Using public funds to leverage financing for projects

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October 9, 2012

Public funds are limited…yet needs are large

- Projects are often characterized as public or private funded projects.
- Public funds are not sufficient to meet needs. However, to bring in sufficient private funds at sufficient cost – there is often a role for the public sector as well.
- At the Bank, where our client is the Government, we are in a unique position to advise on best use of limited public funds.
- There is a renewed focus at the Bank with regards to leveraging of private sector funds. The Climate Investment Funds – which are strongly focused on leverage – have helped Bank teams think more creatively about use of Government and MDB support to leverage in wider financing.

Recent Paper and web tool offers support to policymakers

- Focus on conciseness and usability rather than being all-encompassing
  - though with a comprehensive list of references and web shortcuts.
- Paper organizes evidence on relationships between financing instruments and barriers/risks.
- Also documents the case study examples highlighting the experience of barriers/risks being addressed by specific financing instruments.

Barriers and risks relating to Renewable Energy Technologies (RETs)

- Barriers created by under-developed financial market
  - Lack of long-term loans
  - High financing cost
  - High transaction costs
  - Poorly capitalized developers
- Risks relate to high risks and costs of RETs
  - Cost competitiveness
  - Technology risk
  - Regulatory framework
  - Resource risk

Financing Instruments: selection

- Use instruments which deliver greatest amount of private financing for the least amount of public funds ('leverage').
- Avoid 'crowding out' of private investment.
- Minimize market distortions.
- While being feasible under existing legal and practical constraints.

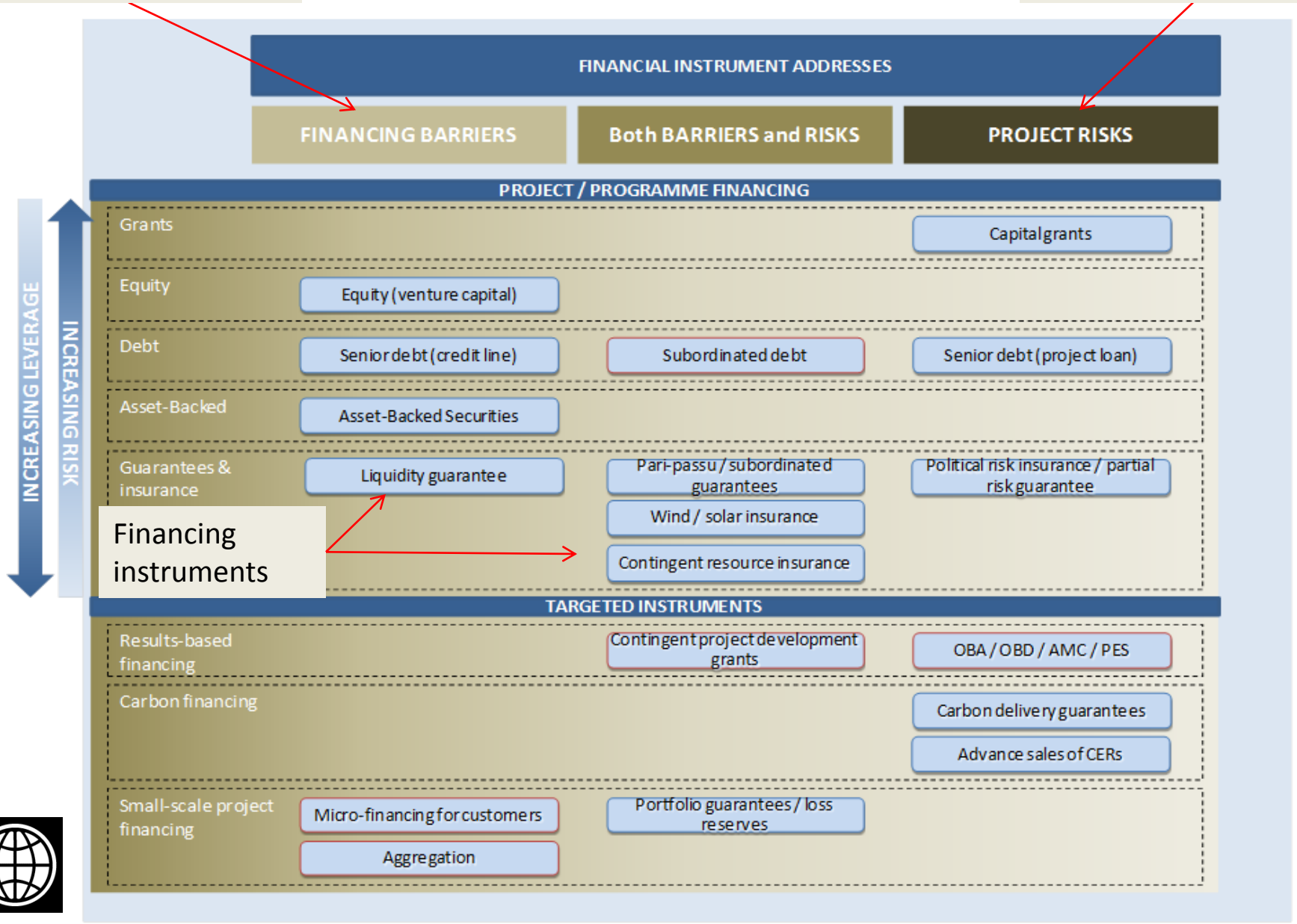
Public funds to target barriers and risks holding back investment

