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Challenges for local community development in private sector-led renewable energy projects in South Africa: an evolving approach

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Abstract
The Renewable Energy Independent Power Producer Procurement Programme in South Africa is intended to support the uptake of renewable energy, help address the current energy supply crisis and mitigate greenhouse gas emissions. Notably, it also requires project developers to engage with socio-economic development at the local level. The distributed nature of renewable energy generation may induce a more geographically dispersed pattern of development, and renewable energy sites can be highly suited to rural locations with otherwise poor potential to attract local inward investment. Socio-economic development and enterprise development are two of seven economic development elements in the programme.
In order to prepare a bid submission, project developers have to assess local socio-economic needs around their project site and develop strategies on how to address these. This paper investigates the challenges for local community development. The research is based on case studies and presents findings from the perspective of a research team working alongside project developers. Early findings indicate that there are potential community benefits from commercial wind projects, providing an appropriate community engagement process that is aligned with the project cycle determined by the tender process and engineering requirements. The Passive Community Needs Assessment approach is introduced as a possible solution.

Keywords: renewable energy, community development, socio-economic development, Independent Power Producer Procurement Programme

Introduction

The South African Department of Energy launched the Renewable Energy Independent Power Producer Procurement Programme (RE IPPPP) in August 2011. The programme aims to procure 3 725 MW in five procurement windows. Project developers can choose to propose electricity generation using wind, solar, biomass or hydro technologies. 'This IPP Procurement Programme has been designed so as to contribute towards this target of 3 725 megawatts and towards socio-economic and environmentally sustainable growth, and to start and stimulate the renewable industry in South Africa' (Pretorius, 2011).

The procurement programme does not only have the power to stimulate a whole new industry for South Africa and to reduce greenhouse gas emissions by greening grid electricity, it also sets out to tackle economic development on the local level. Bidding project proposals are assessed against a whole range of economic development elements (30%) and pricing (70%). The programme combines climate change objectives and development policies at least that are the objectives.

To actually develop poverty-alleviating, large-scale renewable energy projects is a challenging task. Two of the required economic development elements in the Request for Proposals documents ask project developers to submit a socio-economic development plan. What are the challenges project developers face when designing such plans and how could they be overcome? Attempting to answer these questions, this paper draws on research conducted by the Energy Research Centre (ERC) at the University of Cape Town alongside not-for-profit

project developer Just Energy and different commercial renewable energy developers.

The requirements

The Department of Energy (DoE) states in the RE IPPPP documentation that it recognizes the programme's great potential to realize positive socio-economic outcomes. These outcomes give heaviest weighting to the criteria of job creation and local content, followed by local ownership and socio-economic development, management control and enterprise development.

Table 1: Economic development criteria of the RE IPPPP

Source: Department of Energy (2011)

Economic development elements	*Weighting*
Job creation	25%
Local content	25%
Ownership	15%
Management control	5%
Preferential procurement	10%
Enterprise development	5%
Socio-economic development	15%
Total	100%
Total points	30 points

The DoE saw an opportunity for the RE IPPPP to have a positive socio-economic impact in communities where it is located. Socio-economic development is defined in the procurement documents as "initiatives carried out by a measured entity towards the promotion of access to the economy by black people". Four out of the mentioned seven economic development elements address specifically local communities in a radius of 50 km around the project site. These elements are job creation, local ownership, socio-economic development (SED) and enterprise development (ED). This paper focuses on SED and ED in particular. Project developers have to commit between 1.0% and 1.5% of total revenue to SED and can choose to commit up to another 0.6% to ED.

A SED plan has to be submitted as part of the application and in response to the SED and ED elements. The instruction in the documents is that SED plans refer to "the plan to be submitted by the Bidder on how Economic Development will be implemented by the Bidder, which will also detail how the targets of the Department would be met" (Department of Energy, 2011). In this plan, developers should assess the needs of the communities surrounding the proposed project site and formulate strategies on how such needs could be met utilising the SED contributions. In response to the ED element, if chosen to do so, "bidders are required to provide a list of the type of enterprises earmarked for development and also give an indication of the programmes that will be implemented with these enterprises" (Department of Energy, 2011). Beyond these instructions, there are no explicit guidelines on how to demonstrate these potential socio-economic benefits for local communities and therefore no clear guidance for project developers on how to approach this requirement.

