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Africa GreenCo - An Overview

Synopsis

Africa GreenCo (GreenCo) aims to attract more private sector investment to renewable energy generation in sub-Saharan Africa at lower cost and with less reliance on government support through the introduction of an independently-managed but government co-owned creditworthy intermediary offtaker.

Compared to current market practice, GreenCo's intervention will:

- reduce risk and project development costs for all stakeholders;
- address inefficiencies caused by the current 'single buyer single seller' model;
- reduce fiscal burden for host Governments; and
- catalyse private sector debt and equity investment.

GreenCo responds to Sustainable Development Goal 7 which aims to close the energy access gap and "ensure access to affordable, reliable, sustainable and modern energy for all" through a combination of national action and international cooperation. GreenCo can act as an implementation tool for key regional initiatives, such as the African Development Bank's New Deal on Energy for Africa and the Africa Renewable Energy Initiative.

In the long term, as GreenCo succeeds in attracting more private sector investment to the sector, at lower cost, and assists in the transition to cost-reflective tariffs and ultimately utility creditworthiness, GreenCo will make itself redundant in its role as a creditworthy intermediary. As this occurs, GreenCo will transition to being one of many traders on the Africa power markets it helps to develop. In the Southern African context the proposed GreenCo market intervention therefore fits neatly alongside the IPP framework being developed and implemented by RERA, the Regional Energy Regulators Association of Southern Africa, which aims to put in place the regulatory environment needed for an open and active regional power trading market.

Market Context

Bilateral IPPs	With the exception of a handful of cross-border projects, IPPs within SSA are currently structured on a bilateral basis; i.e., with a single buyer and seller.
Rehabilitation of utilities	African utilities are often poorly funded – running an operating loss due to non-cost reflective tariffs, high overheads and substantial investment needs. In most cases they are entirely state owned and dependent on budget transfers – all of which combine to mean a low credit profile. Critical steps to rehabilitate utilities are underway but sustainable and material improvements can only occur in the medium to long term.
Lengthy and expensive transaction execution	With notable exceptions such as South African REIPPP, GET FiT Uganda and Scaling Solar Zambia, IPPs are largely negotiated on an ad hoc project-by-project basis. Negotiations of project documents on individual IPPs are usually very lengthy and often last several years at least. Significant fully 'at risk' development costs incurred during those negotiations add materially to total project costs and require a high return to reflect the associated risk profile.
Limited availability, sustainability and effectiveness of third party risk mitigation instruments	Risk mitigants such as liquidity support instruments, early termination buyout regimes and partial risk guarantees are complicated and expensive to negotiate on a project-by-project basis. Even still, they do not fully mitigate the perceived risk of investing in immoveable assets in order to sell a commodity (electricity) on a long term basis to a single, often un-creditworthy, buyer. They are also heavily dependent on concessional capital and DFI support.
Host Government fiscal burden	Host Governments are expected to take on contingent liabilities in the form of 'put and call option' arrangements on early termination, or more explicit sovereign guarantees. Given the current fiscal position and the medium term macro-economic environment facing most host Governments, this is unsustainable.

Strategy

GreenCo addresses head on the core issues of (a) offtaker creditworthiness, and (b) the inefficiencies of exclusive bilateral sale and purchase between a single generation company and a single offtaker.

[1]The GreenCo concept was included in the recommendations section of the SEforALL Finance Committee Report which was presented to Africa's Heads of State in Addis Ababa on 13th July 2015 at the Financing for Development Conference.

GreenCo will play two complementary and synergistic roles in the African power markets:

Intermediary Creditworthy Offtaker / Aggregator	AND	Power Pool Participant / Trader

The first conceptual step is to interpose GreenCo between the buyer and the seller under an existing bilateral IPP structure; then repeat this on multiple IPPs so that:

- GreenCo is the buyer for multiple generation companies; and
- GreenCo is the seller for multiple offtakers.

From this position, GreenCo will be able to:

- catalyse third party private capital flows to IPPs by improving the risk profile of projects in the region;
- lower the electricity tariff required by IPPs for a project to be financially viable by reducing debt costs and investor return requirements to reflect a lower risk profile;
- provide a route to market for any excess contracted power, thereby mitigating an offtaker's obligation to pay capacity or 'deemed energy' charges for power they do not require; and
- divert power from a defaulting IPP offtaker to other willing buyers, thereby reducing the likelihood of early termination of an IPP's power purchase agreement and the resulting crystallisation of host Government contingent liabilities.

More broadly, GreenCo will:

- be fundamentally better equipped than a single generation company to mitigate the effect of an un-creditworthy and/or defaulting offtaker;
- also act as a power trader, thereby increasing liquidity and scale of regional power trade;
- assist in the development of power pools;
- support and promote regional standardisation of IPP project documentation; and
- assist in the development of fair and standardised electricity markets in the countries in which GreenCo operates.

GreenCo will act as intermediary offtaker only and would not manage the physical transmission and distribution of energy. It will not own any of the grid infrastructure or seek to replace existing utilities. Rather than replacing existing structures, it complements them, and can further act as a bridge to any future energy regional market liberalization and energy trade integration.