- World Bank instruments give significant flexibility. Should think about nature of financing being offered when designing the scheme (e.g. should we finance CFLs, which have short payback periods, on 40 year loans?):
  - IDA
    - 40 years with 10 year grace period
    - 75 bpts
  - IBRD
    - up to 18 years average maturity
    - LIBOR + 50 to 100 bpts
- Use public funds to target and address barriers/risks constraining private investment, rather than simply for funding RET projects in general.
- Develop appropriate 'financing instruments' focusing on barriers/risks to be addressed.

Framework for options

Under-developed market creating funding barriers

Not commercially viable due to **high risks and costs**



RefinE Webtool

www.worldbank.org/energy/refine

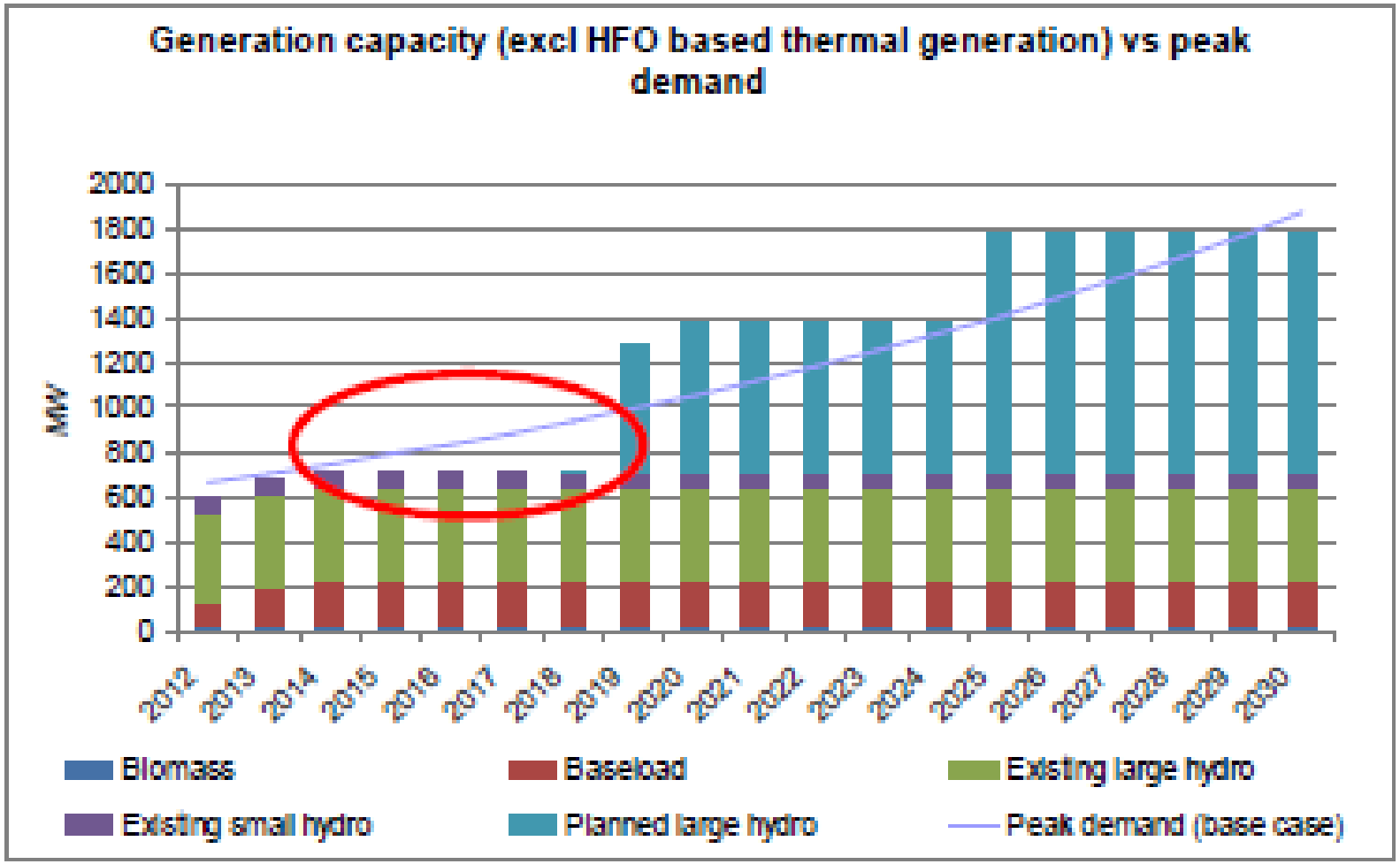
- Can choose technology – webtool then suggests set of risks and barriers
- There is the option to edit this set of risks and barriers
- A list of financing instruments is displayed - appropriate for these risks and barriers
- There is explanation of financing instruments
- There are also case study examples of use of the financing instruments.

