



Concept Proposal

“Global Revenue Guarantee”

A Global Off-Take Liquidity Risk Guarantee for Clean Energy and other Sustainable Infrastructure

Executive Summary

This is a proposal for founding a new Public Private Partnership (PPP) to be named the Global Revenue Guarantee (GREG). GREG aims at solving in an innovative, lean, and cost-effective manner one of the main barriers to the scaling up of private investment in the renewable energy sector in emerging markets, which is the lack of liquidity of the renewable energy off-takers. Leveraging on affordable blended capital, GREG would provide the independent power producer (IPP) with guarantee hedging the off-taker payment volatility and ensuring the same stability of its cash flow as if it was operating in a developed economy. As it would mutualize the payment liquidity risks from a larger portfolio, GREG would be able to price guarantees at a much lower cost as any non-mutualized de-risking instrument.

GREG would initially focus on renewable power off-take but is meant to operate to the benefit of any form of sustainable essential services off-take payment volatility risk.

By dramatically reducing the risk of default of the off-taker, GREG would achieve numerous benefits, in particular:

- Improve the competitiveness of renewable power in emerging markets and avoid emissions lock-in effects;
- Increase the volume of bankable projects and accelerate their financial close;

- Optimize the catalytic value of public capital of developed economies and international institutions, with potentially very limited cash-out;
- Monetize the contribution of emerging markets to global public goods, in particular climate;
- Enable emerging markets to set and achieve more ambitious NDCs under the Paris Agreement;
- Build a deep and safe asset class for institutional investors;
- Provide a replicable business model to scale up sustainable finance in support of the Sustainable Development Goals and the Paris objectives.

GREG resulted from consultations of FAST Infra, an initiative of the One Planet Lab.

GREG seeks to raise [\$20] million of seed capital for a six month Design Phase [\$2.5] million and an 18-month Pilot Phase [\$17.5] million.

Problem to be Addressed

There are several hurdles to making emerging market sustainable infrastructure an accepted asset class; one that stands out is assuring payment on long-term contracts for renewable electricity sales. The lack of such off-take payment surety leads to many emerging renewable markets being unable to attract commitments and capital from developers for new projects. This paper describes a solution in the form of a payment assurance mechanism that could be deployed globally in emerging markets and relied on by credit markets.

Solving for payment assurance issue would be catalytic in two ways: (i) mobilizing investments in renewables in emerging markets to help limit global warming to 1.5C (as a large component to achieve such goal depends on debottlenecking renewable energy project finance in emerging markets), and (ii) creating a successful framework for financing renewable energy projects that can form a replicable financing template for other areas of sustainable infrastructure going forward.

In most emerging markets renewable energy projects are created by independent developers seeking to sell energy services in a long-term offtake contract to a state owned or regional utility, a municipality, or in some cases a corporate buyer (such as solar PV electricity sold to mining companies in Chile). The financing challenge is that many of these paying entities face short term liquidity issues that result in offtake contract payment interruption or long-delayed payment which puts off lenders who cannot lend without a reliable form of debt service. The crux of the solution described below is a back-stop reserve payment assurance product that project sponsors

and lenders could rely on to fund through debt service interruption periods of anywhere from 90 to days to a year.

GREG Strategy

GREG’s principal objective is to address the lack of bankable projects to contribute to Climate Change goals. GREG is proposed to be a global provider of credit enhancements in the form of project offtake revenue liquidity guarantees (“Revenue Guarantees”) for sustainable infrastructure with a mission of attracting private sector investment to sustainable infrastructure projects, especially smaller ones during the pilot phase, around the world that are faced with risks on the likelihood of timely revenue receipts.

On the occasion of the Inaugural Conference of the International Solar Alliance, President Macron noted :

*“This can be achieved by setting up **appropriate guarantee tools**. Guarantees already exist, but they are too expensive, they do not cover all risks.”*

GREG brings an innovative response to this market failure. It differentiates itself from other “de-risking” approaches in that it positions itself exclusively on the volatility risk relative to the payment by the off-taker (very often a public utility) of the power price to the IPP.



GREG is intended to be a Public-Private Partnership (PPP) shareholder-owned business with an ESG reason to exist. It would provide Revenue Guarantees for a fee (premium) and supported by reserve funds and enhanced by concessional funds. Revenue Guarantees would make it attractive to private sector capital – including front-end development capital – for projects in emerging economies that have historically been supported by Multilateral Development Banks (MDBs), National Development Banks (NDBs), and other government-supported Development Financial Institutions (DFIs).