GreenCo aims to learn from, and where possible replicate, the dynamics of more advanced power markets, in particular building on the experience of the Power Trading Corporation of India (PTC India). PTC India was also set up in order to act as a credit risk mitigating intermediary offtaker for privately-financed regional power generators. In the process, it catalysed the entire Indian regional power sector trading market.

The full GreenCo feasilbility study is available to download at www.africagreenco.com

GreenCo design principles

The GreenCo concept has been developed to fulfil the following key design principles:

- Legally and financially creditworthy
- Co-owned and co-led by African Governments
- Financially sustainable
- Scalable
- Facilitating cross-border trade and investment
- Complementing and collaborating with existing initiatives
- Benefiting IPP investors, utilities and sovereigns
- Catalysing private sector capital
- Incorporating blended capital from concessional and commercial sources

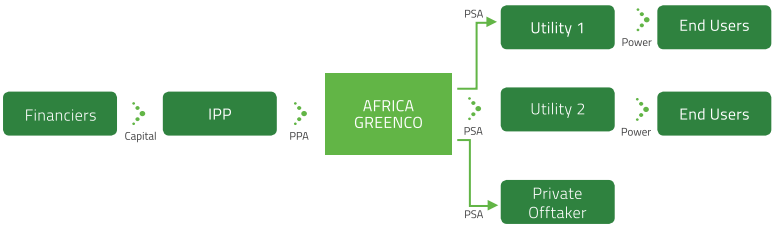
GreenCo as an intermediary offtaker and aggregator

The following is a simple single utility offtaker example:

GreenCo will purchase capacity and energy from the IPP under a power purchase agreement ("**PPA**"), and sell that capacity and energy to the utility under a power supply agreement ("**PSA**"). The PPA and PSA will be on largely back-to-back terms; ***save that***:

- GreenCo will take credit risk on the offtakers, such that upon offtaker default under the PSA, GreenCo will have the contractual, regulatory and operational ability to keep the PPA 'alive' by securing alternative buyers whether on a bilateral basis or through short term trading, and will use all reasonable efforts to do so;
- GreenCo will earn a small margin between the tariff paid under the PPA and the tariff received under the PSA.

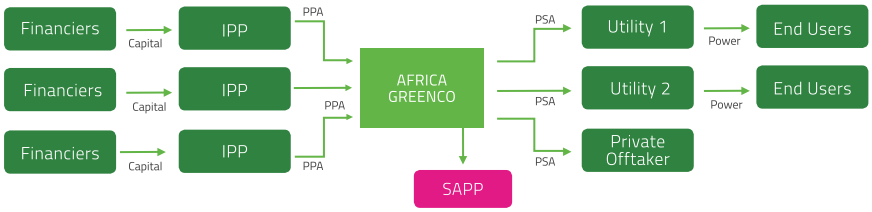
The following is an example of a more complex multi-buyer project, which may be suitable for larger IPPs and/or cross-border projects.



In the above scenario, the intervention of GreenCo will allow:

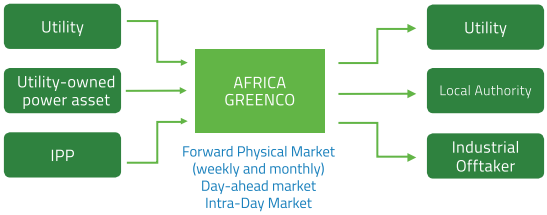
- individual offtakers to commit to purchase only a portion of the IPP's total capacity; and
- GreenCo to better manage the complex risks arising under, and documentation required for, multi-offtaker structures.

This structure will be repeated on multiple projects, building a portfolio of IPPs on one side and a portfolio of offtakers on the other. The portfolio effect will diversify GreenCo's risk and enable it to source alternative power or offtakers (as the case may be) in case of default under either a PPA or a PSA.



GreenCo as a Power Trader

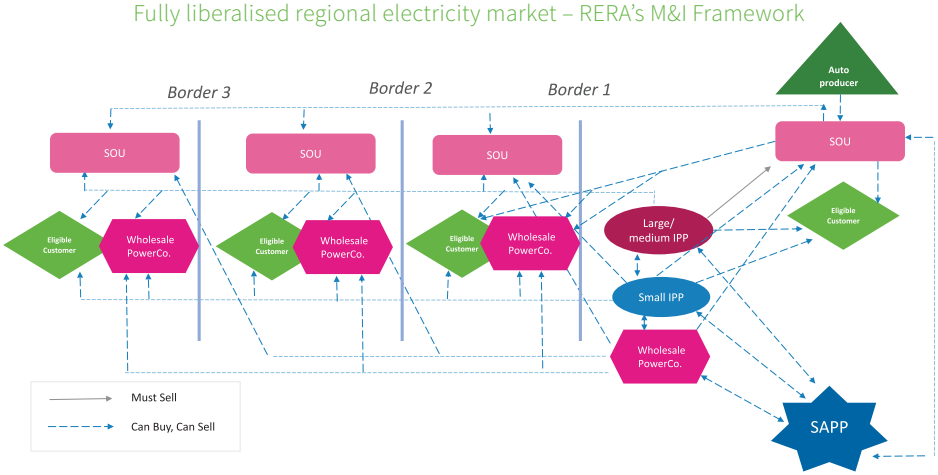
In addition to its role as an offtaker, Africa GreenCo will also participate in the competitive power markets, promoting cross border power transactions and a more dynamic and liquid short term power market.