A number of initiatives promote and encourage private sector companies to focus on SED. In South Africa, state legislation plays a central role in the development of the country's corporate social responsibility (CSR) agenda (Hamann, 2009). The most important document that has lately influenced and determined CSR in South Africa is the Broad-Based Black Economic Empowerment (B-BBEE) Act of 2003 (Fig 2005; Njenga and Smit 2007). "The government ... has a powerful mandate to circumscribe the constitutional property clause and influence the role of business towards social objectives – BEE is the most prominent expression of this" (Hamann 2006:181). The fundamental objective of the Act is to advance economic transformation and enhance the economic participation of black people in the South African economy. According to the Act, 'black people' is a generic term which means Africans, Coloureds and Indian South African citizens. B-BBEE means the economic empowerment of all black people including women, workers, youth, people with disabilities and people living in rural areas through diverse but integrated socio-economic strategies (RSA, 2004). The approach of the RE IPPPP is similar to the BEE strategy, since it is state-led and aims to contribute to socio-economic sustainable growth. The RE IPPPP furthermore works with an economic development scorecard, which is guided by the balanced generic scorecard of BEE. Hence, the programme can work as a driver for the private sector to foster socio-economic development within historically disadvantaged communities (Tait, 2011).

The challenge(s)

National and international project developers hoping to enter the South African renewable energy market through the RE IPPP programme must therefore develop SED plans. We outline challenges commonly faced by developers and development process issues further on which need consideration. Research undertaken by the Energy Research Centre (ERC) commenced before the launch of the RE IPPPP on 3 August 2011, based on earlier indications that projects with significant community benefits components would be prioritized. We have since worked alongside a number of project developers who are seeking advice and assistance with the design of the 'community contribution' in their projects. The process of identifying and designing potential community benefit structures from private

sector renewable energy projects is evolving, but there are some early findings and key issues that have been raised that can valuably inform a refined research approach. Some of the main issues that have emerged as needing consideration at the planning stage of a project are as follows:

- Who are beneficiaries?
- How to assess communities while managing expectations?
- What are possible community development contributions?
- How is implementation capacity ensured, either institutionally or through community structures?

According to the general interpretation of the Request for Proposals documents, developers can select communities (villages or neighbourhoods) they chose to include in their project within the 50-kilometre radius around the project site. This radius within which socio-economic benefits can be spread is an arbitrary one. In some cases, the resulting area stretches over municipal boundaries, provincial boundaries and even national borders - South African society is not organized according to pre-defined radiuses. Confusion and conflict are risks inevitably associated with such a restriction, as it could divide communities, villages and towns into beneficiaries and non-beneficiaries.

Land ownership is important in defining the beneficiary community and when designing community benefit structures to which revenue will be channelled. For example, if a windfarm is planned for a piece of land owned by a commercial farmer, defining the 'beneficiary community' becomes complex as there is no obvious relationship between the project site and a community some distance from it; whereas when land is owned by small-scale or subsistence farmers the link becomes more evident. In both cases, it may be necessary to further identify the boundaries of the beneficiary community based either on a social, geographical or demographical basis. Defining the beneficiary community is helpful in order to consider the priority areas to which a particular community would choose to direct any project revenue. Project developers report that often BEE consultants advise against including a whole municipal area (even if entire municipality lies within 50 km radius) to benefit.

Obtaining this insight into potential beneficiaries and community priorities is a sensitive issue as it requires engaging with a community yet managing the expectations aroused when introducing the possibility of a new project for the area. However, without sufficient engagement with residents of the chosen beneficiary community, it is difficult to identify socio-economic priorities, and thus difficult to design appropriate structures to channel and deliver benefits. The level of engagement with the community will deepen as the project cycle evolves, but in the early stages of project planning, managing expectations is key.

The level of revenue and how to distribute and manage it also sets challenges. Funds allocated to SED depend on the agreed percentage of the project revenue. Consequently, project success determines funding availability. Compared to the discussed income streams for the local ownership entities, the SED and ED funding is expected to constantly, slowly grow. The local ownership entities often set up by project developers as community trusts are likely to have to deal with a relatively small income for about the first half of the 20-year project lifetime, followed by a sudden and steep increase in the second half. The timing of when revenue will start to be generated needs to be taken into consideration when planning potential SED measures. It may be more prudent to design small individual projects which could be scaled up to a programmatic level once revenue increases. In terms of managing the revenue, there might be the option to manage revenue at a central level or locally. These issues will be project-specific, depending on the level of capacity in financial management that is available.

Once revenue is available to channel into projects and initiatives, successful project implementation at a local level is essential. The capacity to implement will depend on the nature of the project and whether it is building on the capacity of existing community organisations (for example, implementing a healthcare initiative together with a well-established healthcare organisation in the area) or if it is a new project type for the area which may require external capacity. When revenue streams are still unknown, it may be advisable to build on the existing capacity of an established NGO in the area. The uncertainty of the revenue stream resulting from fluctuations in wind generation on a particular site is one of the challenges when designing a 20-year SED plan.

Designing private sector renewable energy projects with a community benefit component is a new and innovative approach in South Africa and, as with any new approach; there are inherent risks and challenges to overcome – particularly in the early stages of planning, and relating to both sides: the project developer and the community.

