RESEARCH PAPER

Understanding the implementation
of the REIPPPP in South Africa

Using the 5C Protocol

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Understanding the implementation of the REIPPPP in South Africa

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1. INTRODUCTION

This research aims to uncover key drivers and barriers that have contributed to or hindered the implementation of interventions with mitigation benefit in developing countries. This case study is part of a series of case studies, which collectively consider research on implementation in a more systematic way – applying existing theoretical frameworks to examples of climate related projects in practice. These case studies inform a comparative research paper, which will aim to collate insights and potentially lessons on how to consider ‘implementability’ of climate projects in national planning processes. It is important to note that whilst the cases studied have implications for mitigation, in many cases it is not the mitigation benefit that has driven the implementation of these projects. Rather it is a series of other factors that make the intervention worthwhile irrespective of mitigation. The relevance for the mitigation community is to through these cases, enhance understanding of how the implementation of mitigation actions can gain traction in a developing country context, through achieving multiple objectives. For this particular case study we examine the implementation of South Africa’s renewable energy programme - the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP).

We take a framework from the field of public policy – Najam’s 5C Protocol and apply it to the REIPPPP.

**Najam’s 5C Protocol** proposes a set of five variables that can be used to analyse a case study in order to provide insight into its implementation: content, context, capacity, commitment, and clients & coalitions. Instead of offering a theory on how to achieve implementation, it acknowledges the complexity of implementation, and proposes the use of these variables as a way of untangling this complexity. Investigating the interaction between variables is an important part of utilising this approach. It is understood to be a useful tool to explore the transition from theory to practice (Najam, 1995).

**REIPPPP**: In 2011, the Department of Energy (DoE) launched its Renewable Energy Independent Power Producer Procurement Programme, a national programme designed to procure renewable generation capacity from independent, private developers. The DoE issued Requests for Proposals in August of that year forming the basis of a competitive bidding system for solar photovoltaic, concentrated solar thermal, wind, hydro and other smaller scale renewable technologies (DoE, 2011a). The Minister of Energy allocated 3 725 MW of renewable capacity to be provided by IPPs, procured through this competitive bidding process. Subsequently the programme has become the leading contributor towards the growth in South Africa’s renewable energy capacity. The programme is operational, with 32 renewable projects currently feeding approximately 1500MW into the national electricity grid (Creamer, 2015).

The South African government has documented various commitments to facilitate the introduction of independent power producers (IPPs) and renewable energy generation into the electricity supply sector, beginning with the White Paper on Energy Policy (DME, 1998). However, little progress had been made towards implementing these commitments until the introduction of the REIPPPP in 2011. Working from understanding the historical failure of IPP procurements in South Africa\(^1\) (Pickering, 2013) and a failed attempt at a renewable energy feed-in-tariff (REFIT) in 2009 (NERSA, 2009), this paper explores how the REIPPPP has progressed towards implementation, to become one of South Africa’s most significant climate change mitigation actions. What are the elements and the sequencing of these elements that contributed to its implementation?

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\(^1\) Various attempts for IPP procurement of coal and nuclear capacity failed throughout the 2000s, including the Mambabula Coal, Pilot National Cogeneration Programme, Nuclear-1 build and the privatization of the new Kusile coal power station (Pickering, 2013).
The objective of this case study is not to evaluate the effectiveness of the REIPPPP implementation. Rather, we acknowledge that the REIPPPP has achieved a degree of implementation, and use the 5C approach to better understand this process. These questions are already the subject of existing studies (Eberhard, 2014; Martin, 2014; Pickering, 2013; Baker and Wlokas, 2014), and results from existing literature and subsequent interviews provide the data that is analysed within the 5C framework. In order to answer the research question, the paper starts with outlining the research approach followed by a background to the REIPPPP and the 5C Protocol. The findings from the literature and interviews are presented in the results and discussion, followed by a conclusion.

1.1 Key Interpretations

Many of the concepts used within this paper have multiple interpretations. Below are the working definitions for this particular case study:

**Implementation**: For the purposes of this paper we are considering ‘implementation’ of the REIPPPP broadly as the transition from the launch of the RFP (August 2011) to the financial closure of a project (not tied to a specific bidding round). We consider key aspects preceding the launch and reflect on observations from the evolution of the programme (made possible due to the staggered nature of bid rounds). We also loosely use the term ‘implementability’ to indicate the ‘likelihood of implementation’.

**Policies and programmes**: In this paper we have applied Najam’s 5C Protocol, which typically analyses implementation of public policy, to the REIPPPP. For consistency the following interpretations have been adopted:

- The REIPPPP, rather than being a policy itself, is essentially regarded as one of the tools for achieving the objectives set out in the energy policy of the country and referred to as a ‘programme’.
- Therefore, for the purpose of modifying Najam’s 5C definitions in Section 3, we have interchanged any references to ‘policy’ to ‘programme’
- Throughout this paper we refer to the REIPPPP as a ‘programme’ and any references to ‘policy’ relate to government policy documents particularly pertaining to the energy sector.

**Institutions**: The term ‘institutions’ is used in the context of an organisation rather than referring to a practice or procedure. The use of ‘institutional players’ refers to actors within these organisations.

1.2 Research approach

In order to understand what the application of Najam’s 5C Protocol to the South African renewable energy programme reveals about its implementation, we followed the following research approach;
The first step was to define a list of sub-questions relevant to the REIPPPP (see Appendices A-E) based on the 5Cs, drawing on Najam’s interpretation of each ‘C’. These sub-questions formed the basis of the analysis in section 3.

As mentioned above, there is an existing base of literature that provides detailed commentary and insights. As a starting point, the sub-questions were systematically applied to existing literature and documentation in order to see what is said about the ‘elements’ of implementation as defined by the 5Cs. Subsequently, to build on and validate the findings from the literature analysis, interviews were held with stakeholders from industry, academia, and civil society who have either participated in the programme, or have closely followed the evolution of the programme. We did not ask respondents to pass judgement on whether ‘good’ or ‘bad’ implementation had occurred, but rather their own perspective of what contributed towards – or hindered – implementation.

