outcome 8	Sustainable human settlements and improved quality of household life	<ul style="list-style-type: none"> • Socio-economic development
Outcome 10	Protection and enhancement of our environmental assets and natural resources: - Reduced total emissions of carbon dioxide (34% reduction from business-as-usual scenarios)	Results from power generation from 'clean' energy sources (a consequence of Outcome 6)
Outcome 11	Contribution to a better and safer Africa in a better world: - Increased foreign direct investment: R230 billion by 2019 (from baseline of R40 billion in 2013)	<ul style="list-style-type: none"> • Ownership
Outcome 14	Nation building and social cohesion: - Disability and gender equality - Equal opportunities and redress	<ul style="list-style-type: none"> • Preferential procurement • Job creation • Ownership

Source: Wlokas (2017)

The primary goals of the programme are to alleviate the country's electricity supply shortage, attract financial and technical capacity, lower the cost of energy through market competition, reduce the country's dependence on coal-fired power stations and create a local renewable energy industry in South Africa (Eberhard and Naude,

2017; Montmasson-Clair and Ryan, 2014). The REIPPPP aligns with objectives under the NDP plans that identify the need for South Africa to invest in a secure network of economic infrastructure designed to support the country's medium- and long-term economic and social objectives (Government of South Africa, 2013; Wlokas, 2017). In this case, the promotion of a renewable energy infrastructure aimed to achieving the same goals.

The programme supports and builds upon existing national energy policies that encourage macroeconomic development by diversifying electricity generation capacity and a migration away from the country's overwhelming dependence on a dirty coal-dominated energy generation fleet. The REIPPPP has thus been formulated to complement existing national policies that promote a green economy, and support low carbon development, climate change mitigation and sustainable transition through the widespread roll-out of utility-scale renewable energy projects across South Africa. Between 2011 and 2015, four bidding rounds were completed, with a total of 6328MW procured from 102 IPPs (with 3272MW operational and made available to the grid). This amounted to R194 billion worth of private sector investment (Eberhard and Naude, 2017). The inclusion of large-scale renewables in South Africa's energy mix has seen an installed capacity of renewable energy growing from 0% to 5% in the five years since August 2011 (McFarlanes, 2016).

The REIPPPP represents a progressive energy policy that is cognisant of the socio-economic developmental complexities faced in the country. McEwan (2017) notes that the procurement of utility-scale renewable energy plants in South Africa through the REIPPPP provides for maximum economic and social benefit for South Africa. Given the widespread inequality and unemployment rates found in the country, the economic development criteria were among the top priorities of the REIPPPP. The DoE recognises that the REIPPPP is designed for the achievement of positive socio-economic outcomes (Department of Energy, 2014). Eberhard and Naude (2017) and the DoE (2014) describe how benefits are specifically aimed at facilitating and expediting local job creation, community development and Black commercial interests, methods and objectives of inclusive growth within the energy sector that falls in line with national development agendas such as the NDP. Eberhard and Naude (2017) note that the REIPPPP offers valuable lessons for developing countries in terms of designing and running competitive auctions for grid-connected renewable energy IPPs.

This chapter explores the economic development considerations in programme design of the REIPPPP through the procurement and operation phases. The chapter also provides an overview of the REIPPPP auction process and critical analysis of the community beneficiation aspects of the programme.

2.1 Overview: REIPPPP procurement design and requirements

The REIPPPP has been designed as a series of single-step, closed-bid auctions that are initiated once a combined RFP has been released (Eberhard and Naude, 2017). Each bidding round has a set amount of requested generation capacity (megawatts (MW)) outlined in the RFP. The RFP indicates the specific amounts of generation capacity that will be allocated to each technology band.

In compliance with local electricity laws, a ministerial determination is released, allocating a certain amount of MW to be procured from renewable energy technologies. To date, there have been three such determinations. The first required a maximum of 3725MW, the second permitted an additional 3200MW and the latest – in 2015 – allowed for 6300MW to be allocated to renewable energy projects (Eberhard and Naude, 2017). Under half of the allocated amounts have been procured or are in various stages of development, with the remainder available for future bid rounds (Eberhard and Naude, 2017).

Bid evaluations have involved two stages, each with a distinct set of criteria. Stage 1 has addressed general requirements and qualifications; and Stage 2 has provided for scoring based on predetermined evaluation criteria (Eberhard and Naude, 2017).

2.1.1 REIPPPP bid evaluation stages: Stage 1 and 2

As part of the qualification criteria (Stage 1), bidders have to satisfy certain minimum threshold requirements in six areas: environment, land, commercial and legal, economic development, financial and technical (Eberhard and Kåberger, 2016: 192). The general requirements (Stage 1) of the bidding process provides an overview of the REIPPPP, its key players and governing laws. It also provides relevant information to IPPs such as technical, financial and administrative aspects of each technology band, such as the amount of MW

allocated per technology band, price caps for each technology and timetable for each stage of the bidding window (Eberhard and Naude, 2017).

The qualification stage includes two primary economic development thresholds. Firstly, at least 40% of the IPP/project company must be South African. Proof of compliance is required through the submission of shareholder certificates or authorised letters indicating the respective shareholdings, constitutional documents and shareholders' agreements (Eberhard and Naude, 2017). Secondly, the project company must have a minimum Contributor Status Level of 5 when measured by local Broad-Based Black Economic Empowerment (BBBEE) Codes.

Bidders that comply with the general compliance and qualification requirements are then considered under Stage 2 of the RFP, where bids are scored on a 70% price and 30% economic development criteria. This evaluation moves away from the 90/10 split as stipulated by the Preferential Procurement Policy Framework Act (2000) (Eberhard and Naude, 2017).

The qualification criteria used in Stage 2 provide deeper insight into the requirements outlined in the general requirements. The qualification criteria also introduces new requirements with which the bidder must comply for final evaluation. In broad terms, projects that qualify for evaluation are those that are technically, financially and legally qualified, as well as having sufficient experience, commitment and resources to execute the project as submitted. To be considered as a compliant bid, each submission is required to meet or exceed all the prescribed thresholds (Eberhard and Naude, 2017: 10). Bidders are required to provide two prices: one fully indexed for inflation and the other partially indexed, which bidder's determine the proportion that will be indexed (Eberhard and Kåberger, 2016). The 70% pricing portion is evaluated using a standard financial model.

Economic development criteria is categorised into seven non-price categories: job creation, local content, ownership, management control, preferential procurement, enterprise and socio-economic development as

seen in Table 2 below. Bidders are required to meet the minimum stipulated threshold, with an aim to achieve the indicated target for each of the economic development elements.

Table 2. Elements of the economic development criteria of the REIPPPP

Element (Weighting)	Description	Threshold	Target
JOB CREATION (25%)	RSA Based employees who are citizens	50%	80%
	RSA Based employees who are Black people	30%	50%
	Skilled employees who are Black people	18%	30%
	RSA based employees who are citizens and from local communities	12%	20%
	RSA based citizens employees per MW of Contracted capacity	N/A	N/A
LOCAL CONTENT (25%)	Value of local content spending	40% – 45%*	65%
OWNERSHIP (15%)	Shareholding by Black People in the Seller	12%	30%
	Shareholding by Local Communities in the Seller	2.5%	5%
	Shareholding by Black people in the Construction Contractor	8%	20%
	Shareholding by Black people in the Operations Contractor	8%	20%
MANAGEMENT CONTROL (5%)	Black people in Top Management	-	40%
PREFERENTIAL PROCUREMENT (10%)	BBBEE Procurement**	-	60%
	QSE & SME Procurement**	-	10%
	Women Owned Vendor Procurement**	-	5%
ENTERPRISE DEVELOPMENT (5%)	Enterprise Development Contributions***	-	0.6%
	Adjusted Enterprise Development Contributions***	-	0.6%
SOCIO ECONOMIC DEVELOPMENT (15%)	Socio-Economic Development Contributions***	1%	1.5%
	Adjusted Socio-Economic Development Contributions***	1%	1.5%

*Depending on technology. 45% for solar PV, 40% for all other technologies.

**As percentage of total procurement spend.

***As a percentage of Revenue

Source: Eberhard and Naude (2017: 51)

It is worth noting that IPPs must adhere to each stage of the bid evaluation economic development considerations in order for a project bid to be considered compliant. Collectively, each economic development criterion plays an equally important role in the success of the bid (Tait, Wlokas and Garside, 2013b; World Wildlife Fund for Nature (WWF), 2015). However, due to the 70% price and 30% economic development bid evaluation criteria, Eberhard and Naude (2017) note that some aspects have been controversial. These include trade-offs by bidders between lowering bid prices and meeting the economic development criteria. In comparison to renewable energy auction programmes found globally, the REIPPPP places emphasis on embedded economic development considerations in evaluating the success of the bid, whereas it is generally found that most energy auctions programmes evaluate bids solely based upon price (Kruger, Eberhard and

Swartz, 2018). However, given the context of South Africa, the dual consideration between price and economic development can be deemed appropriate.

Bids are submitted to and evaluated by the IPP office housed within the DoE. The IPP office operates outside the formal structures of the DoE to enable more efficient operations without being hindered by government processes (Eberhard *et al.*, 2014; Montmasson-Clair and Ryan, 2014).

Successful bidders are required to sign a standardised power purchase agreement (PPA) with the country's sole off-taker, Eskom, with a determined price per kilowatt hour (kWh) unit produced. The PPA contract specifies a 20-year tenure commencing on the commercial operation date. Successful bidders are also required to sign an implementation agreement (IA) and a Direct Agreement (DA). An IA serves as a direct contractual obligation and undertaking between the DoE and the successful bidder. The IA specifies that the South African government stands as surety for Eskom in the event of late or non-payment for the electricity produced (Eberhard and Naude, 2017). The DA is signed between the IPP, Eskom, the DoE and lenders, which provides the latter with step-in rights in the event of default.

In addition, IPPs are held to their economic development obligations under the IA (Eberhard and Kåberger, 2016). Economic development obligations are made up of those stipulated under the programme and those indicated by the bidder in their bid applications. Furthermore, as part of the IA, IPPs are required to submit quarterly reports regarding expenditure on their economic development initiatives, particularly commitments with a community development focus. Failure to spend money allocated for community development may result in penalties for the IPP, including, in extreme cases, the revoking of their generation licenses (Eberhard and Kåberger, 2016).

2.2 REIPPPP's local community beneficiation

Communities found within a 50-kilometre radius of the project site are eligible to receive social and economic benefits from the renewable energy project. Community development criteria – directed at community-level

beneficiation – constitute 35% of the overall economic development scorecard's weighting, which in turn comprises 30% of the entire bid evaluation.

Under the IA, IPPs are required to ensure the project company meets certain annual community development obligations set out by the programme, as will be elaborated further in this section. This stipulation mandates IPPs to spend a percentage of annual income in communities found within a 50-kilometre radius of project sites. To ensure this stipulation is adhered to, IPPs are required to submit their quarterly spending figures to the IPP Office.

If no community is found within 50 kilometres, an extended radius can be considered upon approval from the IPP office. According to Montmasson-Clair and Das Nair (2015), the 50-kilometre stipulation is to prevent nepotism over how beneficiary communities are selected. A radius-based approach allows all surrounding communities an equal opportunity to benefit socially and economically from the development. However, this approach can result in overlapping of projects and beneficiary areas, this being a feature that has sometimes led to uncertainty over who is developing community projects and where (Tait *et al.*, 2013).

Local communities surrounding project sites benefit in four ways. They accrue income from share ownership, since a minimum of 2.5% of the project needs to be owned by the local community. Loans required for community ownership are often provided by development finance institutions (DFIs), such as the Industrial Development Corporation of South Africa, the Development Bank of Southern Africa and the Public Investment Corporation (Tait *et al.* 2013). Communities receive dividends from the project once the loan has been repaid to the funding DFI. DFI loans are typically paid back within seven to seventeen years (WWF, 2015). Community trusts are the most commonly used governance structure used to manage community funds in the REIPPPP (Tait *et al.*, 2013). The shares are typically managed by the DFI and dispersed through a local community trust. The trust boards are made up of community elected representatives. The DFI and the community trust leadership both participate in deciding how revenue is to be spent (Montmasson-Clair and Das Nair, 2015).

Other forms of community benefits are through a percentage of annual income from the project, with 1.5% of annual income earmarked for spend on socio-economic development (SED) and 0.6% for enterprise development (ED) in beneficiary communities within the stipulated radius of the project site (Eberhard and Naude, 2017; Tait *et al.*, 2013; Wlokas, Westoby and Soal, 2017).

The REIPPPP has attracted significant investment into the country, thereby igniting a competitive renewable energy industry. Since 2011, the electricity price for solar wind power has fallen by 46%, while solar PV electricity prices have decreased by 71% in nominal local currency terms (Eberhard and Kåberger, 2016). All procured IPP's have reached financial close, and some are already delivering power to the grid (Eberhard and Kåberger, 2016).

A large amount of funding has been allocated to community development over the lifespan of procured projects. In all, approximately R58 billion has been committed to communities through IPP contractual obligations under REIPPPP bid windows 1–4. These funds are directed towards socio-economic development, enterprise development and dividends to community trusts in local beneficiary communities, and will be dispersed from procured projects over the next 20 years (IPP Office, 2018).

Local community development considerations within the economic development criteria of the REIPPPP specifically aim to drive the transformative notion of local economic development (LED), which, it is argued, would be advisable to implement drawing on the practice of community development. Chapter 3 further explores this argument.

2.3 REIPPPP community development challenges

As mentioned in Chapter 1, despite good intentions by IPPs to produce positive impact in beneficiary communities, the practice of community development as required by the REIPPPP appears to be hamstrung by a compliance-driven mind-set that does not incentivise collaborative efforts to create relevant and significant solutions.

Collectively, the widespread adoption of a renewable energy fleet can generate a substantial amount of money for local communities. However, the complexities resulting from IPPs' responsibility to practise community development has had several unintended consequences (Montmasson-Clair and Das Nair, 2015). This gives rise to the possibility of wasteful expenditure of funds that are intended for addressing local social and economic challenges faced in rural South Africa. An opportunity exists to correct this trend before bulk income stream begins accruing to local communities.

Notable community development challenges identified within the programme are described below.

Community engagement, community expectation and community development practice

McDaid (2014) notes a common failure of IPPs to work openly with communities and to facilitate the participation of communities in economic development planning designed to impact their own lives. This may result in chaotic development (McDaid, 2014). Tait *et al.* (2013) further note that legal interpretations of criteria and requirements are understood differently, confusing stakeholders and making communication challenging. A lack of effective communication and engagement can result in communities having minimal knowledge of REIPPPP community development benefits, which can give rise to unrealistic expectations of employment and of electrification of local communities (Tait *et al.*, 2013). It was also found that local communities have little knowledge of REIPPPP and the benefits that have accrued to them (WWF 2015). Those who did benefit often lacked knowledge about where the funds came from and why the money was allocated to them; and were thus uneasy about sharing information about the money they had received (WWF 2015).

The prospects for long-term employment of locals are low, as many of the jobs created will be during the construction phase of renewable energy projects (Marais, Wlokas, de Groot, Dube and Scheba, 2018). Despite a 12% to 20% consideration target of local employment sourced within a 50-kilometre radius of project sites, the possibility of communities securing long-term employment through these projects is bleak. The projects are incentivised to create temporary employment opportunities, mainly for unskilled workers; however, this

does not lead to permanent job creation. WWF (2015) notes that this is a reality that is often misunderstood by the public and politicians.

In addition, many IPPs lack the core skills and in-house capacity to practise economic development as they are not in the business of community development (Boulle et al., 2015). This has led to project companies having limited skills and inadequate capacity to address the community development aspects of their projects, resulting in poor execution, as well as inappropriate community engagement and development planning (Boulle *et al.*, 2015; Tait *et al.*, 2013).

Community trusts

In line with the REIPPPP requirement for the establishment of a legal entity tasked with managing dividends arising from IPP projects, community trusts are a common choice. Trusts are commonly governed by a board of trustees that includes representatives from the IPP, financial institutions (usually a DFI), professional trustees, legal professionals and representatives of the beneficiary communities (McEwan *et al.*, 2017).

According to Montmasson-Clair and Das Nair (2015), the use of community trusts in beneficiary communities has had some unintended consequences. Highlighted concerns include:

- the concentration of funds in a limited number of communities;
- the absence of monitoring and evaluation of how funds are spent and abide by commitments;
- Poor capacity of the DoE and DFIs in managing funds and providing assurance that IPPs meet their commitment; and
- project developers and DFIs being inexperienced in handling trusts.

(Montmasson-Clair and Das Nair, 2015: 21)

Tait *et al.* (2013) reveal a challenge in selecting appropriate trustees that are representative of communities. Tait *et al.* (2013) further note that local political influences are often present on trust boards because representatives are often political figures from communities of focus. Furthermore, the authors also note

challenges in maintaining long-term governance structures because of factors such as high staff turnover, and inadequate skills and capacities.

Montmasson-Clair and Das Nair (2015:21) note a lack of experience in managing trusts. This may promote unsustainable development by concentrating large amount of funding into community trusts that do not have developmental objectives. This could lead to a situation in which a community trust might receive and manage excess financial flows with little knowledge of the communities for which the trust has been established (Montmasson-Clair and Das Nair, 2015:21). The cause of this likely linked to the poor community engagement between IPP's and beneficiary communities, as explored in the previous section.

Lack of guidance from the government

Companies have also expressed frustration over a lack of feedback on the economic development sections of their proposals (Tait *et al.*, 2013). Bids have been approved even though economic development ideas and plans have varied between project companies. This has left bidders puzzled, since innovative economic development plans were seemingly all treated equally (Tait *et al.*, 2013). Bidders have also felt uncertain because of the lack of consistency between IPPs and SED plans (Boulle *et al.*, 2015).

Wlokas *et al.* (2017) note that community development projects that have been implemented do not receive feedback from the government. The authors point to the lack of impact monitoring and evaluation of SED and ED initiatives, both at project level and sector-wide. The authors evidence this point through reference to several academic kinds of literature and industry reports that have identified an operational gap between DoE/REIPPPP requirements and IPP oversight of community development.