Greenco as a Stepping Stone to a Fully Liberalised Market

GreenCo will act as a stepping stone to a fully liberalized market, supporting regulatory change and demonstrating the benefits of competition and regional integration. Once SADC's power sector is strengthened, its utilities achieve creditworthiness and it has a liquid electricity market, the market can move away from long term bilateral contracts. GreenCo's role as an intermediary offtaker will become redundant and GreenCo will transition to being one of a number of traders in the power markets it will have helped to develop.

Fully liberalised regional electricity market – RERA's M&I Framework



Impact of GreenCo on Project Companies

GreenCo provides the project company with a counterparty which (a) is creditworthy, (b) can mitigate risk via diverting power to third party customers, and (c) can diversify risk over multiple projects.

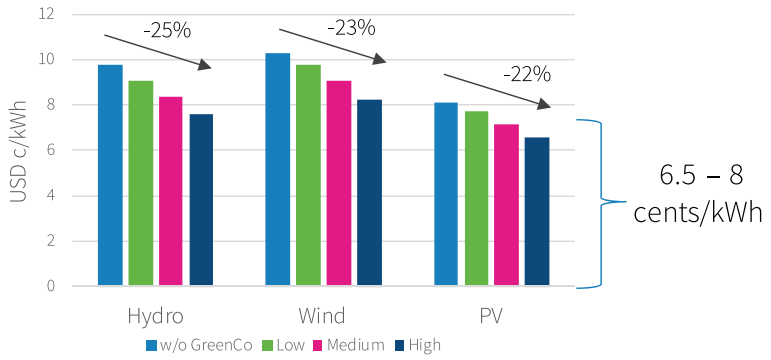
The intervention of GreenCo is expected to:

- reduce both total project costs and the cost of capital by:
  - reducing the cost of getting projects to financial close;
  - improving projects' credit risk profile and in turn:
    - reducing equity investors' hurdle IRRs;
    - reducing the interest rates and other covenants such as debt service cover ratios on project debt; and
    - increasing the tenors of project debt;
- make investing in, and lending to, African IPPs (whether at the outset or upon a refinancing) attractive to a wider pool of capital than is currently engaged in the market, in particular to private sources of capital, thereby increasing the available pool of capital; and
- allow for more efficient and effective credit enhancement, by building a portfolio of contract exposures which can be de-risked and/or re-insured on a pooled basis.

Impact of GreenCo on Offtakers and Host Governments

GreenCo will:

- reduce the financial expense and utilisation of human resources incurred by the host Governments and offtakers in negotiating and executing IPP transactions;
- increase the installed capacity in the power system, facilitating more reliable power supply to end users;
- reduce PPA tariffs (on new IPPs) due to lower IPP development costs and cost of capital;



- lower the average cost of delivered power by utilizing otherwise idle generation capacity for generation and sales to third parties, and offsetting the revenue received from third party customers (less a small margin) against deemed energy charges otherwise payable by the Offtaker;
- help substitute short term emergency power with cross border traded power;
- reduce the fiscal burden on host Governments by reducing the probability of early termination buyout obligations or more explicit host Government guarantees being crystallised, and reducing the quantum of such obligations;
- reduce risk-weighted capital adequacy requirements in relation to loans to the power sector creating additional debt capacity which can be used to fund sectoral improvements;
- create fiscal space and release Offtaker resources to focus on institutional capacity building, operational efficiency improvements and expansion and upgrades to transmission infrastructure; and
- facilitate the move towards local currency denominated PPAs.

Regional Impact of GreenCo

GreenCo will:

- actively trade power in the competitive markets established within the existing power pools (SAPP, WAPP, EAPP etc), increasing liquidity and efficiency;
- be able to disaggregate the contractual supply of electricity from the physical flow of electrons;
- work with power pools, member states and utilities to match power surpluses and deficits, and to maximize the efficient use of natural resources on a regional basis;

- support efforts to integrate planning, power sector regulation and infrastructure investment across member states; and
- help to build the financial and economic case for more investment in regional transmission, interconnection and grid management by increasing traded volumes.

Environmental, Employment, Social and Economic Impact

Based upon its modelled portfolio, GreenCo will:

- avoid 10.9m tCO2e emissions in during Phase 1 ad 61.8 tCO2e across Phases 1-5 and more than 70m tCO2e emissions over the life of the PPAs;
- help create over 40,000 temporary jobs in manufacturing, construction and installation over the first ten years of operations and c.1540 long term O&M jobs;
- create additional employment as a consequence of access to more reliable power and savings relative to emergency power costs with a particular impact on small and medium size enterprises, such as women's cooperatives;
- improve access to basic services such as healthcare and education through improved electricity access;
- stimulate socio-economic development, including reducing infant and maternal mortality rates, improving literacy and facilitating community-based activities and training; and
- help avoid the economic impact of outages that can be as high as 4% of GDP and result in an average annual "drag" on economic growth of 2%.