1.3 Background

A brief background of the 5C Protocol and the REIPPPP is provided here, with more details on the REIPPPP explored in accordance with the 5C framework (in Section 3).

1.3.1 REIPPPP

Prior to 2011 there had been limited deployment of renewable energy beyond the DoE’s national solar water heater rollout programme. Eskom – the state-owned electricity utility – had maintained ownership of 95% of South Africa’s electricity generation, with limited progress made towards introducing IPPs into the electricity supply market, or developing renewable energy facilities. In 2011 the DoE’s Integrated Resource Plan for Electricity 2010-2030 (IRP 2010) was promulgated. The IRP
represents the DoE’s guiding plan for new electricity generation build, and set out a target of 17.8GW of renewable energy capacity to be installed by 2030 (42% of this new capacity). The REIPPPP has been the principal measure for achieving this target thus far.

At the same time South Africa, a signatory to the United Nations Framework Convention on Climate Change (UNFCCC), continued to engage in international climate change negotiations through the Department of Environmental Affairs (DEA). The government made a pledge at the 15th UNFCCC Conference of the Parties (COP 15) to reduce CO₂ emissions, from baseline trajectories, by 34% by 2020, and 42% by 2025 (DEA, 2011). This brought international focus to South Africa’s mitigation efforts, and stimulated increased focus on renewable energy, energy efficiency and other low-carbon actions.

The REIPPPP was announced in August 2011, with the DoE releasing RFPs for prospective private developers (IPPs) to bid for an allocation of renewable energy capacity. The DoE envisaged up to five rounds of procurement bidding, and Dipuo Peters (Minister of Energy 2009–2013) set aside 3 725 MW to be procured through this programme, from a pre-identified selection of renewable technologies. However, the first two rounds generated considerably more bids than the DoE appeared to anticipate (Eberhard, 2014). Thus in December 2012 the Minister Peters determined that an additional 3 200 MW would be procured, in accordance with the authority afforded her by Section 34 of the Electricity Regulation Amendment Act 28 of 2007 (DoE, 2012). To date, four rounds of bidding have occurred, with the subsequent preferred bidder projects in varying stages of completion, and 32 projects (some 1 500 MW) already in operation (Creamer, 2015).

1.3.2 The 5C protocol

Adil Najam developed the 5C Protocol based on a synthesis of existing literature on policy implementation. The Protocol contains the common themes that emerged from this synthesis study, represented in five interlinked variables that can be applied to analyse policy implementation (Czunyi, 2012): context, content, capacity, commitment, clients and coalitions.

The three major schools of thought in the field of implementation studies can be identified as classical, empirical and analytical. The starting point of the ‘classical’ generation is the assumption that implementation automatically follows appropriate policies and authority. The ‘empirical’ generation contests this assumption, and recognises that, rather than a mechanical administrative process, implementation is a complex political process, and that implementation failure can be explained through in-depth case study investigations. The ‘analytical’ generation concentrates less on evaluating implementation success or failure, seeking instead to enhance the understanding of implementation and how it works, and to identify ways of managing the process to improve the likelihood of implementation. In order to enhance implementation, this approach is based on identifying those variables that are most influential in driving or opposing implementation, and hence which variables need to be concentrated on. It is worth recognising that the extent to which policy and implementation are viewed as part of the same process or as two separate processes is highly contested (Najam, 1995).

The 5C Protocol, aligned with the ‘analytical’ generation, is used to identify the strengths and influence of each of the 5Cs on implementation, identify linkages between the variables, and consider their potential to enhance the effectiveness of the implementation process (Najam, 1995). Figure 2 illustrates the interaction between the 5Cs, although it does not communicate the unequal weighting of each variable, which is case-specific.
There are a number of interpretations of the 5C Protocol, which allows a certain level of flexibility. The value is not the variables themselves, but how these variables are applied and understood for an individual case. The following summarises Najam’s interpretation of each variable (Najam, 1995: 11) in terms of assessing policy implementation.

- ‘The **Content** of the policy itself - what it sets out to do; how it problematises the issue; how it aims to solve the perceived problem.’
- ‘The nature of the institutional **Context** – The corridor (often structured as standard operating procedures) through which policy must travel, and by whose boundaries it is limited, in the process of implementation.’
- ‘The administrative **Capacity** of implementers to carry out the changes desired of them.’
- ‘The **Commitment** of those entrusted with carrying out the implementation at various levels to the goals, causal theory and methods of the policy.’
- ‘The support of **Clients and Coalitions** whose interests are enhanced or threatened by the policy, and the strategies they employ in strengthening or deflecting its implementation.’

Najam’s interpretation of the 5Cs forms the basis of our understanding. To enhance the relevance of the 5C Protocol, we have adapted the framework in Section 3, to consider the case of the REIPPPP.
2. RESULTS AND DISCUSSION

As discussed, this case study draws on existing literature and interviews to form an evidence base, which is used, along with the 5C Protocol, to identify key issues that influence implementation.²

2.1 Interpretation of the 5 Cs

A. CONTENT

Objective of variable: According to Najam (1995), the degree to which implementation is considered in the design of the programme (used where Najam refers to ‘policy’) goals, has an implication for the likelihood of implementation. As expressed by Brynard (2005), the content of the programme, relates to both the setting of the programme goals, and also consideration for how these goals are to be achieved. The content of the programme is not detached from the eventual implementation, but rather the initial design of the goals themselves as well as consideration for how they will be achieved, impacts the eventual implementability.

Interpretation for REIPPPP Programme: To understand the content variable we consider the goals, objectives and key components of the REIPPPP (See Appendix sub-questions A I. – VI.)

The primary goal of the REIPPPP was to add new generation capacity to the national grid, supplied by the private sector to ensure the continued uninterrupted supply of electricity' (DoE, 2011a). The Minister of Energy allocated 3 725 MW to be procured from IPPs, spread across a selection of renewable energy technologies as shown in Table 1. The RFP documentation notes this was ‘broadly in accordance’ with the IRP’s renewable allocation, with projects from the first bidding round required to be capable of commercial operation by June 2014 (DoE, 2011a). The literature thus describes the REIPPPP as a ‘policy instrument’ to stimulate investment into the renewable energy market (Eberhard et al., 2014), in a short timeframe (Baker and Wlokas, 2014).