First, and most importantly from a project developer's perspective, there are still no operational projects under the RE IPPPP, so no demonstration to IPPs of the technical or financial viability of a project. This uncertainty does not give confidence to project developers. Yet already at early planning stages, and now as part of the RE IPPPP process, project developers are required to demonstrate their commitment to socio-economic development in the area. Compared to fossil fuel-based IPP procurement programmes, these requirements present an

additional challenge to renewable energy project developers.

There are, however, also risks for the local communities, particularly if the socio-economic component is regarded as an 'add on' by developers and not given sufficient consideration in the bid preparation. The renewable energy project developer teams are not community development experts. In fact, their usual business has very little to do with social development. Stakeholder engagement for the necessary Environmental Impact Assessment (EIA) and negotiating with landowners are more common tasks, and teams tend to have experienced personnel for it. Such experience is, however, in many cases brought in from Europe or other places where stakeholders interact on a more equal footing than in South Africa. Here landowners might be illiterate and have never heard of wind or solar technology before. Fair negotiations require specific attention and knowledge on the side of the project developers. In a rather similar situation, citizen-owned renewable energy projects in some other parts of the world are often grown in a bottom-up way, with citizen cooperatives approaching developers (Harnmeijer et al., 2012).

South African legislation prescribes the involvement of local communities. The power to inform citizens of this requirement lies with the project developer. Despite wide media attention paid to the procurement programme in general, the detailed requirements were not disclosed to the public. The Request for Proposals documents were dealt with confidentially, and to publish content would have required a written agreement from the DoE (Department of Energy, 2011).

Further more practical implications for local communities are associated with the issue of land ownership. For example, in the case where there is small-scale farming or livestock herds on the land where the projects are to be built, disruption during construction and maintenance phases is possible. Further, for example, there might be cases where the surrounding households are not electrified (the responsibility of the municipality (instead of a wind-farm developer) and it is crucial to explaining why electricity-generating technologies will be located in close proximity to un-electrified houses without being able to service these houses with electricity.

Evidence became again the challenge of conducting research in a commercial environment, ruled on the one side by the profit motives of the private sector stakeholders and restricted on the other by government's slow and sometimes conflicting decision-making, whilst also taking into consideration community priorities. For both parties, this new interface between the traditional engineering project cycle in the renewable energy industry and the idea of a bottom-up, participatory community development process poses new challenges. Timing is particularly critical in terms of trying to align the traditional engineering project cycle with consultative and participatory collaboration with local residents.

Project developers must have a sufficient relationship with the community at an early stage in the application process in order to identify potential community benefit structures, beneficiaries, and potential socio-economic measures appropriate for the local context (see Figure 1). However, managing this is complex, as introducing a potential renewable energy project to a community, in order to identify these issues before there is sufficient certainty around if and when the project will go ahead, means that expectations will be raised. Project developers are also confronted with expectations around potential job creation and revenue generation. Effective communication and transparent planning processes are crucial.

A possible approach

We have adopted a rather passive approach to the requested 'community needs assessments' by project developers. In order to negotiate the situation between commercial project developer's interests, the reality of poverty and inequality in villages and neighbourhoods around the proposed project sites, extremely short timeframes and small budgets, a "passive community needs assessment" was developed and applied. Firstly, a desktop based search for publications and reports discussing the socio-economic situation of the project area was conducted. Then relevant documents around the projects were reviewed, including the reports from stakeholder participation processes required for the EIA and, if relevant, the design documents for registration under the UNFCCC Clean Development Mechanism (CDM).

For both the EIA and the CDM processes, stakeholder engagement is required. An important first step for getting to know the projects better was to find out how much and what had been communicated to the local residents about the planned project. Awareness of possibly raised expectations is crucial when engaging with stakeholders and potential beneficiaries. Further sources of information about the area around the project site were municipal reports like the integrated development plans and annual reports published by local government. Then a stakeholder search was done. Organisations and outstanding individuals active in the 50-kilometre radius and the socio-economic field were contacted. Site visits and meetings were conducted. Such organisations included non-governmental and community-based organisations, churches, small projects, government departments of social development, and municipalities. Individual meeting partners were traditional leaders, community lead-

