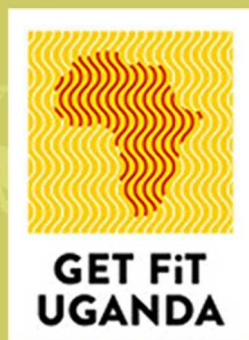


# GET FIT UGANDA



ANNUAL REPORT

2014

SUPPORTED BY:



Implemented by: **KfW**

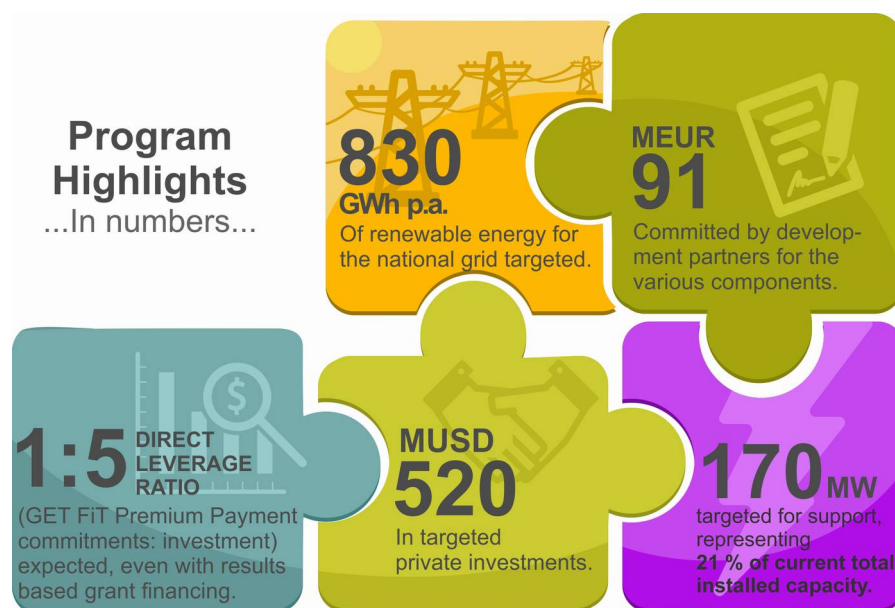
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# EXECUTIVE SUMMARY

The GET FiT Uganda Program was formally launched in May 2013. The Program is designed so as to simultaneously target the key barriers confronting investors looking at potential investments in small renewable energy projects (1-20 MW) in Uganda and thereby fast-track some 20-25 projects<sup>1</sup>, representing up to 170 MW and 830 GWh/year. The main feature of the Program is a front-loaded results-based premium payment designed to top-up Uganda's own REFiT and be paid out over the first five years of operation.

The initiative is being spearheaded and implemented by Uganda's Electricity Regulatory Authority (ERA), the Government of Uganda (GoU) and the German Development Bank KfW, with funding contributions from the Governments of Norway, Germany, UK and the European Union (EU). The World Bank supports the Program through a Partial Risk Guarantee facility.



The past year has been a progressive one for GET FiT Uganda; through a second Request for Proposals (RfP) round for hydro, biomass and bagasse projects, and the first ever on-grid solar PV tender in Uganda, the project portfolio grew to a planned installed capacity of 128 MW. Thus, with a promising pipeline for the third and likely final RfP to be concluded in the first half of 2015, the Program is well on track to achieving a sizeable and diverse project portfolio of renewable energy generation projects. This was indeed confirmed by the major breakthrough in early 2015, when four GET FiT projects became first in signing their Power Purchase Agreements (PPA) with the Uganda Electricity Transmission Company Ltd. (UETCL). However, the pre-defined target of 170 MW of installed renewable energy generation capacity and an annual energy generation of some 830 GWh is currently subject to significant risk, due to the rapid depreciation of the EUR vs. the USD in late 2014 and early 2015. If the current (January 2015) exchange rate level was maintained, the portfolio's MW target would need to be reduced by 10-15 %. KfW and the GET FiT Secretariat are continuously monitoring this development, in order to ensure full utilization of available funds and maximizing the capacity of the GET FiT portfolio within the various exchange rate scenarios.

A key milestone in 2014 was the approval of four solar PV projects representing an installed capacity of 20 MW to be commissioned in early 2016. The competitive bidding process, successfully lead by ERA under the GET FiT Solar Facility, ensured a significant and historical step in the right direction for Uganda's solar market. Importantly, the interest from project developers throughout the tender was considerable with 24 expressions of interest, boding well for a bright future for on-grid solar power in the country. The potential for solar PV development in Uganda is still vast, and additional projects are expected within the near future. To that end, ERA is keen to secure extra funding to support an additional 30 MW of solar PV, potentially under a new tender of the GET FiT Solar Facility.

1. The estimate has increased from previous estimates of up to 15 projects. Mainly due to smaller average project size and introduction of four solar projects to portfolio.

Nonetheless, the Program faced a range of challenges throughout the year, and extensive efforts have been made to overcome critical barriers to achieving the overall targets in a timely manner. The close cooperation between ERA and other parastatals, KfW, Development Partners, Project Developers and the GET FiT team, along with the flexible and tailor-made design of the GET FiT concept, has thus far proven highly efficient in identifying and addressing issues as they arise, in a targeted and efficient manner.



The year's highlights in numbers

The most prominent challenge emerging over the past year was related to grid integration for several projects in the GET FiT portfolio. It has become clear that investments of some MUSD 90 are needed to reinforce and extend the existing distribution and transmission grid in order to ensure adequate interconnection and full power evacuation for significant parts of the GET FiT portfolio. Also here, key GET FiT stakeholders including GoU and its relevant parastatals, the private distribution companies, Development Partners and project developers have displayed great determination and flexibility in identifying these bottlenecks and how to best address them, in a coordinated and timely manner. Based on the findings of a dedicated Task Force comprised of GoU parastatal representatives led by ERA, a list of required grid infrastructure investments and associated Technical Assistance (TA) support has been prepared. Extensive efforts are currently being made by GoU and GET FiT Development Partners to secure additional funding for these interventions. This is necessary to fully safeguard the original targets of the Program, while also introducing a range of additional benefits, like increased rural access, improved grid stability and national employment.

Other issues arising over the past year have mainly been legal and regulatory barriers, preventing projects from reaching financial close and thus starting construction. Final adjustments of standardized PPA and Implementation Agreements (IA) requested by UETCL and GoU, as well as uncertainties resulting from the amendments to the tax legislation have contributed to delays in this process. At the same time developers are struggling to bring their projects in line with national and international standards, especially with regard to the environmental and social standards. However, through targeted and dedicated efforts of GET FiT stakeholders, issues have been largely resolved and progress maintained. As a result, several projects are expected to reach financial close and to finally break ground in 2015, thus probably making the upcoming year even more interesting and eventful.



# MESSAGE FROM THE CEO OF THE ELECTRICITY REGULATORY AUTHORITY

The Electricity Regulatory Authority (ERA) recognizes that the future of Uganda's electricity sector lies in the integration of least-cost renewable energy sources into the generation mix.

Over the last ten years, ERA has collaborated with Development Partners, the Ministry of Finance, Planning and Economic Development and the Ministry of Energy and Mineral Development to implement a number of initiatives aimed at expanding electricity generation capacity in Uganda.



Dr. Benon Mutambi, CEO of ERA Uganda

One of the most successful initiatives that have supplemented the Government of Uganda's efforts to realise Vision 2040 is the Global Energy Transfer for Feed-in-Tariffs (GET FiT) Program.

This initiative has generated immense interest from the private sector to invest in renewable energy development, a move that will ultimately support the Country's industry and service sectors, thereby facilitating socio-economic development.

So far, thirteen renewable energy projects (hydro, biomass and bagasse) with a combined installed capacity of 108 MW have qualified for GET FiT support, representing a commitment of some EUR 50 million in GET FiT premiums. These projects are expected to be commissioned within the next two to three years. In addition to these, the GET FiT Program was extended to solar photovoltaic (PV) development. The competitive bidding process for the first 20 MW of solar PV that was initiated in January 2014 was concluded at the end of the year. Project commissioning is expected in early 2016.

ERA has provided and will continue to provide regulatory oversight for these projects that have qualified for GET FiT support through, among others, standardization of Power Purchase Agreements, Implementation Agreements and model Licenses, licensing of prospective generation companies and monitoring compliance to regulatory requirements from the feasibility study stage through construction to the operation phase.

ERA is committed to continued collaboration with the Development Partners and key Government institutions to promote the development and uptake of renewable energy.

A handwritten signature in black ink, appearing to read 'Benon Mutambi'. The signature is fluid and cursive, with a prominent initial 'B'.

Dr. Benon Mutambi, CEO of ERA Uganda

## MESSAGE FROM KFW

Dear Readers,

2014 has come to an end and with it the second year of implementation of GET FiT Uganda. It has been a busy year with strong progress, both on the regulatory and legal side as well as at the project level.

The implementation of the first competitive tender for solar PV projects under GET FiT is certainly the biggest achievement in 2014. Four projects of 5 MWp each have been selected – within only 10 months of the launch of the expression of interest!

They will be the first on-grid solar projects in Uganda and I would argue among the very first truly competitively awarded solar projects in Sub Sahara Africa.



Helmut Gauges, Member of the  
Management Committee,  
KfW Development Bank

With USDc 16.37 per kWh, out of which the Ugandan consumers are only paying USDc 11 as the difference is covered by GET FiT, solar PV is already considerably cheaper than thermal power. The innovative concept of combining premium payments with a reverse auctioning process has attracted a number of renowned developers - and broad interest from other countries that see this approach as an interesting alternative to the promotion of renewable energies through feed-in tariffs.

GET FiT is so far supporting 17 hydro, bagasse, biomass and solar projects with a total planned capacity of 128 MW. Considering the interest expressed by developers in the currently ongoing third and probably final tender, we are confident to further strengthen the Program's project portfolio in the coming year.

With the growing project pipeline, new challenges are emerging. Interconnection and grid integration of small renewables is one of them. It proves the strong commitment of the Development Partners behind GET FiT that they are mobilizing additional financing and have joined forces with the Ugandan Government to tackle this issue!

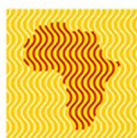
At the political and sector level, the recent months have been marked by efforts to fine tune the legal and regulatory framework. This is taking longer than hoped for, but it's crucial for the sustainable development of the electricity sector. I encourage the Government of Uganda and the Electricity Regulatory Authority to keep up their commitment and take the necessary steps to prove Uganda as a stable, reliable and attractive destination for private investments. Their efforts are already showing results: not only did Bloomberg rank Uganda's investment climate for clean energies 10th out of 55 emerging countries (Climatescope 2014), Uganda is also soon to become second only to South Africa as the country with most independent power producers in Sub Sahara Africa!

KfW is very proud to be part of this development.

We continue to receive calls from developers and from investors that would like to get involved in the Ugandan electricity market. Even if some of them might be too late for GET FiT, there remain plenty of opportunities to invest in renewables in Uganda and elsewhere. We hope that the dynamic created by GET FiT will also positively affect private sector investments in other African countries. Therefore, we will investigate in 2015 with funding from the UK and Germany the interest and potential for similar support schemes in 11 countries in Sub Saharan Africa.

A stylized, handwritten signature in black ink, appearing to read 'Gauges'.

Helmut Gauges, Member of the Management  
Committee, KfW Development Bank



**GET FIT  
UGANDA**

## CHAPTER 01

# GET FIT UGANDA



ANNUAL REPORT  
**2014**



## 1.1 GET FIT UGANDA

The GET FiT Uganda Program was officially launched on May 31st 2013. The Program, which has been jointly developed by the Government of Uganda, ERA and KfW, is designed to leverage private investment into renewable energy generation projects in Uganda. GET FiT is being supported by the Government of Norway, the United Kingdom, the Government of Germany and EU through the EU Africa Infrastructure Fund as well as the World Bank through their IDA Partial Risk Guarantee (PRG) instrument.

The main objective of the GET FiT Program is to assist East African nations in pursuing a climate resilient low-carbon development path resulting in growth, poverty reduction and climate change mitigation. Roll-out of the Program has started in Uganda. In Uganda, GET FiT intends to fast-track a portfolio of about 20-25<sup>1</sup> small-scale renewable energy (RE) generation projects, promoted by private developers and with a total installed capacity of up to 170 MW. This will yield up to approximately 830 GWh of energy production per year, transforming Uganda's energy mix within a period of 3-5 years, and resulting in:

- emission reductions of roughly 11M tons of CO<sub>2</sub>; over the 20-year lifespan of PPAs;
- an increase in Uganda's energy production by about 20%, and thus a contribution to tackling an anticipated supply shortage in 2015;
- facilitating (or significantly improving) access to energy for at least 200.000 additional households (approximately 1.2M people), also in rural areas due to strengthening of regional grids;
- leveraging of MUSD 500 in private investments for renewable energy generation projects with a limited amount of results-based grant funding

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1. These assumptions are based on a 170 MW portfolio. If the target needs to be adjusted downwards following the depreciation of the EUR, the total number of projects may be reduced.

## 1.2 WHAT IS THE CHALLENGE?

There is a looming power-supply shortage for the Ugandan national power grid. Demand on the national grid is likely to start out-stripping supply by 2014/15. As a result of power and fuel supply shortages between 2006-2008, Uganda saw its GDP growth reduced from 6-6.5 % to 4.5 %, costing the economy hundreds of millions of dollars. Unless new renewable power sources are brought online, the sector will again face load-shedding or become reliant upon expensive thermal generation. According to Multiconsult/Norplan (July, 2013), this supply-demand gap is expected to start modestly in 2014/15 and grow steadily until the commissioning of the larger hydropower plants including Muzizi (46MW), Isimba (183MW) and Karuma (600MW). Even if these plants are commissioned on time, thermal plant generation will put a high cost on the system unless new sources are developed. According to ERA (January 2015), the supply-demand gap is in fact already emerging. While the thermal capacity available to the Ugandan grid is still sufficient as to meet the current peak demand and avoid considerable load shedding, the utilization of these capacities represents high costs. ERA expects a significant increase in demand also throughout 2015/16. Hence, ERA strongly confirms that the GET FiT portfolio of small renewable energy projects is critical in order to avoid increased use of thermal power generation and eventually more frequent load shedding due to supply shortage.

While the Ugandan power sector has undergone considerable reform over the past decade, several challenges remain in terms of attracting investments particularly in small renewables:

**Patchy enabling environment for investment in small renewables.** Uganda was ranked 132 out of 189 in the World Bank's Doing Business index (2014), indicating an up-hill battle for a Government and energy sector eagerly seeking foreign investment. Despite significant potential, especially in small hydropower and biomass, developers and investors have expressed significant frustration in terms of ensuring predictability, consistency and transparency in bringing their projects from concept to profitable investment.

**Insufficient incentives to encourage investment in small renewables.** While ERA has introduced (2007) a Renewable Energy Policy and a multi-generation type REFiT policy for promoting small-scale renewables, the proposed tariff levels have been widely viewed by investors as insufficient to unlock investments in the sector. These relatively low tariff levels combined with uncertain and often prolonged development processes have provided inadequate financial incentives especially for early-stage equity investment towards project development.

**High demands on GoU as a counterpart in the timely realization of small renewables.** The demands and expectations placed on public authorities in light of private investment in renewables, especially those that are part of project non-recourse financing, is considerable. There are high demands especially from financial investors in terms of predictable policies and actions, transparency, responsiveness, analytical capabilities, coherent negotiations and ultimately guarantee backup for payments and defaults. Like for most countries in the region, Ugandan authorities are in a constant process to meet these expectations and generally require international expertise to complement their efforts.

**Promoting renewables while minimizing public/end-user financial burden.** The Government of Uganda and ERA are committed to full cost reflectiveness in the energy sector. However, balancing actual costs and the ability of Ugandan consumers to pay for their power is one of the key challenges faced by the sector. With an average of about EURc 15 per kWh Ugandan consumers are already paying a high price for power, also in comparison with neighboring countries. Supporting investments in renewables has long term financial impact and while there is a clear economic incentive to promote small renewable generation with its relatively short lead times, ERA must take a closely considered and balanced approach to ensure an efficient level of support. The relatively weak enabling environment and perceived risk levels make the achievement of this balance particularly challenging for a regulator.