An additional feature of the programme was the inclusion and emphasis of economic development (ED) requirements for bidders, specified in terms of job creation, local content, community ownership, and enterprise development. Bids were evaluated according to a weighted split between price (70%) and ED (30%), which the literature identifies as a defining aspect of the programme (Baker and Wlokas, 2014; Eberhard et al., 2014; McDaid, 2014).

²Najam’s 5C definitions refer to a ‘policy’. Within this section we have interchanged any references to ‘policy’ to ‘programme’.
Table 1: Allocation of capacity to renewable technologies from Round One of the REIPPPP (DoE, 2011a)

<table>
<thead>
<tr>
<th>TECHNOLOGY</th>
<th>CAPACITY ALLOCATION [MW]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind</td>
<td>1850</td>
</tr>
<tr>
<td>Solar photovoltaic</td>
<td>1450</td>
</tr>
<tr>
<td>Concentrated solar power</td>
<td>200</td>
</tr>
<tr>
<td>Small hydro</td>
<td>75</td>
</tr>
<tr>
<td>Biomass</td>
<td>12.5</td>
</tr>
<tr>
<td>Biogas</td>
<td>12.5</td>
</tr>
<tr>
<td>Landfill gas</td>
<td>25</td>
</tr>
<tr>
<td>Small projects (&lt; 5 MW)</td>
<td>100</td>
</tr>
</tbody>
</table>

Following four rounds of bidding, and the commencement of operation of projects from the first two rounds, an opportunity has emerged to assess the achievement of the programme’s objectives. Interviews have highlighted observations in this regard that, in particular, centre on the programme’s ED element, a feature which sets the REIPPPP apart from other international examples of competitive bidding processes. While project-level ED falls beyond the scope of implementation defined above, we will discuss this briefly as an example of the importance of designing a policy or programme with due regard to its implementability.

Interviews have indicated that the ED requirements were essentially based on government’s Broad-Based Black Economic Empowerment programme, and Eberhard et al (2014) note that they ‘did generate critical political support’ for the REIPPPP. However, challenges arise in conflating these ED objectives with the technical element of the programme. The latter appears to have benefited from significant initial investment into the RFP documentation – wherein international technical advisors were consulted on legal, financial and engineering issues. From a technical perspective, this process resulted in a robust RFP that gave credibility to the REIPPPP and confidence to project developers and financiers. However, it appears that the ED component was not invested in to the same extent in the initial design of the RFP documentation. Subsequent project-level implementation has brought about a number of challenges in this regard, such as a lack of clarity on how to demonstrate and assess ED contributions, and difficulty with determining and ensuring whether beneficial gains are reaching the local communities.

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3 Interview No. 5  
4 Interviews No.4 & 5  
5 Interviews No.4 & 5
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Interviewees note that this uncertainty has resulted in inconsistency between different project companies in meeting the requirements.\(^6\) This leads to further difficulties with evaluation, and criticism by some who expressed the opinion that the ED benefits are not adequate or identifiable, and that the extent to which local communities are benefitting is questionable.\(^7\) As the programme continues, the overall performance towards meeting its ED goals will come under greater scrutiny, particularly as they appeared to be key to gaining the political support that allowed implementation to begin with.

### B. CONTEXT

**Objective of variable**: The context refers to the corridor through which a programme must pass, including the people and institutions involved (Najam, 1995). ‘Identification of key institutional players, conflicts between and within such institutions, and the dynamic and evolving relationship between the goals of the policy in question and agencies challenged with implementing it.’

**Interpretation for REIPPP**: To understand the ‘Context’ variable we consider:

- The broader policy context
- Key institutional players
- The transition from a feed in tariff (REFIT) to a competitive bidding process (REIPPPP)

The government substantiated its renewable energy objectives, as documented in the Energy Policy White Paper, with a White Paper on Renewable Energy Policy in 2003 (DME, 2003). This document set a target for energy generation from renewable sources of 10 000 GWh by 2013, though it did not specify whether this was a ‘cumulative’ or ‘annual’ figure (Eberhard et al, 2014). As noted previously, little was done within the energy sector towards achieving this target prior to the REIPPPP.

National climate change efforts – particularly at the time of COP 15 in Copenhagen – also provided the necessary context for increasing interest in renewable energy. South Africa’s pledge at COP 15 was informed by an emissions ‘peak, plateau and decline’ (PPD) trajectory. This was adopted by government in 2008, in response to the findings of the Long Term Mitigation Scenarios (LTMS) – research and analysis commissioned by the DEA in anticipation of future international carbon mitigation requirements (Winkler, 2007). The PPD was subsequently used to inform DEA’s National Climate Change Response White Paper (DEA, 2011), as well as the modelling analysis for the IRP 2010 (by introducing a CO\(_2\) emissions cap scenario). The carbon constraints of the model led to increased presence of low-carbon technologies – specifically nuclear and renewable energy – in the resultant new build plan (see Table 2). This created renewed impetus for investment into renewable energy.