Thailand Energy Eff Revolving Fund	Asia - ADB Clean En Private Equity Inv Funds
Ukraine - Sustainable En Lending Facility	Burkina Faso - Rural Electrification Prog
C. America - Mezzanine Finance Fund	Egypt - NREA wind farms financing
Macedonia - Sustainable En Fin Facility.	Hungary – IFC-GEF Energy Eff Co-Fin Prog
Uganda – West Nile rural electrification	Thailand – UNDP-GEF Biomass Gen & Coop
Nepal - Power Development Project	Chile - Chilean Economic Dev Auth credit lines
India – Renewable Energy Dev Agency	Philippines - Leyte Geo Partial Credit Gu'tee
Philippines - Grid-connected Solar PV –	China - UNEP wind reinsurance facility
China - Utility -Based Energy Eff Fin Prog	Global - insurance4renewables
Hungary - GeoFund	India - ICICI securisation SHARE micro-credits
Uruguay – Wind Energy Programme	Global - Carbon Partnership Facility
India - UNEP Solar Loan Programme	India - IFC Rain CII Carbon (India) Ltd
Bangladesh – Solar prog on credit sales	Tunisia – UNEP Solar Water Heating Fin Prog
Africa - AfDB Africa Carbon Support Prog	Indonesia - GEF Small Hydropower
Sri Lanka - ADB Power Fund for the Poor	Bolivia – SHS Medium-Term Service Contracts
India, Sri Lanka and Vietnam – SELCO	Laos – Nam Theun 2 Project
Sri Lanka - Renewable Energy	Rwanda – AMCs for Rural Energy

Uganda: private sector Small Renewables

- IDA Partial Risk Guarantee

Uganda will have a gap between peak demand and generating capacity during 2014 - 2019