## 1.3 HOW DOES GET FIT ADDRESS THESE CHALLENGES?

The main purpose of the GET FiT Uganda Program is to fast-track a portfolio of about 20-25 small-scale renewable energy generation projects (1 MW - 20 MW) promoted by private developers with a total installed capacity of roughly 150 MW. An additional 20 MW was approved in the recently concluded solar tender, which has been implemented by ERA under the GET FiT Solar Facility. With the expected supply gap gradually increasing from 2014/15 until commissioning of several large hydropower plants, GET FiT will represent a timely intervention, particularly through; supported bagasse plants set for commissioning already in 2015; the range of hydropower plants in the GET FiT portfolio being stepwise commissioned after 2016 and; solar PV capacity expected on-grid in early 2016. The multiple support levers of the Program, described below, are designed to address (simultaneously and somewhat flexibly) the specific challenges described above.

A successful Program will be characterized by i) timely commissioning of up to 170 MW of renewable energy capacity (until 2018) representing a 21% increase relative to current installed capacity, ii) avoidance of significant costs for the sector and emissions from fossil fuel generation, iii) improved sector performance and investment attractiveness, iv) a sustainable exit, with cost-reflective and REFiT levels, and v) ERA better equipped to regulate the sector.

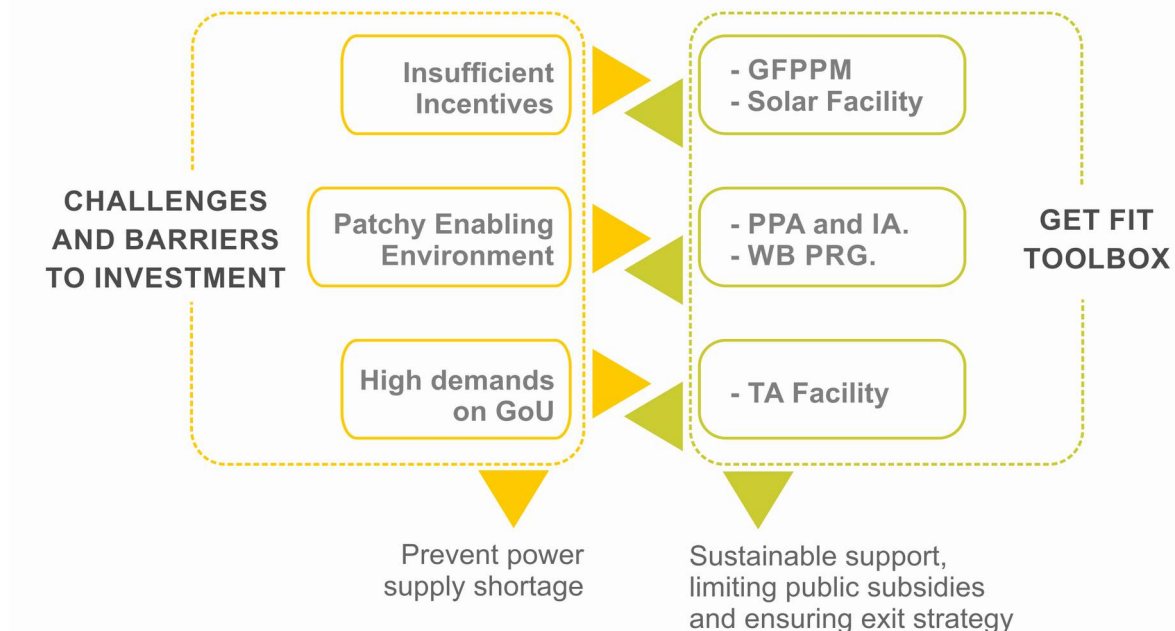


Figure 1: The GET FiT toolbox is designed to meet the primary challenges and barriers to energy sector investment

Each of the support and funding levers are critical contributions towards this success:

**A. The GET FiT Premium Payment Mechanism.** The primary support component of the GET FiT Program is the top-up payment provided to projects in terms of USDc/kWh (USDc 1.4/kWh for hydropower and USDc 1.0/kWh for biomass and USDc 0.5/ kWh for bagasse) for actual delivery of energy to the national grid over 20 years. However, the total support is front-loaded by means of discounting of the total support over the 20 years and disbursed based on the first five years of operation. The intention behind this payment flow setup is to enable commercial lending to projects, by providing additional cash flow to project owners during critical (early) debt repayment periods.



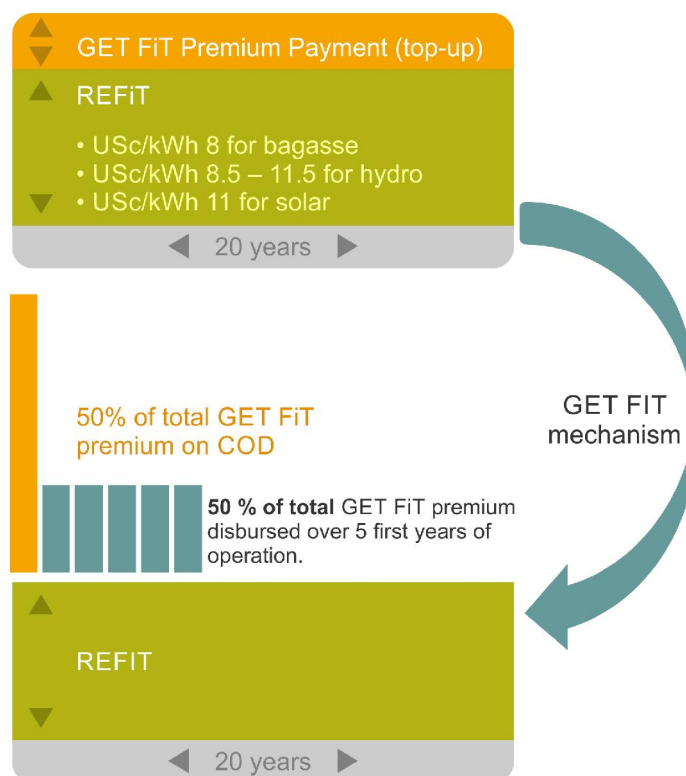


Figure 2: The GET FiT Premium Payment Mechanism provides additional cash flow to project owners in the critical, early phase of debt repayment

**B. GET FiT Solar Facility.** Technology costs for solar PV have plummeted in recent years, while investors show increasing interest for investment in solar PV in East Africa. The vast potential, the short lead-time and geographic flexibility of solar PV technology lead ERA to approach KfW in 2013 to include a component targeting on-grid solar PV under the GET FiT Solar Facility. The funds for this additional component of the GET FiT Program are provided by the EU. The GET FiT Solar Facility involves a reverse auction approach, whereby ERA has defined a tariff of USDc 11 for its contribution per KWh and GET FiT will provide the required top-up / gap payments to the tariffs offered by successful bidders. Thus, the amount (MW) of PV installations supported by the available GET FiT budget is a function of the reverse auction outcome. The facility benefits from the design and administrative set-up of the overall GET FiT Program and is implemented under its umbrella. The first tender resulted in the selection of 4x5MWp installations in Eastern Uganda. Figure 3 illustrates the prioritized geographic areas of the country, as determined by UETCL, UMEME and ERA.

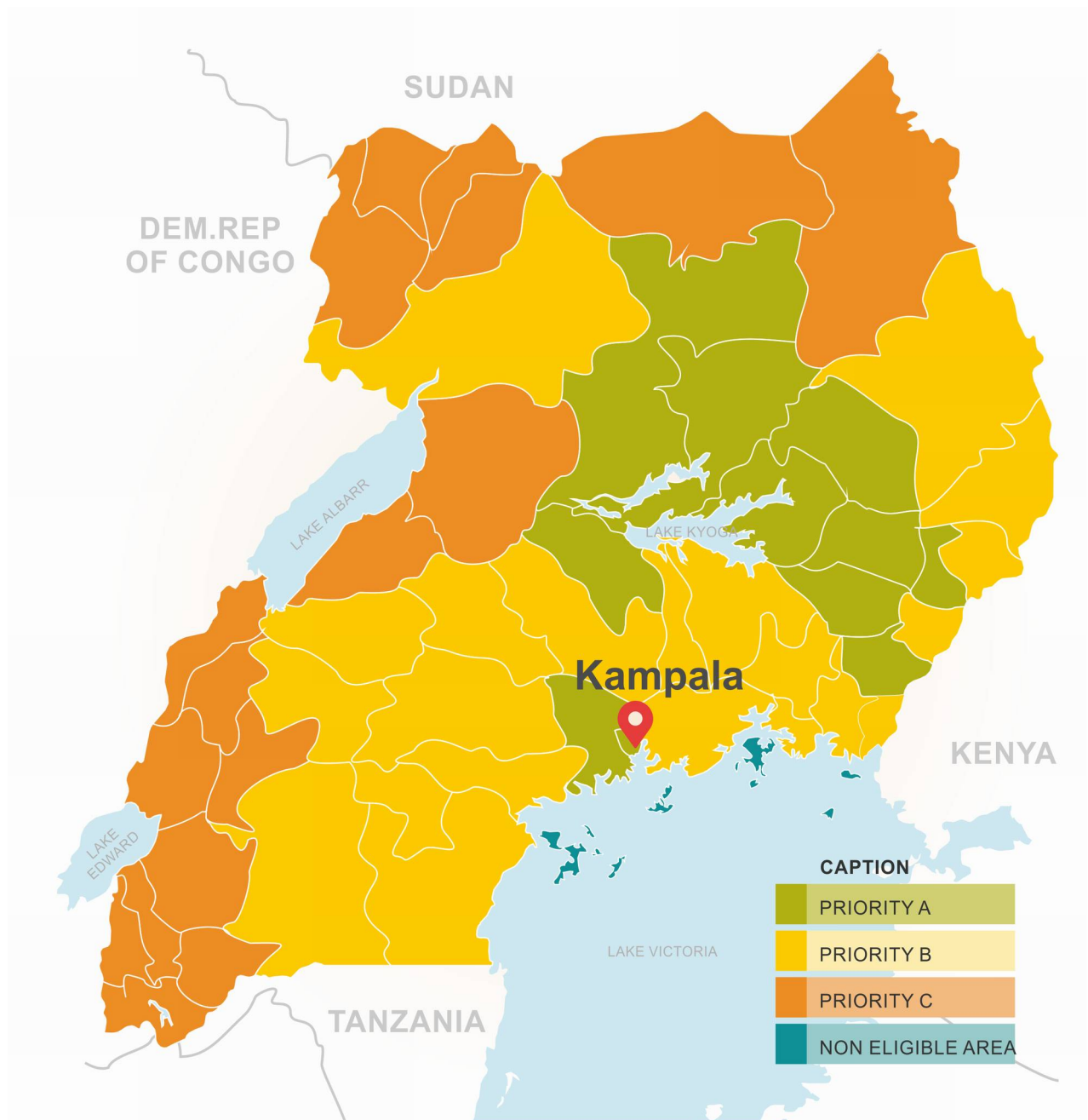


Figure 3: Priority regions under the GET FiT Solar Facility (based on insolation conditions, demand and grid readiness)

**C. Support to Standardization of legal documents.** Bankable Power Purchase Agreement and Implementation Agreements as well as the related Direct Agreements are key for successful structuring of independent power producers, especially when they are project financed. While Uganda already had a standard set of legal documents before GET FiT, developers and their banks were not comfortable with the drafts leading to lengthy negotiations and case by case amendments. With the support of GET FiT an experienced law firm (Trinity International LLP) was contracted in 2012 to support UETCL, GoU and ERA in the review and standardization of PPA, IA and Direct Agreements for small independent power producers. In a consultative process, developers, their banks and lawyers were able to provide input, ensuring broad acceptance of the revised documents. By standardizing the documentation, transaction costs are reduced for both public and private stakeholders.

**D. World Bank IDA Partial Risk Guarantee Facility.** On March 18th, 2014, a PRG facility in support of small scale renewable projects in Uganda was approved by the World Bank Group Executive Board. The PRG Program design and implementation are critically dependent upon the systems in place to implement, manage and monitor the GET FiT portfolio. The MUSD 160 committed for the PRG facility will specifically be deployed as three complimentary risk-mitigating components;

- i. Facilitate the provision of short term liquidity support to the benefit of UETCL's Power Purchase Agreement obligations.
- ii. Termination compensation for events of governmental/utility default under the PPA / IA.
- iii. Commercial debt guarantee.

The World Bank PRG team utilizes the application and appraisal documents of GET FiT Premium Payment Mechanism for their PRG approval process and closely work with the GET FiT Secretariat. Both application and appraisal processes are synchronized in terms of timing, thus reducing transaction costs for independent power producers interested in both components.

**E. GET FiT Technical Assistance Facility.** The Technical Assistance Facility for ERA includes measures ensuring the long term sustainability of the arrangements for support to renewable energy in Uganda, including enhancement of skills for REFiT tariff modelling, least cost development planning, project due diligence expertise, strategic communication and negotiation. The Technical Assistance Facility finances targeted trainings for selected staff members and groups through external as well as on-the-job training.



The GET FiT Program is a prototype for a partnership between Government and Development Partners: on one hand a strong commitment from the Government to get sector policy and regulation right and attract private investments; and on the other, an impact-oriented and cost-efficient synergy between Development Partners.



EU ambassador Mr. Kristian Schmidt



## 1.4 WHAT ARE THE OPPORTUNITIES FOR SUCCESS IN UGANDA?

Uganda has one of the most liberalized power sectors in Africa. In 2007, GoU introduced the Renewable Energy Policy and a multi-generation type REFiT policy for promoting small-scale renewables. This REFiT policy provided a particularly attractive entry point – and exit strategy – for the GET FiT Program. Specifically, it was widely viewed in the market that the initial REFiT was slightly low to stimulate private investment in renewables in Uganda. Balancing end-user ability to pay and industry requirements, GoU and ERA committed to gradually increase the REFiT to a truly cost reflective level. This introduced a time-bound opportunity for cooperation to ensure fast-tracked promotion of new renewables in the light of the looming generation crisis.

There is increasing interest by a diverse range of investors in renewable energy in Eastern Africa. The 17 projects thus far approved by the Program all have more or less formal commitments for full investment needs – totaling some MUSD 400. The observed interest by local and international developers, Developer Finance Institutions, World Bank, international equity investors and to limited extent commercial banks in the GET FiT Program has been overwhelming, culminating with 17 applications from independent power producers for the first two RfP rounds (for hydro, biomass and bagasse) and 24 Expressions of Interest for the on-grid solar power tender launched by ERA under the GET FiT Solar Facility. Finally, in late January 2015, 18 hydropower applications were received for the third and final RfP round (open to hydro, bagasse and biomass project developers).

Given the above and the results-based design of the support, development partners have been highly positive and provided full support - matched by considerable expectations regarding results. The design ensures that donors will provide project-level payment only once results are delivered – increased production of renewable energy, coupled by reduced emissions and socio-economic benefits. The results-based design ensures alignment of incentives for all parties involved.

## 1.5 WHO HAS RALLIED BEHIND GET FIT?

Recognizing the prevailing challenges and opportunities facing the sector, GoU and ERA worked actively together with KfW to put the targeted and time-bound support to work. In order to ensure rapid and efficient implementation, GoU provided KfW with delegated authority in terms of implementing the Program. As the implementing agency, ERA has fully embraced the Program and maintained high expectations in terms of timely results. ERA participates in the Steering Committee as well as a range of critical discussions concerning implementation, often represented by senior management. In order to achieve sustainability of the GET FiT Program and full engagement by ERA staff, considerable effort is made to ensure full compatibility of the Program's governance, support, procedures, etc with ERA's own systems and planning. ERA is actively utilizing the support and efforts provided by GET FiT in their daily operation.

Provided with delegated authority from GoU, KfW continues to operate as the dedicated implementing entity of the GET FiT Program in Uganda. KfW has invested considerable time, effort and reputation into the Program, ensuring proper financial management systems, developing and signing the required agreements with GoU, developers and consultants and actively engaging in the overall development of the Ugandan power sector.