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\(^6\) Interviews No. 1, 4 & 5

\(^7\) Interviews No. 4 & 5
Table 2: IRP2010 break down of energy technology capacity in MW (DoE, 2011b)

<table>
<thead>
<tr>
<th>Year</th>
<th>Coal</th>
<th>Nuclear</th>
<th>Hydro</th>
<th>Import</th>
<th>CCGT</th>
<th>OCGT</th>
<th>Wind</th>
<th>CSP</th>
<th>Solar</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>800</td>
<td>0</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>474</td>
<td>237</td>
<td>2415</td>
<td>500</td>
<td>1500</td>
</tr>
<tr>
<td>2025</td>
<td>1250</td>
<td>4800</td>
<td>2569</td>
<td>0</td>
<td>1659</td>
<td>2415</td>
<td>3600</td>
<td>500</td>
<td>2200</td>
</tr>
<tr>
<td>2030</td>
<td>3500</td>
<td>4800</td>
<td></td>
<td>0</td>
<td>1659</td>
<td>2415</td>
<td>3600</td>
<td>500</td>
<td>3500</td>
</tr>
<tr>
<td>Total</td>
<td>6250</td>
<td>9600</td>
<td>2569</td>
<td>2370</td>
<td>3910</td>
<td>8400</td>
<td>3500</td>
<td>1000</td>
<td>8400</td>
</tr>
<tr>
<td>Percentage</td>
<td>15%</td>
<td>23%</td>
<td>6%</td>
<td>6%</td>
<td>9%</td>
<td>20%</td>
<td>2%</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

However, the initial attempt for renewable (IPP) procurement had been proposed previously in 2009 by the National Energy Regulator of South Africa (NERSA) – the Renewable Energy Feed-In Tariff. The first REFIT Regulatory Guidelines were published in March 2009, and indicated qualifying renewable energy technologies, licensing conditions and a list of fixed tariffs Eskom (the system operator and owner of the grid) would pay to generators (NERSA, 2009). These were considered ‘generous’ (Pienaar, 2011) and inspired significant interest from international developers in South Africa’s potential renewable market. That same year, the DoE published Electricity Regulations on New Generation Capacity, in accordance with the Electricity Regulation Act of 2006. These established the regulatory framework for the REFIT as well as ‘IPP competitive bidding’. The latter is currently employed in the REIPPPP.

Baker (2011) points out that NERSA was ‘acting beyond its mandate by promulgating REFIT’, since determining new generation capacity, and the tendering thereof, is the Minister of Energy’s responsibility (Section 46 of ERA, 2006). NERSA’s role is to regulate this new capacity through licensing (Baker et al, 2014). Additionally, while NERSA as a whole supported the REFIT model, there was internal opposition. DoE meanwhile appeared to favour a competitive bidding procurement process (Baker et al, 2014). It was observed through 2010 that DoE and NERSA lacked ‘harmonisation’ in their progress towards renewable capacity procurement implementation (Trollip & Marquard, 2010).

At the beginning of 2010, DoE released the first Integrated Resource Plan (IRP1), which allocated 1 100 MW for REFIT procurement. However, no such procurement took place and uncertainties had arisen over Eskom’s commitment to the programme, and willingness to purchase power from the IPPs at fixed tariffs. There also appeared to be concerns about financial and political risks from across the government stakeholders (Baker et al, 2014).

In September 2010 the DoE appeared to take charge of the REFIT when it released a Request for Information to all potential developers (Baker, 2011). But this was followed in 2011 with a surprising revision of the regulations: the Electricity Regulations on New Generation Capacity from May 2011, which repealed those of 2009, removed any mention of a regulatory framework for the REFIT and greatly increased the authority of the Minister of Energy. For example, IRP and IPP procurement was now the responsibility of the minister or his/her ‘designee’, and not the system operator as had previously been the case.

Ultimate opposition to REFIT came from the National Treasury. In 2011, Treasury received a legal opinion to the effect that the REFIT would be unconstitutional, on the grounds that a fixed tariff for IPP generators would not allow for competition, and would thus be in violation of the Public Finances Management Act (Creamer, 2011). This barrier proved insurmountable for the REFIT (Eberhard et al., 2014) and in August 2011 the DoE abandoned REFIT and launched the REIPPPP.

The informal dynamic between the public institutions had shifted significantly from the initial conception of the REFIT in 2009. NERSA was no longer driving the IPP procurement model. Eskom had to enter into power purchase agreements with preferred
IPP bidders as determined by the DoE. The PPAs signed between IPPs and Eskom were now guaranteed by Treasury. Additionally, greater emphasis was placed on the economic development aspects of the programme, as discussed under ‘Content’.

Within the context discussed, timing also played a key role in the quick uptake of the proposed REIPPPP. In parallel to the process of a shift from REFIT to REIPPPP, South Africa was selected to host the UNFCCC COP 17 in Durban in 2011. The publishing of the REFIT guidelines had attracted notable interest from international project developers, drawn by the size of the potential market. The South African market was made even more attractive by the downturn of the renewable energy market in Europe and elsewhere. The REIPPPP was proposed around the time of COP17, which generated a significant amount of interest in the programme, giving momentum for it to proceed in this form. The appetite for a renewables market, energy supply concerns, and COP17 (which represented an important opportunity for international relations), together created an environment more conducive to establishing a renewable energy programme in South Africa. Still, it is noteworthy that despite renewable energy being cited as an important solution for alleviating the supply-side shortage, under the IRP it is only forecast to make up 9% of capacity by 2030. This does question how serious and long-term is the government’s commitment to renewable energy.

C. CAPACITY

Objective of variable: Capacity is widely cited as one of the fundamental factors influencing the implementation of a programme or policy (Brynard, 2005). Najam (1995) notes that the critical questions one has to consider in determining the influence of capacity on implementation are: ‘What [resources] are required? Where are they required? How can this capacity be created and operationalised?’

Interpretation for REIPPP Programme: To understand the ‘Capacity’ variable we consider:

- Local and international capacity
- Technical, legal and financial skills
- Institutional capacity
- Meeting economic development requirements

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Interview No. 1
The REIPPPP has relied on collective capacity building across the private sector, in terms of providing the necessary technical and financial skills, as well as improved capacity in the public sector, such as legal and administrative skills within the IPP unit. We thus consider two aspects of capacity as pertaining to the REIPPPP. Firstly, we consider public capacity building within the DoE in order to design and manage the REIPPPP. We then examine the capacity of the private developers to execute the programme, and meet both the technical and economic development requirements.