The guarantee structure would also improve significantly the financial leverage of the public capital.

The Need for Revenue Liquidity Guarantees

The need for revenue liquidity guarantees stems from the fact that most electric utilities in the developing countries are agencies of national or provincial governments. The business model known as the Independent Power Producer (IPP) model – whereby project financing “looks through” the Power Purchase Agreement (PPA) (a.k.a., the “off-take agreement”) to the credit worthiness of the offtake utility and the legal system in which it will operate -- has arrived at the doorstep of the developing countries -- having been developed originally in the United States under an enabling law called the Public Utility Regulatory Policies Act (PURPA) in 1978 and in Europe under the promulgation of Feed-in Tariff (FiT) regimes that began in Germany in 1998, both of which provided revenue and liquidity guarantees by law to the projects.

The MDBs and DFIs have learned to work with the IPP construct in the developing countries. Their presence in the projects provides the assurance that revenues will be paid to the projects, from which project loans will be repaid. Nonetheless, utilities in emerging markets often lack ability to pay on time, and delays in payment often result in significant additional cost and risk for projects.

Today, and since the 2015 Paris Climate Accord and the United Nation’s adoption of the Sustainable Development Goals, a new imperative is how to scale up private sector capital investment in dozens of projects both WITH the participation of MDBs and DFIs and, perhaps as important, for many hundreds or thousands of projects without MDB/DfI support that are addressed by GREG.

The Feasibility of a Globally Applied Solution

What makes this GREG proposition unique is its intention to create a globally-applicable financial product for use in the developing countries while most other proposals say that a globally-applicable product is simply not feasible – that each country is unique and requires a tailored solution.

What makes this proposition possible is the fact that essentially all electric utilities in the world operate under a single business model that has two parts: first, they all deliver commodity electricity to customer meters, and second, they supply that electricity from utility-owned generators or independently-owned (IPP) generators. The advent of IPP suppliers to a globally common utility industry makes the idea of a globally applied offtake contract guarantee possible.

Revenue Liquidity Guarantees

A liquidity guarantee is similar to an insurance policy in some ways. There are similarities, such as coverage for a specified amount of loss. There are terms and conditions. There is the need for a reserve fund to cover any losses. And there is a premium to be paid by the projects for the coverage.

That said, there are differences. First, it is a guarantee and not insurance. Under a guarantee, the policy holder receives a remedy immediately, so that it can pay expenses and meet debt payments, not later following an insurance investigation. Such guarantees cover an event, in this case non-payment for electricity produced, not a broad condition of why a project failed. A guarantee supports continuing success, not recovery of damages due to a project failure later through insurance.

Second, it is for a specified period of coverage, but here with specified limited coverage for an event. For example, the guarantee policy can be in effect for 20 years, but only cover, for example, up to three, six or twelve months of unpaid revenues – a matter to be negotiated and written in the contract. These guarantees are very powerful, supporting the continuing success of a project rather than paying for damages from a failed project. A liquidity guarantee would provide cash to pay for operations, maintenance, repairs, staff, and other expenses in addition to loan payments.

Variations on the Theme of Project Liquidity Guarantees

There have been and are a variety of project risk guarantee programs available to sustainable infrastructure programs and projects around the world, as described in Appendix A. What makes GREG a new and unique proposal is the implementation of a narrowly focused guarantee on a risk element – offtake contract revenue liquidity -- that is shared globally on a common basis.

The GREG proposition is, in effect, to move the point of credit enhancement from the project loan/financing up to the project itself, that is, moving it upstream to project assurance, not just loan assurance.

There are, in addition, several variations under consideration. First is the incorporation of the revenue liquidity guarantee into and as part of a government clean energy procurement program

(auction) as was done recently in the RenovAr program in Argentina¹, and second, returning the guarantee to the backstop the project finance lenders, as described below:

- In most of the developing world, payments to IPPs can be volatile in reality and/or perception thus constituting a relevant risk for investors and higher financing costs. In order to attract private investment, it is also essential for the developing countries to design strong and bankable PPAs, whereby certain de-risking features should be included to tackle most of the risks preventing investment and/or making it more expensive to finance. A proper PPA design together with a revenue liquidity guarantee can have a large effect on mobilizing private investment efficiently. Therefore, in many cases, the provision of an offtake revenue liquidity guarantee may not be sufficient to attract developers of projects to be bid into government procurement/auction programs, as was found, for example, in the Argentine RenovAr program where additional assurances on capital recovery were added into the government program. Another example is occurring today in Ethiopia where PPAs have been secured specifying that payments shall be priced in US dollars but paid in local currency Birr, yet the government has withdrawn assurances of currency convertibility through the Ethiopia central bank.
- Backstopping the project loans: Instead of providing a partial guarantee facility of the PPA, and thus in event of delays providing funds to the IPP, the program may offer alternatively to counter-guarantee a bank, which would provide the facility. This would allow avoiding having to interact directly with the state-owned utility. It would also create an alignment of interest with the commercial bank providing the first guarantee, which will therefore have to perform its own risk assessment.