The Development Partners of Government of Norway, Germany (BMUB and BMZ), UK (DECC and DFID) and the European Union are recognized for providing predictable funding commitments towards this innovative results-based funding scheme. Together, these partners have committed MEUR 91, thus ensuring full funding of the Program in order to meet the key targeted outputs.

The World Bank has contributed to the development and implementation of the Program and approved its IDA PRG facility which offers valuable risk mitigation tools to developers.

Finally, the Program will only prove as successful as the developers and investors promoting and implementing the projects. Thus, GET FiT has actively engaged in providing support, networks, opportunities, etc. to developers that are following the GET FiT Program. With 17 approved projects, and many more in the pipeline, these developers are everything from industrial to financial actors and generally include both domestic and international shareholders.

## 1.6 GET FIT UGANDA GOVERNANCE STRUCTURE

The governance structure of GET FiT is illustrated in Figure 4. As indicated here, underpinning this structure is the delegated authority given to KfW by GoU regarding all aspects of implementation of the Program. This ensures that KfW can run the tender process, sign the required agreements, manage funding commitments and disbursements from development partners and generally promote the Program. KfW is implementing GET FiT together with ERA, ensuring a policy-conform and consistent implementation of the Program.

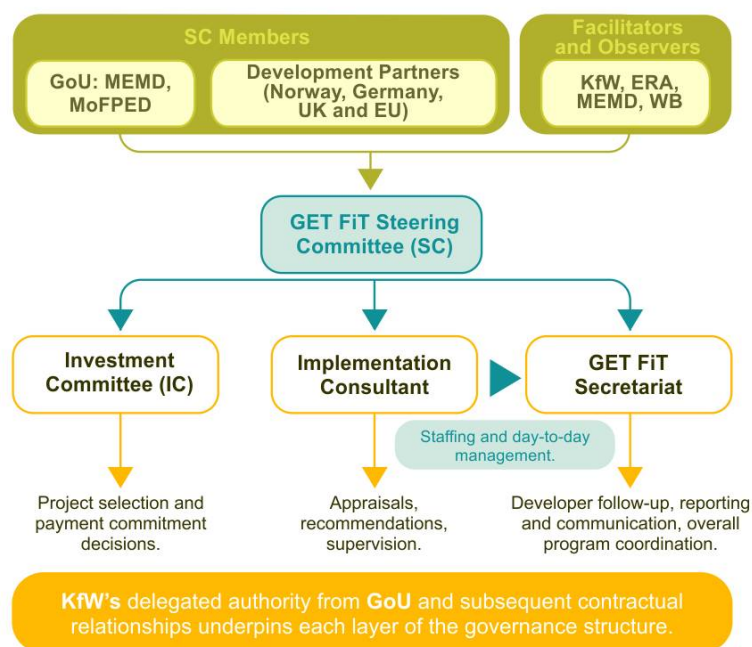


Figure 4: The governance structure of GET FIT is designed to ensure a fair tender/proposal process, thorough selection, high quality follow-up and efficient monitoring of approved projects

The main governing body of the GET FiT Program is the Steering Committee, which comprises of one representative from each development partner and two representatives from the Government of Uganda (Ministry of Energy and Mineral Development (MEMD) and Ministry of Finance, Planning and Economic Development (MoFPED)). KfW, the World Bank, ERA and the GET FiT Secretariat have non-voting representation. The Steering Committee has the responsibility for determining all policy-related principles of the GET FiT Program, which includes amendments or changes to guidelines on all operational levels of the facility.

SC MEMBERS	SC FACILITATORS AND OBSERVERS
Ministry of Finance,	KfW
Ministry of Energy and Mineral	GET FiT Secretariat
Government of UK (DFID and DECC)	Ugandan Electricity Regulatory
European Delegation	World Bank
Government of Norway	Invited Consultants
Government of Germany	

Table 1: Steering committee members, facilitators and observers of the GET FIT Program

The Investment Committee, consisting of seven international (renewable) energy sector and infrastructure investment experts, is the body in charge of the final appraisal and investment decision for projects applying under the GET FiT Program. Additionally, the Investment Committee makes proposals for changes and adaptations of GET FiT policies and guidelines for the consideration of the Steering Committee.



The Secretariat is tasked with day-to-day management, coordination and supervision of the Program's implementation. The Secretariat facilitates meeting points for relevant stakeholders, ensures smooth and timely running of the RfPs and subsequent appraisals and IC meetings, maintains a dialogue with developers, implements the Technical Assistance Facility, and follows up on action points from GoU, KfW, the SC and IC.

The Implementation Consultant (Multiconsult|Norplan), among other things, manages the day-to-day business of the Secretariat, performs the independent appraisals during the RfP process, carries out the supervision of the individual projects, manages actual and projected disbursements and cash balances, and provides regular reporting upon Program implementation.

The GET FiT project cycle is as illustrated by Figure 5. The selection of renewable energy projects to be considered for support by the GET FiT Premium Payment Mechanism and the GET FiT Solar Facility follows an open and transparent RfP. Projects need to be sufficiently advanced in project preparation (e.g. feasibility (pre-feasibility for solar), Environmental & Social Impact Assessment (screening for solar), Resettlement Action Plan, interconnection study concluded) to be eligible to apply. Projects have to demonstrate that they a) are financially and economically sustainable, b) technically sound, c) developed by a developer/sponsor with a reliable project record and d) comply with International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (2012). In addition, a comprehensive legal due diligence is performed. Project Proposals under the GET FiT Program are appraised by the Implementation Consultant. Support under GET FiT is provided on a competitive, first-come-first-serve basis until funds are exhausted.

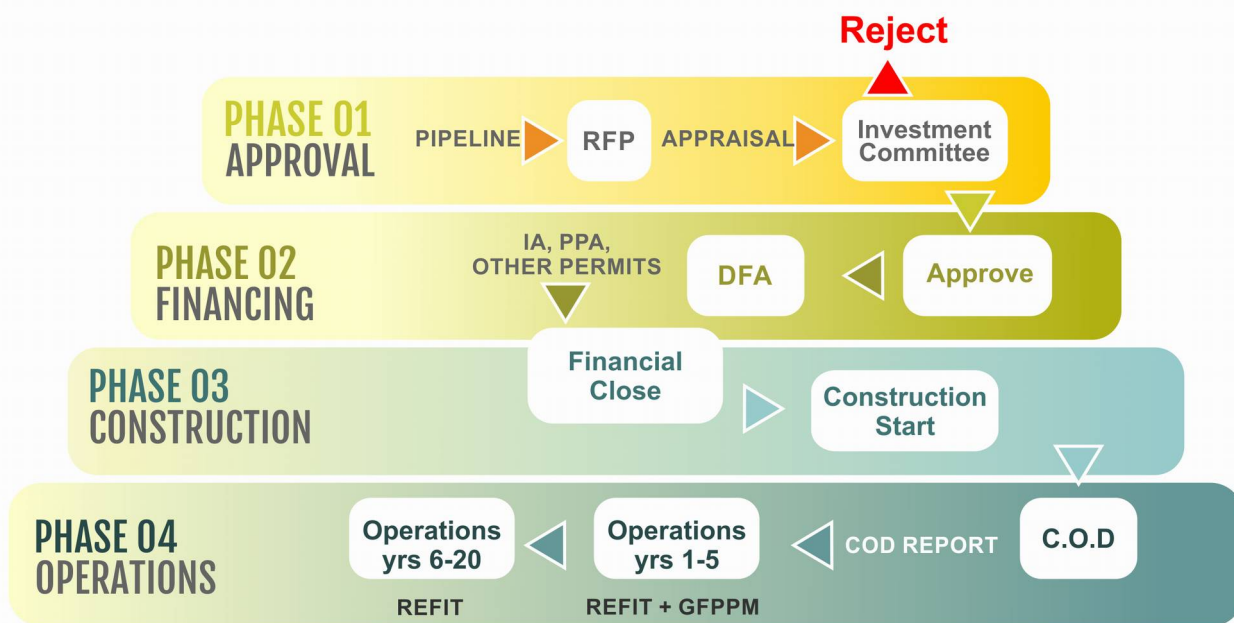
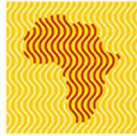


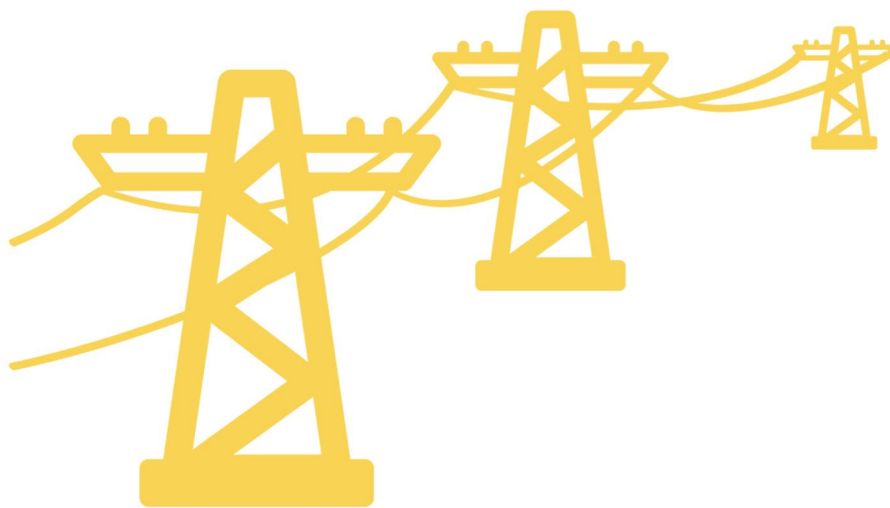
Figure 5: The GET FiT Project Cycle aims to efficiently bring projects from approval to operation, by providing a streamlined and transparent process with a set of distinct milestones.



GET FiT  
UGANDA

## CHAPTER 02

# KEY ACTIVITIES AND ACHIEVEMENTS DURING THE YEAR



ANNUAL REPORT  
**2014**

## 2.1 THE GET FIT PROJECT PORTFOLIO: DIVERSITY AND GROWTH

In December 2014, ERA and the GET FiT Secretariat announced the approval of four solar PV projects that will be developed with support from the GET FiT Solar Facility, introducing a solar PV capacity of 20 MW to the Ugandan national grid. The plants are planned for completion in early 2016. Hence, with the 108 MW represented by the 13 projects (biomass, bagasse and hydropower) previously approved, the GET FiT portfolio now stands at a promising 128 MW of planned renewable energy generating capacity (Figure 6). Several of these projects are expected to start construction in 2015, while some are set for commissioning in the same period. In addition to the significant growth in its expected capacity, the GET FiT portfolio has reached a new level of diversity over the past year. It is now featuring four different technologies (biomass, bagasse, hydro and solar PV) and the projects are located in 5 out of 10 different Ugandan sub-regions.

With the portfolio now standing at about 128 MW, this leaves 42 MW for the currently ongoing RfP Round 3 to reach the pre-defined Program target of 170 MW. Four to eight projects are expected to enter the GET FiT portfolio as a result of RfP Round 3, depending on the installed capacity of the approved projects. Thus, the current expectation is that the portfolio will eventually comprise 20-25 projects. This is an increase from the original assumption of about 15 projects, which is due to a lower average capacity (MW) for selected projects than expected upon commissioning of the Program. However, the amount of projects which GET FiT can eventually facilitate through the third RfP will also depend on the development of the EUR vs. USD exchange rate; more detail on this subject is provided in Chapter 4.1. RfP Round 3 was launched in November 2014, and it will be completed in June 2015.

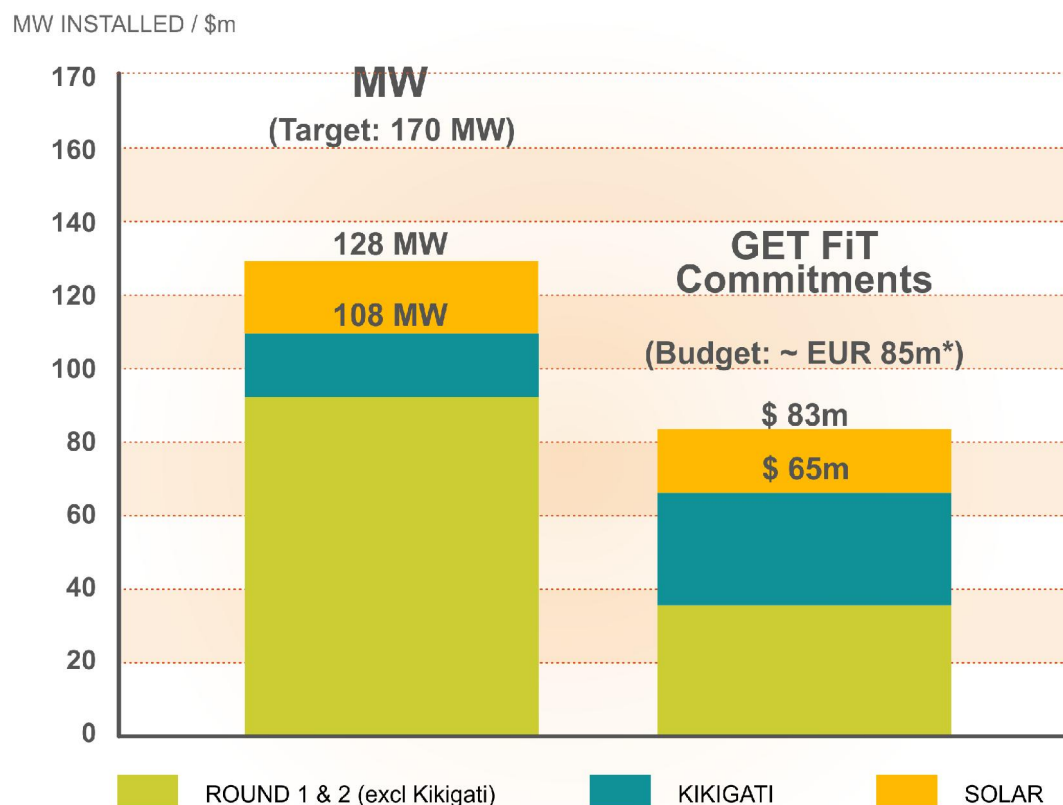


Figure 6: Status of the GET FiT portfolio before completion of RfP Round 3. (\* The actual budget in USD is dependent on EUR vs. USD exchange rate fluctuations).

## 2.2 GET FIT KICK-STARTS FIRST EVER ON-GRID SOLAR PROJECTS IN UGANDA

After a competitive bidding process that was initiated in January 2014, with 24 expressions of interest, four solar PV projects proposed by two different developers were selected by ERA and the GET FiT Investment Committee to benefit from the GET FiT Solar Facility. The two consortia will each build, own and operate on-grid solar projects of 2x5 MW in the Tororo and Soroti Districts respectively. Thus, a total solar PV capacity of 20 MW was established as part of the GET FiT portfolio and these new power plants are expected to provide an average annual energy production of about 35 GWh in total. The average tariff for solar PV projects over the 20 years of operation is USDc 16.37 per kWh, with GET FiT covering the margin between this and the end-user tariff set by ERA at USDc 11 per kWh.



From the solar project development award in Kampala. Representatives from left to right: Mr. Omwala Sam, Soroti LandSurveyor; Mr. Paul Egwau, Soroti District Government Physical Planner; Mr. Reda El Chaar, Chairman, Access Power; Hon. George Micheal Egungu, LC V, Soroti District; Mr. Vahid Fotuhi, Director of Origination, Access Power; Mrs. Caroline Ekobu Access Power Local Agent, Soroti; Mr. Gidudu Tom, Deputy Chief Administration Officer, Soroti District Government

With the solar RfP completed on schedule, the 20 MW target for installed capacity achieved, and the four projects expected for commissioning already in early 2016, the GET FiT solar facility has so far proven very successful. The solar PV development will play an important part in reaching GET FiT's overall targets for installed generation capacity and annual renewable energy production. As ERA assumes that the Ugandan grid can handle integration of some 50 MW of solar PV at this stage, it is the interest of GET FiT and ERA to use the current window of opportunity and high developer interest to further strengthen Uganda's solar project portfolio. As a proactive response to this, KfW is currently soliciting funding for a second solar RfP.