The DoE was described as ‘institutionally weak’ and lacking the necessary capacity to run and coordinate a programme of the scale of the REIPPPP, and thus turned to Treasury’s Public Private Partnership (PPP) Unit for assistance in managing the process (Martin and Winkler, 2014). Technical staff from DoE and PPP formed the IPP unit, led by senior manager Karen Breytenbach from the PPP Unit, with other legal and technical personnel providing local and international expertise. The unit thus gained significant credibility with the private and public sectors, and was able to act as a programme champion (Baker and Wlokas, 2014; Eberhard et al., 2014).

The IPP unit was given a mandate to act ‘outside the formal departmental structure of national government as a facilitator of the REIPPPP process’ (Martin and Winkler, 2014). As well as a World Bank grant, which provided physical facilities from which to operate, it received financial support from the Development Bank of South Africa. This was used to pay for the services of over 100 private consultants, as well as to establish a project office and to fund additional capacity building efforts, such as academic courses, internships and re-skilling programmes (Martin and Winkler, 2014).

The DoE has, however, reported that its existing capacity measures, from the bid submissions of the first window, have been insufficient to cope with the unanticipated scale of the programme, particularly from the number of bids that were submitted, and the multiple project developers, shareholders and other funding entities. This led to continual delays in the procurement processes for rounds one and two (McDaid and Woods, 2013), and has likely contributed to further delays experienced in rounds three and four. Martin and Winkler (2014) note that, since 2012, ‘the DoE has reported to the Parliamentary Portfolio Committee on Energy that it has limited institutional capacity’. Although the programme has been driven by the DoE, a concern is that the DoE has not expanded its human resources despite the growth of the REIPPPP and the heavy administration burden that has been created by the onerous reporting requirements of the REIPPPP (McDaid, 2014; Eberhard et al., 2014).

In order for the programme to meet its objectives, as outlined in the initial RFP documentation (DoE, 2011a), private developers needed to demonstrate technical capacity, legal skills, financial resources as well as capability for meeting the economic development requirements. According to one of the developers interviewed, technical capacity was available due to the access to international expertise in renewable energy engineering design and construction, which has since transferred locally to South Africa. More problematic and costly was developing the appropriate legal skills – as this required a unique combination of knowledge of the local legal system (in order to grasp issues around land allocation, environmental legislation, socio economic development etc), for which local law firms were hired, as well as legal issues specific to large-scale renewable programmes, which required international legal expertise.

Furthermore, as discussed under the Content variable, the core skills sets of project companies differ to those needed to adequately address the ED component of projects. In most cases project companies have appointed a single ED officer to operationalise the ED component of their (in some cases multiple) projects. In some instances this is an unmanageable
workload for the ED officer. But more influential are the resources invested into the design and implementation plan of the ED components of the programme. Aside from the ED officer, there seems to be a lack of investment in the appropriate skills sets for a project company to have adequate capacity to meet the ED objectives of their projects, with seemingly poor execution of these as a result. We noted previously that ED objectives were considered key in generating political support for the programme, so that this could compromise further implementation of the overall programme itself.

D. COMMITMENT

Objective of variable: ‘Commitment is important at all levels of the programme - including front line implementers and top level decision makers, and has a close link to the other four variables’ (Najam, 1995). In many cases implementation occurs not because of lack of barriers, but because the commitment by those tasked with implementation are able to overcome these barriers.

Interpretation for REIPPPP Programme: To understand the ‘Commitment’ variable we consider:

- Key champions
- Ministerial determination of MWs
- Government underwriting

Key issues to consider are: Whose commitment is the programme is reliant on to get it off the ground? What motivates their commitment? What is required to sustain their commitment and combat risks that could lead to them opposing instead of supporting the programme?

While the evolution from REFIT to REIPPPP highlighted the roles and conflicting positions between key actors – including the DoE, NERSA, Eskom and Treasury – implementation of the programme ultimately requires the approval of the Minister of Energy. This is effectively legislated in Section 35(4) of the Electricity Regulation Act, 2006, and was made clear through the Minister’s IPP renewable capacity determinations in 2011 (DoE, 2011a) and 2012 (DoE, 2012). The Minister has the authority to announce further determinations or to deny them, and therefore has a pivotal role in the further progress of the programme (McDaid et al., 2013; Martin and Winkler, 2014). The programme received strong support in its first three years from Minister Peters, which helped its initial growth.

The IPP Unit has been the primary champion of implementation for the REIPPPP, particularly through the leadership and experience of its management team which gave the programme credibility amongst stakeholders (Eberhard et al, 2014). However, delays in reaching financial close for projects from the third round have created uncertainty amongst project developers (Paton, 2014), while preferred bidders for the fourth round (concluded in August 2014) have yet to be announced (as at March 2015).

The IPP Unit was purpose-built to support the REIPPPP, and has been a significant driving force in the continued implementation of the programme, along with the DoE. Key individuals within the IPP Unit, particularly the head of the unit, Karen Breytenbach, laid ‘groundwork’ prior to the REIPPPP launch. This involved engaging with potential public and private...
sector actors, in order to bring on board those who would need to support the programme in order for it to travel through the ‘policy corridor’ and move to implementation. This was a less visible but imperative part of building a more conducive environment for the programme, garnering support and facilitating its implementation. This created an overriding attitude of problem-solving to ensure the programme could go ahead, rather than blocking and allowing the numerous challenges that did emerge to derail the whole programme.

Treasury, in contrast to its opposition to the REFIT, demonstrated significant support for the REIPPPP (Baker and Wiokas, 2014; Eberhard et al., 2014). Their commitment was evidenced in the provision of their expertise for setting up PPPs and underwriting the PPAs (a substantial financial commitment), which has provided security and been a major factor in attracting banks and private developers. Consequently there has been an overwhelming response from private developers (Martin and Winkler, 2014). Given the precarious financial situation of Eskom, the Development Bank of South Africa was important early on because of the initial funding it made available for the programme (Eberhard et al., 2014).