They indicate that this has led to the lack of clear definition of practices and initiatives on the ground: “The absence of government oversight and guidance in support of quality and direction of interventions and funding allocation results in a wide range of community development practices and development initiatives” (Wlokas *et al.*, 2017: 41). In order to assist IPPs in engaging with local stakeholders, WWF (2015) recommends that a

consultation guideline should be available. This would allow for a more inclusive and transparent implementation of IPPs' community development obligations (WWF, 2015).

Summary of challenges

Two general challenges present in REIPPPP community development are:

1. The lack of management guidance for stakeholders so that they can drive LED and translate funds into transformative projects and initiatives; and
2. The absence of development practice guidance providing for effective engagement with communities and allowing for the collaborative creation of solutions addressing locality-specific problems in beneficiary communities.

Overall, this poses a challenge to IPPs seeking to drive social and economic transformation objectives as part of their core business model and corporate practice. With large sums of money being allocated for local benefit through projects procured during the first four rounds and the potential of more funds, it is important for IPPs, the DoE and communities to overcome these challenges faced when future bid windows are procured.

Further early challenges documented by Wlokas, Boyd and Andolfi (2012) include defining who the beneficiaries are, managing community expectations, community contributions and ensuring implementation capacity, either through institutions or community structures.

The 50-kilometre radius prescription under the REIPPPP has resulted in some communities receiving benefits from more than one project. This is due to projects being clustered around favourable areas for wind and solar farms. Wlokas *et al.* (2012) note that the unequal geographical distribution of projects across the nine provinces of South Africa carries some risks, as SED and ED funds may be spent on specific areas while other communities within the same municipality may be ignored.

WWF International (2014) notes that, while the REIPPPP policy document is clear on quantitative commitments to which projects need to adhere, it lacks clarity on how funds should be governed and spent. The policy

document provides no guidance and does not outline any mandatory process for actual engagement with communities surrounding projects apart from a prescribed environmental impact assessment (WWF, 2015).

WWF also indicates that, there is a lack of incentive for project companies to engage in collaborative efforts to develop and initiate quality community development projects currently: “The degree to which communities participate in the decision-making around the project’s local economic development investments is, therefore, the sole discretion of the company in question” (WWF, 2015: 3).

2.4 Chapter conclusion and applicability to study

It is argued that developing countries can learn valuable lessons from the REIPPPP, especially around the remarkable investment and price outcomes from energy auctions (Eberhard and Käberger, 2016; Eberhard and Naude, 2017). This can be done through a progressive public-private partnership that leverages private capital through IPPs to stimulate the large-scale renewable energy industry in South Africa without burdening the public budget (Nel, 2018: 35), while at the same time integrating transformative social and economic aspects for maximum local benefit for the country (McEwan, 2017).

Del Río and Burguillo (2009) believe that some aspects of utility-scale renewable energy development can support social and economic development. Del Río and Burguillo (2009) further explain that, while using sectoral policy, such as renewable energy promotion and investments, may play a role in fostering sustainable development, it should do so as part of integral development policies rather than seeking to drive social and economic development in isolation.

The REIPPPP has been designed to address several objectives at the same time. The programme is a deliberate attempt to create a renewable energy generation market and drive inclusive growth objectives (Montmasson-Clair and Das Nair, 2015). This has all being achieved through deep economic development considerations in the REIPPPP design, particularly evident in the procurement (RFP) and operation phases/stages (IA) of the programme:

The economic development objectives of the REIPPPP have focussed on ensuring that South Africans participate, own and benefit from renewable energy activities in the country. The structure of the programme has been explicit in facilitating this, although economic development criteria remain secondary to price.

(Montmasson-Clair and Das Nair, 2015: 26)

Despite well-intended local development considerations, several challenges have emerged that hinder the nuanced local economic development potential that the programme offers, particularly around the community development aspects. Despite the REIPPPP being portrayed as an ideal renewable energy auction programme that aims to stimulate economic development and consider local beneficiation, it is worth noting there are substantial weaknesses within the programme. In this section, several challenges have been highlighted around the programme's ability to drive sustainable community development through IPPs.

Within this research study, the aim is to document innovative community development solutions created by IPPs to mitigate some of the challenges faced. This is particularly important if IPPs and communities are to make sure that funds are effectively used to address local challenges and create transformative impacts in beneficiary communities. One such rural development challenge is energy provision. It is therefore crucial to mitigate the community development challenges faced and effectively use SED, ED and ownerships funds towards providing energy access solutions for communities suffering from energy poverty and inadequate access, as energy access is only one challenge of many faced by beneficiary communities.

The REIPPPP community development component is an essential key in unlocking the LED potential of marginalised communities surrounding project sites. LED can be seen as the objective of local considerations, while community development is the practice through which to reach that objective.

Chapter 3 will further explore literature around community development and LED. A dive into the academic literature will assist in developing an understanding of the meaning behind these two concepts and their applicability to the REIPPPP. Thereafter, a documented case study will explore the provision of sustainable

energy solutions to local beneficiary communities through the practice of mandated community development by IPPs. This will showcase how some of the challenges present within the REIPPPP can be mitigated to enable the achievement of the socioeconomic development objectives of the programme.

Chapter 3: Community development and local economic development

This literature review delves into the academic arguments, approaches and strategies around the concepts of community development and LED. Furthermore, this chapter links complementary aspects of each concept to the REIPPPP community development framework within the renewable energy auction programme. This chapter concludes by presenting a conceptual framework linking the empirical analysis made in Chapters 2 and 3, with a description of its applicability to this research assignment.

3.1 Community development

This section provides a literature analysis of community development drawn from academic discourses addressing the theoretical and practical aspects thereof. It begins by defining and presenting an understanding of the concept of community development and how it is applied to practice by discussing contemporary community development approaches. It is followed by a review of how these aspects are applied to policy and practice in South Africa.

The views of Peter Westoby are frequently referred to in this section as the author has published extensively around this topic. The community development strategies and approaches that are discussed are drawn from Westoby (2014), whose articulation of the concept of community development has been derived through his personal experience in various parts of the world, particularly South Africa.

Lastly, this section concludes by considering the increased role that the private sector has in driving community development by exploring how private sector-led community development has been considered within the REIPPPP, and touching upon the lessons learned thus far.

3.1.1 Towards understanding community development

Many credible definitions and understandings of community development can be found across the landscape of scholarly literature. Broadly understood, the definition of community development is commonly understood as the collective addressing of a common cause that aims to improve the lives of those in the community within

a geographically defined area by a group of individuals (Bhattacharyya, 2004; Westoby, 2014; Wlokas *et al.*, 2017). It has been noted that certain principles may be applied to effectively understanding the intention of the concept beyond a basic definition. However, attempts to define the concept have resulted in much confusion among those seeking to make sense of its meaning, as well as those practising community development (Bhattacharyya, 2004).

Bhattacharyya (2004) notes that the concept of community development must satisfy two conditions. The concept must be:

1. distinctive in purpose and methodology, and
2. it must be universal in scope in that it could be applied to all types of social formations (urban, rural, pre- and post-industrial, as well as nomadic populations).

Westoby (2014) believes that understanding the concept must not be limited to practice but that reflectivity and reflexivity, requiring a deeper level of thinking, are also required.

In understanding the practice of community development, Westoby (2014: 22) reflects upon philosophical writings of Dunne (2011), noting that the field can be understood as lying between "...an enclave of specialised community development theory and practice..." and "...an enclave of non-specialist human endeavour to bring social change through citizen effort...". This method of understanding aims to draw parallels between theory and practice. Practice informs the practical know-how of people-oriented activities, and contrasts it with the acquisition and use of technical knowledge (Westoby, 2014).

Westoby (2014: 23) notes that:

... practice drawing on theory can be imagined ideally as both reflective and reflexive. It is reflective in the sense that a practitioner is able to pause and contemplatively check as to whether what they are doing is what they intended to do. Questions can be asked: 'is the practice what I intended it to be?'; 'is space opening up for diversity and plurality?'; 'am I responding carefully to this unanticipated event?' Moreover, a practice that integrates a theoretical attitude is also

reflexive practice, understood as going that one step beyond theory-practice congruency (a question of intention and reflective capacity) and adds to the process a questioning of theoretical assumptions – such as awareness of the eventful-like and story-like realities of a community development process.

Whereas Westoby's understanding of community development falls predominantly within the practical realm, Bhattacharyya (2004) and McEwan *et al.* (2017) take on a more theoretical stance in outlining their understanding of the concept. Bhattacharyya (2004) conceptualises the purpose of community development as the promotion of solidarity and agency. He argues that solidarity is an essential characteristic of the community, and that the purpose of community is to promote agency. He strongly suggests that we have to extract the essence of the term 'community', and not be limited to its common usage in social sciences and community development literature. Thus, leaving the understanding of the concept of community has subjected to critical analysis.

McEwan *et al.* (2017) note that the term 'community' is a construct open to considerable malleability in interpretation. The authors further cite various academic criticisms of use of the term 'community', highlighting two key problems as examples. Firstly, the term 'community' could be deployed euphemistically, and may suggest simple, largely homogenous groupings. There is an inherent difficulty associated with drawing geographical or social boundaries around a 'community' when it is defined in such a manner. Secondly, McEwan *et al.* (2017) identify the difficulty of ensuring that dominant groups do not capture the agenda or benefits from a community development intention while considering the varying needs and views from community members within a geographically defined boundary.

Similarly, Bhattacharyya (2004) notes that the term 'community' has always been a proxy for a geographically defined place regarding place or space, i.e. a rural or urban settlement or small town. This understanding does not consider the principles of solidarity or shared values, which Bhattacharyya (2004) notes are key in defining the social configurations of communities. Bhattacharyya (2004) believes these principles underpin the concept of community, as it distinctly defines the intrinsic nature of the concept, thus making it possible to distinguish

a community from all other types of social relations. By using these principles, Bhattacharyya (2004) believes that the term would be freed from the incidental baggage of territoriality or ethnicity. Although this understanding has practical value in separating the concept of ‘community’ from the spatial element, it does not make reference to the social dimension of a ‘community’.

Both Bhattacharyya (2004) and McEwan *et al.* (2017) believe that the understanding and practice of community development should be built on principles. Bhattacharyya (2004) believes solidarity and agency can be pursued by adhering to the practice of principles of self-help, felt needs and participation, which together form the concept of community development. On the other hand, McEwan *et al.* (2017) has a twofold understanding of community development, namely, that it is both:

1. the process of empowerment, and
2. an instrumental tool to achieve social and economic development outcomes.

The authors locate these community development principles within two common definitions. McEwan *et al.* (2017: 35) note that there is common usage of the United Nations Development Programme broad framing of community development as “a process where community members come together to take collective action and generate solutions to common problems”, whereas other definitions “explicitly related it to transformational change, seeing in community development the contestation of historic and structural marginalization”.

Bhattacharyya (2004) believes the ultimate goal of development should be human autonomy or agency, complemented by solidarity:

Defining development as agency-promoting activity has the advantage of parsimony: it captures the goals typically enumerated in community development definitions (economic and social change, improvement of the quality of life, etc.), and, besides, it specifies the ultimate goal of development.

(Bhattacharyya, 2004: 14)

Westoby (2014) notes that there is no agreed-upon definition of community development, nor is it necessarily helpful to identify one: “From a researcher’s perspective, what is more important, or more interesting, is how community development theory and practice is deployed as an idea, and in action” (Westoby, 2014: 25).

Based on the literature of Bhattacharyya (2004) and Westoby (2014), community development as a concept and practice should be based upon a deep reflexive process, with the objective to encourage self-help and agency in communities. Despite this being philosophically helpful, it does not assist in the actual practice of executing community development objectives. As a result, the views McEwan *et al.* (2017) are preferred in this research assignment. McEwan *et al.* (2017) directly refer to community development as a process whereby community members become collectively become active citizens that take combined action to address the challenges they face.

3.1.2 Community development frameworks

The previous section focused mainly on the theoretical aspects of understanding the concept ‘community development’. This included a reflection on the meaning and underlying goal of community development. Building upon this, this section takes a more practical stance on the same subject, considering the notion of ‘development’ through an exploration of community development frameworks.

Bhattacharyya (2004) maintains that the goals, methods, technique and tools need to be distinguished in community development. The various models of community development deal with techniques which are the most relevant and crucially significant aspect of community development.

It is worth noting that Westoby’s ideas rely upon the notion of epistemological assumption of bricolage. Apply this to the theory and practice of community development, he describes bricolage as “... a method [that] rests on the epistemological assumption that no single body of data can provide the ‘truth’ about community development in South Africa” (Westoby, 2014: 26).

Describing frameworks as allowing practices to be viewed “through different lenses”, Westoby (2014: 56) indicates that they emphasise “different practices of theory that can be signposts for practice”. He notes that there are many community development frameworks and approaches that have been developed, articulated and diffused by academics. He believes these frameworks bridge the gap between propositional and procedural knowledge. These two different sets of knowledge present themselves differently in policy frameworks and practice.

Wlokas *et al.* (2017) note that, under the National Community Development Policy Frameworks, public-sector-driven community development frameworks in South Africa regarding pragmatic initiatives have been operationalised. He provides a summary of the community development frameworks highlighted under these policy frameworks (Wlokas *et al.*, 2017: 39–40):

- **Income framework:** Grounded on the logic of earning an income below a certain threshold or not earning any income. Driven by complementary policies, such as the social protection policy through welfare grants and the Extended Public Works Programme, among others.
- **Basic needs framework:** Focused on assisting the poor by supporting their access to clean water, shelter, education, appropriate clothing, health and other necessities, as operationalised through the Reconstruction and Development Programme, for example.
- **Social exclusion framework:** Aimed at reducing the deprivation, vulnerability and inequality that coexist with wealth creation and adequate social welfare systems. The ‘Bill of Rights’ within the *Constitution of South Africa* aims to address systematic exclusion based on racism, sexism or geographical isolation arising from the inequalities of the past.
- **Sustainable livelihoods framework:** Assisting communities and people by building upon their asset base by enabling them to proactively identify, define and practise particular strategies for coping with conditions of poverty, vulnerability and hardships. This framework has been central to the development of a community development policy framework, as well as many initiatives within the Department of Social Development (DSD).

Wlokas *et al.* (2017) argues that community development practitioners are driven more by organisationally-diffused frameworks than by policy-oriented or academic theories: “Practitioners used some of the words of the policy frameworks, but their actual practice is often more aligned to those frames diffused through the organisations they work for” (Wlokas *et al.*, 2017: 40).

Commonly used organisationally diffused frameworks noted by Wlokas *et al.* (2017: 40) are as follows:

- **Community-driven or community-led development framework:** Used by non-governmental organisations (NGOs) within South Africa (e.g. Khanya-Acidd);
- **Rights-based community development:** utilised by numerous international NGOs (e.g. ActionAid);
- **Asset-based community development (ABCD):** conceptualised at the Coady Institute; and
- **Sustainable livelihoods approach (SLA) / framework:** developed by the work of Robert Chambers.

Furthermore, other examples of community development frameworks or approaches, as highlighted by Westoby (2014), include human rights from below, the networking approach, a neighbourhood-based approach, dialogical community development, and radical empowerment. Drawn from several case studies, Westoby (2014) highlights a considerable emphasis on asset-based community development approaches and strategies, such as are commonly used by the Department of Social Development (DSD) in their community development initiatives. Westoby (2014) commonly draws the use of sustainable livelihoods approach (SLA) and asset-based community development (ABCD) from South African community development case studies as examples.

Nel (2015: 512) considers both SLA and ABCD to be community development approaches that move away from needs and problem-based orientation to emphasise the strengths and assets of communities that can contribute to a self-sustained, improved quality of life:

Both approaches first seek to identify the assets in communities, their trends over time and space, as well as the nature and impacts of shocks and stresses (environmental, economic and social).

Both approaches take cognisance of the wider context of the community, such as the political, legal and economic environment, institutions and infrastructure, but the way in which these assets, shocks and stresses are identified and dealt with differs in terms of the two approaches. It seems as if the SLA is more often done in a top-down manner by the professionals, while the ABCD approach is done in a more bottom-up, cooperative way between the professional and community members.

(Nel, 2015: 512)

In the same vein, Nel (2015) critiques both the SLA and ABCD approaches, noting that an ABCD approach focuses mainly on the capacity building between community members and associations, whereas the SLA highlights policies and institutional contexts within which capitals and assets exist. If measured against Westoby's notion of bricolage, no single community development framework or approach is perfect, yet SLA and ABCD approaches hold core values that are helpful towards the understanding of community development and assist in its practice. As a result, SLA and ABCD frameworks have been adopted in this study as community development frameworks that complement the concept's definition outlined in the previous section.

An aspect not yet addressed is the question of who carries responsibility for the practice and implementation of community development. Westoby (2014) refers to community development case studies that have been initiated by the public sector, whereas Wlokas *et al.* (2017) refer to the practice of community development within the private sector, particularly the mining industry. Wlokas *et al.* (2017) note that the ABCD approach is commonly used when practicing community development within the mining industry. The authors further note the renewables sector can learn from the mining sectors extensive community development practice in South Africa.

3.1.3 Private sector-led community development

The private sector is increasingly playing a more significant role in international development. McEwan *et al.* (2017) explore the increased role of the private sector in international development. The authors explore

aspects of private-sector-led community development which they refer to as corporate community development, defining this as company activities directly and deliberately supporting community development. Private sector-led community development is supported by new and evolving official programmes, financing, partnerships and narratives. In some cases, these initiatives are the result of legal obligations written into tenders, contracts and agreements (McEwan *et al.*, 2017).

Drawn from several examples of corporate community development, McEwan *et al.* (2017: 48) argue that there has clearly been a lack of active participation or control by community members, and see community members as passive beneficiaries of corporate largesse. This perspective has been expressed across various case studies, including some related to the REIPPPP. However, the authors do note that it is still too early to measure the success of community development from the programme.

Marais *et al.* (2018) believe that the renewable energy sector in South Africa can learn from the mining sector's experiences with local communities. The authors express a note of caution against a narrow definition of communities, and highlight the importance of creating responsive institutions and skilled community practitioners.

3.2 Local economic development

The concept of LED as a means of promoting and ensuring the economic well-being of local communities has received considerable attention from public sector authorities and agencies (Nel and Rogerson, 1996). LED is a local development agenda that is designed to achieve socio-economic redress, to empower poor people and poor regions, and to promote economic growth (Nel and Rogerson, 2016). LED involves creating jobs, improving living standards and increasing the capacity of communities to be more self-sufficient socio-economically (Mutrifa, 2002). In other words, LED is a concept that stimulates a local economy to grow, compete and create more jobs by making use of the local resources available, while at the same time ensuring a quality standard of living. In this study, the concept of LED will be described as a locality-based economic and social development approach that responds to and addresses local challenges through the use of available local resources.