	MW Built	Private Sector Capital Mobilized	Donor equity Leverage	Avoided Financial Burden for Offtakers	GWh Generated / CO2e Avoided	Beneficiaries / Jobs Created
Phase 1 - Zambia	100 MW	$113mn	3.8x	$184mn	11,140 GWh / 10.9mtCO2e	302,192/ 35,507
Total Portfolio	**1355 MW**	**$1.59bn**	**15.9x**	**$2.5bn**	**101,362 GWh / 99.3mtCO2e**	**2.54m/ 323,210**

Operating Strategy

GreenCo's operating strategy creates four potential revenue sources for GreenCo:

- Sale of power purchased under long term agreements;
- Sale of power on short term trades;
- Income from invested capital; and
- Sale of carbon credits.

GreenCo's two core operating activities – acting as a PPA offtaker and short term trading - will generate revenues through a margin applied to each unit of power bought and sold. For its role as a PPA offtaker selling power on to utilities/other offtakers through a PSA, GreenCo aims to select a margin level that generates a net reduction in the price of power paid by a utility/offtaker. The GreenCo base case model currently assumes a margin of 5%.

For short term trading, the GreenCo base model applies a 3% margin and takes a conservative assumption of 10% p.a. growth of the SAPP Day-Ahead /Intra-Day markets and applies an estimated market share for GreenCo of 5% in year 1, growing to 20% from year 4.

GreenCo Funding Requirements

GreenCo's core proposition is to:

- Reduce the likelihood of a termination event arising through the ability to trade out of default and continue to pay the obligations due under the PSA; and
- Protect commercial lenders in case of a termination event.

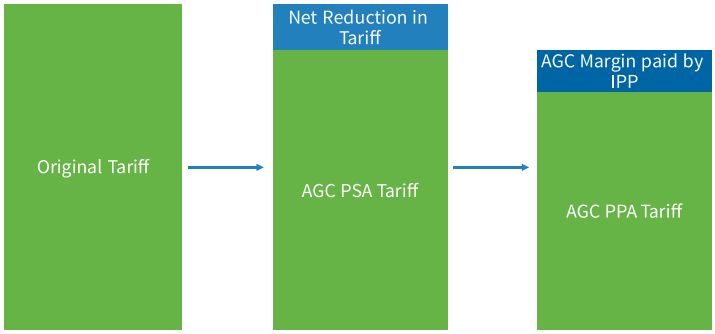
In order to clearly demonstrate GreenCo's creditworthiness to the IPPs' financiers in the early stages of its operations, GreenCo believes it will be necessary to ensure that its initial capital base is sufficient to cover (i) the aggregate of the commercial debt lent to IPPs in its PPA portfolio plus (ii) a liquidity buffer. This liquidity buffer will enable GreenCo to exercise its risk mitigation strategies and potentially incur some losses in the process without eating into the capital sized to cover commercial debt.

This high level of capitalisation is driven by a number of factors including:

- GreenCo being a new market entrant with no track record; and
- GreenCo's operations starting in one country, resulting in highly concentrated exposures to a small number of offtakers, the majority (if not all) of whom will be located in the same country.

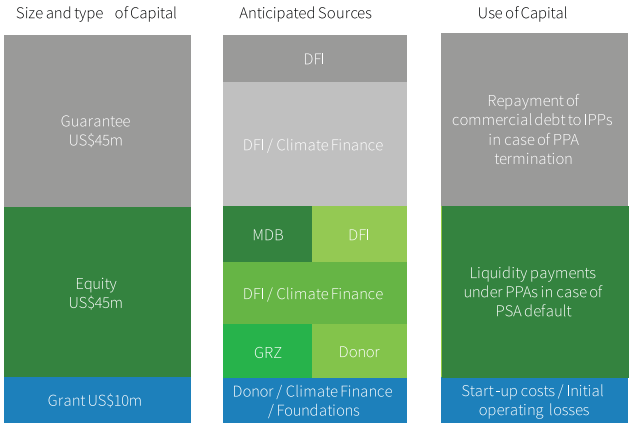
The quantum of capital required is directly linked to the size and nature of the underlying project portfolio. For Phase 1, GreenCo is seeking US$45m of equity to cover its liquidity requirements and US$45m of guarantees to cover its obligation to repay commercial debt at IPP level in case of PPA termination.

GreenCo's ability to reduce wholesale electricity tariffs for its offtakers is a factor of how much impact it can have on the cost of capital at IPP level and how much margin it charges between the resulting PPA tariff and the PSA tariff. The level of such margin in turn dictates the return it is able to generate and distribute to its investors.