Key to the implementation of policy is not just the commitment from high-level officials responsible for policy but also the participation of ‘ground-level’ actors who can give effect to implementation of that policy. In the case of the REIPPPP, commitment by the private sector, including project developers, as well as banks and private shareholders willing to finance these projects, has allowed the programme to progress through the initial three rounds of procurement bidding. Indeed, since the first round, each subsequent Request for Proposals from the IPP Unit has been oversubscribed. The DoE (2013) reported receiving 93 bids from prospective companies for Round 3, with only 17 awarded preferred bidder status. By the end of Round 3, 64 projects had been procured by the IPP Unit, ‘incorporating more than 100 different shareholder entities’ for equity funding (Eberhard et al, 2014). With most projects sourcing an average of two thirds of their funding from debt, the commitment of private lenders has also been crucial. Local commercial banks, in particular, have committed 64% of the total bond values to the projects, with the remainder coming from development finance institutions and insurance and pension funds (Eberhard et al, 2014).

In spite of the support demonstrated by the IPPs and private funders, however, further implementation appears to rely predominantly on continued commitment from the DoE. Furthermore, the substantial return earned by the private sector has been the ultimate motive for their commitment; without this, the extent to which they would have been committed to the programme is questionable. This is a consideration for the programme as it moves forward and attempts to sustain the commitment from the private sector.

The commitment of Eskom to the programme is also key. Eskom is not only responsible for connecting projects to the grid, but is the sole buyer of the electricity generated by the renewable energy IPPs, which is then fed into the national grid. Eskom is responsible for signing the PPAs, and therefore is critical to the implementation of every project.

Given the significant power that resides with the energy minister, it is ultimately at the top level of government on which future implementation hinges. However, as Najam (1995) notes, ‘policies and programmes are often born out of political expedience rather than commitment [and] a lack of commitment at the top may be the cause of ineffective implementation.’ Determining the political expedience of the DoE, Minister of Energy and other political players relevant to the REIPPPP is not easily done from the outside, but is a factor that needs to be considered. It is evident that the REIPPPP continues to evolve and with it the commitment of those influential for implementation. Since the inauguration of the REIPPPP, South Africa has

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11 Interviews No.1 & 2
12 Interview No.1
held a general election, and twice reappointed its Minister of Energy. There has been general uncertainty regarding the continuity of national energy policy in that time, particularly regarding the IRP update which was expected to – but has not yet – renewed government’s capacity determinations.

E. CLIENTS & COALITIONS

Objective of the variable: ‘Clients are target groups (non-state actors) to whom [the programme] is being delivered. Those who must change to meet the demands of the programme’

‘Coalitions of those whose interests are enhanced or threatened by the programme, and the strategies they employ in strengthening or deflecting its implementation.’ (Najam, 1995)

Interpretation for REIPPP Programme: To understand the ‘Clients and Coalitions’ variable we consider:

- Identification of the key clients (state and non-state actors)
- The interaction between public and private sectors
- The nature of coalitions – formal and informal

Najam identifies the relationship between the programme and its clients as a key factor for implementation. He introduces the ‘clients’ variable in order to allow consideration for those that are affected by policy decisions and consider upfront how they could potentially support or block implementation. The underlying assumption is that state-actors formulate the policy, which non-state actors (clients) must respond to.

However, in the case of the REIPPPP it is evident that there is a strong interaction between state and non-state actors already from the development of the initial RFP through to the implementation on the ground. In our analysis we have therefore considered clients to include both state and non-state actors, and also for ‘coalitions’ to involve relationships between them. One of the key factors that has been attributed to the implementation of the REIPPPP is that coalitions have emerged involving both private and public sector actors.

The below diagram attempts to highlight some of the key clients from the REIPPPP, and depicts examples of three coalitions that emerged and are discussed in more detail below.

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13 At the time of writing the office was held by Minister Tina Joemat-Petterson
As outlined above, a natural coalition has formed between renewable energy developers, the IPP Unit, DoE and Eskom. The REIPPPP was designed to attract renewable energy developers to participate in the programme, both national and international. The REIPPPP opened up a renewable energy market in South Africa, offered favourable terms for the participation of private developers, and consisted of a series of bidding rounds which ensured there could be more winners than if limited to a once off bid. These factors stimulated significant interest in the programme from developers, demonstrated in the oversubscription to the bid windows, and the appetite for future allocations (Eberhard et al., 2014; McDaid, 2014). However, the role of the DoE and Treasury and the establishment of the IPP Unit were all instrumental in building the trust in the programme of the private sector. The relationship developed between the IPP Unit and the private sector, including developers and banks, brought about a level of trust between government and the private sector that is not typically present (Baker and Wlokas, 2014; Eberhard et al., 2014). These interactions are evidenced in: the private sector developers and investors relying on long-term political commitment to the continuation of the programme, support and guidance offered to project companies from the IPP unit and the Department of Energy, as well as agreements with Eskom in order to guarantee commercial viability. The public sector is in turn relying on the private sector to bring large scale investment, technical expertise and project delivery experience.14

The ED component is crucial for the alignment of the REIPPPP with South Africa’s development priorities. The ED has involved a different set of clients including RE industry associations, NGOs and the beneficiary community.15 The ED component of a project is incorporated at the bid submission through the implementation agreement and economic development plan. These documents detail the ED contribution of the projects, based on a needs assessment of the community. Local communities are consulted by project companies in the preparation of these documents. As projects have begun to feed into the grid, however, the question of impact on surrounding communities has received more attention. Local communities do not appear to have been influential in driving or opposing the implementation of the REIPPPP.16 It remains to be seen how local

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14 Interview No.2
15 Beneficiary community is defined in the RFP as those communities within the 50 kilometre radius of a project
16 Interview No.4
communities will be impacted, and whether the current design of the programme is one that can meet the expectations of the wide range of actors. The ED requirements have been interpreted differently, and many project companies are not equipped to deal with this component of their projects (Baker and Wlokas, 2014; McDaid, 2014). The present picture is one that shows the project companies have potentially benefitted more than the less dominant clients – beneficiary communities. Until revenue is generated for the project it is, however, difficult to fully understand the implications.

Beyond the coalitions outlined above, it is worth noting behind-the-scenes efforts to build alliances. To introduce a renewable programme, in an energy system and associated interests, requires a radical shift. The DEA demonstrated an ability to build coalitions with other government departments and key stakeholders in the private sector to create a more conducive environment for the introduction of a renewables programmes, bringing on board those that were needed for the programme to proceed (Eberhard et al., 2014).