This section explores and discusses the emergence of the LED concept and provides a discourse on different perspectives of LED experienced across various parts of the world. A comparative analysis is made to outline the different understanding of LED in Northern, developed countries and Southern, developing countries in a global context. Furthermore, this section delves into different LED approaches and strategies, including a discussion on the collaborative potential of public-private partnerships that can drive community-based LED.

This section concludes by outlining the potential of private sector-led LED by IPPs to fulfil the community development mandate set out by the programme. Particular reference is made to community-based LED approaches and their developmental potential. The intention of LED is to create impactful social and economic transformation in beneficiary communities. The argument presented is based on the potential of a pro-poor, community-based LED approach that can address local infrastructure and basic services provision, such as energy access.

3.2.1 Understanding LED

LED has become a widely integrated development strategy imposed by governments and communities across the world. LED emerged from Northern countries and was practised for several decades before taking off in the Global South. The adoption of LED in the Global South emerged as a result not dissimilar to those experienced in the North. However, Nel (2001) notes that the understanding of LED in the formal, Northern sense does not appear to be as widespread as one would imagine in that LED is understood differently in the Global South.

The section that follows explores and discusses the differing perspectives of LED between developed and developing countries, as well as the contexts that had brought about the different understandings and practises.

3.2.2 Emergence of LED

The origins of modern LED practices can be traced back to the 1960s. LED approaches to development first emerged in both Western Europe and North America before spreading to other parts of the world (Rogerson and Rogerson, 2010). The 1970s economic crisis was a period characterised by falling profits that led to the

public sector adopting cost-cutting measures that, in turn, affected state welfare programmes (Isaacs, 2006). Tomlinson (2003) notes that during this period of limited public sector resources, governments began encouraging the idea of bottom-up development and local initiatives for achieving economic development and ensuring a quality standard of living for communities. This approach moved away from traditional Keynesian, welfarist, top-down, central state intervention or approach to a bottom-up strategy that tapped into the local potential of communities to ensure economic growth and social development. This state-driven approach allowed for the reduction in public sector costs and encouraged communities to tap into their local social and economic growth potential. This meant that the government needed to adopt a more liberal policy environment that encouraged local innovation and entrepreneurialism (Isaacs, 2006). LED thus represents a developmental shift away from growth management by centralised authorities to localised community-based localities for better social and economic development; and is generally considered to lie between economic boosterism and community-based approaches in providing tangible benefits to individuals on the fringes of economic engagement (Marais, 2011).

The initial emergence of LED required a public-sector rethink on its developmental approach and strategy, representing a form of institutional innovation within the public sector. Local policies that created favourable conditions for local community markets to emerge and prosper using the local resources available needed to be developed to create an enabling environment that supported and encouraged local enterprise.

LED utilises existing human potential to drive social and economic development within localities. Essentially, LED represents bottom-up, community-led approaches that drive top-down objectives traditionally managed by government. However, through the progressive development of LED, it has become evident that different forms of collaboration drive LED. As will be explored further in this chapter, LED is supported through a collaboration between multiple stakeholders, rather than being driven solely by public sector involvement.

3.2.3 Local economic development in South Africa

By mobilising the resources of urban communities, government and the private sector we can make our cities centres of opportunities for all South Africans, and competitive within the world

economy. The success of this will depend on the initiative taken by urban residents to build their local authorities and promote local economic development.

(Mandela, 1995: 5 as cited in Nel, 2001: 1003)

LED has played a significant role in efforts to achieve economic upliftment in South Africa since 1994. The post-1994 period has been one of the most dramatic in South Africa's history, as the country has had to grapple with an oppressive, apartheid-induced legacy, while simultaneously responding to the challenges of neo-liberalism and globalisation (Nel and Rogerson, 2005). Within this context, Nel and Rogerson (2005) note that state-recognised local government were identified as key agents of change and specifically tasked to respond to the developmental needs faced in their localities, with a specific focus on the poorest members of society. Kamara (2017 :99) notes that LED in South Africa is a post-1994 phenomenon, as, before the democratic transition, the apartheid government had a district regional planning policy characterised by firm central government control. According to Kamara (2017), this suppressed the emergence of LED initiatives in towns and lead to the erosion of local autonomy.

Post-apartheid South Africa intentionally focused on new development pathways that harnessed regional and local development policy through the use of economic support measures to achieve social and political outcomes (Nel and Rogerson, 2016). In order to achieve this, the collective power of South Africa's state institutions has been needed to drive the country's developmental state agenda (Turok, 2010). This developmental state agenda has been guided through economically attractive and pro-poor policies that both stimulate macro-spatial interventions – such as infrastructure investment – and target sub-sectoral interventions for impoverished parts of the country through support for the informal sector. The latter includes support for small- to medium-scale enterprises (SMMEs), small-scale agriculture and co-operatives.

Nel and Rogerson (2005) note that under the 1996 Constitution, local government was mandated to pursue a developmental role. Government policies such as the NDP and NGP have been developed to promote this form of inclusive growth. The *Constitution of the Republic of South Africa* (Act 108 of 1996) (Republic of South Africa, 1996) makes provision for local government to play a larger role in the social and economic upliftment

of communities. As cited in Kamara (2017: 100), sections 152 (c) and 153 (a) of the Constitution state that local government must “promote social and economic development”, as well as “structure and manage its administration, and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community” (Republic of South Africa, 1996). Patterson (2008) also points to the emergence of LED in South Africa as a post-apartheid phenomenon. This is specifically referenced to Section 152 (1), objective C, which pertains specifically to “the promotion of social and economic development” (Isaacs, 206: 48). It is therefore clear that, under the new democratic dispensation, the South African government has taken a firm stance, placing a significant emphasis on local government – already in closest contact with communities from a public administration point of view – to drive LED.

According to Patterson (2008), the following list highlights key policies and policy papers that have either directly or indirectly contributed to the LED debate in South Africa:

- The Constitution (1996)
- *White Paper on Local Government* (1998)
- *Local Government: Municipal Systems Act* (2000)
- *Policy paper on Integrated Development Planning* (2000)
- *LED Guidelines to Institutional Arrangements* (2000)
- *Draft LED Policy* (2002)
- *Policy Guidelines for implementing LED in South Africa* (2005)
- *National Framework for Local Economic Development (LED) in South Africa.*

Marais (2011) notes the South African government has taken a strong pro-poor LED policy approach. This approach is fitting in the South African context, as the country is plagued by widespread social and economic inequality. This pro-poor approach is different to that which is practised in the Global North, where the primary objective is to maintain economic and social well-being. Ultimately LED can play a significant role in poverty alleviation. This is an important consideration when taking stock of the widespread inequality and dismal economic outlook coupled with high unemployment rates that has resulted from South Africa’s history.

Abrahams (2005) foresees LED as being both vital in providing for infrastructure investment that delivers basic services, such as access to electricity, and essential in alleviating poverty, as access to municipal services expands the asset base of the poor. To elaborate, the knock-on socio-economic benefits of electricity provision, as an example, can empower, as well as catalyse social and economic benefits for all members of communities by alleviating energy access limitations and poverty. Abrahams (2005) does, however, express this argument from a position that assumes local government leadership of LED, and does not consider other forms of institutional collaboration, such as private sector driven LED, for example. Marais (2011) notes that there has been a lack of partnership formation to drive LED in South Africa. Partnerships that have been developed have been dominated by the public sector (Marais, 2011). Other sectoral forms of institutionally driven LED will be further explored in section 5.3.

The different approaches to LED have been documented below to provide a conceptual overview of strategies for institutions and practitioners to use in implementing LED within localities.

3.2.4 LED approaches and strategies

No one universal LED approach, strategy or practice can be applied to all localities or contexts. Since the inception of LED, several approaches have emerged to support the widespread adoption and implementation of LED.

Rodriguez-Pose (2008: 23) describes LED as an integrated approach to development rather than a:

... 'one size fits all' solution, with its core purpose being 'to mobilise the local economic potential by bringing innovation to all its growth dimensions which range from infrastructure to local Small and Medium Enterprises and their skills, to attracting foreign direct investment, fostering territorial competitiveness, strengthening local institutions, better management of the development process and internalising local resources.

This understanding is particularly important to consider, as the LED concept aims to develop local social and economic capacities within unique local contexts that have unique social, political and economic dynamics, as well as their own unique set of human and natural resources within a unique place-based context. Despite

several LED approaches emerging, only one approach will be covered in this section, namely, community-based LED. Community based LED approach compliments the purpose of community development and can be helpful towards understanding community development and LED within the REIPPPP industry.

Community-based LED approaches

A community-based approach is seen as a contemporary LED strategy that emphasises the importance of working directly with low-income communities and organisations to ensure maximum benefit to locals (Bond, 2003). Isaacs, (2006) believes this approach, coupled with pro-poor LED policy, is the most effective and sustainable solution, as it encourages empowerment and capacity building that can assist communities and individuals to acquire skills. This, in turn, puts them in a better position to become more self-reliant. Nel and Humphrys (1999) state that community-based LED is a common LED approach, more often found in the Global South than in the North. Marais (2011: 50) speculates that this is “partly due to the significantly larger percentages of poorer people who do not always have the skills to participate in the economy”. In the case of South Africa, Marais (2011) further refers to the historic exclusion of black South Africans from economic participation. In the midst of pro-poor and community-based LED, Nel (2007), as noted in Marais (2011), emphasises the concept of partnership emerging through the interaction between the two former concepts.

3.2.5 Partnerships that drive LED through community-based approaches

During the early stages of LED, it was considered that the concept should be driven by the public sector (government). However, over time, the central role of government of driving the LED has shifted. Kamara (2017) notes that the implementation of the *Intergovernmental Relations Act* of 2005 aimed to institutionalise collaborative efforts between the three tiers of the government; however, municipalities did not appear to receive adequate intergovernmental support to foster both their developmental and statutory mandates. Nel and Rogerson (2016) state that, despite concerted efforts by the public sector to drive LED, issues such as budget constraints, widespread corruption and the politicisation of development, amongst other governmental shortcomings, limit the potential for achievement of the developmental goals that underpin the concept. Kamara (2017) further notes that several other collaborative tools were introduced to coordinate LED activities

in municipalities (i.e. from IDP to Participatory Appraisal for Competitive Advantage). However, these efforts were fundamentally based on either a state-centred approach or civil society approach (Kamara, 2017).

Kamara (2017:99) explores and proposes a “hybrid-powered collaborative approach” that positions the horizontal collaboration of civil society-led approach alongside the “traditional top-down facilitating command of the state and incorporating the private sector as a strategic partner for balanced local development”. This hybrid powered collaborative approach is supported by Nel and Rogerson (2005). Rogerson and Nel (2005: 4) define LED as “a process by which public, business and non-governmental sector partner’s work collectively to create better conditions for economic growth and employment generation. The aim is to improve the quality of life for all”. Although collaboration is a common feature across all definitions and understandings of LED found in the literature, it is there is emphasis on the role of LED being driven largely by state intervention, with limited room for cross-sectoral collaboration. Kamara (2017) argues that there should be a shift away from government’s role to make allowance for collaboration between several stakeholders that can drive the same objective that LED aims to achieve.

Kamara’s (2017: 104) argument is based on the potential ability of a collaborative governance regime. A collaborative governance regime that could produce an adaptive capacity which can adjust responses to changing contextual drivers and internal processes, and to allow for development along the stability domain, as well as having the ability to be transformed into new developmental pathway, in a sustainable way (Kamara, 2017: 104). Kamara (2017: 105) further supplements this viewpoint by noting several forms of collaborative or cooperative governance within published literature, asserting that a collaborative form of governance can result in “improved and enhanced coordination of activities, better leverage and pooling of resources, increased social capital, enhanced conflict management, better knowledge management (including, translation and diffusion), increased risk sharing in policy experimentation”.

As mentioned in the previous section, the concept of partnerships emerges when dealing with pro-poor and community-based approaches to LED in the Global South. Marais (2011: 50) notes that “the majority of available literature reflects either private-public partnerships or North-South partnerships while clusters and

partnerships between big and small enterprises are also significant". Marais (2011:50) believes in order for community-based LED is to prosper, community-based organisations should look more towards the benefits of clustering between enterprises than towards the public-private partnership or North-South partnership frameworks.

Private sector driven LED

The democratisation of the Global South has moved away from state driven development and allowed the space for private sector involvement to drive LED (Nel, 2001). Along with extensive international experience, broad consensus supports the crucial role that the private sector has in the promotion of LED.

Marais (2011) notes that the rise of partnerships has emerged between the 1970s and 1980s, in the Global North. During this time, developmental efforts began shifting from the public sector to increased emphasis on the private sector as an agent of development. The rise of partnerships led to a significant reduction in the role of the public sector (Marais, 2011). McEwan *et al.* (2017) note that private sector partnerships that drive development have historically arisen through the engagement between donors and development partners (multilateral and bilateral, state and non-state) with the private sector for development, with the private sector as the engine of development. One such example is the mining sector. Marais *et al.* (2018) hold the view that mining companies have tended to dominate local development processes, resulting in the renewables industry needing to take cognisance of the way that large construction projects may affect local communities in remote, small-town economies.

Rogerson (1996) identifies the promotion of small enterprise development as a commonly supported contribution of the private sector in LED. This has particular reference to the unleashing of potential between big business and the emerging (mostly black) small business economy through subcontracting in South Africa. This act is seen as a part of the private sector's programmes for social upliftment or community outreach on the grounds of philanthropy rather than economics (Rogerson, 1996). Rogerson's view is drawn from the emergence of a local business that forms part of large corporate business processes rather than community development. I agree with the premise of Rogerson's statement in which he describes private sector

involvement in LED as a “vital resource base for LED planning and achievement of goals post-apartheid reconstruction in South Africa” (Rogerson, 1996: 103).

However, Marais (2011), using case study evidence in the country, challenges the effectiveness of public-private partnerships in the context of the ‘new’ South Africa by highlighting characteristics of genuine partnership that were seldom present in these instances, being trust, shared goals and joint decision making. This has meant that very few partnerships have managed to take the project from the planning phase to the operational phase. Based on this, Marais (2011) questions the viability of partnerships. In this context, the author notes that the collaborative intention of using partnerships that drive LED may result in an overemphasis on building partnerships rather than the promotion of LED. Despite this bleak view, Marais (2011) notes that there is an insufficient amount of data and literature available to wholly conclude the ineffectiveness of partnership; and, given this, that market sector partnerships have the most to offer to improve the viability of community-based economic LED.

The repositioning of the private sector in recent years has resulted in large corporate companies acting as community development agents (McEwan *et al.*, 2017). A novel form of private sector-led LED has been the increased practice of corporate social responsibility (CSR) by big businesses (Marais *et al.*, 2018; McEwan *et al.*, 2017).

McEwan *et al.* (2017) note there is an increased role of the private sector in international development, particularly through the practice of CSR. Hamann (2003) argues that companies’ social and environmental responsibilities are increasing, especially towards sustainable development, due to the global changes in the way the role of business is perceived. In other words, CSR entails maximising the positive and minimising the negative social and environmental impacts of business, while maintaining profits and contributing to sustainable development (Hamann, 2003). “CSR seeks to provide a vital impetus that links these strands together for self-sustaining, integrated and fair socio-economic development” (Hamann, 2003: 238). Hamann (2003) further notes that CSR goes beyond philanthropic community investment.

“To embrace economic, social and environmental aspects of sustainability in a holistic manner, and to provide maximum development benefit, CSR must be integrated into core activities and decision making of a company. Hence, sustainability needs to be seen as a concern by top management” (Hamann, 2003: 239). In the context of South Africa, drawn from the experience of the mining industry, CSR objectives that are supposed to drive LED are driven from a top-down management practice to avoid collaborative planning initiatives (Marais *et al.*, 2018).

3.2.6 LED and REIPPPP

Del Río and Burguillo (2009: 1325) argue that renewable energy sources have a tremendous potential to contribute to the sustainable development of specific territories by providing them with a wide variety of socio-economic and environmental benefits. However, the authors have noted the literature has placed a considerable emphasis on environmental benefits (specifically low carbon benefits), while socio-economic impacts have not received comparable attention. Del Río and Burguillo (2009) argue that emerging analyses of the socio-economic development potential of renewables have been limited to a national focus, and that a regional and local focus has been lacking, particularly of impacts in rural areas.

As explored, South Africa’s post-apartheid LED ambitions has primarily been driven by the state. There are abundant legislation, policies and policy papers that support its widespread adoption and practice. Patterson (2008) notes that South Africa is one of the few countries that has integrated LED policies.

LED has been deeply considered within the REIPPPP, particularly through programme conditions that consider community inclusion in the development of IPP projects. According to Tait (2012), the REIPPPP process is designed to act as a driver for the private sector to foster socio-economic development within historically disadvantaged communities. As outlined in Chapter 2, the programme mandates IPPs to include local communities as shareholders of the renewable energy projects and ensures that IPPs spend a percentage of revenue income towards SED and ED. These funds are intended to ignite LED in beneficiary communities found within a 50km radius of the project site.

The REIPPPP represents a hybrid pro-growth, pro-poor LED model. It is pro-growth in that large investments have been directed towards projects under the REIPPPP programme since it was introduced in 2011. As outlined in Chapter 2, R193 billion has been pumped into the economy as a result of REIPPPP projects. The pro-poor in economic development has been considered in the procurement design and operational framework of the programme. The concept of LED can be applied to both the SED and ED component of the programme, with these two aspects complementing each other well. SED and ED are intended as drivers of social and economic development in towns surrounding projects. Funds allocated under the REIPPPP are earmarked to respond to locality-specific challenges in poor rural areas using local resources. To achieve this, Marais *et al.* (2018) believe that, rather than adopting a copy-and-paste approach, IPPs under the REIPPPP can engage in lessons learning by studying LED strategies driving local development goals and implemented by the mining industry, since this industry has vast experience in the country drawn from its social labour plans.

McEwan *et al.* (2017) believe that the REIPPPP community development mandate represents top-down initiatives. The authors suggest that this top down-project implementation is unlikely to solve local problems. McEwan *et al.* (2017) therefore suggest that complementary bottom-up approaches that counteract top-down management CSR practices should be a feature of LED programmes.