Solar PV offers important advantages for Uganda: In addition to being quick to implement, solar projects can be built close to demand centres, thereby reducing transmission losses and stabilizing the grid.

Dr. Benon Mutambi, Chief Executive Officer of ERA





## 2.3 ADDRESSING CRITICAL GRID BOTTLENECKS: GET FIT INTERCONNECTION SUPPORT

During the course of GET FiT implementation, it has become clear that certain grid investments are needed to address critical bottlenecks and to ensure adequate interconnection and power evacuation for several projects in the GET FiT portfolio. This is largely due to the high regional concentration of hydropower projects in the portfolio, causing capacity constraints on the local distribution and transmission grid. However, through targeted joint efforts by GoU, Development Partners and GET FiT, the infrastructure and associated TA support required to overcome these barriers are now identified, their costs have been estimated, and progress is being made to secure funding and allow for timely and coordinated implementation.

In this regard, GoU has established a dedicated task force (ERA, UETCL, Uganda's Rural Electrification Agency (REA), and the private distribution company Umeme) to address the interconnection challenge. In June 2014, the task force delivered the report "Power Evacuation and Grid Interconnection Study for the Global Energy Transfer Feed-in-Tariff Projects", with the following primary objective:

To plan for adequate infrastructure to enable proper and full evacuation of the proposed GET FiT generation projects to mitigate power shortages in the medium to long term and also to avoid situations of deemed energy<sup>1</sup>.

The task force has identified system - and budget requirements for integrating the current GET FiT portfolio in its entirety, while also aiming, to the extent possible, to facilitate projects expected aboard after RfP Round 3. Based on the conclusions of the task force, KfW and the GET FiT Implementation Consultant developed a list of urgent investment needs to the existing Ugandan grid. These investments will safeguard the targets of the GET FiT portfolio through ensuring adequate grid integration for all projects, while also introducing additional benefits such as i) potential for grid integration of additional renewable energy generators, ii) increased rural access, iii) increased grid stability, iv) employment and more. Identified investment needs include:

- **Mbale – Bulambuli transmission project.**

A high voltage (132 kV) 60 km transmission grid extension including two substations in Eastern Uganda. Required to evacuate power from Siti II and a range of potential future hydro sites in the Mt. Elgon area.

- **Opuyo Substation.**

Transmission substation reinforcement in Eastern Uganda required for evacuating power from future solar plants in Soroti (from second solar PV tender).

- **Reinforcement of medium voltage (33 kV) distribution networks**

in Western Uganda, mainly by increasing conductor size for critical line segments. This is required to adequately grid integrate a range of GET FiT hydropower projects in the Kasese – Fort Portal area.

- **Nkenda Substation.**

Transmission substation reinforcement in Eastern Uganda required to adequately grid integrate a range of GET FiT hydropower projects in the Kasese – Fort Portal area.

- **TA support to ERA**

in development of standard documents for grid interconnection of small renewable energy generators and compliance monitoring of transmission and distribution companies.

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1. Deemed energy is energy which could have been produced at a generating facility but is not due to insufficient grid capacity. This represents an income loss to the power plant owner, which must be compensated by GoU. Thus insufficient grid capacity represents a critical risk to the financial viability of the Ugandan power sector.

Total investment needs are estimated to some MUSD 90 and financing must be urgently secured to allow for full implementation in the period 2015-2018. While GoU is already committed to several of the above mentioned projects through their national grid investment plan, support from development partners will be necessary to ensure that these investments are implemented in a timely manner with respect to the GET FiT portfolio.

Additional funding to aid GoU in implementing the proposed interventions is currently being solicited and encouraging progress has already been made in this regard: GET FiT development partners, including UK DFID, World Bank, EU and Germany have committed or are considering opportunities for providing additional support to grid interconnection. Notably, the EU is already financing the feasibility study for the Mbale – Bulambuli 132 kV transmission grid extension. In December 2014, Germany committed to provide a concessionary loan of up to MEUR 40 to the project (subject to positive appraisal based on the feasibility study). To ensure the full financing of the estimated MEUR 50 investment costs, the EU is also considering an investment grant for the transmission line. In parallel, UK DFID is reviewing a proposal to fund i) the urgently required 33 kV grid reinforcements in Western Uganda, ii) the Opuyo transmission substation upgrade and iii) TA support to ERA. The World Bank is prepared to provide funding for the Nkenda Substation upgrade.

Furthermore, the Governments of Norway and Germany and the World Bank are already involved in on-going transmission grid extension projects in Uganda along with a range of other development partners.

Going forward, GET FiT Uganda will continue to be a driving force in ensuring that the required grid reinforcements are implemented in a timely manner. The GET FiT Secretariat will maintain its role as a member of the Joint Task Force, supporting ERA, UETCL, REA and the distribution companies throughout the coordinated implementation of required grid reinforcements and extensions. GET FiT will ensure alignment of grid investments with the implementation of the GET FiT portfolio, and facilitate communication and coordination between stakeholders (including project developers).

Through the joint efforts of GoU, its parastatals and key Development Partners, the grid interconnection support component established under GET FiT can provide a forceful and efficient tool to overcome critical grid-related bottlenecks. As a result of the swift and serious actions taken by Ugandan authorities and the proactive support of KfW and the GET FiT Secretariat, the identified requirements can still be implemented in time to safeguard the original GET FiT renewable energy production targets, while even introducing a range of additional benefits.

## 2.4 TECHNICAL ASSISTANCE FACILITY: COMPREHENSIVE CAPACITY BUILDING AT ERA

The GET FiT Technical Assistance Facility is contributing to strengthening ERA in various key competence areas. ERA itself has been the most important driving force in this process, through a proactive and dedicated approach towards utilizing all aspects of received technical assistance in an efficient and fruitful manner, and being the main contributor to identification of areas for potential additional support.

### A. Due diligence of renewable energy projects

In 2014 Grontmij provided consulting services for optimization of the regulator's project due diligence process under the GET FiT Technical Assistance Facility. The task's main objective was to develop ERA's capacity for technical, environmental and social, and financial and economic due diligence of renewable energy generation projects, including hydro, bagasse, and biomass. Thus, this work aimed at enhancing the project assessment capacities and monitoring processes of ERA.

The revised due diligence methodology and procedures (including due diligence manual and training manual) were developed during the fall of 2014, and a training seminar was held in November. The process concluded with a well-attended stakeholder workshop in Kampala during which ERA presented the new manuals and guidelines. Comments from developers were taken into consideration and a final report for the due diligence support was delivered and approved in December 2014.



With this technical assistance component, the GET FiT Program continues to address important shortcomings in the sector. With the optimized framework for ERA's permit and licensing procedures, developers and investors like us now benefit from standardized process, documentation and communication requirements with the regulator. This will result in reduced transaction costs and timelines, which positively contributes to further enhance the viability of renewable energy project development in Uganda.



Daniel Schultz,  
Investment Director & Partner,  
DI Frontier (Hydro Sponsor / Developer)

### B. Solar PV Tender Agent

The Solar Tender Agent (Agut Energy Advisory Services) supported ERA, KfW and GET FiT in the design and implementation of the GET FiT Solar Facility as well as in building up of capacity at ERA to tender appraise and select solar PV projects in the future.

The tender was successfully concluded in 2014. To ensure capacity building ERA staff participated in the project site visits and were closely involved in the appraisal that resulted in the appraisal reports presented to ERA management and the GET FiT Investment Committee. A workshop will be implemented in early 2015 to formalize the on-the-job training received and finalize due diligence manuals for solar with ERA staff.

## **C. Tariff Modelling**

In 2014 a tender for consultancy services was launched to train ERA staff in tariff modeling, which will enable the regulator to regularly review the REFiT levels and maintain their cost-reflectiveness. This is key to attracting private investments in renewable energy after the GET FiT support ends and hence to ensure sustainability of the Program. The consultancy also includes renewable energy benchmarking services to develop credible and viable inputs for the REFiT as well the development of a best practice modeling tool for ERA's economic regulation experts. A consortium led by Frankfurt School-UNEP Collaborating Centre was selected as the preferred bidder in the independent evaluation and the inception mission was conducted in February.

## **D. Compliance monitoring of transmission and distribution companies**

The Consultant for TA on due diligence recommended in his report to also address certain due diligence issues outside of scope of this assignment, most importantly with regard to compliance monitoring of distribution and transmission companies under their respective concessions. The target of such additional support would be to enable ERA to monitor the grid operators and their technical and financial performance in a more adequate manner. This will enable ERA to more properly address key areas of improvement in the overall grid operation, and to initiate efforts to reduce technical and commercial losses. This proposal is currently being discussed and has been proposed as an item for additional funding under the GET FiT interconnection support component (Chapter 2.3).

## **E. Interconnection Code and Standard Wheeling Agreement**

As proposed part of the GET FiT interconnection component, terms of reference have been developed by ERA in cooperation with KfW for the preparation of the Interconnection Code & Standard Wheeling Agreement. This is the necessary response to the power evacuation issues faced for small renewable energy generation projects. The overall objective of the assignment is to enable proper and full evacuation of embedded generators in the future, at allowable national and international techno – economic standards. In particular, an eventual Interconnection Code and Standard Wheeling Agreement must detail the technical and economic requirements for connecting new (or previously isolated) generation facilities to the existing national grid. This includes direct connection to the transmission grid and/or through a third party facility (the distribution licensee) in which case it will involve both interconnection and wheeling aspects. The implementation of these standards are critical to ensure adequate integration of renewable energy generators, thus also critical to successful implementation of the GET FiT portfolio. On this basis, TA support to development and implementation of the Interconnection Code and Standard Wheeling Agreement has been included as a proposed investment under the GET FiT interconnection support component.

## **F. Professional twinning**

Due to the presence of the GET FiT Secretariat at ERA House (headquarters), the GET FiT team has close and permanent communication ties with ERA. Further, ERA staff members have accompanied appraisal missions and will also do so for the upcoming supervision visits. ERA has assigned a GET FiT liaison team covering the various disciplines – technical, environment and social, and economics and finance – who meets regularly with the members of the GET FiT Secretariat to discuss pending issues and align information flow.

## 2.5 TARGETING ON-THE-GROUND PROGRESS: DEVELOPER WEEK

To ensure swift progress towards financial close and construction start for approved GET FiT projects, a developer week was organized by GET FiT during the second week of June in Kampala. This was a targeted, joint effort by ERA, KfW and the GET FiT Secretariat to maintain focus upon i) progress on the individual projects, and ii) a successful third RFP round. During the week, the following activities took place:

- The Secretariat facilitated PPA / IA negotiations with respective authorities. In total, three PPAs and IAs were initialled.
- The Secretariat supported solar developers in arranging meetings with relevant authorities such as NEMA and UETCL.
- The GET FiT Secretariat initiated a project progress mapping process and commenced the planning for RfP Round 3 for hydro/biomass/bagasse. There was a mutual understanding between all stakeholders that RfP Round 3 would not be launched before a sufficient number of likely applicants had been identified. In this context, the team developed a follow up and monitoring process, which finally resulted in a strong pipeline for RfP Round 3, before it was launched in November 2014.

Further to this, the main focus of the developer week was informing and helping developers within hydro, biomass and solar projects to meet the Environmental & Social Standards (E&S) required according to the IFC Performance Standards. To achieve this, two workshops and a series of bilateral meetings with developers were arranged, as are outlined in the following section.



## 2.6 TARGETING ENVIRONMENTAL AND SOCIAL STANDARDS

Two workshops on Environmental and Social Standards were organised by the GET FiT Implementation Consultant in June 2014. The workshops targeted small hydropower, biomass and bagasse developers (June 9th) and solar developers (June 10th) and were held at the Protea Hotel, Kampala.

The workshops were organised as a reaction to low environmental and social scores during appraisal of applications for the GET FiT premium payment mechanism in RfP Rounds 1 and 2. A large proportion of the applicants did not make the cut-off scores for the Environmental and Social Assessments. There were systematic weaknesses in the environmental and social documentation across the projects. In most instances, neither the applicants (project developers) nor their consultants appeared well-versed in the IFC Performance Standards.

- The one-day workshop for small hydropower and biomass developers was held on 9th of June with a total of 28 representatives from developers and their consultants. ERA, KfW and the GET FiT Secretariat (Multiconsult/Norplan) were also represented. The main objective of the workshop was to increase the knowledge and understanding among small hydropower and biomass project developers of key elements of the IFC Performance Standards, the Ugandan frameworks and the related GET FiT requirements as well as how to address these requirements in project documentation.
- The half-day solar developers' workshop was held on 10th of June with a total of 17 representatives from solar developers and their consultants. ERA, KfW and the GET FiT Secretariat were also represented. The main objective of the workshop was to increase the knowledge and understanding among solar project developers of key elements of the IFC Performance Standards, the Ugandan frameworks and the related GET FiT requirements.
- A series of bilateral meetings with prospective biomass / bagasse developers was held, aimed at further lifting their understanding of GET FiT environmental and social requirements, as well as offering them specific and targeted advice.
- Most of the projects approved by the Investment Committee have received some technical support from the GET FiT Implementation Consultant through review, comments and discussions of Terms of References for environmental and social studies, draft reports and draft plans.

Despite the workshops, meetings and provided technical support, several developers and their consultants remain unable to properly address and manage environmental and social issues. Their requirements for bilateral support are putting a strain on the Implementation Consultant's team and budget. While GET FiT will continue to actively support developers there is a limit to what can be provided. Thus, some developers are required to substantially step up their efforts or risk further delays or even losing support under GET FiT.

On the other hand, a limited number of developers have gradually responded in a more proactive and forward-looking manner. Recruitment of dedicated internal capacity at the developer has in one instance contributed to marked improvements and much more targeted investments in the environmental and social processes. The project management of at least one other developer has taken much more responsibility and engaged seriously with the issues and recognised their importance for overall project success. This engagement has included in-depth scrutiny of consultants' actual abilities as opposed to relying on consultants' self-proclaimed capabilities.

Beyond securing the GET FiT Premium Payment, the proper handling of environmental and social issues are likely to guard against unforeseen risks and impacts during construction and operation and also to secure a social license to operate. The reputation and 'stamp of approval' that accompany IFC Performance Standards can also be attractive to new investors and financiers, though some of the developers are unlikely to obtain such an approval unless learning from some of their peers under the GET FiT Program.



E&S Workshop in Kampala, June 9th – 10th (Photo: GET FiT)

## 2.7 JOINT SECTOR EFFORTS TO RESOLVE PPA AND IA ISSUES

In early 2014, both the Standardized IA and PPA (for small hydropower) were approved by Uganda's Solicitor General. The PPA and IA have been developed by Trinity International LLP in their role as legal counsel to GoU/KfW. This was widely seen as a key milestone for GoU, ERA and the GET FiT Program, as it paves the way for significantly reduced transaction costs while providing a truly bankable security package to investors. The milestone was the culmination of dedicated efforts by all stakeholders, including extensive involvement of DFIs, over several months. Notably, the GET FiT hosted Commercial Bank roundtable in February 2014 revealed general consensus that the agreements now were balanced and bankable. The first PPAs had already been initialed after only hours of negotiation. With the support of the GET FiT Program, and based on the standardized documents for hydro, the PPA / IAs for biomass/bagasse and solar PV-based projects are also being developed.

The progress of the Ugandan regulatory framework for renewable energy development and its effect on the country's renewable energy investment climate was confirmed by Bloomberg's Climate Investment Ranking for 2014. Uganda was ranked number 10 among 55 emerging markets in Africa, Asia, Latin America and the Caribbean, and thus number 3 in Africa, only beaten by South Africa and Kenya. Joint sector and GET FiT efforts on PPA and IA development have played a key role in getting there.