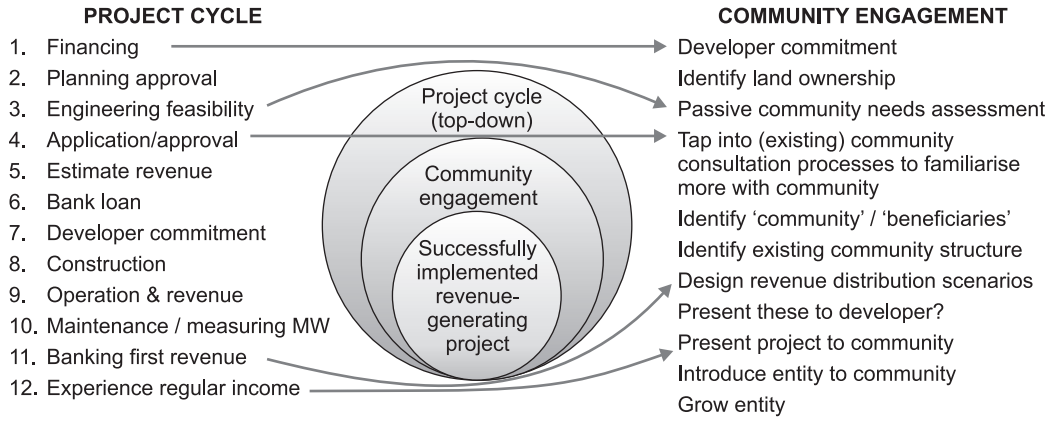

Figure 1: Potential interaction between engineering project cycle and community engagement

ers, active citizens, entrepreneurs and owners of small businesses.

Based on the review of existing literature and site visits to the project areas, it was possible to get an indication of socio-economic priorities. These differ depending on the different project circumstances. For a project site in the Eastern Cape, for example, the priority areas that were raised by stakeholders focused on local employment opportunities, affordable school transport, lack of access to information about tertiary education, and opportunities for the youth. Research in a second project was able to build on findings of an existing participatory community assessment process and further stakeholder engagement. The priorities in this area were food security, youth development, cultural activities, business and work, faith, health services, education and training, leadership development, community facilities and infrastructure and social services. Translating these priorities into interventions depends on a range of variables, such as the quantity of revenue, capacity to implement and manage projects as well as the type of legal entity that manages any revenue stream.

The way forward

This paper has outlined some early findings, from a researcher's perspective, of what is involved in identifying potential community benefits from renewable energy projects in South Africa. The key issues identified have been based on research undertaken alongside a not-for-profit organisation and project developers in project sites in the Eastern, Northern and Western Cape. The research set out to identify what potential community benefits could entail. The design of an approach found suitable for this task has been initiated which reflects the theoretical assumptions and practical experience made with the stakeholders.

It was noted that community priorities for interventions will differ from project to project. What is important, however, is that a process be established for project developers to engage with communities to identify priorities and potential interventions. Despite the challenge it poses for project development teams, it is encouraging that the incorporation of socio-economic indicators in the RE IPPPP scorecard sets a strong precedent for ensuring that project developers take community development issues into consideration at early planning stages. The required submission of a SED plan at this stage in the process is, however, controversial. Seeing that project developers have to commit the specified amount of revenue towards SED and ED in any case, one possible way to prevent rushed and badly managed community engagement processes and subsequent poor quality socio-economic development plans is to allow this requirement to await the bid submission stage. The issue could be reconsidered once the project has been selected and would therefore be more likely to actually be implemented. It should be more feasible at that stage to spend time and money engaging in a meaningful (and possibly even community-driven) development process. This opinion is currently being researched.

Furthermore, the nature of decentralized geographical locations of renewable energy projects provides an opportunity to provide a more dispersed distribution of revenue from renewable energy projects. On the other hand, the RE IPPPP is still in the procurement phase, with the 46 preferred bidders from the first and second window, struggling for financial closure. The vast majority of these 46 projects are located in the three Cape provinces. The unequal geographical distribution of projects amongst the nine provinces of South Africa carries potentially a number of risks with it as well. The 50-kilometre project radius of projects might overlap, with villages selected as beneficiaries of more than one project; SED and ED money might be spent on a specific area while other parts of maybe even the

same municipality could be ignored; and many more problems are possible (Wlokas and Tait, 2012).

As there are still no operational projects under the RE IPPPP, it is difficult to predict how these commercial renewable energy projects will actually affect socio-economic development once projects are implemented and operational. However, at this early stage in the research process and the procurement programme, there are indications of opportunities for positive community benefits, provided that an effective community engagement process is aligned with the engineering project cycle. It is crucial that project developers, once they have progressed to being project implementers, start sharing experiences, approaches and ideas with each other. Coordinated efforts have a greater chance to produce positive benefits than do single projects in isolation. Lastly, efforts must contribute towards the national development goals. The SED and ED must also be approached in the light of low-carbon development principles. In terms of taking forward research in this area, further investigation is needed, particularly in refining a methodology for identifying and then incorporating community benefits into renewable energy projects, as well as investigating the most appropriate tools and methods to ensure that benefits accrue to communities. These issues will be addressed in subsequent publications presenting research in parallel with the evolution of the RE IPPPP. This will provide further insight into the practical and implementation aspects, as well as providing necessary guidance for evaluating and monitoring the effectiveness of the outcomes.

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