3.3 Chapter conclusion

The annual community beneficiation within the REIPPPP requires IPPs to practise community development in sites within project surrounds. The prescriptive nature of the annual SED and ED requirements are intended as mechanisms for addressing locality-specific challenges and driving LED. However, as highlighted thus far, in practice it has been challenging for private companies to adhere to these socio-economic considerations. As explored in this chapter, a reflection on the academic literature around the themes of community development and LED, draws upon several principles and practices that can be considered by IPPs in attempt to mitigate the emerging local community beneficiation challenges within the REIPPPP.

I agree with the views of Wlokas *et al.* (2017) that the practice of community development need not be reinvented but rather supplemented by best practices from around the world. Drawing on different views of

community development, Bhattacharyya (2004) believes the concept needs to be distinctive in purpose and universal in scope in order to encourage and build upon solidarity and agency, while McEwan *et al.* (2017) views it as an empowering process for achieving social and economic development outcomes, as well as finding the practical link between community development theory and practice (Westoby, 2014).

As highlighted, both the frameworks embedded in government policies and those adopted by community development practitioners within their organisations can drive community development. Commonly utilised community development approaches and frameworks – historically promoted by the DSD and practitioners alike – are the SLA and ABCD. According to Nel (2015), both these approaches build upon strengths and assets by working with communities with the intention of contributing to a self-sustained, improved quality of life.

The views of Nel and Rogerson (2016) adequately complement these community development approaches by encouraging a LED agenda that is designed to achieve socio-economic redress, empower poor people and regions, and promote economic growth. However, as with the definition and practice of community development, there is no single universal understanding, perspective or strategy that can be used to drive social and economic upliftment and growth. I agree with the principles of Kamara (2017) that LED should seek the collaborative effort of all stakeholders within a community to grow the local economy and to improve the standard of living for the local people.

I concur with Isaacs (2006) in that LED should centre on the idea of locality development. Locality development looks specifically at supporting the needs of communities with basic infrastructure and services. Locality development gives individuals and communities the necessary platform to establish economic activities that enable communities to become more self-reliant.

It has further been highlighted that the practice of both community development and LED has begun to move away from a solely state-driven role to include the private sector in encouraging the same agenda. Provision for this is made within the REIPPPP framework. However, regardless of which institution drives either

concept, the principles and frameworks of community development and LED can be applied and are equally important toward promoting the same socio-economic empowerment and developmental goals.

Chapter 4: Research Methodology

Up to this point, previous chapters have introduced the research context and have touched upon applicable and complementary academic themes, specifically the REIPPPP, community development and LED. This has introduced the reader to the literary aspects of this research investigation.

Chapter 4 aims to describe and substantiate the research strategy, design and methods undertaken to document the case study research explored in Chapter 5, which, in turn, leads to my findings in Chapter 6.

4.1 Research design and strategy

The research presented in this dissertation followed a case study design with an inductive approach. A case study design involves a detailed and intensive analysis of one or more cases to provide for in-depth study; and is concerned with the complexity and particular nature of a case (Bryman *et al.*, 2015). In other words, the distinguishing feature of a case study research design is that the focus is on studying a bounded system or context.

In this research investigation, the community development approach and the flagship community development project implemented by Umoya Energy through the development of the Hopefield Wind Farm was used as a case study.

4.1.1 The case: Hopefield Wind Farm

This research undertakes a single case study of the community development approach and the flagship community development initiative implemented by Umoya Energy in the small rural town of Hopefield. These aspects are explored as part of Umoya Energy's participation within the REIPPPP through the development of Hopefield Wind Farm. As mentioned in previous chapters, the flagship community development initiative, the Home Improvement Project (HIP), is aimed at upgrading low-income homes in Hopefield through providing them with sustainable energy solutions.

The HIP aims formed the basis of the case study selection, as Umoya is addressing local community energy challenges in the local beneficiary community through their annual SED and ED obligations. The IPP Office (2018) notes that the REIPPPP community development requirement complements and can fulfil Developmental Outcome 9 in the NDP. Developmental Outcome 9 ensures that members of society have sustainable and reliable access to basic services, such as the electrification of local communities (IPP Office, 2018: 9).

4.1.2 Description of the case

The unit of analysis is the HIP implemented by Umoya Energy in Hopefield. The emergence of the HIP was the result of the unorthodox community engagement process between Umoya Energy and the local community during the pre-bid submission stage (i.e. before the bid was submitted to the IPP office), as well as following the award of the bid.

The HIP intends to provide sustainable energy interventions, such as solar water heaters (SWH), rewiring of electrical lighting and plug points, installation of insulated ceilings, water reticulation and kitchen sinks. Previously unemployed and under-skilled individuals were sourced from the community, and given the necessary training and development to do the installations. This was done with the intention of encouraging them to establish their own contracting businesses. Through this project, Umoya combined their annual SED and ED REIPPPP mandate to drive this flagship initiative successfully.

The case study documents how the HIP was born through Umoya's community engagement process, as well as other novel strategies that emerged to address challenges faced within the community. This case study research is therefore intrinsic. The primary aim of an intrinsic case is to gain insight into the particularities of a single situation, rather than gain insights into multiple cases or generic issues (Bryman *et al.*, 2015).

4.1.3 Selection of case study

The initial approach used to selecting a case study was to identify an interested IPP that shared an interest in collaborating with the researcher on exploring methods for addressing rural energy access and energy poverty

faced in beneficiary communities. Conceptually, this initial approach become problematic as it would have required additional research, including identifying areas around project sites where energy poverty and energy challenges were being faced. Due to the lack of reliable electrification and energy poverty data in South Africa during this initial stage, such an approach was not possible.

I stumbled upon and then selected the Hopefield Wind Farm case study through an existing relationship between one of my co-supervisors, Dr Wlokas, and the community development project company, South South North (SSN), who had initiated the HIP in Hopefield. Through this relationship, I established a connection with Umoya Energy, following which I presented them with a proposal requesting permission to document their flagship community development initiative, the HIP. After substantial email and telephone communications, and following my providing proof of my research study from my university, I held a meeting with Umoya's community development at their office in Newlands, Cape Town, to discuss my request. During this short meeting, I reiterated my research intentions and objectives, and provided clarification as to the level of detail that my research would require. It was mutually agreed that the research would not require, detailed, sensitive financial information and vendor-specific information relating to Umoya's community development operations.

It was further reiterated and agreed upon, both at this meeting and in a follow-up email, that the data collected would support the research objective of documenting and presenting a narrative of how Umoya's community development initiatives had responded to the energy needs in the beneficiary community of Hopefield. Furthermore, there were no objections in presenting this research as a case study narrative in this dissertation. Permission was granted at the meeting whereby approval was given to document the community development initiatives (specifically the HIP) at the Hopefield Wind Farm.

4.1.4 Research question and aims

The research design of this endeavour was largely based on the study research question outlined in Chapter 1, being the following:

How IPPs can effectively implement sustainable energy solutions to beneficiary communities as part of their participation of the REIPPPP?

Following desktop research and reflection, research was refined to focus on documenting a case study on how an IPP has implemented sustainable energy solutions in a beneficiary community, rather than creating an idealistic or theoretical model. Documentation of the HIP aims to showcase how this research question has been answered using real-world experience in the REIPPPP industry. Within the framework of the broad research question, this research investigates sub-enquiries of the case study, each with particular aims. Sub-inquiries and research aims are described in Table 3.

Table 3: Sub-inquiries of research aims

Inquiry	Research aim
How the HIP came to be	Document community engagement process
HIP outcomes	Document who and how many people have benefitted from the HIP
How the HIP has been implemented within the REIPPPP community development framework	

Source: Author's compilation

The first sub-enquiry considers why the HIP project was implemented in Hopefield, with the aim of documenting how it emerged and the circumstances that influenced the choice of this project. The second sub-enquiry seeks to document and showcase the impact the project has had since implementation (i.e. over the period 2014–2017). The number of houses and the specific interventions affecting beneficiaries are used to showcase the impact of the HIP. Lastly, the inquiry seeks, overall, to understand how the HIP has been implemented within the REIPPPP community development framework. These inquiries are intended to complement the research objectives of the study.

4.1.5 Research objectives and limitations

Research objectives

As described in Chapter 1, the first objective of this research study is to provide an overview of the emerging discourse on the local community development potential of the REIPPPP, and the programme's importance in the Global South (Objective 1). Objective 2 showcases the strategic community development practices and principles undertaken and implemented by Umoya in Hopefield. The third and final objective is to showcase how local social and economic development considerations implemented in a utility-scale renewable energy auction programme can address community energy challenges (relating to energy poverty and energy access) in local communities found adjacent to project sites.

Limitations

This research endeavour contains some limitations. Firstly, a relatively early overview of the REIPPPP industry operations is given. Thus far, the REIPPPP has not extensively been researched, documented and publicised, especially with regards to the community development aspects of the programme. It is worth noting that academic publications and industry reports are available for review; however, there is an absence of long-term, widespread documentation of all projects within the REIPPPP. This contributes to the second limitation of the study: that the research in this dissertation only draws upon one case study, being a community development project arising from an IPP's work under the REIPPPP. This project does not present itself as a community development blueprint that can be universally applied across the REIPPPP, but rather showcases what could be done. Likewise, this case study can be considered outdated at the time of publication of this dissertation as the community development practice and associated flagship HIP is still ongoing in Hopefield.

Furthermore, the consideration of community energy needs described in this study is one of many developmental challenges faced in South Africa and in the town of Hopefield. A limited scope examining only one critical development need which the HIP aims to address, has been used.

Lastly, the interview data provided by participants may be viewed as biased given the capacity, associations and affiliations of each individual. To mitigate against bias, an attempt was made to link similar views and arguments expressed by the different participants to corroborate any point or argument made.

4.2 Research approach: Narrative inquiry

This research endeavour took a qualitative approach. Firstly, a literature analysis was conducted to ground the research in an academic context. As mentioned in the conceptual framework, literature around the REIPPPP, community development and LED provided for an empirical literature review. Semi-structured interviews were conducted with key stakeholders involved in the community development processes. The following section provides a brief overview of the narrative inquiry as a research method.

4.2.1 Narrative inquiry

A narrative inquiry through semi-structured interviews was undertaken to generate an intensive, detailed examination of the case study. This form of inquiry captures personal and human dimensions of experience over time and takes account of the relationship between individual experience and context. It is a way of thinking about and studying experience (Clandinin and Connelly, 2000). In other words, narrative inquiry is the documentation of experience, retold in a story form. It represents different ways of knowing that assist in making sense of a contextual reality and allowing for a deeper contextual understanding.

A narrative inquiry is a viewpoint in which stories of lived experience are co-constructed and negotiated between the people involved. It is a means of developing complex, multi-layered and nuanced understandings of systems and contexts. Narrative knowledge is created and constructed through stories of lived experiences, and the meanings created. It helps make sense of the ambiguity and complexity of human lives, particularly around how people have created change (Clandinin and Connelly, 2000).

There are two different forms of narrative analysis. Some forms focus on the content of stories, whereas others are focused on the meaning. Depending on the philosophical position, narrative analysis may employ both of these forms. By attempting to understanding the rationale behind the community development initiatives that

have been implemented in the small rural town of Hopefield, this research study leans toward a focus on meaning. Exploring the meaning behind the development and promotion of South Africa's utility-scale renewable energy programme has resulted in social and economic transformation in the country troubled by racial inequalities of the past. The emphasis of this process is on co-construction of meaning between the programme (REIPPPP) and people (beneficiaries). This research process requires the researcher to listen to and read conversations, collect what has been said and compare this source material to academic understandings. It is essentially a process inquiring about how pieces of stories and understandings make sense together. The process of data gathering, and analysis becomes a single harmonious and organic process.

I agree with Clandinin and Connelly, (2000) in that a narrative inquiry requires trust and openness with participants, reflexive engagement throughout between data gathering and literature review, tolerance of ambiguity where certain aspects of the research do not make sense, and the use of multiple data sources whereby different stories are collected. Using a narrative inquiry means that there are different ways of knowing. It acknowledges the complexities of different realities. This means that stories within a context are seen differently by different parties, and that there is no single story that serves as the truth. Because of this, the narrative inquiry fits into the philosophical realm of postmodernism (Clandinin and Connelly, 2000).

Narrative inquiry can create a challenge for the research who is attempting to understand everybody's story and every aspect of each story gathered. Such a challenge has been present during this research journey. The establishment of clear boundaries is essential in ensuring that the researcher does not get carried away by the context in which they have embedded themselves into.

4.2.2 Research method: Semi-structured interviews

Semi-structured interviews were the research method used to gather data and information for this research assignment. According to Bryman *et al.* (2015), a list of fairly specific topics needs to be covered but the interviewee has leeway in how to reply as questions may not follow the exact order outlined on the schedule and the wording may be changed by the interviewer. Bryman *et al.* (2015) further elaborates that the interviewer maybe ask questions that are not included in the guide based off the responses of the interviewees.

Purposive sampling was undertaken to strategically identify the participants to be selected for interview in understanding the case study in Hopefield. This approach to purposive sampling followed Bryman: “In qualitative research, purposive sampling considerations often apply to the sampling of the cases in which the research will be conducted and then to people within those cases” (Bryman *et al.*, 2015: 186). The research participants were chosen based on their involvement during the initial community development engagement, as well as during the conceptualisation of the HIP. In addition, ED beneficiaries of the project were also chosen.

Interviews were done face-to-face and were conducted over several months between August 2017 and December 2017. Interview locations included the Hopefield Wind Farm Local Community Development Company (HWFLCDC) in Hopefield, as well as the offices of Umoya and SSN in Cape Town. Interviews were conducted in English; however, participants were encouraged to respond in Afrikaans if they felt more confident responding in their mother tongue. All interviews were voice recorded; notes were also taken during interviews. All participants were comfortable with having the conversation recorded. The recorded conversations were then transcribed for thematic analysis.

The broad overview of the interview schedule can be found in Appendix A. Semi-structured interviews were conducted with nine research participants, as described in Table 4. The confidentiality of participants was encouraged in this investigation. As outlined in the research consent form that was signed by each research participant, all information obtained during interviews that could be identified with any of the participants would remain confidential and would only be disclosed upon their permission or as required by law. To honour the confidentiality clause in the research consent form, the information gathered during interviews – and which has been directly described in Chapter 5 – does thus not reflect the names of participants.

To maintain the anonymity of participants, participant codes (IDs) were assigned to each category of interviewee. The different IDs represent the different categories of function that they played in their involvement in the community development aspect in Hopefield. IDs were also classified numerically for each interviewee. These classifications have been used to indicate the source of specific quotes and information. Examples of interviewee classification would thus be CD4 (2017) or IPP4 (2017). Table 4 below illustrates an

example of the ID used, including and a description of each classification, and the number of participants that were interviewed for each classification.

Table 4: Research participant anonymity categorisation

ID	Description of ID	Number of participants
IPP_Annon (2017)	Research participants directly involved in the community engagement, implementation and operational phases of the HIP	5
CD_Annon (2017)	Research participants from Hopefield who are either installers as part of the HIP or community representatives	4

Source: Author's compilation

4.2.3 Coding and thematic analysis

Once the data collection process was concluded, an analysis was required of the interview data. Vaughn and Turner (2016) believe that, in order to effectively analyse qualitative data, one must use a systematic process to organise and highlight meaning from the data. In the instance of this research project, analysis was done through thematic coding, which allowed for the extraction of various themes and perspectives present in the interview data and for the development of linkages to complementary academic themes relevant to this research investigation.

4.3 Chapter conclusion

This qualitative study has employed empirical data collection in pursuit of the development of a multi-stakeholder representative answer derived from case study research. Semi-structured interviews with key stakeholders who have been involved in the community development initiatives at the Hopefield Wind Farm were selected to partake in this study. This method has been specifically chosen to document the real experiences that had emerged from the Hopefield Wind Farm, specifically around the community development engagement processes and the implementation and operations of the HIP. Thematic coding has been undertaken to extract important aspects of the narratives documented, and to collectively process and reproduce the different experiences to tell the story of how a utility-scale renewable energy project in the REIPPPP has been able to address community energy challenges through the practice of mandated community development.

Chapter 5: Hopefield Wind Farm case study

The following research case study has documented the community development initiatives implemented by Umoya Energy (henceforth referred to as Umoya or the IPP) in the small town of Hopefield, as part of their participation in the REIPPPP in South Africa. More specifically, this case study documents Umoya's flagship community development initiative, the HIP. The HIP aims to improve the living conditions of RDP and sub-economic households found in Hopefield by providing eligible households with sustainable energy solutions, while at the same time providing upskilling opportunities and employment for previously under-skilled and unemployed locals (from Hopefield) on home improvements.

The selection of this specific case study falls in line with the research objective, as the case study documents the development and operation of a utility-scale renewable energy project by an IPP, addressing local energy challenges faced in rural communities found in close proximity to the power plant.

This case study documents and uncovers the contextual dynamics faced over the period of Umoya's community development approach and engagement with the Hopefield community, and the resulting thought processes that influenced the decisions made by the key stakeholders with regard to Umoya's overall community development practice and with specific focus on the emergence of the HIP. The case study documents how Umoya came about establishing their flagship community development project (the HIP) in Hopefield as part of their participation in the REIPPPP.

This chapter provides a narrative, rather than a descriptive, analysis of Umoya's community development approach, community engagement and flagship community development project (the HIP). The perspectives and insights documented in this chapter have been drawn from interviews conducted with key stakeholders who were involved in planning and were still involved (at the time of data collection) in the operation stages of the wind farm, particularly around ensuring Umoya's community development obligations.

Structure of the chapter

This chapter is broken up into three sections. Firstly, section 5.1 gives a contextual overview of the small town of Hopefield and the Hopefield Wind Farm. This provides the reader with a brief conceptual overview of the social and economic aspects of the town of Hopefield, and the technical and financial aspects of the Hopefield Wind Farm.

Section 5.2 delves into the community development aspects between Umoya and the Hopefield community. This section highlights the community development approach undertaken by Umoya during the pre-qualification stage and construction phase (once the project bid was awarded). This section further outlines the local institutional establishment of the Hopefield Wind Farm Local Community Development Company (HWFLCDC).