As a result of these variations, GREG will consider designing two methods of deploying the revenue liquidity guarantees: First, as a globally-applied standard policy contract with a minor degree of tailoring to country conditions, and second, as part of a consultative approach with each country that wishes to include it as an element of their procurement/auction programs. Those programs will likely benefit substantially from the existence of GREG's product and generally accepted standards.

As for providing liquidity guarantees to lenders, GREG will work with existing loan guarantors to develop offerings along the lines of a Revenue Guarantee.

Initial Market Focus and Possible Diversification

¹ For more information see <http://bitly.ws/amd4>

It is proposed that GREG begin by serving clean energy electricity projects around the world to prove out the feasibility of a global product, and then consider expanding its coverage to other sustainable infrastructure projects as defined by the FAST Infra initiative, and eventually to projects defined under the SDGs.

Proposed Capitalization

GREG seeks to raise [\$20] million of seed capital for a two-year Design and Pilot Phase, as further described in Appendix B, to establish its business functions, develop its guarantee policy pricing methodology, establish its array of collaborating organizations, and issue pilot guarantees for proof-of-concept. If successful, this pilot phase would be followed by successive rounds of [\$100 million] and eventually more, for reserve funds under its project liquidity guarantee policies. GREG will look to raise capital from Environmental, Social and Governance (ESG) motivated investors of all kinds including but not limited to governments, MDBs, DFIs, banks, pension funds, insurance companies, and other institutional investors. It is proposed that the participation of at least one global MDB is important, to have a pathway to relationships with the countries in which the guarantees are written. The need of concessional funds is quite certain to abate the cost of the guarantee that could be important and cannot be assessed *ex ante*. However, this is not being proposed as a new program for the MDBs for which the matter of guarantees raises complex issues.

Another key consideration is whether to have host countries contribute to the reserve funds underlying GREG guarantees.

Risks

There are several key risks to be given attention in the early years. First is one of having the right shareholder participation for backstopping the endeavor for early creditworthiness. Second is the potential to take unanticipated losses by mispricing the guarantees due to inadequate pricing methodology and/or lack of data.

Alternatives

This proposition is for GREG to be a for-profit PPP format, not a program of an MDB/DFI or government. It is acknowledged, however, that GREG or its equivalent could be successfully launched and operated in another format.

Appendix A

Existing Guarantee Programs Similar to GREG

There have been a wide variety of guarantee initiatives similar to GREG. Indeed, the World Bank Group was founded in the 1940s as a guarantee agency but quickly evolved into a loan-making entity with several guarantee windows still available. Following are brief descriptions of guarantee schemes available to sustainable infrastructure programs and projects.

World Bank (IBRD and IDA) Project Guarantees

Payment Guarantees and Loan Guarantees can be used by public or private entities to mitigate the risk of a potential payment or performance default by a government. Information can be found here:

<http://pubdocs.worldbank.org/en/376701440595374380/ProjectBasedGuarantees.pdf>

Main Objectives & Benefits:

- Reduce the probability of default by the government
- Reduce losses in the event of a default
- Enhance the credit quality of the government and of the project
- Enable bankability through strong risk mitigation
- Reduce the cost of financing for a project
- Support the long-term financial stability of the project

Project-based Guarantees may incorporate liquidity features which help projects access funds in a more flexible and expedite manner without triggering payment of the Guarantee or allowing longer time for dispute resolution. *e.g. a Guarantee may be applied to backstop a commercial bank letter of credit designed to provide liquidity to a project. If a payment is delayed, the project may use the proceeds of the letter of credit to supply liquidity. If the delayed payment is finally made the letter of credit would be replenished without using the Guarantee. If the delayed payment is not made, the Guarantee will be drawn to repay the letter of credit.*

World Bank Group – Multilateral Investment Guarantee Agency (MIGA)

MIGA guarantees protect investments against non-commercial risks and can help investors obtain access to funding sources with improved financial terms and conditions. MIGA charges a fee equal to approximately 200 to 300 basis points, and is generally seen as suitable for larger projects.