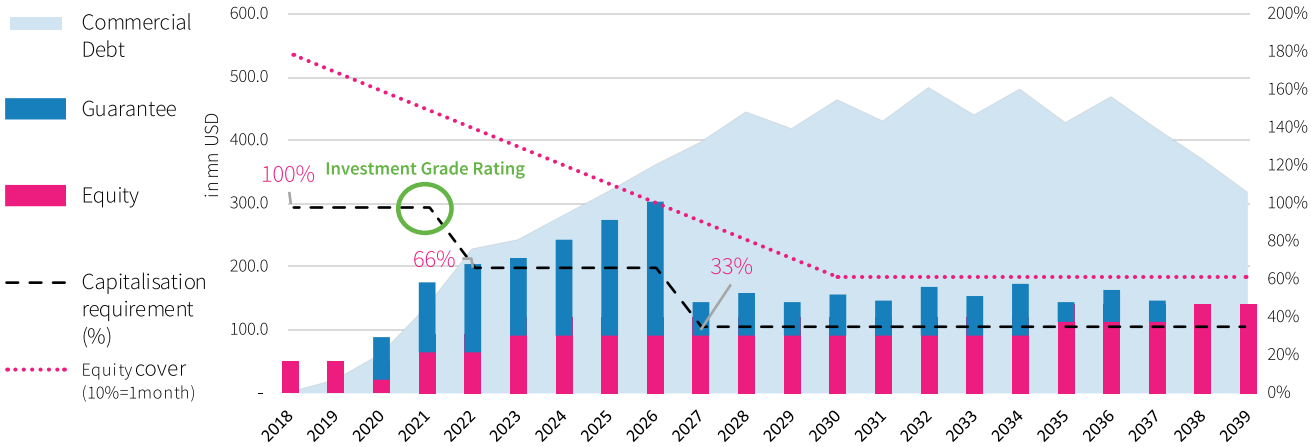
It is therefore anticipated that in order to maximize GreenCo's development impact, the bulk of its initial capital will be provided by the governments of the countries in which it operates alongside equity and guarantees provided by the international development community and/or other impact investors. By providing such capital to GreenCo the international development community will mobilise significant amounts of private sector capital to invest at IPP level.

GreenCo Capital Structure

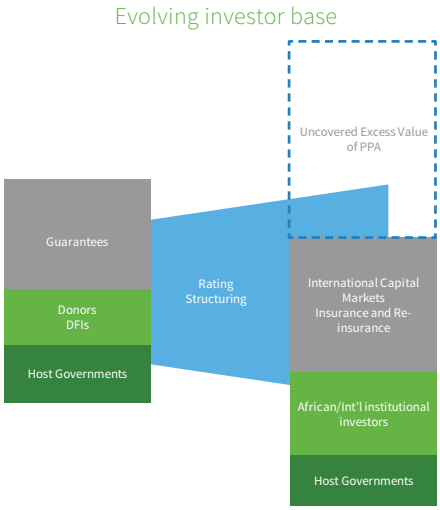


Once GreenCo has built a track record and its portfolio achieves a sufficient scale and degree of diversification, it intends to begin leveraging its capital base. Its ability to do so while maintaining its perceived creditworthiness is likely depend on its ability to secure an external credit rating or the willingness of commercial lenders to accept a larger amount of risk given the comprehensive coverage offered by contracting with GreenCo as the offtaker. The figure below shows the evolution of GreenCo's potential liabilities and leverage.

Evolving Capital Structure



Once the GreenCo portfolio achieves critical mass and diversification and is able to leverage its capital base, the returns GreenCo is able to generate through charging a small margin on large volumes of power sales will increase the potential equity returns at GreenCo level and make investment in GreenCo itself an attractive proposition to private investors. As returns become commensurate with the business risk accepted by GreenCo's investors, the initial concessional equity can be replaced by non- concessional sources of finance and GreenCo will transform into a fully commercial long-term sustainable private sector-owned and operated business with significant development impact.