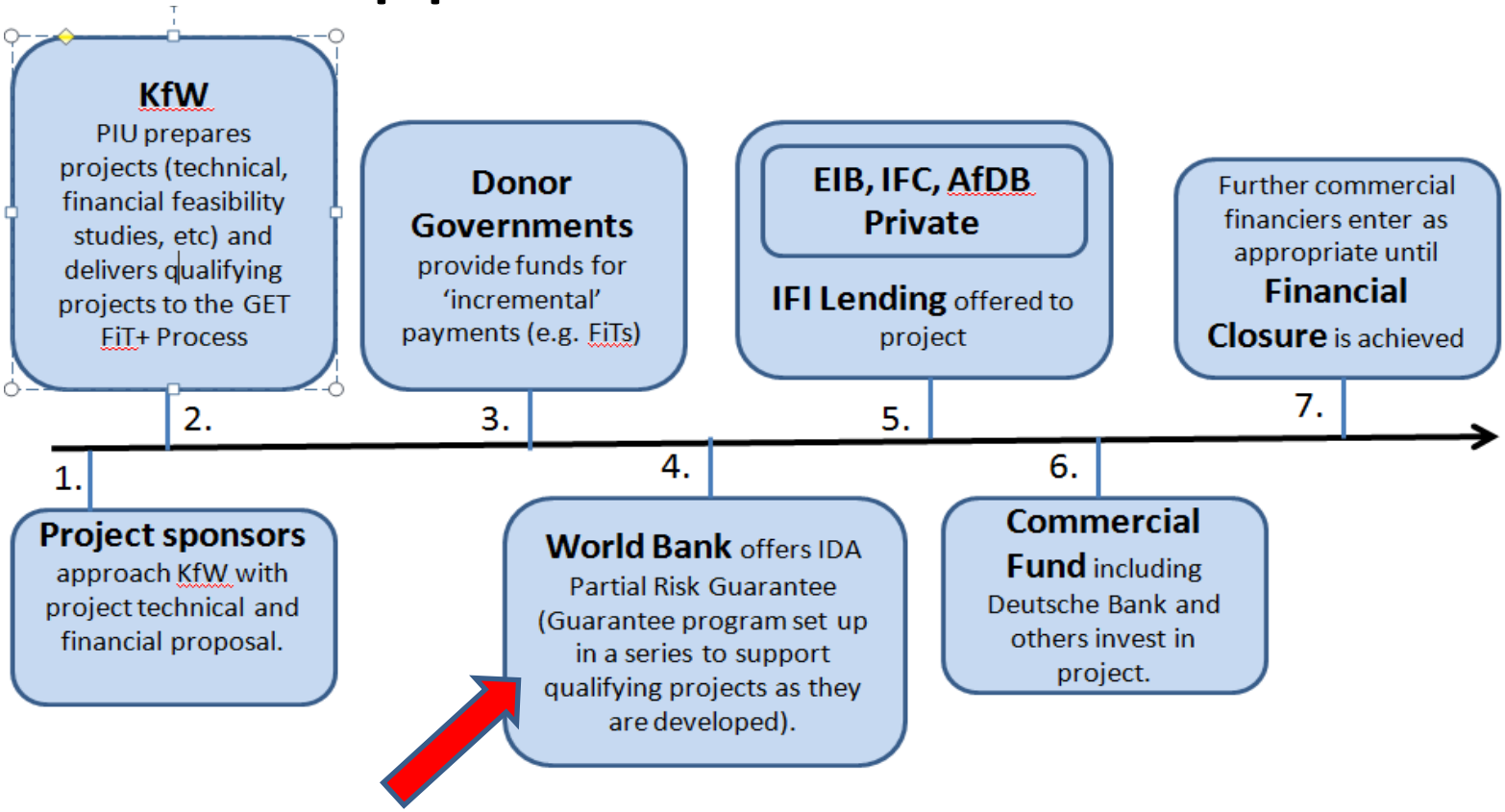
A large number of private sector developers are keen to deliver small projects that can help fill the gap