ATI's Regional Liquidity Support Facility (RLSF)

The Regional Liquidity Support Facility (RLSF) is a liquidity facility administered by the African Trade Insurance Agency (ATI) and supported by the German Federal Ministry for Economic Cooperation and Development (BMZ). In ATI member countries, RLSF provides liquidity to lenders to Independent Power Producers (IPPs) in the renewable energy sector with a capacity of up to

100 MW. ATI selects a bank that issues stand-by letters of credit to approved IPPs, with the backing of the RLSF. The amount will enable the IPP to continue to operate for at least six months in the event of off-taker default. The RLSF has two components:

- Cash collateral, which the bank can use to immediately pay the IPP if the Letter of Credit (LC) is called. The German Government, through KfW, has made EUR 31 million available to ATI for this purpose.
- An on-demand guarantee for the same amount as the cash collateral component, provided by ATI. This is used in the event that the cash collateral is exhausted.

Source: African Trade Insurance Agency, (2019), Regional Liquidity Support Facility:
<http://www.ati-aca.org/energy-solutions/facilities/regional-liquidity-support-facility/>

World Bank and AFD Solar Risk Mitigation Initiative (SRMI):

This program has developed an integrated approach including a “Viable Risk Mitigation Coverage” to cover residual project risks targeting solar (grid and off-grid) and storage deployment financed and operated by private investors. SRMI has been used only once, in Maldives.

EU guarantee schemes for renewable energy under the European Fund for Sustainable Development (EFSD), and more specifically the European Guarantee for Renewable Energy (EGRE).

EGRE is a European platform of collaboration for guarantees jointly proposed by AFD, EIB, KfW and CDP to support the energy transition and expand energy access in Sub Saharan Africa. It will address key risks in renewable energy projects include the off-take risk and related risks, such as convertibility and transferability risks. The credibility of the power purchase agreement constitutes a key risk affecting the bankability of Independent Power Producers. It consists of four distinct yet complementary financial instruments:

- a. Offtake Guarantees with a sovereign recourse (or "EGRE S");
- b. Offtake Guarantees without a sovereign recourse (or “EGRE NS”);
- c. European Liquidity Support for Sustainable Energy (or "RLSF+");
- d. The African Energy Guarantee Facility (or "AEGF")

EGRE aims for leverage of 13x, at creating 2GW renewable energy capacity in Sub-Saharan Africa, with a guarantee of up to EUR 168 million and EUR 24 million of technical assistance. It is not yet operational. RLSF+ which is the product line comparable to GREG aims at EUR 60 million in guarantees. It seeks a distribution channel.

Appendix B - Design and Pilot Phase Plan

The purpose of a two-year GREG Design and Pilot Phase is proof-of-concept and preparation to launch the full global program/organization.

Phase 0: Program Design (six months)

As a new innovation in sustainable infrastructure credit enhancement, there is no existing program that needs improvement, nor answers to key questions about how to carry it out. The immediate task ahead is to design the program, answer key questions and put forward a plan for pilot projects. This is called “Phase 0 Design”:

- Market and off-taker risk methodology and analysis:
 - Risk rating agencies and advisors
 - Estimates and projections of market potential
 - Market requirements for the liquidity guarantee program
- Guarantee policy pricing methodology and analysis:
 - Consulting/modeling for risk analysis
 - Guarantee companies and law firms for guarantee documents
 - International and domestic developers and equity sponsors
- Organization for the Pilot Phase:
 - Formation of shareholder governance and approval of Pilot Phase Plan
 - Advisory Board
 - Management and staff
 - Legal and financial advisors
 - Fundraising, negotiation and close
 - Projects and host country consultations and preliminary selection

Phase 1: Pilot Program (18 months)

Following the Phase 0 Design work, the next task is to launch a Pilot Program to test the design.

- Issuance of Pilot Guarantee Policies:
 - RFP and selection of regional insurance/guarantee companies
 - RFP for project developers to apply

- Selection of pilot projects and issuance of Conditional Policies
- Project development (continues)
- Negotiation and issuance of guarantee offers with pricing and reserve funds

- Evaluation of the Pilot Phase:
 - Validation of likely market demand for the guarantees
 - Validation of policy pricing – reserve fund and premium
 - Validation of the policy contract: financial, risk and legal

- Plan for Launch
 - Decision of form of organization (company, fund or agency)
 - Preparation of Business Plan
 - Funding strategy and presentation
 - Fundraising

At the end of the Phase 0 Design and Phase 1 Pilot Program, there will be a review and judgment as to the success of the initiative and, if positive, the preparation of a plan to launch the business on an on-going basis.