However, following the PPA/ IA negotiations that took place during the developer week in June 2014, it became apparent that some changes to the risk allocation in PPA/ IA were necessary. According to the dedicated interconnection policy, the implementation and timely provision of power evacuation infrastructure lines are the responsibility of GoU through REA not UETCL which is only in charge of HV lines. UETCL rightly claimed not to have any operational influence on the procurement and construction of such lines. After stakeholder consultation, it was hence agreed that the obligation to pay deemed energy for late MV interconnection would be transferred from the PPA to the IA, by which GoU effectively relieves UETCL of any financial liabilities resulting from delayed provision of MV power evacuation infrastructure. Approval of these changes was obtained from the Solicitor General in October 2014.

By November 2014, a total of seven developers had initialed the revised PPAs with UETCL and submitted these to ERA for clearance. In the subsequent final approval process, concerns were raised by the Solicitor General which led to minor amendments to the "Change in Law" provision in the PPA. Although the issue was resolved fairly quickly with dedicated efforts from ERA, the GET FiT Secretariat and Trinity LLP, it prevented signing of first PPAs in 2014 and illustrates that the process of standardization is more challenging than expected and requires continued efforts and engagement. The first PPAs (Nengo Bridge, Lubilia, Siti I and Siti II) were signed in January 2015. Further PPAs and IAs are expected to obtain clearance within the first Quarter of 2015.

## 2.8 TAX REFORM ISSUES

New tax legislation reducing tax benefits and incentives in different sectors was introduced in summer 2014. This created uncertainty among developers who mainly feared the revocation of value-added tax (VAT) exemption for studies and supplies for hydro power plants and the impact of the removal of the initial capital allowance, which allowed for a deduction of 75% of the capital expenditure from a company's profit. The concern among developers and financiers was that such changes would have major impacts on the cost of projects and threaten the financial viability in particular of hydro power projects under the existing REFiT and Premium regime. KfW and the GET FiT Secretariat actively engaged the relevant stakeholders in order to obtain clarification on the impacts of the bill and increase awareness on potential impacts for the development of renewable energies in the country.

Following several consultations, Uganda Revenue Authority issued a general ruling on November 13th, 2014, which elaborates on the details of the reforms. It was clarified that the VAT exemptions would be upheld for hydropower also under the new legislation, however any project preparation expenses prior to signing of the PPA with UETCL would become liable to VAT. It was further clarified that the abolishment of the initial capital allowance was cushioned by accelerated depreciation offered to capital investments in the Income Tax Act. With some minor issues still pending clarification, it can already be stated that the impacts of the proposed reforms on the financial viability of hydro projects will be manageable and all projects of the GET FiT portfolio will remain viable.

While finally the tax reform turned out to have no significant impact on the GET FiT portfolio, the developments illustrate how sensitive the private sector reacts to changes in the political, regulatory and legal framework conditions. Basically, project development and progress on financial close was on hold between August and November.



## 2.9 FIRST SUPERVISION VISITS TO GET FIT PROJECTS

In June 2014, the first supervision visits for GET FiT projects were conducted by the Implementation Consultant. The primary purpose of the supervision visits is to ensure consistency and conformity of project development activities with their respective GET FiT Developer Agreements. On-site visit to projects supported under GET FiT will be conducted during their construction phase (before Commercial Operations Date is achieved) to review overall progress of the project against the original projected timeline and - where applicable – Conditions Precedents for disbursement defined in the developer Finance Agreement. During these visits, the following aspects are reviewed:

- High-level review of technical implementation of project (timelines, quality of works, change in designs).
- Check on compliance with Environmental and Social Management Plans and Resettlement Action Plans developed for the project.
- Verification that implementation of interconnection is on track

This first round of visits marks the start of regular supervision visits by the expert team, normally two visits per year for each project.



From GET FiT Supervision visit at Rwimi River, June 2014 (Photo: GET FiT)

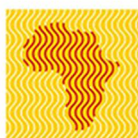


## 2.10 WORLD BANK PARTIAL RISK GUARANTEE (PRG) FACILITY STATUS

Following approval of the guarantee framework in March, the World Bank team strengthened its cooperation with potential beneficiaries of the World Bank's PRG for small-scale renewables. The PRG is expected to be an important contributor to the risk mitigation package of the GET FiT Program and offers coverage of:

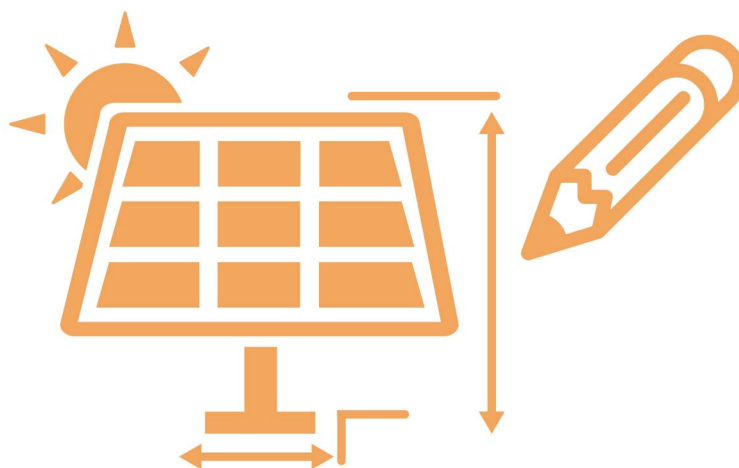
- UETCL Payment Risk under (PPA) monthly invoices;
- GOU Termination Payment Risk
- Commercial debt that has not been re-paid by the project company as a result of the failure of UETCL or GoU (as applicable) to pay undisputed amounts under the PPA/IA

Due to the delays in the finalization process of the PPA /IA, the World Bank team has not been able to conclude guarantee agreements with any developers yet. However, several developers indicate that they would be interested in the UETCL payment risk component in particular. Further, it seems that only a very limited number of projects will be eligible for coverage through the commercial debt component as most projects are financed by Development Finance Institutions. The World Bank Team has actively approached developers selected under the GET FiT Solar Facility with an intention of including solar projects in their portfolio.



GET FiT  
UGANDA

## CHAPTER 03 PROJECTS



ANNUAL REPORT  
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## 3.1 UPDATED PROJECT STATUS

In 2014, the GET FiT portfolio have grown through a second RfP Round for hydro, biomass and bagasse projects, along with the first solar PV RfP concluded in October/ November. The portfolio now counts 17 projects: ten hydro, one biomass, two bagasse and four solar PV power projects. Several of the hydro-, biomass– and solar power projects are on the verge of financial close and construction start, while the bagasse projects are expected for commissioning in 2015. A brief and updated status for each project is provided below.

The location of all projects that have been approved for GET FiT support are indicated on the map below (figure 10). Most of the proposed hydropower projects are located on the rivers of south-western Uganda.

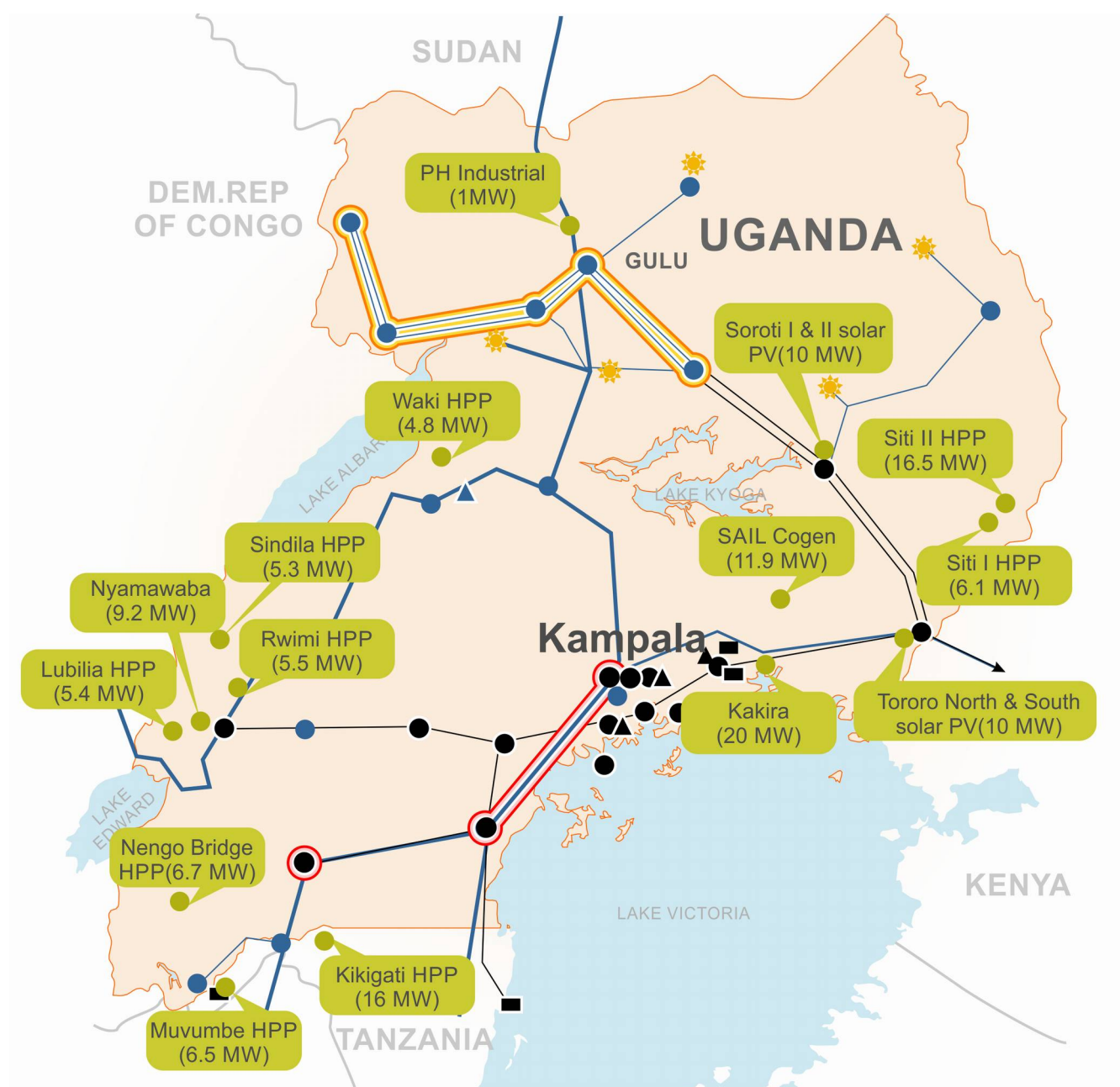


Figure 7: Geographic distribution of projects approved in RfP 1 & 2 and solar

- **Nyamwamba.** Run-of-river hydropower plant with an installed capacity of 9.2 MW and estimated 39 GWh annual production. Project is located in the Kasese district. Investment of MUS\$ 26.8 with MUS\$ 5.8 in GET FiT commitments. Expected commercial operation date is Q1 2017. The project has all of the required licenses and Nyamwamba was first in line to sign their Developer Finance Agreement (DFA) in November 2013. Ground-breaking, which was initially planned for June, had to be postponed due to flooding. It is not likely to happen before early 2015, since crucial infrastructure (road and bridge) has been affected and need to be replaced by relevant GoU entities. Furthermore, major changes to the overall plant design have also caused a significant project delay: Intake, power station and lower part of the penstock have been re-located in order to reduce the risk of future flood damages. Nyamwamba is in fact one of the more challenging projects also in terms of interconnection, requiring a 20 km dedicated medium voltage line through challenging terrain in the Rwenzori foothills. REA is committed to constructing the line in a timely manner with respect to expected commissioning date of the project.



Flood damages at Nyamwamba documented during GET FiT Supervision visit in June 2014 (Photo: GET FiT)

- **Rwimi.** Run-of-river hydropower plant with an installed capacity of 5.5 MW and estimated 27 GWh annual production. Project is located in the Kasese district. Investment of MUS\$ 20.8 with MUS\$ 3.9 in GET FiT commitments. Expected commercial operation date is Q4 2016. The project has all required licenses and signed DFA. PPA and IA negotiations are in advanced stages. The project is nearing financial close and construction start is expected in early 2015. The previous supervision visit indicated that work still remains on the calculations of compensation for economic displacement to bring this up to the required standards. In addition, the fish ladder and aquatic ecology would benefit from further considerations.



- **PH Industrial Farm's.** 1 MW biomass (gasified maize farm waste) plant in Gulu Region. Expected annual production is 7 GWh. Total investment of MUSD 3.5 with MUSD 0.5 in GET FiT commitments. Expected commercial operation date in mid-2015. The developer has successfully selected a construction company and is prepared for implementation. However, an updated Environmental and Social Impact assessment which meets IFC performance standards is required before GET FiT support can be contractually committed.
- **SAIL Cogen.** 6.9 MW biomass (bagasse from sugar production) plant in Kaliro district. Expected annual production is 104 GWh (roughly half of this, up to 48 GWh goes onto grid, while the remaining will supply energy for the sugar production on site). Investment is MUSD 21.6 with MUSD 2 in GET FiT commitments. Expected commercial operation date in early 2015. The generation unit is already supplying the sugar factory. Although significant progress has been made during 2014, e.g. completion of the waste water treatment plant, there remain outstanding issues on the environmental and social side before GET FiT support can be contractually committed.
- **Kakira Cogen.** 20 MW biomass (bagasse from sugar production) plant in Butembe County. The plant is expected to deliver up to 147 GWh to the grid. Total investment is MUSD 60.7 with about MUSD 7.1 in GET FiT commitments. After an agreement on the renewable energy feed-in tariff and related premium level was reached in June/ July, the developer is in advanced PPA and DFA negotiations. Discussions with GET FiT focus on the electricity output that can realistically be expected from the plant and the IFC compliance of workers accommodation. It is expected that the agreements can be concluded and commercial operation starts in Q1 2015.



Effluent Water Treatment Plant at Kakira under construction during GET FiT Supervision visit in June 2014 (Photo: GET FiT)



- **Nengo Bridge.** Run-of-river hydropower plant with an installed capacity of 6.7 MW and estimated 35 GWh annual production. Project is located in Kanungu district. Investment of MUSD 30 with MUSD 5.1 in GET FiT commitments. Expected commercial operation date is Q1 2017. The developer has submitted a generation license application and financial close is expected in early 2015. Notably, Nengo Bridge developers were the first to sign the IA and have signed the PPA. Lenders are carrying out their due diligence, and provided that a generation license is provided, financial close construction start in February 2015 is likely. The hydrological base for the project is particularly good, with 51 years of flow data available for a gauge in the same river basin, just 10 km downstream of the intake.
- **Muvumbe.** Run-of-river hydropower plant with an installed capacity of 6.5 MW and estimated 31 GWh annual production. Project is located in Kabale district. Investment of MUSD 14.1 with MUSD 4.5 in GET FiT commitments. Expected commercial operation date is Q1 2017. Despite only being approved in the second round, the developer has good momentum with a technically relatively simple project with good fundamentals. However, the developer must make a comprehensive update to the Environmental & Social Impact Assessment before the DFA can be signed, expected in early 2015. PPA/ IA discussions were initiated in June and are expected to be concluded shortly. Construction start is expected in Q1 2015.
- **Lubilia.** Run-of-river hydropower plant with an installed capacity of 5.4 MW and expected 25 GWh annual production. Project is located in Kasese district. Investment of MUSD 18.7 with MUSD 3.2 in GET FiT commitments. Expected commercial operation date is Q1 2017. DFA signed. The project is being developed by Frontier, who is also promoting Siti I & II. The developer signed the PPA in mid-January 2015 and their timeline puts financial close and construction start at January 2015. In terms of interconnection, Lubilia is ideally placed only 3.2 km from the existing grid, and it is expected that timely and adequate grid integration will not represent a challenge.
- **Waki.** Run-of-river hydropower plant with an installed capacity of 4.8 MW and estimated 25 GWh annual production. Project is located in Bulisa district. Investment of MUSD 18.1 with MUSD 3.6 in GET FiT commitments. DFA for Waki was signed in June 2014, and ERA awarded the developer its Generation License in July. Construction start is expected in early 2015, but financial close not until June 2015. Expected commercial operation is in Q2 2017. Discussions during the previous supervision visit in June 2014 indicated that ongoing baseline studies, assessment of impacts and developing mitigation and compensation measures may not meet the requirements of the IFC Performance Standards and in some instances possibly not Ugandan regulatory requirements. There is likely to be need for additional work by qualified consultants to meet the environmental and social standards requirements in a timely manner.
- **Siti I.** Run-of-river hydropower plant with an installed capacity of 6.1 MW and estimated 29 GWh annual production. Project is located in Kyosoweri, Eastern Uganda. Investment of MUSD 14.8 with MUSD 3.6 in GET FiT commitments. Expected commercial operation date is Q2 2016. DFA signed. The PPA was signed in mid-January 2015 and regarding the IA, negotiations are largely finalized and signing expected in early 2015 together with construction start. During the previous site visit in June 2014 it became clear that some environmental and social issues still required attention. The Developer was still addressing several issues of importance for compliance with Ugandan frameworks and IFC Performance Standards. Issues under IFC Performance Standards 5 and 6, concerning displacement / compensation and the National Park respectively, were particularly important and urgent. Since then, the Developer has made considerable and highly satisfying efforts to overcome these barriers.