	Project name	Technology	MW planned	Investment size (USDm)	Start of construction	Start of operation	Yearly output (MWh/MW)[4]	Implied Capacity Factor
1	Siti 1	Hydro	5,0	19,0	2013	2015	5000	57%
2	Siti 2	Hydro	16,5	36,0	2014	2016	4200	48%
3	Muzizi	Hydro	20,0	60,0	2014	2016	6700	76%
4	Kikagati	Hydro	16,0	48,0	2013	2015	7500	86%
5	Mount Elgon	Hydro	10,0	30,0	2014	2016	3840	44%
6	Mubuku III	Hydro	9,0	25,2	2014	2016	5000	57%
7	Kakaka	Hydro	8,0	28,0	2014	2016	4000	46%
8	Nengo Bridge	Hydro	6,5	18,2	2013	2015	5000	57%
9	Lubilia	Hydro	4,0	14,0	2014	2016	6750	77%
10	Nyamagasani	Hydro	3,0	9,0	2014	2016	6500	74%
11	Rwimi	Hydro	5,6	15,9	2013	2015	5000	57%
12	Kymabura	Hydro	8,3	24,9	2014	2016	5000	57%
13	Kinyara Sugar	Biomass	20,0	60,0	2014	2015	7884	90%
14	Kakira Sugar	Biomass	20,0	60,0	2013	2014	7884	90%
15	SCOUL Sugar	Biomass	5,0	15,0	2014	2015	7884	90%
16	Alam Group	Biomass	5,0	15,0	2014	2015	7884	90%
17	Tilda Rice	Biomass	1,0	3,0	2014	2015	7884	90%
18	UgandaSolarOne	PV	2,0	6,0	2013	2014	2100	24%
19	Equator Solar	PV	2,0	6,0	2014	2015	2100	24%
			166,9	**493,2**				

Why is support required before private sector will invest?

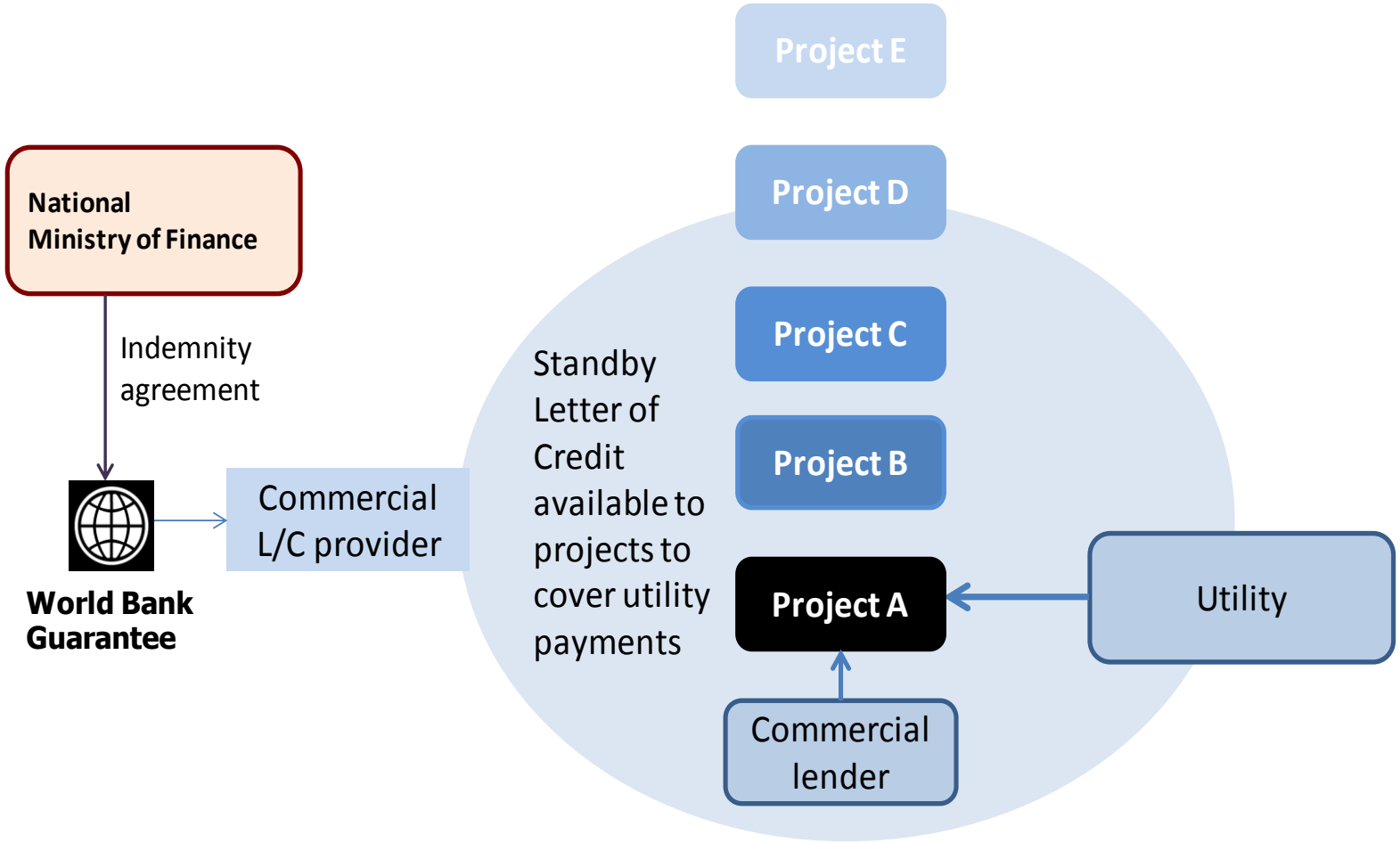
- The existing feed-in tariffs do not fully cover cost of supply.
- There is uncertainty about regular payment of all dues by the utility.
- Additional issues relating to grid interconnectivity, PPA, etc.