The outcomes of Umoya's community development approach is highlighted in section 5.3. This section breaks down and discusses the impact that the HIP has had thus far in the community. The chapter will conclude by highlighting some of the challenges and shortcomings stemming from the community itself, the community development approach and engagement, and the HIP.

5.1 Overview of Hopefield

Before delving into the community engagement and HIP aspects of the Hopefield Wind Farm, a contextual overview is provided of the community of Hopefield and the wind farm to better understand the contextual and relational dynamics between the two actors. This section provides a brief overview of the geography of Hopefield, as well as the technical and financial aspects of the Hopefield Wind Farm.

5.1.1 Community of Hopefield

Location

Established in 1844, the small town of Hopefield is situated along the West Coast of South Africa, roughly 120 kilometres away from Cape Town. Hopefield falls under the Saldanha Bay Local Municipality, a local municipality that forms part of the West Coast District Municipality in the Western Cape Province of South Africa.

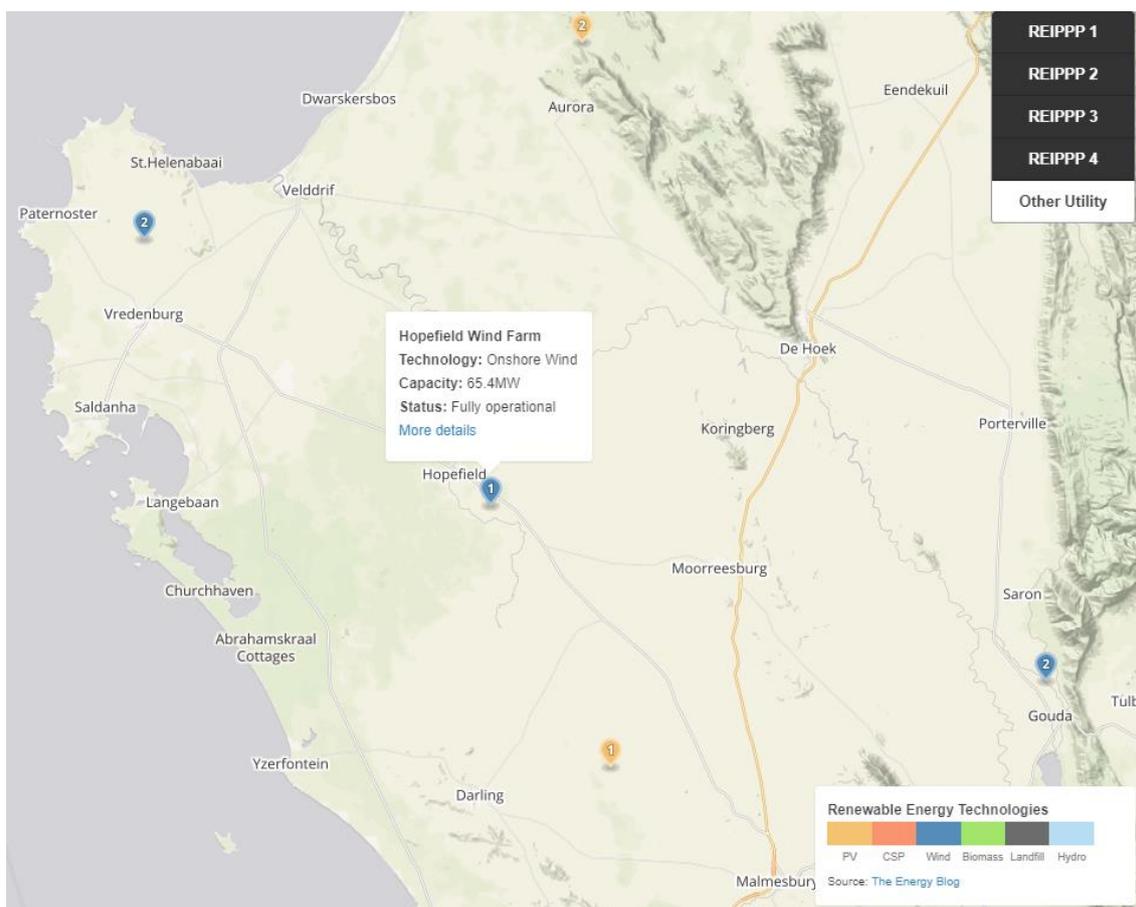


Figure 1: Map location of the town of Hopefield and the Hopefield Wind Farm

Source: Energyblog (n.d.)

Demographic overview of Hopefield

The demographic overview of the small rural town of Hopefield that follows has been drawn from Statistics South Africa data.

Population

Hopefield is home to approximately 6500 people. In 2011, it was believed that there were 1813 households in Hopefield, of which 97.7% were formal dwellings. IPP3_Anon (2017) note that many people in Hopefield own their own houses and are not rental stock, which means that they are the decision-makers on what happens to on their property. The average household size is 3.5 persons per dwelling. Sixty-seven per cent of the population is aged 15–64 years old (i.e. of working age) and 7.4% of the population is categorised as elderly

(age 65+). The Hopefield population is made up of 51.1% females, with 35.9% households being female-headed. The majority of the residents found in Hopefield are classified as historically disadvantaged residents.

Education

Across the total population of Hopefield, 23.8% of the population over the age of 20 have successfully completed high school. While 3.5% of residents aged over 20 have received no formal schooling, 7% of the population over the age of 20 hold higher education qualifications.

Economy

The town has a predominantly agriculture, and mining and minerals processing based economy. It serves the grain, dairy, meat, honey and waterblommetjie farmers of the area. Langebaan and Vredenburg are nearby industrial and economic hubs within the Saldanha Bay Municipality. These service-based hubs enable the industrial activities around the minerals processing (Saldanha Steelworks) and deep-sea port, in addition to the agricultural activities found in and around the municipality.

At the time of data collection i.e. 2017, the recently constructed Elandsfontein phosphate mine was the most recent development providing employment opportunities within the district municipality. The mine is located within close proximity to the towns of Hopefield and Langebaan (approximately 38 kilometres by road). Since the completion of construction, employment opportunities at the Elandsfontein mine have become problematic due to several economic, technical and environmental challenges.

Household income remains a challenge for many Hopefielders. As shown in Figure 2, 8.2% do not receive any annual income, while 13.1% receive an annual income of less than R9600. According to Stats SA (2017), based on 2015 figures, this 21.3% of the population can be considered to be living in poverty as they receive a monthly income of less than R992. In the broader context of the country, 30.4 million South Africans were still living in poverty in 2015 (Stats SA, 2017). Stats SA (2017) indicates that the main victims in the ongoing struggle against poverty are: children aged 17 and younger; black African, females; and people from rural

areas with little or no education This reflects the context found in Hopefield, as more than one third of households are female headed, as well as being classified as previously disadvantaged.

Income	Percentage
No income	8,2%
R1 - R4,800	1,6%
R4,801 - R9,600	3,3%
R9,601 - R19,600	13,5%
R19,601 - R38,200	17,4%
R38,201 - R76,400	24,2%
R76,401 - R153,800	18,8%
R153,801 - R307,600	9,4%
R307,601 - R614,400	3,1%
R614,001 - R1,228,800	0,4%
R1,228,801 - R2,457,600	0,1%
R2,457,601+	0,1%

Figure 2: Yearly household income in Hopefield

Source: Statistics South Africa (2011)

CD3_Anon (2017) expresses that unemployment is the biggest current issue in Hopefield because the Elandsfontein mine closed down. She further suggests that upskilling of under-skilled locals is one method of addressing the unemployment challenge in Hopefield, including through encouraging interested locals to take up evening classes to obtain their matriculation certificate (high school qualification) in order for them to apply for job opportunities at the mine and in the more economically active towns of Langebaan and Vredenburg

Basic goods and services

Many residents own modern household goods: 90.1% own a refrigerator, 94.8% own a stove and 90.4% have a television in their homes. However, 77.5% of Hopefielders do not have access to the Internet. The 22.5% who do have Internet access have access at home (7%), from a cell phone (11.6%), at work (2.5%) or from elsewhere (1.4%). (StatsSA, 2017)

The majority (94.7%) of Hopefielders reside in urban, with 94.8% having piped water and 92.4% having flush toilets in their homes. It is worth noting that, during the period of data collection, the Western Cape Province had been experiencing a protracted drought during which water saving and augmentation projects had been implemented by local authorities to prolong water availability in the region.

Despite the majority of Hopefielders having access to energy sources (gas and electricity) for cooking, heating and lighting, some do not have adequate, safe or sustainable access to energy that meets these needs (Figure 3).

Energy Source	Cooking	Heating	Lighting
Electricity	92%	62,1%	62,1%
Gas	6,9%	1,3%	1,3%
Paraffin	0%	0,2%	0,2%
Solar	0,1%	0,1%	0%
Candles	0%	0%	7,7%
Wood	0,8%	7,7%	0%
Coal	0%	0%	0%
Animal Dung	0%	0%	0%
Other	0%	0%	0%
None	0,2%	28,6%	0%

Figure 3: Household access to energy sources in Hopefield in 2011

Source: Statistics South Africa (2011)

Overview of challenges faced in the community

Primary and secondary data collected during this study shows unemployment (lack of jobs), education (upskilling) and universal access to safe energy sources for cooking, lighting and heating are common challenges faced in Hopefield. The sampled installers interviewed indicated that unemployment has been the

biggest issue faced by residents in Hopefield. Unemployment was second to dire living conditions at household level. The ED beneficiaries stated that they struggled to secure permanent long-term employment as they were only able to secure short-term contracts and thus spend extended periods of time without work. IPP1_Anon (2017) indicates that many locals from Hopefield initially wanted jobs during the construction and operation phases of the wind farm, despite there not being many jobs available in the long-term.

5.1.2 Umoya Energy / Hopefield Wind Farm

The Hopefield Wind Farm is a 66.6MW wind farm project developed and managed by Umoya Energy. Umoya Energy is a portfolio company established and management by the African Infrastructure Investment Managers (AIIM). AIIM develops and manages private equity infrastructure funds in Africa and is a subsidiary of the Old Mutual Alternative Investments, which is one of Africa's largest alternative investment managers in Africa. AIIM, itself one of the largest infrastructure-focused private equity fund managers in Africa, develops and manages private equity infrastructure funds designed to invest long-term institutional unlisted equity in African infrastructure projects.

Umoya Energy has several different shareholders invested in the successful operation of the facility. Collectively the Hopefield Wind Farm project was financed through various infrastructure investment funds managed by AIIM, Tomlo Commodities Pty Ltd and the Local Community Company (Umoya Energy, n.d.). The Infrastructural Developmental and Environmental Assets fund, managed and advised by AIIM, is the largest shareholder in the wind farm project, holding 90% of the shares.

Prior to the establishment of the REIPPPP, AIIM had been pursuing the investment and development of renewable energy projects in South Africa. In 2011, Umoya was selected as a preferred bidder in Round 1 of the REIPPPP for the development of the Hopefield Wind Farm. A 20-year PPA was signed with Eskom for the electricity generated from the Wind Farm.

The construction of the 66.6 MW project began in 2012. The wind farm began commercial operation on 1 February 2014, just over one year after construction had begun. It was the first commercial wind farm under the REIPPPP Round 1 to have reached this milestone.

The wind farm comprises 37 Vestas V100 1.8MW wind turbine generators that rest upon 95-metre- high pylons spread over 900 hectares of unproductive farmland. The entire project was constructed at a cost of R1.5 billion (approximately USD 200 million). The Hopefield Wind Farm pumps 176 600 MWh/year into the national grid. This is enough electricity to supply approximately 49 000 low- income homes (at a usage of 3 600 kWh/year), or 22 000 medium-income South African homes (at a usage of 7 800 kWh/year). In comparison to traditional fossil fuel power plants, the wind farm also avoids producing approximately 183 200 tonnes of carbon emissions each year (Umoya Energy, n.d.)

5.1.3 Umoya obligations as part of the wind farm

As per the IA mandate under the REIPPPP, Umoya is also obligated to spend a cumulative 2.1% of annual revenues back into local communities, with 0.6% allocated to ED and 1.5% to SED in local communities. Furthermore, the mandate stipulates that the local communities are to be included as shareholders of the projects developed under the REIPPPP. An in-depth analysis of this REIPPPP requirement has been provided in Chapter 2.

According to Umoya (n.d.), all targeted communities that are eligible for their SED and ED programmes fall within the Saldanha Bay Local Municipality. These towns are Hopefield, Langebaan, Vredenburg and Saldanha. Over the 20-year operational period as part of the REIPPPP, Umoya's vision for these communities, through its SED and ED involvement, is to ensure that:

- the targeted communities have a thriving local economy and improved standards of living and work;
- education, skills development, job creation, entrepreneurship and leadership have created opportunities for participation in the local, provincial and national economy, and;
- the targeted communities are empowered to take greater control of their circumstances and collective responsibility for themselves.

To date, Umoya has largely directed its community development efforts at the town of Hopefield was the closest community to the wind farm. Besides the HIP implemented in Hopefield, Umoya has also initiated various other projects in the surrounding area. Umoya has also sponsored:

- educator salaries, educational excursions and events for Holvlei, Hopefield and Langebaan Primary Schools;
- a scholarship programme for secondary school matriculants to pursue degrees in science, technology, engineering and mathematics;
- a South Africa National Parks (SANParks) Conservation Project that uses local contractors as part of a broader national Expanded Public Works Programme to clear alien vegetation and to provide for land management activities. This initiative has provided employment to at least 50 people per annum, all locals from the surrounding communities; and
- the flagship HIP.



Figure 4: Umoya Energy community development spend (2014–2017)

Source: Umoya (n.d.)

Over 2014 – 2017, Umoya has spent R17.1 million on SED, and R4.7 million on ED. According to IPP5_Anon (2017), Umoya has overspent on their SED and ED obligations over this period. The majority of the overspent funds have been directed towards the HIP. This was done for several reasons, which are discussed in section 6.2.

In addition to the annual REIPPPP SED and ED mandate, Umoya is required to include a local community as a shareholder in the wind farm project. On behalf of the communities found within a 50-kilometre radius of the project site, the HWFLCDC owns a 5% share in the project. In other words, the communities found around the site of the wind farm own 5% of the R1.5 billion wind farm project. This is more than is required under the REIPPPP, which stipulates that companies are required to have a minimum of 2.5% of community shareholding.

As mentioned in Chapter 2, communities typically sourced their shareholder buy-in loan from a DFI. This was not the case for the Hopefield Wind Farm project, where AIIM provided the buy-in loan for the community to finance their participation in the project. According to IPP1_Anon (2017) and IPP3_Anon (2017), the loan was given at a lower interest rate than what they would have received from a DFI or any other funding source.

Several interviewees indicated that the community would begin receiving dividends from this shareholding once the loan has been repaid, with a reasonable amount of return received on that money. CD3_Anon (2017) noted that the loan should be paid off and the community will begin receiving dividends in 2019. These funds can be directed towards additional projects within Hopefield and communities found within the 50-kilometre radius of the wind farm. These additional funds will be over and above what is already being directed to the community as part of Umoya's annual community development mandate.

5.1.4 Overview of challenges facing Hopefield and emerging opportunities

Based on both primary and secondary sources, several challenges facing the community have been identified. Unemployment, under-skilled labour, lack of opportunities and universal access to clean energy are identified as key challenges faced in Hopefield. For many Hopefielders, there are very few job opportunities close to

home, so they need to commute long distances to Langebaan and Vredenburg daily, using public transport to get to their workplaces (for those who are employed) or to look for jobs.

Upskilling is another area identified as an inherent challenge in Statistics South Africa data, as well as by research participants in this study. As mentioned, there are many Hopefielders who have not completed high school and have no formal education beyond primary or secondary schooling. This, in turn, has an impact for locals who are seeking employment. Household income levels are low. Many households have boarders and are classified as living in poverty. Widespread unemployment, an under-skilled labour force and a lack of opportunities all contribute to the poverty levels experienced in Hopefield.

IPP_3Anon (2017) experience in developing REIPPPP projects has led him to note that he has “seen beneficiary communities that have nothing. There is no opportunity for them”. IPP3_Anon (2017) further expresses that, through the widespread development of renewable energy projects under the REIPPPP, IPPs are in a unique position to create something magnificent in underdeveloped, impoverished communities.

5.2 Community development

This section explores Umoya’s community engagement with the Hopefield community and the resulting community development governance structure established to drive the wind farm’s community development mandate. This section specifically looks at the community engagement between the Umoya and Hopefield pre-bid submission and during the construction phase of the wind farm project.

5.2.1 Community engagement

According to (Umoya Energy, n.d.), they have taken a holistic approach to community engagement in Hopefield. Their community approach was characterised by continuous engagement, the sharing of knowledge and experience, and a focus on relevance and practicality to the locality-specific challenges faced in Hopefield. However, based on interviews, Umoya’s community development approach has been unorthodox in the sense that they had not followed any sort of corporate community development protocol, nor used any social or community assessment frameworks or guidelines.

IPP3_Anon (2017) expressed that, “We didn’t do a formal impact assessment; we rather spent time in the community and got to know people and got to understand a bit about them”. All infrastructure development projects developed in South Africa require an environmental impact assessment (EIA). EIAs are done prior to project initiation to assess the environmental impact a project will have in a particular location. An EIA considers several aspects, including social impact resulting from the development. However, the EIA conducted at the Hopefield Wind Farm did not inform Umoya on their community development projects, rather, all projects and understandings resulted from their community engagement.

During this period of engagement, the former mayor was identified as a leader by the Umoya team and was regarded as one of the key representatives from the community: “We saw her as a leader in the community there. We managed to establish a relationship that was built and grown” (IPP3_Anon, 2017). IPP1_Anon (2017) further stated that, because of how influential Joanna (the mayor) was in the community, she could quieten a room of 200 people and would get everyone to listen to every single word she spoke, as she had a lot of respect from the community.

Bid submission

The emergence of the HIP stemmed from their unorthodox approach to community development. IPP3_Anon (2017) stated:

We could see that there was a glaring need because their living conditions were impacting so many aspects of their lives We spoke with leaders. We had a number of community meetings where we just told them about the project and got to test a couple of our ideas, including the housing improvement scheme. Just got to validate if that was a good idea because, clearly, we wanted a flagship project in which we could launch the programme. We appealed to the community to support us in our efforts to win the bid. It had to be a positive force and, in return, we gave them an undertaking that we would do the HIP. It was also like an agreement, a social compact, you might say.