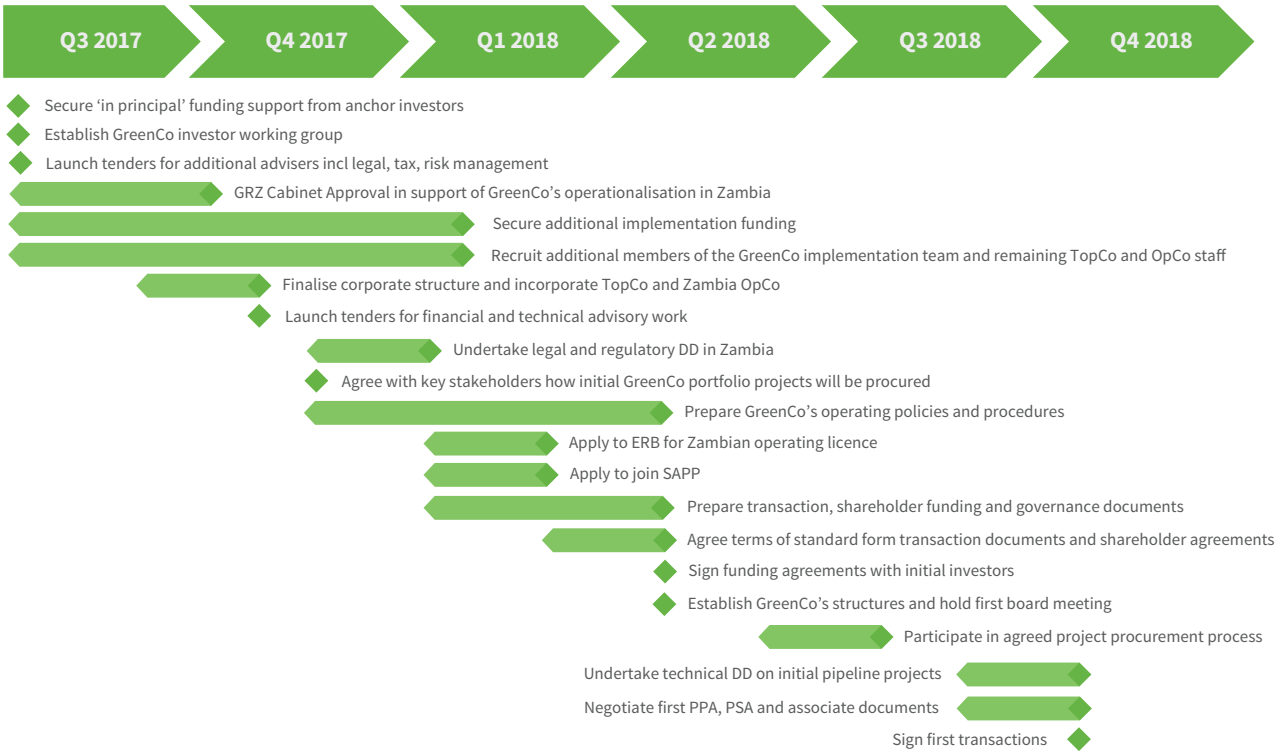


Conclusion and Next Steps

Based on the analysis contained in our Feasibility Study, GreenCo represents a financially viable means of helping more projects achieve bankability and bringing larger volumes and new sources of capital to African power markets. GreenCo can also help streamline African utilities' engagement with IPPs, reduce the time and effort required to bring transactions to close, relieve the burden of providing sovereign guarantees and, in the process, help to create the space necessary to implement measures to achieve long term creditworthiness of African utilities and improve domestic power markets. GreenCo has garnered significant momentum and interest in the African and international development community and has received a letter of support from the Zambian Ministry of Energy in confirming their support in principle to GreenCo's operationalisation in Zambia (subject to cabinet approval), as well as letters of support from the Southern African Power Pool, the Regional Electricity Regulators Association of Southern Africa (RERA), the Association of Power Utilities of Africa (APUA), the African Union (via NEPAD) and the African Renewable Energy Initiative.

GreenCo is now working with a core group of anchor investors with a view to incorporating and capitalising the GreenCo operating entities in 2018.

GreenCo Implementation Timeline



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SAPP supports Africa GreenCo as its envisaged function is complementary to SAPP's focus of driving the regional agenda of promoting generation and transmission expansion, universal access and increased renewable generation penetration by 2030. Our special thanks go to Alison Chikova and Musara Beta.

The African Renewable Energy Initiative (AREI) supports Africa GreenCo as an efficient means of helping achieve AREI's goals by providing a sustainable and scalable structure within which the available concessional capital can be leveraged to unlock large amounts of private sector capital from a much broader range of investors and at significantly lower cost.

The Association of Power Utilities of African (APUA) supports Africa GreenCo as a means of securing greater generation capacity at lower cost and supporting African utilities in their transition to creditworthiness. With special thanks to Abel Tella, CEO of APUA

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Africa GreenCo as a concept was included in the recommendations section of the SEforALL Finance Committee Report which was presented to Africa's Heads of State in Addis Ababa on 13th July 2015 at the Financing for Development Conference. A special thank you to Rachel Kyte and two of her team members (Lori Kerr and Stacy Swann) for their invaluable support and feedback on the draft version of our Feasibility Study.