- **Siti II.** Run-of-river hydropower plant with an installed capacity of 15 MW and estimated 72 GWh annual production. Project is located in Kyosoweri, Eastern Uganda. Investment of MUSD 34 with MUSD 10.2 in GET FiT commitments. DFA and PPA signed. Expected commercial operation date is in late 2017, as construction will be aligned with the progress of the Mbale – Bulambuli transmission project, which is required for power evacuation from Siti II. Siti I and II are situated in an area with significant additional hydropower potential, and in this regard the two projects may turn out to be important catalysts to i) reinforcement of the existing local grid and ii) further hydropower development in the area within and outside of GET FiT.
- **Kikigati.** Run-of-river hydropower plant with an installed capacity of 16 MW and an estimated 115 GWh annual production. Project is located in the Isingiro district. Investment of MUSD 64.4 with MUSD 12.3 in GET FiT commitments. The Kikigati plant is located on a river between Tanzania and Uganda and a bilateral agreement is required between the two countries before the project can be implemented. While an agreement was drafted in 2013, Tanzania has so far not accepted to sign it– requesting fundamental changes in the technical design and the offtake arrangement. Consequently, project development has been completely on hold for more than a year. GoU has made serious efforts to resolve the problem and the project has been subject of high level bilateral discussions between Uganda and Tanzania, however, so far without success. In December 2014, KfW has requested GoU to make a final decision whether the project shall remain part of the Get FiT portfolio despite the apparent stalemate or whether funds should be reallocated to other eligible project under the currently ongoing RfP Round 3.
- **Sindila.** Run-of-river hydropower plant with an installed capacity of 5 MW and 27 GWh expected annual production. Project is located in the Bundibugyo district. Investment of MUSD 17 with MUSD 3.3 in GET FiT commitments. Expected commercial operation date is in Q3 2017, with construction start in Q3 2015. However the developer needs to follow up on several Condition Precedents (both technical and Environmental & Social) before DFA can be signed.
- **Soroti I & II.** Utility scale, ground mounted solar PV power plants, located in the Soroti district. Peak capacity is 10 MWp (5MWp each) and average annual energy production is 17.6 GWh. Investment MUSD 27 with MUSD 9.5 in GET FiT Commitments. Following the decision to support the project, the developer is now finalizing its environmental and social assessment to obtain a permit from the National Environment Management Authority (NEMA). If all permits and licenses as well as PPA and IA can be concluded within Q1 of 2015, financial close is to be obtained during Q2. Construction start expected also in Q2 with commissioning in early 2016 as an ambitious, but realistic target.
- **Tororo South & North.** Utility scale, ground mounted solar PV power plants, located in the Tororo district. Peak capacity is 10 MWp (5 MWp each) and average annual energy production is 16.7 GWh combined. Investment MUSD 32 with MUSD 8.6 in GET FiT Commitments. If all permits and licenses as well as PPA and IA can be concluded within Q1 of 2015, financial close and construction start is expected during Q2 2015, with commissioning in early 2016.

In addition to the above, a few general observations can be noted;

The **critical window of opportunity** is approaching. Provided that one can expect timely commissioning of the planned large hydro plants, the window for ensuring that GET FiT contributes to increased generating capacity and reduced reliance on fossil fuels in the coming years is narrowing. It is thus essential that all approved projects see progress in the coming months and that the projects applying in the final round are relatively mature.

**Delays on large hydropower projects** prolong window of opportunity. However, the economic case for GET FiT is strengthened if one or more of the larger hydropower projects currently planned or under construction in Uganda (e.g. Karuma, 600 MW) are delayed. This is because the time window for potential displacement of thermal generation is prolonged. While it is too early to make adjustments to the expected commercial operation dates, the progress seen over the last years indicates that some delays are being experienced – mainly related to financing.

**Robust progress on enabling environment.** Despite remaining challenges, all commercial actors in the space continue to applaud the efforts spearheaded by ERA, and supported by GET FiT, to ensure an enabling and predictable environment for investment, including the PPA and IA, quarterly tariff adjustments, speed up license approvals, etc.



Certain weaknesses in the policy framework governing the renewable energy sector in Uganda had become a road block for faster realization of vast renewable energy potential in Uganda. The timely intervention of the GET FiT mechanism addresses almost all the impediments for sector growth.



Eng. Batyia Ranatunga,  
CEO at KMRI

## 3.2 TIME-FRAMES AND PORTFOLIO IMPLEMENTATION

In general, most of the approved projects are expected to reach commercial operation by 2016-2017. Figure 8 illustrates the expected build-up of installed capacity and annual generation from the GET FiT portfolio. These estimates include; i) all approved GET FiT projects, ii) 20 MW of solar and iii) estimates reflecting reasonable expectations from RFP round 3.

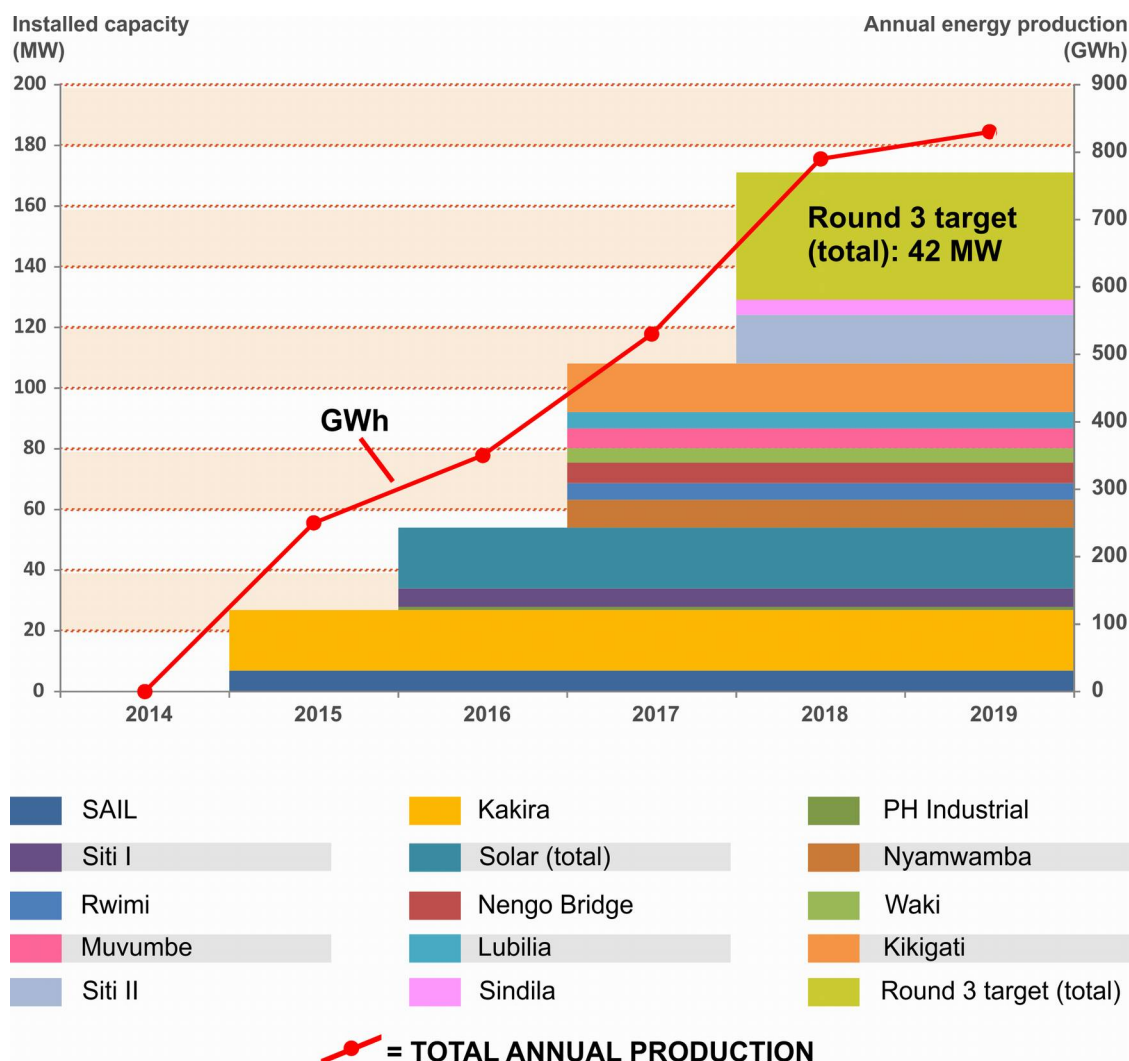
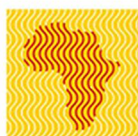


Figure 8: Targets for installed capacity (MW) and average annual energy production (GWh) are projected to be reached by 2018/19, based on current portfolio and expectations for RfP round 3.



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## CHAPTER 04

# UPDATED FINANCIAL STATUS



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## 4.1 FUNDING COMMITMENTS

The Program is fully funded. The results-based nature of the GET FiT Program is strongly dependent upon predictable and credible commitments from funders in order to prove successful. Further, it requires a certain degree of active follow-up and flexibility in order to maintain a healthy cash balance throughout the Program. To this end, four development partners have taken up the challenge and provided GET FiT with the necessary funding; Government of Norway, Government of UK (through DECC and DFID), Germany (BMZ, BMU) and the EU (through EU ITF).

To date some MEUR 91 (subject to exchange rate fluctuations as the Norwegian and the UK DECC funding are provided in Norwegian Krone and British Pounds respectively) have been committed to the Program. These funds are to be used by the Program management towards the overriding objectives. While the Steering Committee (where the donors are represented) provides policy guidance concerning implementation, the bulk of funding (commitments to developers) is subject to the decisions of the Investment Committee, supported by the Secretariat.

Notably, the Program's capacity to support project developers is subject to an exchange rate risk. While GET FiT funds are made available in EUR, the GET FiT Premium Payments are calculated in USD (as the REFIT is denominated in USD). Hence, when the EUR depreciates relative to the USD, the capacity to support developers will be reduced and vice versa. To ensure that GET FiT can fully meet its commitments with respect to premium payments to developers, the Developer Financing agreements are signed in EUR, the premium payment being fixed based on the exchange rate on the day of contract signature.

The recent rapid depreciation of the EUR towards the USD means that a Developer Finance Agreement signed in January 2015 (EUR 1 = USD 1.15) costs GET FiT 12 % more in EUR than it would have in September 2014 (EUR 1 = USD 1.30 USD). In a scenario where the current EUR vs. USD level is maintained throughout signing of the remaining Developer Finance Agreements, the GET FiT budget would be able to support a portfolio of some 150 MW total capacity, as opposed to the original 170 MW target. Even further depreciation of the EUR relative to the USD could potentially force an additional reduction of the portfolio.

With the current EUR/USD exchange rate level, the commitments would not enable the GET FiT to fully achieve on several pre-defined key output indicators including MW, GWh and emission reductions.

DONOR	GROSS AMOUNT COMMITTED (NATIONAL CURRENCY)	NET AMOUNT COMMITTED (EUR)
Norway	140 000 000	16 440 000
UK DECC	23 500 000	26 484 500
UK DFID	11 100 000	12 509 700
Germany BMZ	15 000 000	15 000 000
Germany BMU	500 000	500 000
EU ITF	20 400 000	20 400 000
	<b>TOTAL</b>	<b>90 934 200</b>

Table 2: Overall donor commitments to GET FiT. Net amounts are subject to current exchange rates and deduction of management fees

## 4.2 DISBURSEMENTS PROJECTIONS

Committed disbursements from the GET FiT Program go towards four purposes; i) payments to approved projects, with 50 % paid at commercial operation date and 50% paid in the form of results based support over the first five years of operation, subject to actual production, ii) payments to consultants under the Technical Assistance Facility for ERA, iii) advisor and consultants for the overall management and monitoring of the Program, and iv) management fee to KfW. Figure 9 illustrates the real (up to and including 2014) and expected distribution of committed payments for the first 5-6 years of the Program. The projections are based on agreements signed with developers so far, status of approved projects and the current expectations regarding RFP Round 3 results. It is noted that consultant payments under the Technical Assistance Facility are relatively high in early years, while payments to project support are expected to take up the lion's share of the disbursements by 2016. Given the expected timing of the current portfolio, some initial commercial operation date payments are expected already in early 2015 (bagasse projects) and significant commercial operation date payments are expected in 2016-2018. Due to the result based disbursement during first five years of operation, the last payments cannot be expected before 2023.

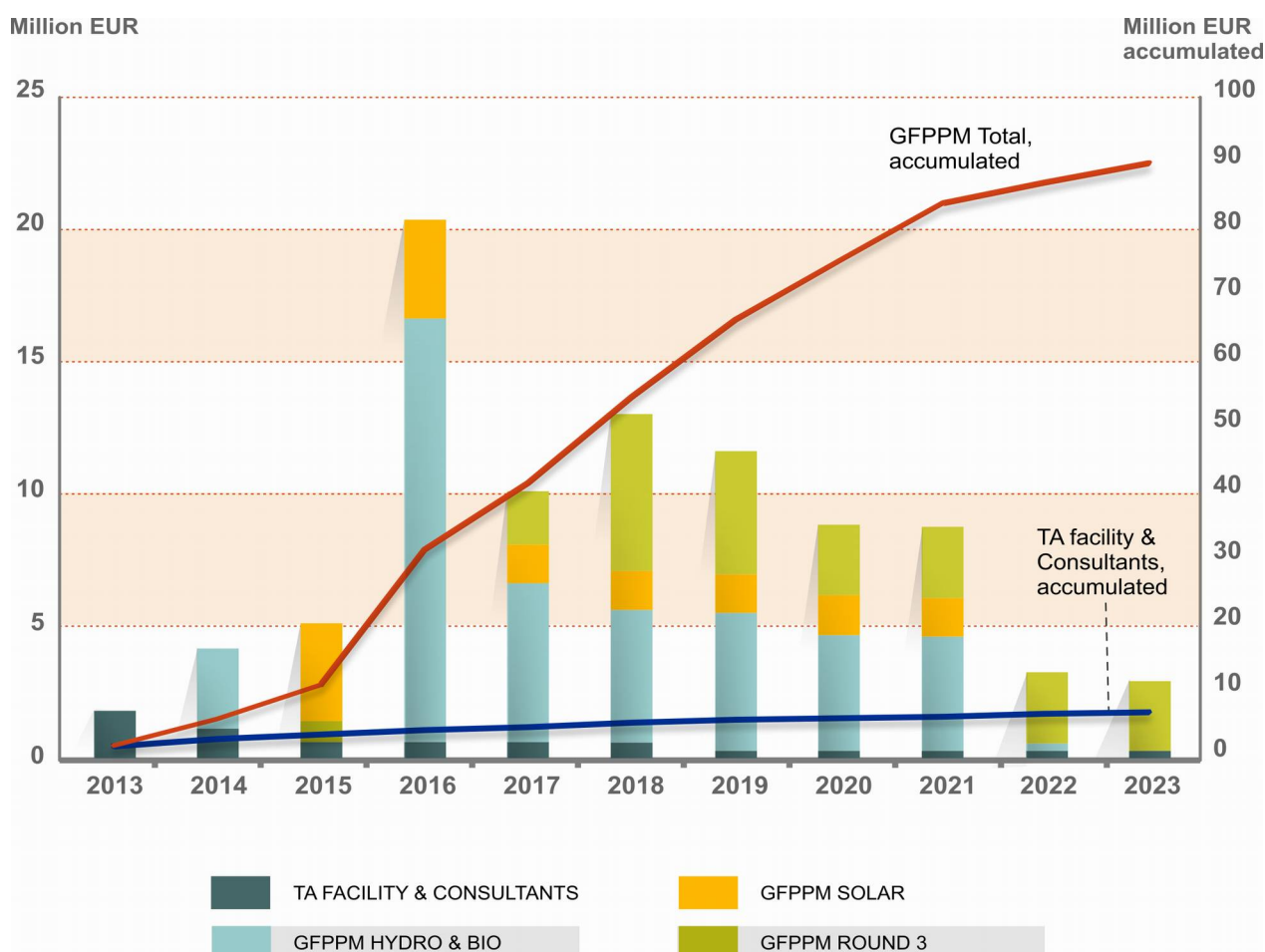


Figure 9: Projected annual payments (premium payments and consultants) under GET FiT. Current projections suggest funds will be exhausted by 2023

Figure 10 shows the relative shares of the various cost components under the GET FiT Program. Roughly 8 % of the overall funds are tied to management, implementation and the Technical Assistance Facility, while more than 90 % of the total commitments are expected to be disbursed as premium payments.