Under this social compact, Umoya had informally sworn that they would fast-track their community development initiatives. To prove the seriousness of their informal commitment, Umoya had upgraded two sub-economic houses in the town to demonstrate the potential of HIP before residents signed support for the project. IPP1_Anon (2017) stated that they did this during the pre-bidding stages to show interested beneficiary residents what they were getting themselves into before they had signed the forms.

IPP3_Anon (2017) estimated that roughly 900 households signed a list agreeing to the HIP proposal. The 900 signatures collected towards the support of the wind farm were submitted with the final bid application to the IPP office.

The backlash from the community

IPP3_Anon (2017) noted that there had been some negative feedback from the white members of the community, "... not in negative terms of, 'Don't do this for others' but [rather] do this for us as well, we're also part of this community." In order to mitigate against this, IPP3_Anon (2017) notes that they had to explain to these members of the community that the HIP was intended to uplift previously disadvantaged individuals specifically.

IPP3_Anon (2017) estimated that 80% of their efforts went to people defined as previously disadvantaged. The scholarship programme, however, included deserving white learners as it was not based on racial criteria.

IPP3_Anon (2017) suggested that other forms of backlash from the community were based on radical views over the operation of a wind farm facility that had been accessed on the Internet, such as that wind farms would make people ill if they lived too close to them. IPP3_Anon (2017) noted that, "We had to do some research and demonstrate to them that this was more, really, more of a fallacy...."

5.2.2. Hopefield Wind Farm Community Development Company

A community trust is the most commonly used shareholder entity used within the REIPPPP for managing community ownership funds. Members of the beneficiary communities are democratically selected to be trustees. Trustees can be defined as independent decision-makers or administrators of the funds that accrue to the community.

As noted in previous chapters, there have been several challenges have emerged from the use of community trusts within the REIPPPP. However, the Hopefield project has not used a community trust.

During the community engagement phase, the community members expressed to representatives from Umoya that they would not support the establishment of a trust. CD3_Anon (2017) explained that trusts that had been previously set up in the community by large infrastructure developers, had not had positive results. The community thus had a “distrust of trusts” (CD3_Anon, 2017).

Umoya took the community views into account and suggested an alternative. IPP1_Anon (2017) reported that Umoya had consulted with its lawyers, and they proposed a non-for-profit company as it can operate as the same as a trust. This entity will operate as a corporate vehicle rather than a trust. IPP3_Anon (2017) expressed that the management structure of a corporate vehicle would give the representatives clearer roles than in the case of a trust. In addition, a corporate vehicle would provide an easier means for Umoya to be included in the management of the funds accrued to company, and Umoya’s involvement in the local community company would assist in the decision-making and community projects realisation processes (IPP3_Anon, 2017). This would also allow for a cross-pollination of skills and perspectives between the experiences of the community (as shared by community representatives) and the management practices of Umoya and AIIM representatives.

The management structure of the HWFLCDC consists of a board made up of three directors. IPP5_Anon (2017) explained that two directors are represented by Umoya and AIIM, with the third director being a community member from Hopefield. As a form of good governance, the HWFLCDC integrated a social and ethics committee (SEC) as part of corporate structure and operations of the local company. SEC meetings are

held quarterly at the HWFLCDC local offices in Hopefield. The SEC is a subcommittee of the board. IPP5_Anon (2017) explains:

We report back to them on the projects and initiatives we've been implementing in Hopefield and, from an operational point of view, the impact on the environment and so forth, and health and safety and so forth. So, then the chairman of the SEDC committee reports to the board on all the details on the SEC. The SEC is just a structure as part of good governance. It's one of the requirements of one of the Companies Act.

— IPP5_Anon (2017)

5.3 Flagship community development initiative: Home Improvement Project

As mentioned in the previous section, Umoya has initiated and supported several projects within the 50-kilometre radius of the wind farm project. This research assignment has specifically focused on their flagship community development initiative: the HIP.

The emergence of the HIP as Umoya's flagship project has been a result of the community engagement process within the Hopefield community. The HIP was designed to improve the social and economic wellbeing of Hopefield residents. As stated previously, "There was a glaring need because their living conditions were impacting so many aspects of their lives" (IPP3_Anon, 2017). This was due to the low level of social and economic living conditions of historically disadvantaged residents. The project was co-developed by Umoya and SSN, inspired by an existing home improvement project, the Kuyasa Clean Development Mechanism Project. This project is a low-cost urban housing energy upgrade project in Khayelitsha Cape Town. SSN is a climate change consultancy based in Cape Town with experience in community development projects across sub-Saharan Africa and has been involved in the implementation of the Kuyasa Clean Development Mechanism Project.

...we learnt about their Kuyasa Project, and we asked them [SSN] to take us and show it to us, and we liked it ... so we told them we would like to replicate that sort of thing out in Hopefield.

We basically described how we wanted the community to take over the running of the project, but we wanted a project manager to help us get the project going, develop local contractors, upskill local people and gradually effect the handover.

— IPP3_Anon (2017)

The key focus area of the HIP were to respond to the socio-economic development challenges that exist within Hopefield, particularly on challenges around scarce job opportunities and poor living conditions experienced by the previously disadvantaged population in the town. The home upgrades targeted homes that did not have safe and adequate electricity supply and lighting, ceilings or access to both hot and cold running water in their homes. The HIP upgraded and made provision for safe electricity reticulation, installation of ceilings and the installation of a SWH in eligible residents' homes. Eligible homes were understood to be homes that had not had any of these provisions prior to the establishment of the project. In some instances, the extension of piped water was reticulated into homes that previously had no access to piped water inside their houses. In addition, some households also received the installation of kitchens sinks: this was, again, based on a 'does not have' basis.

The HIP was broken up into three main components as indicated in Table 5 below:

Table 5: Three main components of the Home Improvement Project

Programme component	Objective	Indicator	Outcome	Alignment strategic frameworks: Sustainable Development Goals (SDG) and Medium Term Strategic Framework (MTSF)
Improvement of low to medium income homes	Installation of electrical reticulation, ceilings and solar water heater Phase 1: 591 homes Phase 2: approx. 350 homes	Number of homes improved Number of people benefiting through the HIP	Improvement in the social and economic well-being of Hopefield residents	SDG Goal 4: Eradication of poverty MTSF Outcome 8: Sustainable human settlements and improved quality of household life
Skills and training development	Training of local in basic carpentry, electrical installation and plumbing skills	Increase in the number of local with basic skills in carpentry, electrical and plumbing The improved technical capability of local trained	Improved quality of workmanship	SDG Goals 1 and 8: Eradication of poverty; and decent work and economic growth MTSF Outcome 5: A skilled and capable workforce
Jobs created	Job creation for people in Hopefield	Number of jobs created through the project	Improved standard of living for locals	SDG Goals 1 and 8: Eradication of poverty; and decent work and economic growth MTSF Outcome 4: Decent employment through economic growth

Source: Adapted from the 'Social Outcomes Measurement Methodology Report of the Hopefield Wind Farm

Project: Phase 1' (Umoya, 2017)

As outlined above, the project considers three major factors, namely improving the eligible homes to address poverty; providing skills and training development for previously unemployed and under-skilled locals from Hopefield; and creating decent jobs to drive economic growth within Hopefield.

Due to the number of homes that required improvements and budgetary constraints, a staged approach to implementing the HIP was adopted. At the time of writing, the HIP has taken a two-phased approach which has been running since 2014 and is currently still ongoing. The entire HIP is expected to be completed in 2019, with plans (although not finalised) for replication in surrounding towns within the 50-kilometre radius. IPP5_Anon (2017) indicated that replication would be based on communities who have similar needs to those experienced in Hopefield, as it is dependent on the needs of other communities found within the 50-kilometre radius.

5.3.1 HIP Phase 1

This section discusses Phase 1 of the HIP. It focuses specifically on the key actors involved in setting up the HIP and the features associated with the project.

Implementation of Phase 1

SSN was contracted as the project manager to get the HIP up and running by overseeing and managing Phase 1 of the HIP. This first phase of the project included establishing the necessary structures to ensure that local people were identified and upskilled, as well as oversight of improvements of beneficiaries' homes. During this period, SSN billed Umoya monthly for the home improvements completed during each specific month. Installers were also employed by SSN but were on Umoya's payroll. SSN planned to effect the handover to the community operations team at Umoya gradually.

SSN was directly approached and chosen as project manager based on its previous community development experience. The collaboration between SSN and Umoya was negotiated directly rather than secured through

SSN engaging in a tender process. The HWFLCDC provided an office in which a quality control manager of the HIP was based for oversight of the day-to-day processes of the project.

Addressing the development of a beneficiary list, IPP2_Anon, 2017 reported that, “Phase 1 was purely done on a process where the company put out a list in the community and people had to put their names down on the list”. As noted earlier in this chapter, 591 households responded and were considered eligible for home upgrades under the HIP.

Upskilling

Since the inception of the HIP, it was envisaged that local community members would be employed to do the home upgrades as part of the HIP. CD3_Anon (2017) shared that, “... it was one of my proposals that, ‘Why bring people from outside?... let’s send them [locals] to college training in what they must do....’”.

In 2014, Umoya advertised on community notice boards inviting interested individuals from the community to express interest in participating in training and subsequent employment on the home improvement upgrades. Skill sets that were identified as core for the home improvements were carpentry, electrical wiring and installation, and plumbing.

Once interested locals had signed up, an interview process was conducted to select 21 individuals to be sent to Northlink College in Cape Town for a one-month, basic, practical skills training programme in carpentry, plumbing or light electrical disciplines, with seven individuals being trained in each specific discipline. According to Umoya (n.d.), these were entry-level skill sets needed by the installers to do the home improvements, since the project did not require experienced staff. Material used for training was compiled using sections of course material that is recognized by South Africa’s Qualifications Authority that forms part of the National Qualification Framework. It carried credits that could be used to obtain a full qualification in each of the relevant disciplines. Trainees in plumbing were reported to receive additional training and education on the installation of SWHs: “The plumbers went on another course at Watersmith Trading Centre

to do SWH installations. That includes panels, tubes, high pressure and low-pressure geysers” (IPP4_Anon, 2017).

Of the 21 locals recruited for the training, only 18 individuals were appointed as installers that would drive the HIP in Hopefield. Installers were allocated to three teams, each comprised of two carpenters, two electricians and two plumbers who were allocated to work collectively on a house on a given day.

HIP Phase 1 installation outcome

During Phase 1 of the project, each home identified for improvement was classified in one of three categories, as outlined in Table 6:

Table 6: Number of installations per intervention

Type of intervention	Number of houses completed
Solar Water heaters ² (100L low-pressure system)	192
Insulated ceiling (ISO board ceiling)	558
Safe electrical reticulation wiring	586
Provision of compact fluorescent light bulbs	591
Installation of kitchen sinks and plumbing	77

Source: Adapted from the Social Outcomes Measurement Methodology Report of Hopefield Wind Farm Project: Phase 1 (Umoya, 2017)

² Pictures of installed solar water heater can be seen in Appendix B on page 112

Both this research and the social outcomes assignment completed by Umoya indicate that there was an increase in household appliances once installations were completed. This was due to electricity being more accessible, and well as beneficiary reports of an increase in their standard of living.

Over the two years in which the HIP was implemented, 18 permanent jobs were created during the project. The majority of the installers indicated that they were unemployed prior to the commencement of the HIP. The few installers that had been employed prior to the HIP had had short-term contract jobs outside of Hopefield, for which they incurred high daily transport costs.

5.3.2 HIP Phase 2

Whereas the HIP Phase 1 had only focused on meeting the SED mandate, the HIP Phase 2 incorporated both the SED and ED components of Umoya's community development mandate following receipt of feedback from SSN on the first phase of the project:

... we then, basically, then came to a concept document which we could take to our Board of Directors for implementation of Phase 2. Together with that concept document, hand-in-hand, we also worked with an enterprise development specialist to be able to assist us with the modelling. SSN assisted us with what would the cost be for a home to be improved. And that cost we then took our budget forecast out of our financial mode [to which] we then actually developed a financial model specifically for [the] HIP based on the enterprise development concept that we thought that would work best in terms of how much businesses can be created out of the project and how Umoya would structure the ED programme in order for these contractors or these businesses to gradually grow throughout Phase 2 of the HIP.

— IPP5_Anon (2017)

Phase 2 built upon what had been developed in Stage 1; however, it took on a more entrepreneurial stance which formed the ED component of Umoya's community development mandate. Through a competitive evaluation process, three of the 18 installers from Phase 1 were chosen to develop their own contracting

businesses for further installations as part of the HIP Phase 2. Each installation company was required to upgrade a maximum of ten houses per month during this phase.

At the time of data collection, Phase 2 of the HIP was being implemented in three stages spread over 2017–2019. Each of these stages is described below.

HIP Phase 2, Stage 1:

Following an inclusive process, three of the 18 installers who were involved on Phase 1 were chosen to establish their own contracting companies, with the intention that they would then be contracted by Umoya to upgrade the homes identified for Phase 2 of the HIP. Umoya contracted TrioPlus Development to assist these enterprise development beneficiaries with mentoring and business incubation. TrioPlus Development is a specialist mentoring and training company focusing on SMME development in South Africa that has experience in working on similar projects implemented by large mining projects in South Africa.

IPP_Anon 5 (2017) expressed that:

... the first phase of the start-up was looking at the individual as to, “Who am I? Where do I see myself?” so it was very much about yourself and where do you want to go. Once they now discovered that this person has an entrepreneurial spirit within him, they would then move into the next phase of pre-funding incubation.

— IPP_Anon 5 (2017)

TrioPlus facilitated a series of pre-incubation sessions one day a week over a period of three months. These business-specific sessions included all of the installers who were part of Phase 1. According to IPP5_Anon (2017), “They were working on various things and they were not really told to create a specific business, they were said, ‘What business are you interested in starting up?’ A lot of them came up with different types. Someone said, ‘I wanted to start a funeral parlour’, for argument’s sake” (IPP5_Anon, 2017). With much zeal, IPP5_Anon (2017) further expressed:

By the grace of the development spirit, some people came out and said, ‘I actually want to become a carpenter, I want to become a someone that is in the building construction industry.’ And we could then actually extract those people and we actually said these are people that we could work with. Obviously trying to understand the nature of the individual through SSN and through the mentorship specialist – or rather the incubation specialist – we were then able to say, we will then approach these companies and would have interviews with them and based on that we basically made them an offer. We said, ‘We would like to use you like that and that and that.’ They came to use (sic) offering an electrical service because, ‘I was an electrical installer for Phase 1; I can offer you plumbing; I can offer you carpentry.’ We knew that some people extended a lot of their homes, so the carpenter team would be the biggest team. We then told the guy who was successful at being the contractor for the carpentry, ‘You need to employ X amount of people, including you,’ he had to employ four more people. For the electrician, ‘You didn’t have as much work to do; you can employ an additional one more person,’ and the plumber’s job was very straightforward so it was him and an assistant. We then try to model this package cost.

— IPP5_Anon (2017)

Table 8 below provides information on the three successful beneficiaries and their companies as part of Stage 2 of the HIP:

Table 7: Contracting installers during Phase 2 of the HIP

Company service specialisation	Number of employees
Installation of solar water heaters	3
Installation of ISO board ceilings, Cornish and light electrical (lighting)	7
Safe reticulation of electrical plug points and installation of (energy-efficient) lights	2

Source: Author’s compilation

TrioPlus assisted the three contractors to start up their own companies, including filing all the necessary tax and compliance certificates. For the first six months, the three contracting businesses were registered as sole proprietors, then changed to Pty.

These guys [had] never had a formal registered business so, through our enterprise development specialist, they assisted them with registering a formal business, opening up a bank account in the name of the business, and getting all the other government statutory, such as COIDA [Compensation for Occupational Injuries and Disease Act], UIF [Unemployment Insurance Fund], and so forth. So, there was a lot of support provided. And then we also went in and got them to develop a unique development plan that focused on the enterprise as well as the owner of the business, and that plan was now over the period.

— IPP4_Anon (2017)

TrioPlus had further assisted each contractor in determining the cost per installation for each of the houses. IPP4_Anon (2017) expressed that, “They have to then pay their [foreman] salaries and take his own salary, and then the rest of the money has to stay in the bank. Obviously, if he needs airtime or petrol expenses for the business, then he can use that extra cash,” (IPP4_Anon, 2017). IPP5_Anon (2017) added to this by expressing, “They were earning a fixed amount [before], and now they had to discuss with their employees what was a decent salary.”

During Stage 1 of Phase 2, Umoya just paid the contractors for labour and supplied all the needed material for home upgrades. In 2017, the contractors moved into Stage 2 of Phase 2, where the contractors were buying stock from Umoya, with a 15% mark-up, including labour.

HIP Phase 2, Stage 2 – contract developer phase

During this stage, each of the installation companies was responsible for the procurement of the materials needed for the home improvement installations. IPP5_Anon, 2017 reported that, “Umoya has been procuring all the materials and then we reached six months of Stage 2, which we then went into a contractor development

phase where the contractor started procuring his own material.” As described below, the exact timing of the transition into this phase was based on the financial performance and business acumen of each business and the capabilities of each company owner:

...during the first six months of Phase 2, we were closely monitoring the contractor’s performance on how they were managing his cash, how he’s managing his business, is there some good management and control within this person. We were not also very keen on saying, ‘Okay, from the development plan says from month 7, you need to buy your own material.’ At month 6, we would then re-evaluate the situation. And what we found was that only one contractor was ready to move into the next level of the development plan.

— IPP5_Anon (2017)

By August 2017 each of the contractors had moved into Stage 2 of Phase 2 of the HIP. “We are in Phase 2 of Stage 2 of the HIP, which means that we supply them with the material and they invoice us on the material with a 15% mark-up of the material. And obviously what happens is that we take the money of the material they sell” (IPP4_Anon, 2017).

According to IPP4_Anon (2017), it was planned that, by the end of Phase 2 of the HIP, two of the installers would be qualified electricians as they would be starting new electrical courses and finishing their qualifications. At the time of data collection, the electrical and plumbing installers were not qualified to sign off certificates of compliance for the completed plumbing and electrical installations. Compliance certificates were regarded as an extra expense for both these installers, as they had to source a qualified person, usually from Cape Town or Saldanha Bay, at an extra cost to their business.