Concept Supporters, Reviewers and Feedback Providers

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Ana Corvalán	Managing Director, Eaglestone Advisory
Andrew Gray	Senior Legal Consultant, Trinity International LLP
Andrew Reicher	Chairman of Berkley Energy Africa
Andy Herscowitz	Coordinator, Power Africa
Anne Baldock	former Global Head Energy & Infrastructure Allen & Overy
Arnaud Dornel	Lead Financial Sector Specialist, World Bank
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Brer Adams	Senior Director, Global Infrastructure Hub
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Changala Nswana	Director of Strategy and Corporate Services, ZESCO
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Chris Knowles	Head of Climate Change & Environment Division, EIB
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Crispin Holliday	Commercial Director, Aldwych International
David Baxter	International Development and PPP Specialist and Facilitator
David L. Massie	Chairman & Chief Executive Officer of IAF Capital
David Munene Mwangi	Former KPLC Director
David Nelson	Executive Director, Energy Finance, Climate Policy Initiative
Elijah C. Sichone	Executive Secretary, Regional Electricity Regulators Association of Southern Africa
Eivind Fjeldstad	Managing Director, Norwegian African Business Association
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Georgios Pantoulis	Head of Sector – Energy, DG DEVCO, European Commission
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Jocelyn Wessling	Independent Consultant
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Michael Mulasikwanda	Principal Power Development Officer, Department of Energy, Zambia
Sir Malcolm Bruce	UK Member of Parliament and former Chair of UK International Development Select Committee
Marcus Williams	Acting Sector Manager & Lead Operations Officer - Energy and Extractive Industries, MIGA
Mariana Sabates Cuadrado	Government Finance, Statistics Division, IMF
Markus Faschina	Senior Energy Project Manager (Morocco), KfW
Mohamedain Seif Elnasr	Chief Executive Officer ad.interim of the Regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA).
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Vivek Mital	Managing Director, Millennium Resource Strategies
Vivek Shinde Patil	Senior Manager, Technical Applications, PerkinElmer
Vladimir Maodus	Executive Director, CEE Investment Banking
Wendy De La Harpe	Conference Producer, African Utility Week
Zahed Sibda	Managing Director, Fieldstone Africa

Africa GreenCo Team

Ana Hajduka	Founder & CEO
Cathy Oxby	Commercial Director
Lovemore Chilimanzi	Technical Director
Penny Herbst	Non Executive Director
Tantra Thakur	Advisory Committee Member
Philippe Niyongambo	Advisory Committee Member
Rt Hon Andrew Mitchell MP	Advisory Committee Member

Brief biographies of the team are set out on the following page.

Africa GreenCo in its current form is a UK not-for-profit company limited by guarantee which has been established with the sole purpose of developing the GreenCo concept to its pre-implementation stage. This UK entity is entirely separate to the operational GreenCo entity discussed in the Feasibility Study, which will be an African based entity, incorporated subject to political and international community buy in.

Consultants

Financial: Lions Head Global Partners
Lions Head is a specialized financial advisory firm based in London and Nairobi, experienced in designing, structuring innovative finance platforms, especially for power (Africa50, AREF, GIIF, TCIFF)
With special thanks to: Harry Guinness

Legal: Shearman & Sterling LLP
Sherman and Sterling is a leading international project finance, corporate and commercial law firms, active in Africa for over 50 years.
With special thanks to Monica Lamb

Technical: PPA Energy
PPA's Energy's staff are former leaders within SADC utilities and have been involved with the SAPP establishment and operations (governance, regulations, technical constraints, commercial issues, trading etc)
With special thanks to: Lovemore Chilimanzi

Regulatory & Governance: GP3 Institute
GP3 Institute is a global advisory network of governance, development, legal and program operation advisors. The institute provides research and advisory support for public-private initiatives comprised of States, subnational units, multilateral development and finance institutions and private sector participants including for profit and non-profit organizations.
With special thanks to: Tim Nielander and Ben Kioko

Procurement: Rene Meyer (Senior Procurement and Renewable Energy Policy Expert)

Risk Management: Strategia Worldwide
Strategia Worldwide use proven strategic planning methodology to protect companies from risk in complex, volatile, uncertain environments and apply a comprehensive approach to corporate risk management, drawing on their experience of implementing strategy in dangerous and difficult environments and the political, developmental, security and commercial expertise of their highly experienced senior team.

With special thanks to Iain Pickard

Africa GreenCo Team

Ana Hajduka
Founder & Chief Executive Officer

Ana is qualified as a lawyer in both England & Wales and the State of New York, and is an infrastructure and energy professional with more than 12 years' experience in a variety of transactions including project finance, public-private partnerships and project development, working on energy and infrastructure projects in emerging markets.

Ana trained with Allen & Overy LLP and went on to work for Fulbright & Jaworski LLP and Trinity International LLP, advising on a diverse range of projects within the energy sector, predominately in Sub-Saharan Africa. In March 2015, Ana was appointed by the UNECE as the Team Leader responsible for a Project Team (comprising about 30 specialists) in charge of developing international renewable energy PPP standards as part of the Sustainable Energy for All agenda.

Cathy Oxby
Commercial Director

Cathy has more than 14 years professional experience in the infrastructure and renewable energy sectors, both as an adviser and an equity investor. She trained at Allen & Overy LLP where she worked on a diverse range of project finance
transactions spanning energy and infrastructure before moving into a commercial role at HSBC Infrastructure Fund (which became InfraRed Capital Partners). After 6 years of structuring and negotiating equity investments in a wide variety of public-private partnerships and renewable energy projects, she established her own consultancy to help developers, investors and project companies deliver well- structured and efficiently run investments by assisting them through all stages of project development, implementation and operation and also acted as a consultant to the World Bank.