Recent Program developments are likely to result in some adjustments to the current spending distribution. Specifically, consulting costs are likely to increase mainly due to:

- a higher number of projects being supported under the Program. Currently we estimate that a total of 20-251 projects will be supported, up from initially 12-15. This is due projects being on average smaller in terms of MW installed than in initial estimates and the inclusion of the four solar projects into the portfolio; and
- a general increase in the demand for bilateral advice (elaborated in Chapter 2.6).

Furthermore, it must be noted that due to the innovative design of the Program new issues are arising and are likely to continue to arise during implementation, e.g. the challenges with regard to interconnection and grid integration of the GET FiT projects, that have an impact on the consultancy costs.

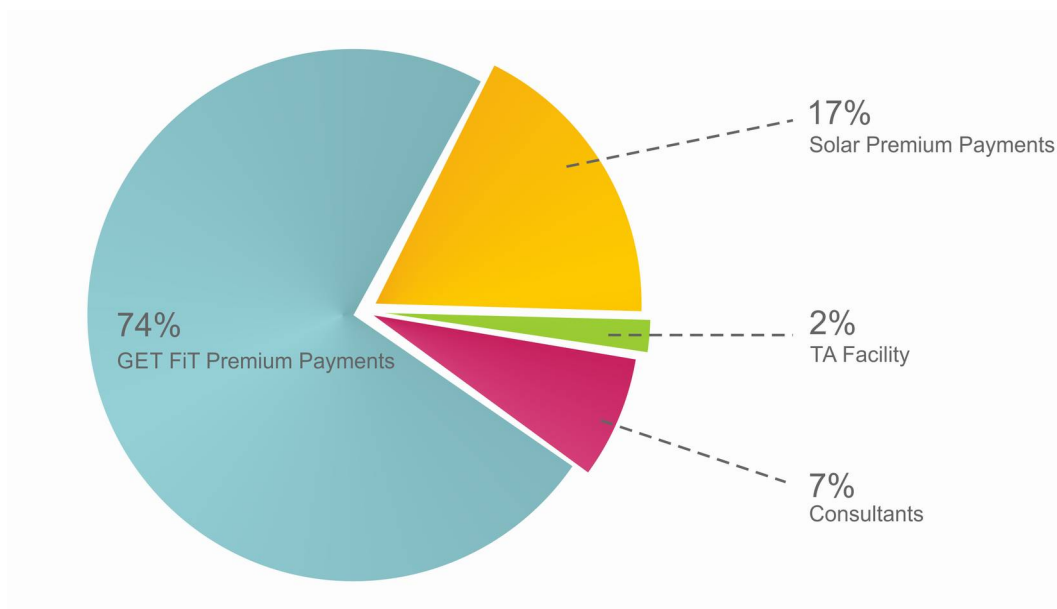


Figure 10 - GET FiT projected payment distribution. Approximately 90 % of commitments to GET FiT are projected to be disbursed as premium payments

## 4.3 CASH FLOW PROJECTIONS

A key GET FiT target is maximizing the Program's impact, provided the available funding. Based on lessons learned thus far and assuming a stabilization of the EUR / USD exchange rate (see Chapter 4.1), the available funding would allow the program to achieve support up to some 170 MW of renewable power. Combined with timely implementation of the portfolio, this amount of installed capacity is expected to allow for full utilization of the funding commitments by 2023.

These projections (Figure 11) are, however, dependent upon, and thus sensitive to, some key assumptions concerning the evolution of the Program and its portfolio;

- First and foremost, the success of the Program is highly dependent upon timely progress of the promoters in bringing their projects to commissioning. Delay on one or several projects will put the time-bound nature of the results and thus also disbursements at risk.
- Second, the ability of the Program to fill its portfolio with the implied 170 MW of viable and mature projects will depend on the competitiveness and outcome of the RfP round 3. While a promising number of 18 hydropower bids have now been received (January 2015), only the next few months will show if the overall maturity of applicants allows for fulfilment of the portfolio with respect to original targets or available funds.
- Third, as discussed in Chapter 4.1, exchange rate fluctuations will have a significant impact on the exact amount of funding available to the Program and thus on the capacity (MW and GWh) that can be supported in the third and final RfP Round. Thus, although RfP Round 3 introduces a sufficient capacity of projects in terms of MW and GWh, there is no guarantee that GET FiT will be able to fully support in line with the original portfolio targets.
- Fourth, the final target for the third RFP with regards to MW and GWh is also dependent on developments related to Kikigati, among the largest project in the portfolio, which is experiencing significant “external” risks (see Chapter 3.1). If the project is not supported further under GET FiT, the portfolio is reduced by 16 MW and MEUR 9 may be reallocated to support additional projects in RfP Round 3.
- Finally, on the funding side, maintaining the necessary financial predictability and ensuring a certain degree of flexibility with regards to project commissioning, requires maintaining a good positive cash balance (i.e. funds readily available for the GET FiT Program's account at any given time). This is particularly important when it comes to donor commitments in other currencies than EUR. The exchange rate fluctuation experienced over the last months have proven the importance of development partners disbursing their funds to KfW (where they are converted into EUR) at the point when contracts are signed. This ensures that commitments being made to developers by GET FiT are matched by actual funds received from donors.

Although the program is fully funded through the partner commitments, the Secretariat does not yet have exact schedules for future disbursement of committed funds from all donors to KfW. Hence, the projections for the later years of the program life are based on the assumption that funds will be disbursed to KfW before commitments to developers and consultants are made.

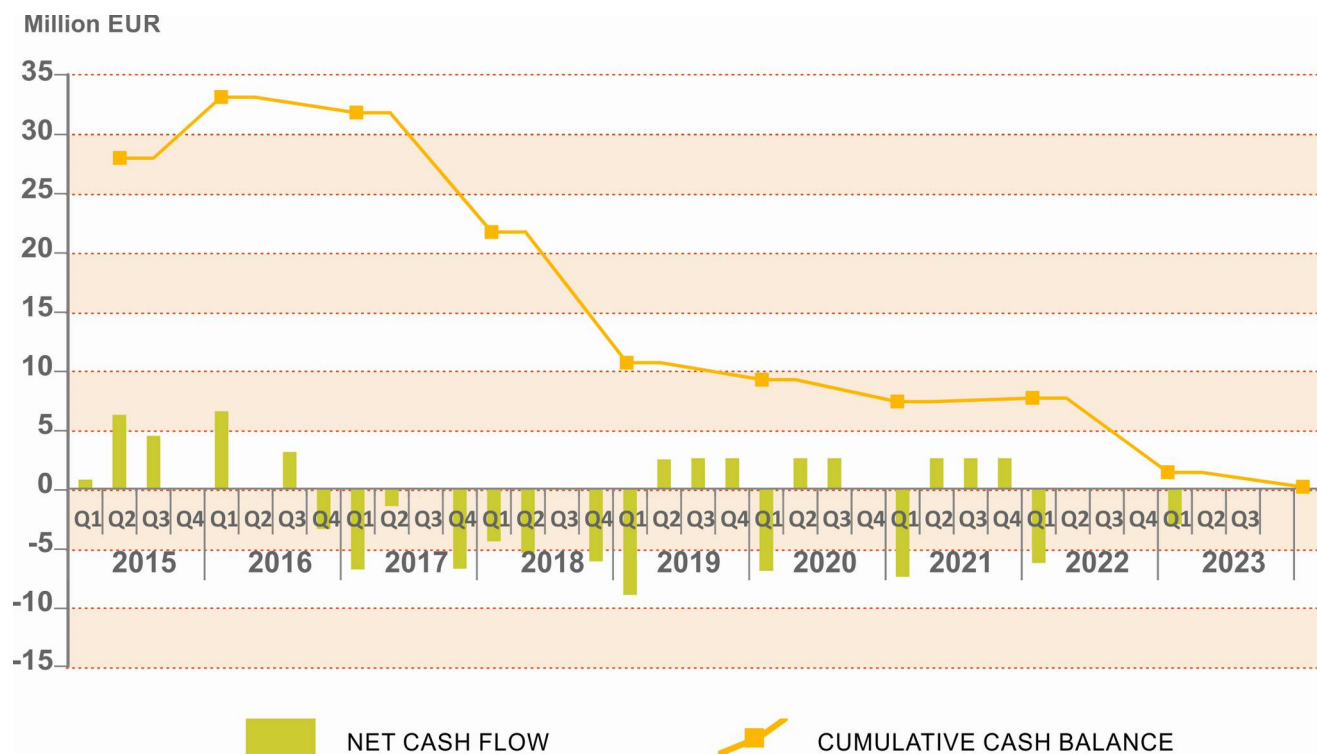
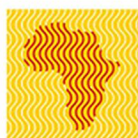


Figure 11 - Projections of cash flow and cumulative cash balance indicate that GET FIT with the involved parties will be able to maintain a positive, healthy cash balance until funds are exhausted by end of 2023. The high positive cash balance in early years is due to DFA signing with developers, requiring that funds are disbursed to the Programme by donors.

Notably, in the projections for the cumulative cash balance of the Program, funds are fully utilized by 2023, for which the final premium payments are expected.





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## CHAPTER 05

# PROGRAM MONITORING



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## 5.1 PROGRAM MONITORING

The design of the M&E systems for GET FiT Uganda was finalized in 2014, and a baseline study against which all Program targets will be measured, was carried out. A Theory of Change model and associated logical framework have been established, including a range of key indicators to monitor the progress of all targeted outputs, outcomes and impacts of the Program.

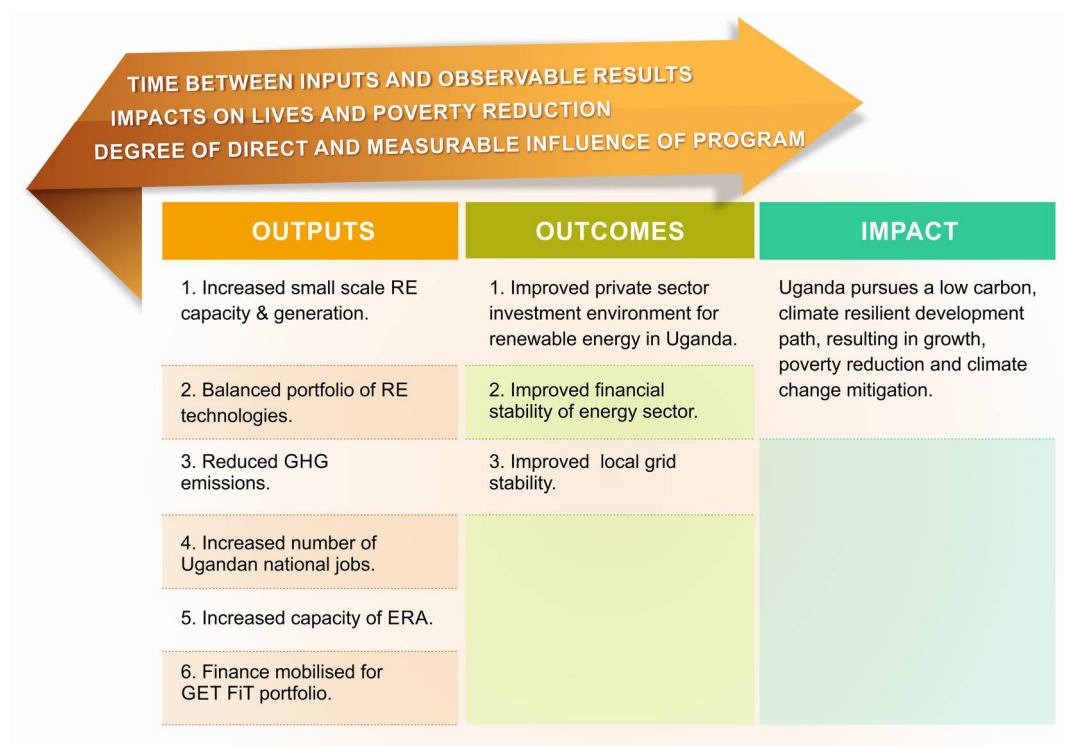


Table 3: Outputs, outcomes and impact of GET FiT

Semi-annual monitoring will be carried out by the Implementation Consultant. The first round of monitoring round was conducted in mid-2014 and the second in early 2015, reporting on progress for the first and second half of 2014, respectively.

Program monitoring results will be presented in the semi-annual and annual reports in August and February. In addition, through its day-to-day cooperation with ERA and other key stakeholders, the GET FiT Secretariat will be able to monitor and follow up on critical issues arising along the way on a continuous basis.

Biannual Performance Reviews will be conducted by a separate consultant – planned for 2015, 17 and possibly 19. The objective of these reviews is to critically and independently assess whether GET FiT is meeting its output targets and milestones. In this context pertinent questions are: What have been the key challenges and opportunities in Program delivery and how they impacted on the performance of the Program? What measures have been taken to mitigate challenges and take advantage of opportunities? What other Program are being implemented that could have led to the same outputs? How has Program delivery been affected by influences outside of its control? What systems and processes are in place to effectively deliver the intended results and learn lessons? The consultant will also be tasked with the evaluation of the Program, looking at specific pre-defined questions promising valuable insight into the impact of GET FiT. The procurement of the consultant is to start in Quarter 1 of 2015.

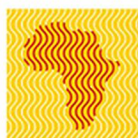
The overall progress on the Program Logframe indicators as measured for 2014 are presented in the table below.

OUTPUTS			OUTCOMES		
Indicator	Target 2023	Status (2014)	Indicator	Target 2023 (2018)	Status (2014)
The results for 2014 are based on i) expectations for the current portfolio of approved GET FiT projects and ii) the most recent status updates from developers and other stakeholders through the Programme monitoring. Thus, results are <b>not based on commissioned projects</b> , as no projects have officially commissioned under GET FiT yet.					
1.1 MW installed	170	GET FiT portfolio (17 projects) now at 128 MW with third RFP on-going.	1.1 Number of commercial banks that invest in renewable energy with project finance.	5	4 private banks involved in the current portfolio for financing of hydro, bagasse and biomass projects.
1.2 GWh delivered to national grid	830	GET FiT portfolio now at 660 GWh/year (estimated average)	1.2 No. of development permits and generation licenses issued by ERA per year.	8 permits / 4 licenses	11 permits and 6 licenses issued in 2014.
2.1 Number of technologies supported by GET FiT	4	4 Techs now in portfolio – hydro, bagasse, biomass and solar.	1.3 Occurrence of annual 'UETCL event of default'.	None	N/A. WB PRG liquidity guarantee now available to GET FiT projects.
2.2 Number of sub-regions with GET FiT projects.	5	The current portfolio has projects located in 5 Ugandan sub-regions.	1.4 Average time for PPA negotiation and signing.	3 mths	Current average time is at 24 months. With standardized PPA in place first project took 0.5 days for initializing. 4 PPA's now signed for GET FiT projects.