Phase 2 of the HIP is running over a three-year period between 2017 and 2019. The aim is to complete 350 homes over this period of Phase 2. IPP4_Anon, 2017 reported that, “...Phase 3 is still under talks so we haven’t figured out how that’s going to work, so it’s under progress.”

5.4 Benefits of the HIP

Adapted from table 5, the programme components serve as categories of benefits that stem from the HIP.

Improvement of low to medium income homes

Outcomes of phase 1 saw a total of 591 homes receiving home upgrades through the HIP. By the end of Phase 2 of the HIP, it is estimated that approximately 941 households would have been upgraded as part of the HIP in Hopefield. Other than the inherent energy access, energy efficiency and renewable energy benefits stemming from the HIP installations, several additional positive outcomes have been expressed by community members participating in this research.

Maarman (2017), an ED and HIP beneficiary from Hopefield, shared that he no longer suffered from sinus issues since an insulated ceiling had been installed in his house. Marco (2017) further pointed out that the insulated ceilings have made a dramatic improvement in the temperature experienced: “In summer, the room is cooler and in the winter, it’s warmer.”

IPP1_Anon (2017) expressed that, “Of the chosen intervention, people said the ceilings made the most difference to them because the insulation stopped the sand from blowing in. The ceiling was much more of value to them”. CD4_Anon (2017) pointed out that in the week prior to the interview for this research project, a house had burnt down. He speculated that this was due to the homeowners in that specific house having used candles for lighting. This was a house that had received lighting and insulated ceilings as part of the HIP.

IPP4_Anon (2017) noted that homeowners had an increased sense of pride since their homes had been upgraded. IPP1_Anon (2017) noted that the owners of the two pilot homes that were retrofitted during the pre-bidding phase were immensely proud of their homes, to the extent that they had painted their walls.

Skills development, training and jobs created

Phase 1 of the HIP resulted in 21 previously unemployed locals from the community receive training in basic carpentry, electrical installation and plumbing skills. This further resulted in permanent employment for 18 outstanding, of the 20 installers, to do the installations for approximately 3 years. With job opportunities

lacking in Hopefield, this opportunity to secure permanent employment was well received by the installers. Furthermore, the opportunity for three outstanding installers to develop their entrepreneurial skillset and business acumen builds upon the objective to become self-sustaining and create further economic and business opportunities beyond the HIP, for the businessowners and their employees.

5.5 Community development challenges/shortcomings

There have been several challenges around the community development practice and initiatives since the development and operationalisation of the wind farm. Challenges faced are have been namely:

- Political influence and disinterested local government;
- Installer strike;
- Additional projects in Hopefield.

This section explores the community development challenges that had emerged, as well as a few shortcomings regarding the longevity of the HIP. This section is based on issues identified by interviewees.

Political influence and disinterested local government

Umoya received no assistance from the local government (Saldanha Bay Municipality and Hopefield Municipality) in conjunction with their community development activities in Hopefield. IPP3_Anon (2017) shared that Umoya had kept the municipalities abreast of their activities, making it clear that they were not there to compete with them and that Umoya held an apolitical stance.

IPP3_Anon (2017) notes that:

... at times people's own political affiliations did come through but we had to step on that and to emphasise, again and again, ... and at times we taken to task by the Municipality who felt we were allowing political agendas to be pushed, and their very complaint was a political agenda. We had to deal with those issues, and we did deal with them because this is a community-driven initiative supported by a wind farm; this is not a political agenda.

We talked to them when they were doing the IDP [Integrated Development Plan], and we said ‘we are open to drive projects within the IDP, possibly. But they would be driven by our non-political agenda’. We said, ‘Don’t want to be seen competing with you, we don’t wanna say we wanna do a swimming pool; and you guys want to say you wanna fix roads and you don’t want a swimming pool.’ We said, ‘... must align. We won’t necessarily commit to being bound by your decisions because we are free to do whatever we want to do but we must engage, we must align. We mustn’t become competing forces.’

— IPP3_Anon (2017)

IPP2_Anon (2017) noted that Umoya and SSN saw local government as an important stakeholder in that they wanted to ensure that they were on board: “...we spoke to the local municipality because we had to get a bulk planning consent for all the houses....and to get them behind on the project.” The respondent further stated that the Municipality was keen to help but did not offer much as most of the information needed for the project (spatial development plan data and information) were in the public domain, concluding, “Well, they didn’t obstruct it, but they didn’t really lend a hand in any way”.

CD3_Anon (2017) shared that the same presentations were made to both the community and the municipality. She concurred with IPP3_Anon’s (2017) point that Umoya, as part of its community development initiatives, had kept the Municipality abreast of all that was happening in Hopefield. This respondent felt that the Municipality has been giving less over time and believes the industry is beginning to fulfil their developmental mandate.

After being asked if the HIP had been assisted by the government in any way, IPP4_Anon (2017) noted that inspectors from the Municipalities were invited to inspect the installations, yet nobody came. When certificates of compliance were handed over, the Municipality was surprised as they seemed unaware of what had been going on in Hopefield, despite being informed regularly.

Installer strike – HIP

During Phase 1, SSN incentivised the installers with a financial bonus if they met their installation targets set by Umoya for the quarter. However, there was one month where bonuses were withheld because the target had not been met. IPP2_Anon (2017) described the response to this:

There was one month towards the end of the second half of the project ... there was a quarter where guys got really behind and we withheld their bonuses pay for one month, so they created a massive hoo-ha even though they were well behind. There was like a go-slow, walk-out, mini-riot. There was a heated meeting. We had to hold our ground there.

— IPP2_Anon (2017)

Longevity of the HIP and long-term opportunities for the ED beneficiaries

At the time of research being conducted, two of the three ED beneficiaries was dependent on the HIP to sustain their business operations, and neither had solid plans as to what they would be doing once the HIP contract was completed. However, each of them had plans to expand their client base to surrounding towns. Their plans going forward are described below

CD1_Anon (2017) expressed he would like to be a “more sustainable company that would be able to serve the entire West Coast community with carpentry services”. He foresaw the possibility of expanding his business operations to include other services, such as electrical and plumbing solutions.

CD2_Anon (2017) had already explored additional opportunities within the Municipality to expand his client base. Over the fieldwork period, CD2_Anon (2017) expressed interest in a SWH tender in a neighbouring municipality. If successful, this tender would see him installing low-pressure SWHs in low-income homes in the Berg River Local Municipality. He also intended expanding his business into other avenues, such as road construction. He pointed out that the roads in Hopefield had many potholes and were in bad condition. He explained that this was the result of inadequate municipal road maintenance.

CD4_Anon (2017) expressed uncertainty as to the longevity and sustainability of his business beyond that of the HIP. However, he had marketed the contracting services he offered within the community. He was actively looking for further opportunities to expand and sustain his business in the long-term. He added an interesting personal aspect: his motivation for doing the installation work as part of the HIP was driven by his commitment to helping people in his community, rather than making money.

IPP4_Anon (2017) identified a positive long-term role for these installers in the maintenance on the completed work: “Obviously on the new RDP houses busy coming up now, they busy building new RDP houses, the guys [contractors] can get their hands in there as independent contractors.”

CD3_Anon (2017) stated that, upon completion of the HIP, the community needs to decide on the way forward. This respondent also expressed the possibility of the HIP being replicated in other towns within the 50-kilometre radius, as there are more homes that need improving.

Additional projects in Hopefield

Amidst other smaller community development initiatives established by Umoya, the HIP has been the flagship community development project in Hopefield. However, during interviews, each participant was asked whether they could identify any additional projects or programmes that could be implemented in Hopefield. Each participant noted well-intended proposals; however, there were no clear plans on what would be happening once the HIP ends in 2019.

IPP4_Anon (2017) suggested that, “... they need a recreational area or swimming pool or braai place ... a decent library ... maybe a fire station, there isn’t one here. The Fire Department is the main one.” This respondent also noted that a swimming pool and additional support to the local junior schools (in subjects like Maths and Science) could be options that Umoya could further explore as part of their community development initiatives. By contrast, IPP3_Anon (2017) expressed the view that, “The community must decide.”

IPP5_Anon (2017) expressed that:

We haven't really thought of after. We trying to see this Phase 2 through within our current budget. I think as part of the SPV strategy is to, we obviously now moved away from ploughing all our money into Hopefield, but if you look at REIPPPP programme, they don't mention which towns to look at, but they make mention to the 50-kilometre radius. For us, we had to do that exercise to see which towns fall within the 50 kilometres and obviously starting engagements with respective municipalities, to see, 'OK, what does the IDP saying?' We don't purely base our development views on the IDP. We would obviously ten to one do our own needs assessment as we have done for our other two companies, and do a fully-fledged needs assessment for Umoya that focuses on all the beneficiary towns within the 50-kilometre radius.

— IPP5_Anon (2017)

CD3_Anon (2017) noted Umoya should explore the possibility of ensuring that each house receive a water tank. As noted earlier in this chapter, the region has been experiencing a prolonged drought which had led to dwindling water availability and has resulted in strict water restrictions. CD3_Anon (2017) felt that, while the HIP was implemented to save energy, there was a pressing need to look at ways to save water as well. In addition, this respondent noted that the widespread challenge of unemployment needed to be further explored, especially ensuring locals were upskilled so that they at least obtained their matriculation certificates and could then begin applying for work, especially since there is an industrial development zone within the district municipality.

5.6 Case study analysis and chapter conclusion

This case has been presented as a narrative on how the HIP project emerged through the community development approach and engagement made by Umoya, along with the current operations and outcomes of the flagship community development project. The project was conceptualised and implemented in Hopefield to upgrade beneficiary homes with energy interventions to ensure their safe and affordable access to energy, while at the same time ensuring that locals were upskilled and given employment to do the home upgrades.

One example is the way the Chief Executive Officer (CEO) of Umoya, rather than acting via agents, got personally involved in the early stages of community engagement process in order to understand the challenges of the beneficiary community and how Umoya could respond to these needs. The ingenuity of this approach has resulted in positive impacts arising from the identification of what was needed in the community without doing a formal needs analysis. This allowed the CEO to make strategic judgements about how to proceed in spending the annual funds stemming from the wind farm. This strong leadership style had positive knock-on effects in the Hopefield community.

As the CEO mentioned, during this community engagement process, Umoya intentionally sought a key representative from the community who would serve as a champion to drive community development projects. The former mayor was chosen to act as this champion, as the community saw her as a leader, even after her retirement from politics.

The approach taken by Umoya built credibility and confidence within the community. The social compact made with the community could be deemed a risky, yet important aspect of the leadership style undertaken. The retrofitting of two pilot homes in the community before the bid was awarded further built credibility in the community. In addition, the up-front spending of SED and ED projects (specifically at the HIP) was an important strategy to build confidence in the community. As mentioned, the community had been promised benefits from infrastructure and mining projects before and had been let down. Despite an existing preconceived negative connotation relating to promises made by corporates, Umoya was still able to build trust and credibility in the community. Traditionally in the REIPPPP, communities only receive annual funds once projects are built, which is typically 18 months after the project is awarded by the IPP office. In doing so, Umoya showcased that they mean business and were not about making empty promises that would only be realised years after their early engagements.

The voices of the community were heard and considered. One action resulting from this was the creation of a community company rather than a trust, as the community expressed that they had been let down by trusts before. At the time of writing, this was the only community within the REIPPPP industry to have set up this

structure. Furthermore, the selection and rollout of the HIP also considered local needs in that community members needed safe and sustainable access to basic energy services, as well as upskilling and employment to undertake the home upgrades. As mentioned, residents who received installations from the HIP now experience less health ailments associated with the extreme warm and cold annual temperatures in Hopefield.

The phased roll-out of the HIP took into account the unemployment situation in Hopefield. The local community ensured that Umoya selected locals to do the home improvement installations. The community leader also ensured that unemployed locals signed up to be part of this project. The HIP took into account both the SED and ED requirements of the REIPPPP. While the HIP initially focused strictly the SED requirements, Umoya was able to integrate the ED component into the same project during the second phase. The business incubation and mentorship provided for the installers further developed individuals in not only establishing their own contracting companies that could generate income from the home improvements; it also provided them with a platform from which to expand their client base beyond the HIP. As mentioned, the plumbing contractor had applied to compete for a local municipality SWH tender in a neighbouring municipality. This opportunity arose for an individual who had previously only been able to secure limited, labour-intensive, short-term work contracts and had spent long periods of time unemployed while waiting to secure further work opportunities. In essence, the IPP gave all installers who were part of the HIP an opportunity to grow and market themselves better when looking for additional employment or business contracts. Although not all installers and contractors have solid plans after the HIP ends in 2019, Umoya's investment in them increased their human value and potential to seek and secure further employment. Umoya paid attention to the detail of how the project affected people's lives and invested in human capacity to sustain accumulation.

Personally, I believe that Umoya's community engagement approach gave it the social license to operate within the Hopefield community. This has resulted in locals perceiving the wind farm positively, despite earlier scepticism about benefits arising from promises made to them by big infrastructure projects previously. I base this statement on informal conversations with locals during my stay in Hopefield.

However, it is important to note that this project had not been without any challenges. The IPP has been able to manage the political influence through its initiatives and has stood strong in reaffirming its apolitical stance to its community development initiatives. Furthermore, Umoya was able to mitigate the lack of local government assistance in the community successfully, despite its initial intention of collaborating and driving projects under the municipal IDP. Despite this, I feel there is still potential for future collaboration between Umoya, the local government, and other stakeholders (including other IPPs) within the municipality and within the 50-kilometre radius.

Furthermore, it should be mentioned that the community engagement approach and community development project implemented in Hopefield is not solely limited to this context, and can potentially be replicated elsewhere within the REIPPPP and in other community development initiatives. At the same time, the strategic approach and interventions undertaken by Umoya do not necessarily provide a universal blueprint for effective community engagement or apply to all contexts. Rather, this case study serves as an alternative or creative way of practicing community development that can mitigate some of the emerging community development challenges documented as relating to the REIPPPP.

The implementation of the HIP has been largely linked to strong community development engagement with the Hopefield community. Umoya's community engagement process identified the dire living conditions experienced by low-income houses in Hopefield, while also considering the widespread unemployment challenge present in the town. Taking these two factors into account, Umoya proposed and implemented a well-conceived multi-year project that has responded to both these needs.

The HIP sought to improve the living conditions of Hopefielders. The project was conceived and implemented to provide residents with access to a few basic services that improve their living conditions in their homes. This included safe access to electricity, access to hot running water from an SWH and the installation of an insulated ceiling to ensure energy efficiency. Previously unemployed locals from the Hopefield community were trained in the skills required to carry out the home improvements. Furthermore, installers were given the

opportunity to establish their own contracting businesses to complete the remaining identified houses that needed improving.

Despite this being a well-intended and well-conceived community engagement process and community development project, several challenges have presented during the project's life. In summary, the two main hindrances that have been present have been the lack of local government support and uncertainty about the longevity of the HIP as a sustainable long-term community development initiative. Furthermore, the project does not address all the energy challenges faced in the Hopefield as other sustainable energy solutions still need to be address especially in the use of energy for cooking and heating.

Chapter 6 will conclude the dissertation by linking the narrative presented in this case study to the overall research endeavour of this project.

Chapter 6: Conclusion

This thesis has explored the potential that utility-scale renewable energy projects have in addressing energy in communities surrounding project sites. This chapter merges the findings and arguments developed throughout the study, and concludes in answering the research question posed in Chapter 1.

6.1 Summary of findings

The development of renewable energy projects procured through the REIPPPP has seen tremendous growth since the launch of the programme in 2011. As explored in this thesis, many well-intended community development aspects of the programme have been met with several challenges by IPPs with regards to their operations. These challenges have been explored with specific reference to the SED and ED component of the annual community development mandate. Operational challenges that have been identified include poor community engagement, mismanagement of funds and a lack of guidance in the implementation of the community development mandate under the programme.

This case study explored the community development initiatives implemented by Umoya Energy in the small beneficiary town of Hopefield. Umoya has been able to mitigate some of the general challenges experienced under the REIPPPP. Its community engagement approach can be considered unconventional in that they did not conduct any formal needs or social assessment in the community, but rather consulting directly with community members to understand the challenges faced. Its CEO spending time in the community fostered a sense of authenticity within Umoya's approach, which, in turn, built trust that provided it with the social license to operate in the community. This approach illustrates a particular leadership style that made it possible for effective and strategic decisions of benefit to community development in Hopefield. Notable strategic decisions were the structure of the community development company and the financing structure of the community ownership of the wind farm, as well as the main aspect of this study, being the emergence of the flagship HIP. I believe this unique community development approach contributed to the success of the HIP.

The HIP was conceptualised to address several challenges. The main purpose of the project has been to provide energy efficiency interventions to eligible community members. After taking into account the different challenges, and with the consideration for the community's input, a systematic phased roll-out that integrated upskilling and entrepreneurship was undertaken. Ultimately, this project married the ED and SED requirements to form an integrated project founded in a unique community development approach. However, it is important to note that this approach did experience challenges that both the community and the IPP were able to voice and mitigate. In summary, the community development approach and HIP project complemented both LED and community development as described in the literature.

There are many links between the case study and the literature on community development and LED. The community development implemented by Umoya speaks to the SLA and ABCD literature, since the HIP has not only been built around community needs and problem-based orientations, but has also maintained and built upon strengths and assets in working with the community. As discussed in Chapter 3, Nel (2015) notes that SLA approach is more often carried out in a top-down manner by professionals, while the ABCD is more of a bottom-up approach. The middle ground, lying between the professionals and the community members, is evident in this case study. Through the HIP, Umoya took advantage of the human assets (human potential) already in the community and built upon them by identifying, upskilling and promoting previously under-skilled and unemployed locals. As noted by Wlokas *et al.* (2017), this community development approach falls within the realm of both organisationally diffused and traditional community development frameworks, with this case study featuring aspects of both frameworks. Furthermore, the phased approach of the HIP aligns with the community development views of McEwan *et al.* (2017), who argues for the project to be regarded as inherently a process of empowerment and an instrumental tool to achieve social and economic development outcomes. The principles of McEwan *et al.*'s (2017) view of community development being complementary to the notion of LED, can also be understood through this case study.