GET FiT is bringing together a package of supports under one scheme



* Whilst steps 1 and 2 will be followed for each project, the subsequent steps will be applicable depending on the size and type of project (larger projects likely to require more of the steps).

Partial Risk Guarantee structure we may use



Letter of credit guarantee structure focused on providing timely liquidity during tariff payment interruptions

- Standby letter(s) of credit (L/C) issued by one or more commercial banks and made available to (all) private project developers under the program.
- L/C could be drawn by a developer in the event of an interruption of tariff payment by the local (government-owned) utility.
- The PRG would guarantee the L/C bank's debt arising from a drawing of the L/C.
- Such a structure would provide significant liquidity certainty to lenders/project developers in relation to tariff payments from the local utility.
- Following the drawing of the L/C, the National Government would be obligated to repay the L/C bank for the amount drawn with interest, within a certain period (e.g. 12 months).
- This period offers time for issues that led to the default to be addressed, and for the World Bank to intervene if necessary. If the L/C bank is not reimbursed during this period, then, after the given period, the L/C bank could call the World Bank PRG.

Philippines: commercial financing for Loss Reduction - *CTF Guarantee*

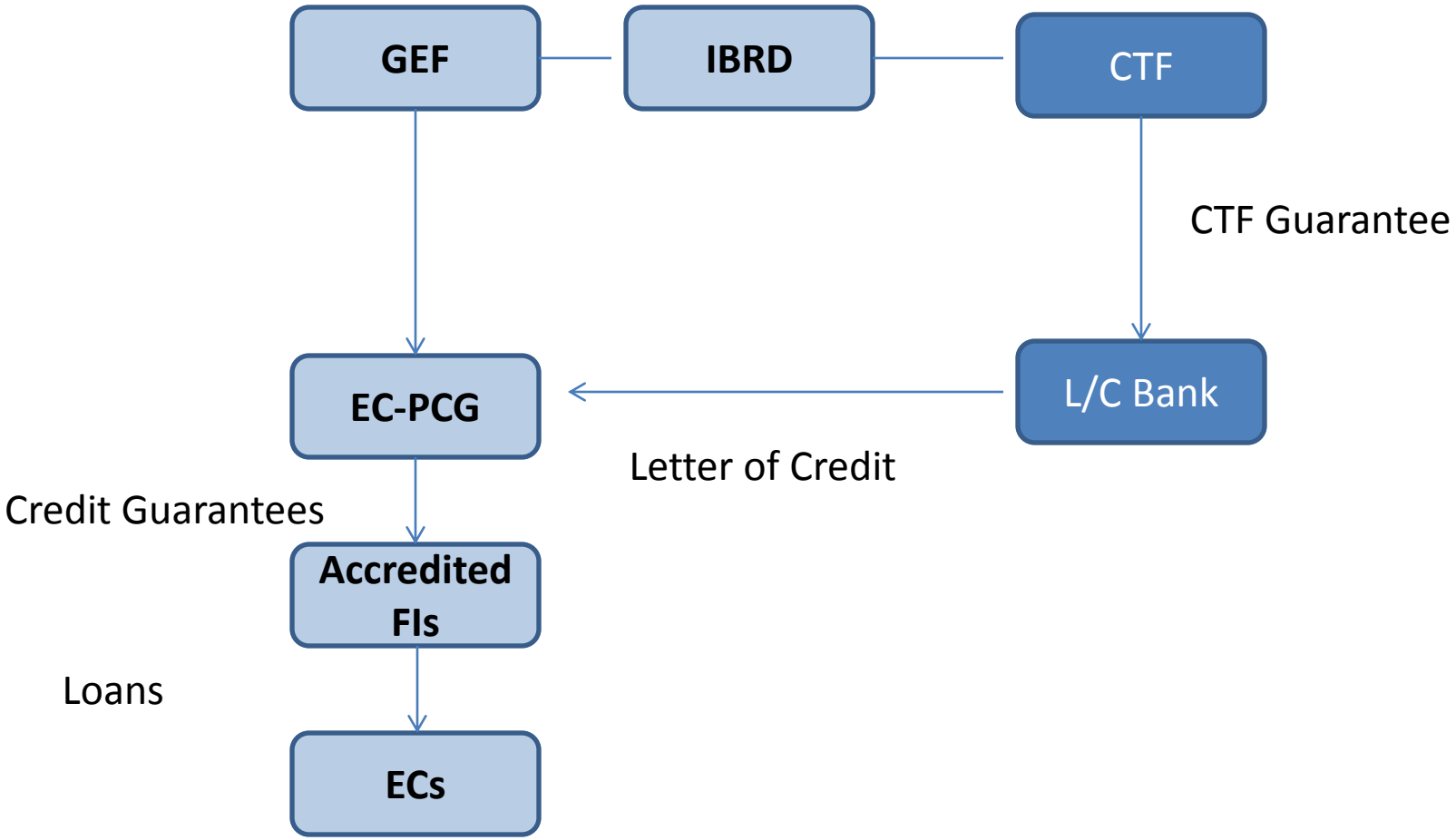
Need for commercial lending to ECs

- Electric Cooperatives (ECs) in the Philippines need significant investments to improve their distribution infrastructure.
  - In the region of US$700m during 2012-16 to reduce system losses and improve efficiency.
- ECs need to borrow to make these investments.
- However, commercial banks are unwilling to lend to ECs because they are not experienced at assessing or managing the credit risk of ECs.

Credit guarantee facility has been working well

- A US$10m GEF grant was previously used (in 2004) to set up a credit guarantee facility for commercial lending to ECs.
- 80% of principal + 3 months' interest is covered.
- The World Bank has been considering how to scale up this facility.