Lovemore Chilimanzi
Technical Director

Lovemore is seconded to Africa GreenCo from PPA Energy/Ricardo as Africa GreenCo's Technical Director. Lovemore's core skills are in power system strategic management, operations and electricity trading having worked in this area for over 30 years. He has operated hydro and thermal power stations and transmission networks and has negotiated, implemented and managed numerous power purchase agreements. He is a founder member of the Southern African Power Pool who was a key member in formulation, implementation, monitoring and revising the Southern African Power Pool (SAPP) control performance criteria and the SAPP regional trading rules that enabled launching of a competitive electricity market in the Southern African Region.
Lovemore holds a Diploma in Electrical Engineering from the Northern Technical College in Zambia, a post graduate Diploma in management studies and an MBA degree from the Buckingham Chilterns University College in the UK. He has lectured power utility Risk Management to utility and insurance executives, and has lectured operations management and human resource management in an MBA programme for more than nine years. He is a senior member of the South African Institute of Electrical Engineers (SAIEE).

Penny Herbst
Non-Executive Director

Penny Herbst has over 30 years of experience in an utility environment most of this in Eskom's Treasury department, where she was exposed to a diverse set of financial, commercial and legal structures that emanate from its operations. Amongst others she has managed Eskom's foreign and interest rate risk, money and capital market investments, project finance transactions, and the structuring of projects to mitigate risks associated with projects in Africa. She led the formation of Eskom's Development Finance unit where in the role of Development Financing Manager she was instrumental raising, in excess of $6bn, from DFI and related institutions. This included funding for Eskom's first renewable projects where she spent some time in Eskom's Renewables Unit working on bridging the gap between financing and implementation.

The Rt Hon Andrew Mitchell MP
Advisory Committee Member

The Rt Hon Andrew Mitchell MP has been the UK Member of Parliament for Sutton Coldfield since 2001. Following the General Election in May 2005, he was appointed Shadow Secretary of State for International Development. He then served as the Secretary of State for International Development from May 2010 - September 2012 and Government Chief Whip from September – October 2012. In November 2003 he was appointed Shadow Minister for Economic Affairs and from September 2004 he was the Shadow Minister for Police. He was previously the Member of Parliament for Gedling from 1987 to 1997 during which time he held office as a Government Whip and was Minister for Social Security. He also served as a Vice Chairman of the Conservative Party 1992-93. Andrew was educated at Rugby School and studied History at Cambridge University. He was elected as President of the Cambridge Union in 1978. He served in the Army (Royal Tank Regiment) and was a United Nations Peacekeeper in Cyprus before joining Lazard, the international investment bank.

Philippe Niyongambo
Advisory Committee Member

Mr Philippe NIYONGABO is a well-known energy expert on the African continent and beyond. He has a Master of Science in Engineering Management from the University of Lawrence, Kansas, USA and a post-university degree in Energy Planning and Policy from the University of Pennsylvania, Philadelphia, USA. He also hold an bachelor degree in electrical engineering from the ISIEM, Mons, Belgium.

From February 2005 until October 2015 he was the Head of Energy Division within the Department of Infrastructure and Energy, African Union Commission. During that period he developed key energy programs including the Program for Infrastructure Development in Africa (PIDA-energy sector), the Geothermal Risk Mitigation Facility (GRMF) and the Geothermal Regional Program for the Eastern African Countries and mobilization of over a Hundred Twenty million USD (The GRMF has allocated grants to 15 projects amounting more than 60 million USD), the establishment of Africa-EU Energy Partnership which is the most successful of the eight partnerships Joint Africa-EU Strategy launched in 2007, the SE4ALL Africa Hub Action Agenda and Investment Prospectuses for African countries and participation at the elaboration of the Africa Renewable Initiatives supported by G7 and adopted at the COP21 in Paris, France in December 2015.

Tantra Thakur
Former Head of PTC India
Advisory Committee Member

Former member of prestigious Civil Service in India, Mr Thakur has more than 40 years of experience with government, private and global companies in India, South Asia and SE Asia. Widely acclaimed as innovative professional for setting up and managing businesses, he is serving as a non-executive Member of Board of several companies including InfraCo Development Pte Ltd and InfraCo Investment Pte Ltd, Singapore. He was advisor for Fortum India, a subsidiary of Fortum (Finland) and for the Essar Group during 2012-2014. He has provided advisory services to many other companies in the Energy Sector in India. Mr Thakur is a member of the management board of TERI University and the Faculty of Management Services of Delhi University. He was a member of the Advisory Board of TERI for a number of years and was a member of the Finance Committee of Jawahar Lal Nehru University.

He led the first electricity trading company in India/ South Asia as Chairman and Managing Director from 2000-2012. The net worth of this Rs. 60 million company rose to Rs. 24 billion during his leadership and maintained number one position throughout. He led the company to diversify into financial services through PTC India Financial Services Limited and co-sponsored the first Energy Exchange in India.

He was deputed to UNHCR for performance audit on behalf of the UN Board of Auditors. He served as a member of the Prime Minister's Task Force on the socio-economic development of Jammu & Kashmir in India.

For more information please contact Ana Hajduka (Africa GreenCo Founder and CEO) at ana.hajduka@africagreenco.com or on +447789204363