As expressed in the literature, LED is a local developmental agenda that is designed to achieve socio-economic redress, and to empower poor people and poor regions to promote economic growth (Nel and Rogerson, 2016). Although LED is traditionally driven by local governments, this case study affirms the potential of private sector driven LED and community development. A community-based LED approach is present in the case

study, as the HIP encouraged empowerment and capacity building that assisted communities and individuals to acquire skills, which in turn put them in a better position to become more self-reliant. As mentioned in Chapter 3, LED partnerships are paramount in driving community-based LED approaches. In this case, the partnership and collaboration enabling the success of the project was between the community and Umoya.

6.2 Conclusion and recommendations

In conclusion, there are a number of important points that can be derived from this study. The REIPPPP is not a perfect procurement programme but does provide defensible criteria for selecting IPPs, being criteria that consider the socio-economic context of South Africa. This study focused on the annual community beneficiation of local communities through annual income generation, while considering the local community ownership aspects of the programme. The case study is but one approach that has documented the benefits and challenges of this project of the REIPPPP; and only time will tell whether community development benefits will outweigh the REIPPPP's rigour. However, the case study represents an opportunity to showcase the developmental potential of the REIPPPP. It provides insight into the community development approach and practices implemented by Umoya in Hopefield, from which other IPPs can learn. The treatise presented does not argue that the REIPPPP is perfect or ideal, but suggests, rather, that it may be an appropriate model where local developmental goals can be achieved through the adoption of utility scale renewable energy.

Despite the fact that the actors involved in the Hopefield case study were not informed by a specific community development or LED approach, there is sufficient evidence from the case study to confirm that a community and private sector driven LED strategy, complemented by a community development practice, can have positive developmental results. The significance of the Hopefield case rests on the existence of a group of actors who interpreted the REIPPPP context differently to many of the other players in other contexts, leading to a positive outcome. However, this case study analysis does not mean that the entire REIPPPP programme is flawless. Rather, it shows how the REIPPPP can work from a developmental perspective. Umoya's community development approach, engagement and initiatives showcase how IPPs within the REIPPPP can implement sustainable energy solutions for beneficiary communities effectively. In other words, the case study

supports the notion that utility scale renewables do have the potential to address community challenges around project sites.

The case study presents takeaways that are useful for community development practice within the REIPPP industry, the first of these being the unique community development approach taken by the IPP. An informal yet effective dialogue over the developmental outcomes of Umoya's mandated efforts was conducted between the IPP and the community. These outcomes came in the form of strategic interventions, such as the community company, are unique within REIPPPP community development environment.

Being a flagship project, the HIP addresses community energy challenges. The results as discussed and analysed led to a finding on the following main question:

How IPPs can effectively implement sustainable energy solutions to beneficiary communities as part of the participation of the REIPPPP?

The case study showcases how an IPP has addressed community energy challenges in novel ways in the REIPPPP. Umoya successfully merged SED and ED obligations to address more than the energy challenges by fostering upskilling and entrepreneurship by locals. Therefore, this case illustrates how community energy challenges can be addressed with utility scale renewables. However, it is worth noting that the HIP itself has not address all of the community's energy challenges but has acted as one method an IPP has used to address energy challenges in an impoverished community. There is opportunity for further research into other forms of energy interventions and projects that can be used to address community energy challenges by IPPs, one example could be the construction of mini-grids for unelectrified communities.

The lessons learned from this case do not lie within the HIP, but rather within the approach taken in stages of community engagement. As a result, the community development approach undertaken by Umoya can be considered to contribute to practice within the REIPPPP, as the case provides an example for IPPs to reflect on when considering how community development can be practiced within the REIPPPP. The HIP has been an

effective initiative, but the take home lesson lies within the how the initiative become about – through the collaborative dialogue between the community and IPP.

References

- Abrahams, D. 2005. *Local Economic Development in South Africa: A Useful Tool for Sustainable Development*. In Nel, E. and Rogerson, C.M. (eds.) 2004. *Local economic development in the developing world: The experience of Southern Africa*. Transaction Publishers: New Brunswick, N.J.
- Batinge, B., Musango, J.K. and Brent, A.C. 2017. Leapfrogging to renewable energy: the opportunity for unmet electricity markets. *South African Journal of Industrial Engineering*. 28(4):32–49. [Online], Available: <https://doaj.org/article/473077f2c18c4b708e0a0200ba2cb860>.
- Bhattacharyya, J. 2004. *Theorizing Community Development*. *Journal of the Community Development Society*. 34(2):5–34.
- Bond, P. 2003. *Debates in local economic development policy and practice*. *Urban Forum*. 14(2):147–164.
- Boulle, M., Boyd, A. and Cunliffe, G. 2015. *Understanding the Implementation of the REIPPPP in South Africa – Using the 5C Protocol*. Cape Town: MAPS.
- Bryman, A., Bell, E., du Toit, J., do Santos, A., Wagner, C., van Aardt, I. and Masenge, A. 2015. *Research Methodology*. 3rd ed. Cape Town: Oxford University Press.
- Burger, P. 2014. How suitable is a ‘developmental state’ to tackle unemployment, inequality and poverty in South Africa?. [Online], Available: <http://www.econ3x3.org/article/how-suitable-%E2%80%98developmental-state%E2%80%99-tackle-unemployment-inequality-and-poverty-south-africa> [2017, March 29].
- Byrne, R. and Ockwell, D. 2013. *Low carbon development, poverty reduction and innovation system building*. In *Copenhagen Discussion paper for Gobelics seminar: Learning, Innovation and Low Carbon Development*. 1–13. [Online], Available: http://sro.sussex.ac.uk/53024/1/LCD_poverty_reduction_and_innovation_system_building_-_ver_2_changes_accepted.pdf [2017, May 14].
- Carley, S., Lawrence, S., Brown, A., Nourafshan, A. and Benami, E. 2011. Energy-based economic development. *Renewable and Sustainable Energy Reviews*. 15:282–295.
- Clandinin, D.J. and Connelly, F.M. 2000. *Narrative inquiry: experience and story in qualitative research*. 1st ed. (ed.). (Jossey-Bass education series). San Francisco, California: Jossey-Bass.
- Department of Energy. 2014. *Request for Qualification and proposals for new generation capacity under the IPP Procurement Programme Part A: Evaluation Criteria*, Republic of South Africa.

Department of Energy. 2018. *Final Draft Integrated Resource Plan for Electricity 2018*, issued on 22 August 2018.

Eberhard, A. and Kåberger, T. 2016. Renewable energy auctions in South Africa outshine feed-in tariffs. *Energy Science and Engineering*. 4(3):190–193.

Eberhard, A. and Naude, R. 2017. *The South African Renewable Energy IPP Procurement Programme: Review, Lessons Learned and Proposals to Reduce Transaction Costs*.

Eberhard, A., Kolker, J. and Leigland, J. 2014. *South Africa's Renewable Energy IPP Procurement Program: Success Factors and Lessons*. PPIAF, Washington DC, USA. (May):1–56.

Energyblog. n.d. Utility-scale Renewable Energy Generation Sites. [Online], Available: <https://www.energy.org.za/map-south-african-generation-projects> [2018, April 02].

Government of South Africa, 2013. *National Development Plan*, Republic of South Africa.

Hamann, R. 2003. Mining companies' role in sustainable development: The “why” and “how” of corporate social responsibility from a business perspective. *Development Southern Africa*. 20(2):237–254.

Isaacs, D. 2006. Evaluating local economic development in the city of Cape Town. Stellenbosch. Stellenbosch University [online]. Available: <http://scholar.sun.ac.za/handle/10019.1/2020> [2017, September 18].

IPP Office. 2018. Independent Power Producers Procurement Programme (IPPPP): An overview. [online] available at: https://www.ipp-projects.co.za/Publications/GetPublicationFile?fileid=9f9536ed-56e3-e811-9491-2c59e59ac9cd&fileName=20181024_IPP%20Office%20Q1_2018-19%20Overview.pdf

Kamara, R.D. 2017. Creating Enhanced Capacity for Local Economic Development (LED) through Collaborative Governance in South Africa. *Socio Economic Challenges*. 1(3):98–115.

Kruger, W. and Eberhard, A. 2018. Renewable energy auctions in sub-Saharan Africa: Comparing the South African, Ugandan, and Zambian Programs. *Wiley Interdisciplinary Reviews: Energy and Environment*. (e295):1–13.

Kruger, W., Eberhard, A. and Swartz, K. 2018. *Renewable Energy Auctions: A Global Overview*. Cape Town. [Online], Available: http://www.gsb.uct.ac.za/files/EEG_GlobalAuctionsReport.pdf.

Long, H., Rodgers, R. 2017. Re-conceptualize mixed methods research: introducing a new conceptual framework. *Quality and Quantity*. 51: 2813-2829

Marais, L. 2011. Local economic development and partnerships: critical reflections from South Africa. *Community Development Journal*. 46(S2):49–62.

Marais, L., Wlokas, H., de Groot, J., Dube, N. and Scheba, A. 2018. Renewable energy and local development: Seven lessons from the mining industry. *Development Southern Africa*. 35(1):24–38.

Maxwell, J. 2013. *Qualitative research design: an interactive approach*. Thousand Oaks, California: SAGE Publications.

Miles, M.B., Huberman, A.M. 1994. *Qualitative Data Analysis: An Expanded Sourcebook*. Sage, Thousand Oaks as cited in Long, H., Rodgers, R. 2017. Re-conceptualize mixed methods research: introducing a new conceptual framework. *Quality and Quantity*. 51: 2813-2829

McEwan, C. 2017. Spatial processes and politics of renewable energy transition: Land, zones and frictions in South Africa. *Political Geography*. 56:1–12.

McEwan, C., Mawdsley, E., Banks, G. and Scheyvens, R. 2017. *Enrolling the Private Sector in Community Development: Magic Bullet or Sleight of Hand?*. *Development and Change*. 48(1):28–53.

McFarlanes. 2016. *Tallying the benefits of South Africa's Renewable Energy Power Producer's Procurement Programme*. [Online], Available: <http://www.engineeringnews.co.za/article/tallying-the-benefits-of-south-africas-renewable-energy-power-producers-procurement-programme-2016-05-09> [2018, May 23].

Montmasson-Clair, G. and Das Nair, R. 2015. The importance of effective economic regulation and coordinated institutions for inclusive growth: Lessons from South Africa's renewable energy programmes in the Electricity Supply Industry. Working Paper no. 2/2015. Johannesburg: Trade and Industrial Policy Strategies, Centre for Competition, Regulation and Economic Development, University of Johannesburg.

Montmasson-Clair, G. and Ryan, G. 2014. Lessons from South Africa's Renewable Energy Regulatory and Procurement Experience. *Journal of Economic and Financial Sciences*. 7(S):507–526.

Mutrifa, B.N. 2002. A Comparative Analysis of the Local Economic Development Practices in South Africa and Namibia. Stellenbosch: Stellenbosch University [online]. Available: <http://scholar.sun.ac.za/handle/10019.1/52623> [2017, September 18]

Nel, D. 2018. An assessment of emerging hybrid public-private partnerships in the energy sector in South Africa. *International Journal of Economics and Finance Studies*. 10(1):17. [Online], Available: http://www.sobiad.org/eJOURNALS/journal_IJEF/archieves/IJEF_2018_1/d-nel.pdf [2018, August 28].

Nel, E. 2001. Local Economic Development: A Review and Assessment of its Current Status in South Africa. *Urban Studies*. 38(7):1003–1024. [Online], Available: <http://journals.sagepub.com.ez.sun.ac.za/doi/pdf/10.1080/00420980120051611> [2018, July 04].

Nel, H. 2015. An integration of the livelihoods and asset-based community development approaches: A South African case study. *Development Southern Africa*. 34(4):511–525.

Nel, E. and Rogerson, C.M. 2016. Re-engaging with spatial economic development: The recent experience of regional and local economic development in South Africa. *Local Economy*. 31((1-2)):3–8.

Nel, E. and Rogerson, C. M. (eds.). 2005. *Local Economic Development in the Developing World: The Experience of Southern Africa*. New Brunswick NJ and London, Transaction Press.

Nel, E.L. and Humphrys, G. 1999. Local economic development: Policy and practice in South Africa. *Development Southern Africa*. 16(2):277–289.

Painuly, J.P. 2001. Barriers to renewable energy penetration: A framework for analysis. *Renewable Energy*. 24: 73-89

Palys, T. 2008. Purposive Sampling In: *The SAGE Encyclopedia of Qualitative Research Methods*.

Patterson, C. 2008. Country Report on Local Economic Development in South. Unpublished Report prepared for GTZ Strengthening Local Governance Programme in South Africa, Pretoria

Republic of South Africa (RSA).1996. *Constitution of the Republic of South Africa, Act 108 of 1996*. Government Gazette, 378. Pretoria: Government Printer.

Del Río, P. and Burguillo, M. 2009. An empirical analysis of the impact of renewable energy deployment on local sustainability. *Renewable and Sustainable Energy Reviews*. 13:1314–1315.

Del Río, P. and Burguillo, M. 2008. Assessing the impact of renewable energy deployment on local sustainability: Towards a theoretical framework. *Renewable and Sustainable Energy Reviews*. 12:1325–1344.

- Rodriguez-Pose, A. 2008. Milestones and challenges of LED practice and academic research, 5, 22-24. as cited in Kamara, R.D. 2017. Creating Enhanced Capacity for Local Economic Development (LED) through Collaborative Governance in South Africa. *Socio Economic Challenges*. 1(3):98–115.
- Rogerson, C.M. 1996. The private sector and local economic development in South Africa. *Geo Journal*. 39(1):97–104.
- Rogerson, C. and Nel, E. 2005. Decentralisation and Local Initiatives for Development: African Perspectives. *African Insight*. 35(4):1. [Online], Available: http://journals.co.za.ez.sun.ac.za/docserver/fulltext/afrins/35/4/afrins_v35_n4_a1.pdf?expires=1534458160&ndid=idandacname=57845&checksum=A3C38E3377CC8E2605020E1AFDFB5CD8 [2018, August 17].
- Rogerson, C.M. and Rogerson, J.M. 2010. Local economic development in Africa: Global context and research directions. *Development Southern Africa*. 27(4):465–480.
- Sneddon, C., Howarth, R.B. and Norgaard, R.B. 2006. Sustainable development in a post-Brundtland world. *Ecological Economics*. 57(2):253–268.
- Stats SA. 2017. Poverty on the rise in South Africa. [Online], Available: <http://www.statssa.gov.za/?p=10334> [2018, July 25].
- Tait, L. 2012. The potential for local community benefits from wind farms in South Africa. Cape Town: University of Cape Town [online]. Available: <https://open.uct.ac.za/handle/11427/11991> [2018, 6 July]
- Tait, L., Wlokas, H.L. and Garside, B. 2013. Making communities count. International Institute for Environment and Development, London. 4–25. [Online], Available: <http://pubs.iied.org/pdfs/16043IIED.pdf?>
- Tomlinson, R. 2003. The Local Economic Development mirage in South Africa. *Geoforum*. 34:113–122.
- Turok, I. 2010. South Africa's Challenge of Shared Prosperity. *Local Economy*. 25(4):265–268.
- Umoya Energy. n.d. Umoya Energy Wind Farm. [Online], Available: <https://umoyaenergy.co.za/wind-farm> [2018, April 12].
- Vaughn, P. and Turner, and C. 2016. Decoding via Coding: Analyzing Qualitative Text Data Through Thematic Coding and Survey Methodologies. *Journal of Library Administration*. 56(1):41–51.

Westoby, P. 2014. *Theorising the Practice of Community Development*. A South African Perspective, Surrey: Ashgate Publishing Limited.

Winkler, H. 2006. Energy policies for sustainable development in South Africa's residential and electricity sectors Implications for mitigating climate change. University of Cape Town. [Online], Available: http://www.erc.uct.ac.za/sites/default/files/image_tool/images/119/Papers-2006/06Winkler-PhD.pdf [2017, May 14].

Wlokas, H.L. 2017. Implementing community renewables: Institutional work in South Africa's renewable energy procurement programme. University of Cape Town. [Online], Available: https://open.uct.ac.za/bitstream/handle/11427/26889/thesis_ebe_2017_wlokas_holle_linnea.pdf?sequence=1 [2018, August 23].

Wlokas, H.L., Boyd, A. and Andolfi, M. 2012. Challenges for local community development in private sector-led renewable energy projects in South Africa: an evolving approach. *Journal of Energy in Southern Africa*. 23(4):46–51.

Wlokas, H.L., Westoby, P. and Soal, S. 2017. Learning from the literature on community development for the implementation of community renewables in South Africa. *Journal of Energy in Southern Africa*. 28(1):35–44.

World Wildlife Fund for Nature. 2015. A review of the local community development requirements in South Africa's renewable energy procurement programme.

WWF international. 2014. Enabling Renewable Energy in South Africa Assessing the Renewable Energy IPP Procurement Programme WWF RE Finance Report Launch

Appendix A: Interview (Semi-structured) questions

Broad questions asked to participants from Umoya and SSN:

1. Can you briefly explain your background and the current position that you hold?
2. How would you describe your organisation?
3. How did the HIP come about and is there a specific reason as to why that project was implemented in Hopefield?
4. Can you explain the roll-out of the HIP?
5. What role did your organisation play in setting up the project?
6. What was your approach in the initial community engagement process?
7. Did your organisation do any community needs assessment in Hopefield?
8. What challenges did / do you see in the Hopefield community?
9. What challenges or shortcomings were present during the community engagement phase?
10. What challenges or shortcomings were present during the implementation and operational phases of the HIP?
11. Did you get any assistance from any local organisations, local government or other IPPs any time during the implementation and operational phases of the HIP?
12. Was there any reason why a community development company was established than a community trust?
13. Besides the current projects in Hopefield, what other initiatives can Umoya implement in the community?

Broad questions asked to beneficiaries and members from Hopefield

1. Can you briefly explain yourself and a bit of your background?
2. What sort of work did you do before the HIP?
3. How did you come across the HIP?
4. What sort of training did you receive at Northlink College and how do you describe your current trade?
5. What other training have you received other than the training you received at Northlink College?

6. How many people do you currently employ?
7. Has any of the beneficiaries of the HIP complained about your installations?
8. Do you currently have any other work besides the HIP?
9. What do you foresee doing after the HIP has finished?
10. What challenges are faced by the community and community members in Hopefield?

Appendix B: Pictures of beneficiary home with an installed solar water heater from the home improvement project



Source: Authors own