CTF Guarantee extends Credit Guarantee Program



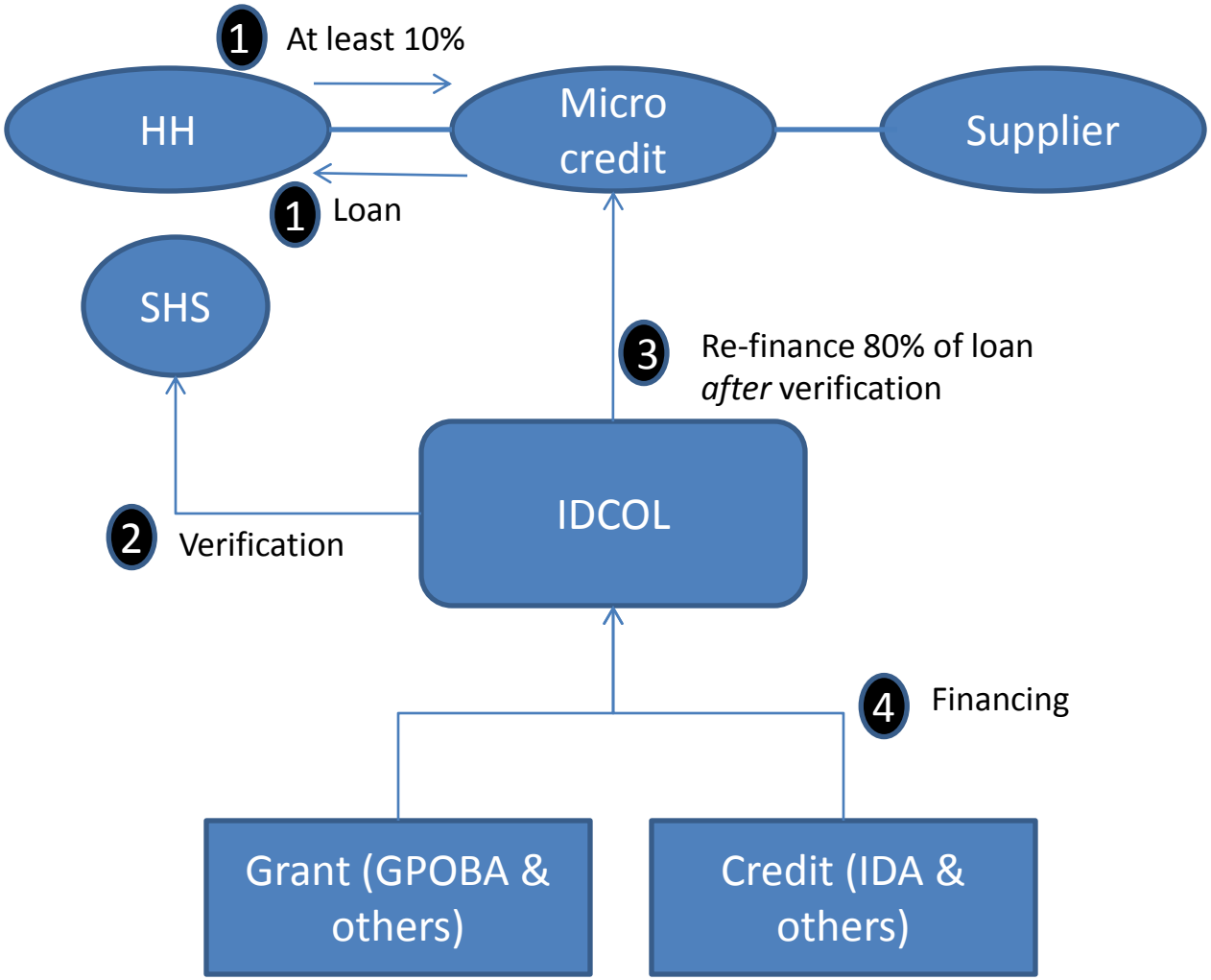
Bangladesh: financing of Solar Home Systems - *Results-based financing*

Targeted support to off-grid consumers

- Deliver electricity to off-grid users who are currently reliant on wood burning and batteries.
- Incentivizes micro-credit agencies to offer small loans to such consumers.
- Results-based approach whereby micro-credit agency are re-financed once they demonstrate installation and supply.
- IDA is used to re-finance the agencies with better terms – giving them the incentive to go out and do more business.
- GPOBA funds are helping to bring down the cost of SHS.
- 560,000 in May 2010, I million connections in May 2011, 1.2 million in June 2012.

Bangladesh: Electrification for Poor Rural Households

How it works: results based re-financing and grants using IDA and GPOBA



Expanding local financing

- Under Results-Based Financing, the need to pre-finance puts an onus on developing/leveraging the existing/local financing community
- The explicit (OBA) contract with clear output requirements provides certainty for payment/re-financing.
  - Microcredit agencies were offering hhs credit at a rate of 12-15% with a repayment period of 3-5 years. By setting up the results-based lending facility offering 6-8% over 10 years, agencies could extract their capital for use in further new projects.
  - Rapid increase in the size of lending.
  - Has resulted in entry of several financial institutions into the market.

Ensuring appropriate service levels

- The project minimizes risk that its suppliers won't perform by designing 'outputs' to reflect desired performance.
  - Includes post installation warranty.
- Government Agency (IDCOL) checks that this service requirement has been met before authorizing release of funds.

Conclusions

Aim of this session was to discuss use of public funds to leverage in wider financing

- Use instruments which deliver greatest amount of private financing for the least amount of public funds.
- Recent Paper and web tool offers support to policymakers.
- World Bank loans and guarantees offer significant flexibility for us to support our clients in this area.
- Need to think carefully about structuring of WB support to have most impact in terms of leverage.