Across the set of respondents, there was a resounding convergence that certain key individuals navigated through and negotiated in informal channels, which undoubtedly led to the political and industry buy-in to the programme. The head of the IPP Unit was instrumental in this regard and her experience in the PPP Unit of National Treasury put her in an influential position to engage high-level government representatives, as well as the private sector. Coalitions play a role in bringing on board those who were not previously and in aligning interests in order to bring support for the programme. This was fundamental to the public-private interactions that the REIPPPP relied on. It is equally as important to recognise that coalitions can also act to achieve the very opposite and block progress.

Clients and coalitions shift as the implementation process unfolds. Identifying these and the impact they have is not straightforward, but should be considered, given the relevance they hold for implementation.

### 2.2 Relationships between the Cs

A strength of the 5C Protocol is not only in utilising the five variables to better understand the implementation process, but also to understand the web of interactions between the 5Cs (see Figure 2), that have shaped the course of implementation. We highlight a few examples of these interactions below, but there are numerous iterations.

The REIPPPP has fostered coalitions between international and national, and private and public sector actors in order to draw on existing expertise and develop new knowledge, crucial for realising the implementation of the programme. This interaction

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17 Interviews No.4&5
between capacity needs and the various coalitions that have formed to address them has been a necessary component to implement the programme.

Providing the environment for a competitive bidding process has underpinned the necessary context for the REIPPPP to gain traction. The evolution from the initially proposed feed in tariff occurred due to coalitions amongst key institutional players. Essentially the relationship between the DoE and Treasury had a significant impact on how this context was shaped and the REIPPPP was able to pass through this policy corridor, in order to meet the interests of the DoE and Treasury. The updated regulations released by the DoE in 2011 removed the regulatory framework for the REFIT and provided a framework for a competitive bidding scheme. Based on the regulations, Treasury ruled the REFIT to be in contraction to the PFMA and therefore unconstitutional.

The design of the content articulated in the extensive RFP documentation, the scale of the programme, and the commitment from government, have provided favourable conditions for renewable energy developers and financiers (clients) nationally and internationally. The guarantees provided by Treasury also played a role in the initial and sustained commitment of developers to the programme. Although the REIPPPP is structured into bid rounds and therefore guarantees multiple winners, there are also losers to consider: many smaller local developers have suffered due to the complexity and costly requirements of participating in the programme.18

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18 Interview No.5
3. CONCLUSION

This case study has attempted to take the 5C protocol from the field of public policy implementation theory and interpret it in the case of a climate change action – the REIPPPP. The purpose was to ascertain whether this 5C approach is useful for better understanding some of the elements that contributed to its implementation. Key observations have emerged, and are outlined below.

The capacity within the IPP unit, including experienced and technically competent senior management, was cited as a key factor in the implementation of the REIPPPP in both literature and interviews. The IPP Unit was purpose built for the REIPPPP, and was allowed a degree of autonomy to function outside the regular structures of the DoE. This enabled more streamlined decision-making, less cumbersome than what is typically associated with government departments, and was especially critical as the DoE itself lacked capacity to operate such a project. Furthermore, the technical skills and leadership of the team within the Unit not only created a competent unit, but fostered the necessary levels of trust in the programme from the private sector – a coalition identified as being crucial to the REIPPPP’s implementation.

In particular, the IPP Unit was able to engage with potential upfront blockers to the project, both within the public and private sector. This ensured commitment to the programme from key stakeholders and helped to form necessary coalitions that ensured the success of the programme. These were informal coalitions and therefore less visible, but they were an imperative part of building a receptive environment for the programme, which created an overriding attitude of problem solving to avoid later derailing of the programme.

Additional capacity support was necessary to run this programme. This was developed through using international technical expertise to assist with designing and operationalising a well-functioning programme, and drawing on existing local expertise. This combination of international and local expertise has enabled the development of the necessary technical, legal and financial skills to implement the REIPPPP, both within the state actors as well as amongst the private developers. It has also enabled a process of skills transfer that has strengthened South Africa’s overall capacity in the renewable energy sector.

In terms of the context of the REIPPPP, fortuitous timing has had a significant impact on its implementation. This stemmed from the release of the REFIT guidelines prior to the REIPPPP, which attracted initial interest from international developers. Additionally, South Africa was in the spotlight for hosting the UNFCCC COP17 in Durban in December 2009 – making it politically attractive to demonstrate commitment to the COP presidency through the announcement of a large renewable programme. During this time energy security concerns were also calling for additional generation capacity into the electricity grid that had short build times and could be funded by private investment. The downturn in the international renewable energy market, also contributed to increased interest of renewable energy developers in South Africa. The element of fortuitous timing aligns loosely with the Context variable, although arguably a context can be created with necessary strategies and policies, whereas suitable timing is more circumstantial.

Commitment from key public institutions – the IPP Unit and Treasury especially – has been critical to execution of the REIPPPP. However, the regulatory framework of IPP competitive bidding ultimately requires continued commitment from the Minister of Energy, who must make (generating) capacity determinations and specify the procurement procedure. Additionally, Eskom plays a critical role in ensuring that projects reach financial close – through signing PPAs – and are ultimately connected to the grid. While the programme benefited from this concentration of responsibility significantly in the first two bidding rounds,
there have been subsequent uncertainties regarding further commitment from both actors, given delays in reaching financial close for Round 3 and the announcement of preferred bidders for Round 4.

The analysis found that the REIPPPP, in attempting to satisfy two different objectives (technical provision of RE and providing ED), has shown how the content of the programme affects implementation towards its goals. In the case of the technical content, the robust and technically sound RFP gave credibility to the programme and confidence to private developers. However, the contrasting lack of clarity and expertise in formulating the ED content of the programme led to inconsistency from project companies in accommodating these requirements. This ultimately compromises implementation, since it is difficult to ascertain whether the ED objectives are being met, and to what extent this is taking place.