OUTPUTS			OUTCOMES		
Indicator	Target 2023	Status (2014)	Indicator	Target 2023 (2018)	Status (2014)
The results for 2014 are based on i) expectations for the current portfolio of approved GET FiT projects and ii) the most recent status updates from developers and other stakeholders through the Programme monitoring. Thus, results are <b>not based on commissioned projects</b> , as no projects have officially commissioned under GET FiT yet.					
3.1 Net change in GHG emissions (Cumulative MtCO <sub>2</sub> e).	11	Current portfolio estimated to yield a 8 MtCO <sub>2</sub> e reduction through displacement of thermal generation.	1.5 REFiT adjusted to be cost-reflective (%).	100%	Adjustment in summer 2013 to est 92%. Specifically to increase impact of GET FiT.
4.1 Number of direct national construction and O&M jobs created in relation to the power plants.	4200	Current portfolio (17 projects) estimated to some 3000 jobs.	2.1 Subsidy paid (excluding capacity) by Ugandan Gov. for UETCL to cover thermal power use.	0	No subsidies paid in 2014.
5.1 Time taken by ERA to review generation licence for 1-20 MW RE application.	3 mths	ERA reports 3.5 months average in 2014, However, in late 2014, two licenses were reviewed in 1 month.	2.2 GWh purchased by UETCL from thermal stations.	(319)	46 GWh purchased by UETCL in 2014. GET FiT implementation to reduce expected medium term growth.
6. Private investments (MUSD) leveraged by GET FiT.	500	Currently at 390 MUSD (estimate, several projects not yet financially closed).  Leverage ratio at 1:5 as targeted, based on associated GET FiT premiums.	2.3 Cost reflective retail tariffs in place.	100%	Currently at 92 %, as capacity payments to thermal stations remain part of GoU subsidy.
6.1 Private finance mobilised for GET FiT (MUSD).	200	Current portfolio set up for 166 MUSD in private financing.	3.1 % of time (in hours) local voltage level is outside Grid Code voltage standards at local substations.	100 % reduction	N/A until GET FiT projects are commissioned.
6.2 Public finance mobilised for GET FiT (MUSD).	300	Current portfolio set up for 224 MUSD in public financing.	3.2 Load lost in MWh at local substation.	100 % reduction	N/A until GET FiT projects are commissioned.

Table 4: GET FiT log-frame showing status on overarching primary Program targets along with efforts made and results achieved in 2014

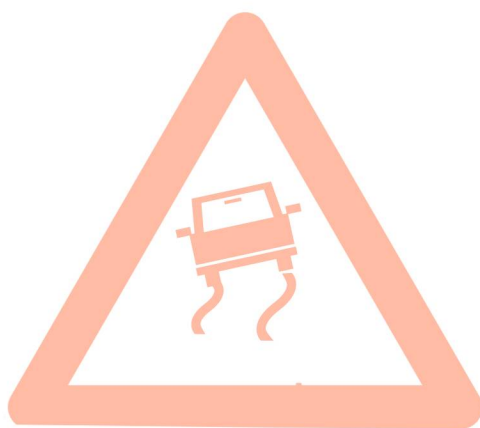




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## CHAPTER 06

# RISK MANAGEMENT



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## 6.1 RISK MANAGEMENT

Risk management is a continuous process running through the lifetime of the Program. In the GET FiT risk management matrix risks are identified, categorized and measures to reduce or eliminate the risks are outlined. Risks are categorized according to the risk assessment table below. Probability of the risk occurring on the x-axis (low, medium or high probability) and level of potential (negative) impact on the y-axis combined determine the risk category: a) acceptable risks; b) ensure follow-up of risk; or c) reduce the risk.

POTENTIAL IMPACT (NEGATIVE)	HIGH	<b>B</b> Ensure follow-up of risk	<b>C</b> Reduce the risk	<b>C</b> Reduce the risk
	MEDIUM	<b>A</b> Acceptable risk	<b>B</b> Ensure follow-up of risk	<b>C</b> Reduce the risk
	LOW	<b>A</b> Acceptable risk	<b>A</b> Acceptable risk	<b>B</b> Ensure follow-up of risk
		<b>LOW</b>	<b>MEDIUM</b>	<b>HIGH</b>
		PROBABILITY		

The program risk assessment is subject to regular review and update. In 2014, some new risks emerged and some were re-categorized due to new information or contextual changes. The following risks have been added and/or re-assessed over the past year:

**1. Interconnection risk (Category C).** In order to mitigate risks related to insufficient grid capacity for interconnection and integration of GET FiT projects, the mentioned Joint Task Force was established to study the GET FiT project pipeline's implications for the existing grid, and to identify the required grid reinforcements and extensions to ensure timely interconnection and viable power evacuation for all new generators. Based on these findings a Project Design Report was prepared by the Implementation Consultant which further outlines required interventions, their cost, implementation timeline, financing mechanism and management structure. The Joint Task Force will play the key role in coordinating implementation of the necessary infrastructure investments on time and ensuring a high level of coordination throughout.

In addition to supporting the Joint Task Force on a day-to-day basis, the GET FiT Secretariat will continuously monitor the progress on all relevant efforts through:

- Support to GoU in solicitation of funding from GET FiT donors for specific grid investments
- Participation in regular Joint Task Force meetings
- General support to ERA in facilitation of the JTF
- Utilization of the GET FiT Project Tracker tool to ensure alignment and coordination with GET FiT portfolio
- Close and proactive communication with all stakeholders

**2. Exchange rate risk** (new risk – Category B). As outlined in Chapter 4.1, the significant depreciation of the EUR relative to the USD in late 2014 and early 2015 will, if maintained, have a significant impact on the funds available for GET FiT premium payments. This is due to the premium payment amount being calculated in USD, but being paid in EUR at the applicable rate upon signing of the Developer Finance Agreement. Projections indicate that should the current exchange rate level be sustained, targeted GET FiT portfolio capacity may need to be reduced by approximately 12 %. This would result in a portfolio target of some 150 MW installed capacity and a corresponding annual generation of about 730 GWh. Available funds are also affected, although to a more limited extent, by the rates of NOK and GBP, in which the funds from Norway and UK are disbursed to the Program, respectively. Hence, while the risks related to exchange rate are complex and beyond our influence, continuous efforts are being made by KfW and the Secretariat to ensure that the funds are fully utilized in order to maximize the Program's impact. A range of scenarios are being projected and frequently updated based on current standing of available funds with respect to exchange rate levels, and the status and progress of the GET FiT project pipeline.

**3. Changes in Legal/ Regulatory and Framework** (new risk – Category B). While the first project specific PPA and IAs have been approved and the uncertainties with regard to the taxation have been largely resolved, it became apparent over the last months that there remains a certain risk with regard to changes in framework conditions for private renewable energy projects. A stable and predictable as well as well-balanced legal, regulatory and political framework is the key to attracting private investments into the energy sector. KfW and GET FiT Secretariat will continue to monitor this closely and where necessary facilitate dialogue between developers and public stakeholders to reach mutually acceptable agreements.

**4. Capacity gaps of developers on IFC environmental and social standards** (Category C). This risk element was increased from the original assessment (rated A), in particular due to the low scores on E&S assessments. Several developers and/or major shareholders lack competence regarding IFC environmental and social performance standards. To address this risk, developers need to achieve a minimum score on these issues in the appraisal process. Nevertheless this risk element remains to a certain degree, particularly with respect to IFC standards. GET FiT has taken an active approach to support developers in meeting IFC standards (see Chapter 2.6). However, experience from the past months shows that certain developers and their consultants are in need of more support than GET FiT can reasonably provide within the existing budget and project concept. A decision will need to be made on a case by case basis whether to exclude certain projects/ developers if they continue to fail the set standards. This would increase the available funding for projects successfully applying under RfP Round 3.

**5. Political and cross-border risks** (Category B). This risk has been increased from the original assessment (rated A) as one of the largest projects in the GET FiT portfolio (Kikigati SHP) has over the past year been plagued by critical “external” risks that threaten its viability as eventual GET FiT supported project. Given Kikigati's capacity of 16 MW, this poses a risk for the portfolio and eventual results. While no decisions has been made yet, it is in the view of the Secretariat very likely that Kikigati will not be implemented in the short to medium term which will lead to an increased funding envelope available for the ongoing RfP Round 3.

**6. Low number of sufficiently developed projects applies for support** (Category B). The slight downward trend between Round 1 and Round 2 applications, both in terms of quantity and quality raised some concern. In order to have a realistic opportunity to achieve the overarching targets, the Program is dependent upon a successful and expected final RFP Round 3 – targeting some 40 MW. To the degree that project funding commitments from previous rounds (due to failure to meet deadlines) are made available for Round 3, this ambition level will be increased. As a response to the concerns regarding the number of applicants, and the quality of submitted bids, the current tender was launched a full year after Round 2 (instead of 7 months), in November 2014. This decision now appears to have paid off, with 18 hydropower project developers applying for support under RfP Round 3 in late January 2015. However, no bids to develop bagasse or biomass projects were received.

**7. Project-level risks.** With the Implementation Consultant mobilized and routines for supervision visits established and implemented, the technical risks and key follow-up points for each project, including e.g. Environmental & Social and interconnection, are being tracked and managed. The Secretariat has developed a comprehensive Project-tracker tool utilized also by KfW and ERA and GoU staff which allows for continuous monitoring of critical issues for each project. This provides an opportunity to identify early on key challenges within all applicant or approved projects, and to monitor their progress throughout.

**8. Delayed implementation of projects.** As outlined in this report, individual projects are facing delays when it comes to reaching financial close and construction start. Reasons for these delays are only partly the responsibility of developers (i.e. failure to meet IFC Performance Standards), others are related to the legal, regulatory and political framework. In addition, energy generation projects are generally prone to delays during construction. This can be due to capacity and financial constraints of the developer, inadequate planning, but also adverse conditions outside of the control of the developer. Through the portfolio approach the impact of these issues on GET FiT is to some extent mitigated, but serious risks remain: Delays in commissioning of the individual projects will negatively affect the time bound objectives of GET FiT. On a financial management level, it will result in either a temporary build-up of cash and/or project-level disbursement beyond 2023. In the worst case, projects are not able to meet the required deadlines, as set out by either their award letter or their DFA and a decision is made to retract the funding commitment.

## 6.2 KEY FOCUS AREAS OF THE PROGRAM IN THE COMING YEAR 2015

Although significant progress has been made on key risks and barriers to the Program's implementation throughout 2014, challenges remain. In order to achieve the overarching GET FiT targets, which are fully dependent on installed renewable energy generating capacity (MW) and the resulting annual energy production (GWh), a range of issues still require intense follow-up. Certain matters have emerged as particularly important over the past year; support to grid infrastructure investments and related TA support to ERA, must be urgently secured in order to ensure adequate grid integration for several GET FiT projects; dedicated efforts are required by most developers to increase their quality on Environmental & Social impact assessments and to ensure satisfactory compliance with IFC Performance Standards; arising regulatory or political challenges such as tax reforms or cross-border issues must be followed up to the extent possible and; progress on PPA and IA negotiations for approved projects needs to be continuously facilitated and encouraged, in order to avoid further delays in reaching financial close and construction start.

In addition to the above, some risks remain outside our sphere of control or influence, particularly critical with respect to achievement of Program targets are; the exchange rate risk and its potential impact on available funds for RfP Round 3 in USD terms and; the quality and progress of RfP Round 3 applicant projects.

It will be vital to ensure progress for the coming year, in order to maximize the economic benefits and achieving the time-bound targets of the Program. Key focus areas in 2015 will be:

1. Continued facilitation of dialogue, coordination and concrete solutions to the challenge of **interconnection and integration** of the GET FiT portfolio into the national grid, and eventually monitoring of the implementation phase for grid infrastructure investments.
2. Intensification of **supervision visits** and follow-up of projects starting or nearing construction start
3. Follow up preparation and construction phase for **solar PV projects**.
4. **Facilitating progress** on existing portfolio, in dialogue with developers and authorities, including signing of remaining DFAs and following up of conditions precedents for each project.
5. Conclusion of a highly competitive and successful GET FiT **RFP Round 3**.
6. **Support to UETCL, ERA and GoU** in the finalization of PPA and IA for bagasse and biomass as well as solar projects.
7. To the degree possible, continue facilitating **IA and PPA negotiations** for individual projects.
8. Follow-up the implementation of the various **Technical Assistance Facility** components, including the upcoming REFiT review and proposed additional TA support components to ERA.
9. Preparation of **commissioning reports** for the bagasse plants, assuming progress as planned.
10. Selection of an independent consultant to conduct **Performance Reviews and Evaluation** of Program.

As indicated throughout this report, only dedicated efforts by all key stakeholders can ensure a successful 2015 with continued progress and most importantly; projects breaking ground.

## 6.3 THE FUTURE FOR THE GET FIT MECHANISM

The GET FiT Program and related developments in Uganda have not gone unnoticed: neighboring countries are asking ERA and GoU to share their experience and developers and financiers are starting to inquire about similar support schemes in other parts of the continent. GET FiT and KfW have been requested to present the Program in conferences in Europe and Africa in front of public sector stakeholders, private developers, investors, banks and technology providers as well as development institutions. This confirms not only the broad interest, but also the need for targeted support to facilitate private sector investments into the energy sector of emerging countries.

Developments partners and KfW are keen to utilize the experience from Uganda and roll out the pilot to other Sub Saharan Countries. However, all stakeholders are well aware that there is no “one approach fits all” in this regard and that GET FiT might look very different outside of Uganda. In some cases focus could be on creating an enabling regulatory and legal environment, or on guarantees to back up off taker credibility, while others might want to follow Uganda’s example on reverse auctioning or feed-in tariff top up.

Thanks to the support from the UK Government that has made available GBP 2.3 million, KfW will undertake in 2015 pre-feasibility studies in 10 countries in Eastern, Southern and Western Africa. An initial market assessment is to be undertaken in Ghana, Malawi, Mali, Nigeria, Kenya, Rwanda, Mozambique, Namibia, Tanzania and Ethiopia. As part of the assessment, the current situation in the power market, the legal and regulatory framework as well as key bottlenecks for private investments will be analyzed. Where an interest and potential for a GET FiT approach is identified, a concept will be developed in close collaboration with the respective governments and local stakeholders. On the basis of this assessment, 2-3 countries will be selected for a detailed feasibility study and implementation planning. The procurement of the consultant for the market assessment has just started and first results are expected in Q 3 2015.

In addition and with support from the German Government, a detailed feasibility study is currently being prepared in Zambia. The Zambian Government has been very keen to assess the potential for a GET FiT program in Zambia in order to increase private sector investments for renewable energy. A GET FiT Taskforce chaired by the Ministry of Mines, Energy and Water Development and involving the key actors in the sector has been established and will guide the GET FiT Study. Results are expected by the end of 2015.

With these activities ongoing, we hope that 2015 will see GET FiT transform from a national to a regional success story.



## ABBREVIATIONS & ACRONYMS

<b>BMU</b>	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
<b>BMZ</b>	Federal Ministry for Economic Cooperation and Development
<b>COD</b>	Commercial operation date
<b>DECC</b>	Department of Energy & Climate Change
<b>DFA</b>	Developer Finance Agreement
<b>DFI</b>	Development Finance Institution
<b>DFID</b>	Department for International Development
<b>ERA</b>	Electricity Regulatory Authority
<b>GFPPM</b>	GET FiT Premium Payment Mechanism
<b>GHG</b>	Greenhouse gas
<b>GoU</b>	Government of Uganda
<b>IA</b>	Implementation Agreement
<b>IC</b>	Investment Committee
<b>M&amp;E</b>	Monitoring & Evaluation
<b>PPA</b>	Power Purchase Agreement
<b>PRG</b>	Partial Risk Guarantee
<b>REFiT</b>	Renewable Energy Feed in Tariff
<b>RFP</b>	Request for proposal
<b>TA Facility</b>	Technical Assistance Facility
<b>UETCL</b>	Uganda Electricity Transmission Company Limited
<b>WB</b>	World Bank