In terms of the process of applying the 5C, its flexibility does lend itself to modification and interpretation; it is not merely a box-ticking exercise but allows for a way of structuring an investigation, and provides the space for more nuanced insight. This case study also demonstrates that it is possible to define the ‘Cs’ according to a programme, not just a policy, which is helpful when considering the variety of typologies of climate actions. This presented a challenge to the analysis, however, in terms of reflecting the complex relationship that has existed between state actors and the private sector through the REIPPPP. The 5C protocol naturally highlights the role of the public sector in the implementation process, but is less well equipped to recognise the private sector’s contribution. The analysis found that the ability of developers to execute the programme at project level was affected by DoE’s upstream programme design, and had an influence on overall implementation. Furthermore, input from the private sector together with strong coalitions forming between public and private sector actors did play a role in the initial programme design, although this was not easily extracted through the 5Cs framework.

Although applying the protocol to literature may provide helpful insights retrospectively, it seems its greater value in terms of strengthening implementability could be the process of defining the ‘Cs’ as part of stakeholder engagement and then considering whether, and to what extent the various ‘Cs’ have been incorporated in the planning process. Any shortcomings identified could be addressed at an earlier stage in the selection of a policy, programme or action. With this in mind, it should be recognised that the 5C Protocol is not a comprehensive tool that guarantees implementation; rather, it provides a framework for revealing elements of the implementation process.
4. REFERENCES


### APPENDIX A: CORRESPONDENCE LIST

<table>
<thead>
<tr>
<th>No.</th>
<th>Organisation</th>
<th>Type of correspondence</th>
<th>Position</th>
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<tr>
<td>1</td>
<td>SAWEA</td>
<td>Interview November 2014</td>
<td>CEO</td>
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<tr>
<td>2</td>
<td>Mulilo</td>
<td>Interview November 2014</td>
<td>PV Director</td>
</tr>
<tr>
<td>3</td>
<td>Project 90x30</td>
<td>Interview November 2014</td>
<td>Former Managing Director</td>
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<tr>
<td>4</td>
<td>Electricity Governance Initiative, SA</td>
<td>Interview November 2014</td>
<td>Independent researcher</td>
</tr>
<tr>
<td>5</td>
<td>Just Energy</td>
<td>Skype Interview November 2014</td>
<td>Director</td>
</tr>
<tr>
<td>6</td>
<td>WWF, South Africa</td>
<td>Interview November 2014</td>
<td>Head – Living Planet Unit</td>
</tr>
<tr>
<td>7</td>
<td>University of Cape Town, Political Studies Department</td>
<td>Interview November 2014</td>
<td>Researcher</td>
</tr>
<tr>
<td>8</td>
<td>University of Cape Town, Energy Research Centre</td>
<td>Group Seminar November 2014</td>
<td>Led by Professor from UCT</td>
</tr>
<tr>
<td>9</td>
<td>University of Cape Town, Energy Research Centre</td>
<td>Interview January 2015</td>
<td>Senior Researcher</td>
</tr>
<tr>
<td>10</td>
<td>University of Sussex</td>
<td>Correspondence, November 2014</td>
<td>Researcher</td>
</tr>
</tbody>
</table>
6. APPENDIX 2: GUIDING QUESTIONS

A. CONTENT

Guiding questions for determining the ‘content’ of the REIPPPP (modified from Najam):

I. What is the objective of the REIPPPP?
II. What are the key components of the REIPPPP?
III. Has it emerged from a particular policy objective? (IRP? Energy security/climate?)
IV. How will the REIPPPP achieve this? (Competitive bidding process, 5 technologies etc.)
V. How does it (the REIPPPP) problematise the issues?
VI. What were the broader political issues driving the REIPPPP?

B. CONTEXT

Guiding questions for determining the ‘context’ of the REIPPPP (modified from Najam):

I. Who are the key institutional players focusing on the REIPPPP?
II. What are the relationships between the different implementing institutions?
III. Are there competing policy goals & if so what are they?
IV. Is there alignment?
V. What is the policy space within which the REI4P was and is competing? (IRP/NDP/NCCRWP)
VI. What is the regulatory context?
VII. How were decisions made?
VIII. Were there broader political issues driving the agenda of the REI4P?
C. CAPACITY

Guiding questions for determining the ‘capacity’ of the REIPPPP (modified from Najam):

I. How were capacity requirements initially identified?
II. Where was the capacity deemed to be needed?
III. What was the nature of this capacity?
IV. Where was new capacity identified and where was existing capacity drawn on?
V. Was there an issue of contending with capacity requirements from other departments?
VI. How was the capacity created?
VII. How was this operationalised?
VIII. How was this additional capacity funded/by whom? (International/domestic/private sector?)

D. COMMITMENT

Guiding questions for determining the ‘commitment’ of actors in the REIPPPP (modified from Najam):

I. Which government departments have been most committed to the REIPPPP and why?
II. Which front line institutions have been most committed to the REIPPPP and why?
III. Which government departments have not been committed to the REIPPPP and why?
IV. Which front line institutions have not been committed to the REIPPPP and why?
### E. CLIENTS & COALITIONS

<table>
<thead>
<tr>
<th>Guiding questions for determining the ‘Clients &amp; Coalitions’ of the REIPPP (modified from Najam):</th>
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</thead>
<tbody>
<tr>
<td>V. Who are the key (not all) clients (actors)/coalitions identified? (mainly private sector? Or NGO? Or local politicians? Elite opinion groups?)</td>
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<tr>
<td>VI. How were they determined (in literature)? How did they come to be (in practice?)</td>
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<tr>
<td>VII. How were they integrated into the process &amp; at what stage?</td>
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<tr>
<td>VIII. Omissions of stakeholders early on, may play out further on. Right people in the room?</td>
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<tr>
<td>IX. Who are the winners and losers?</td>
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<tr>
<td>X. Who are the stoppers/blockers?</td>
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<tr>
<td>XI. What is the role of the different sectors (private/engineering/law) in the implementation process?</td>
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