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# Catalyzing Private Sector Investment in Energy Efficiency and Self-supply Renewable Energy with Public Funds

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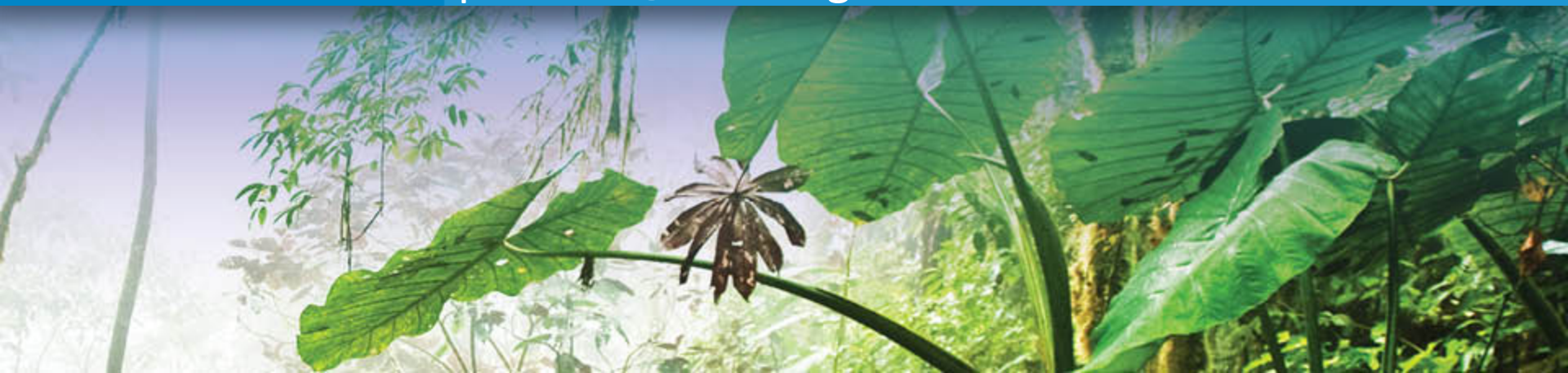


# IDB Private Sector- Structured and Corporate Finance Department

**Our Clients**

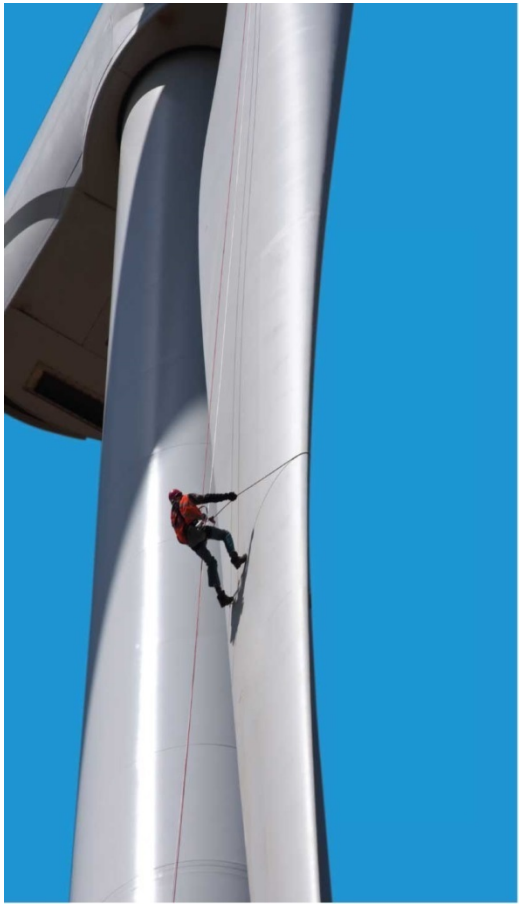
- Corporations, private utilities and infrastructure operators, financial institutions, and state-owned entities without a sovereign guarantee

**Our Products and Services**

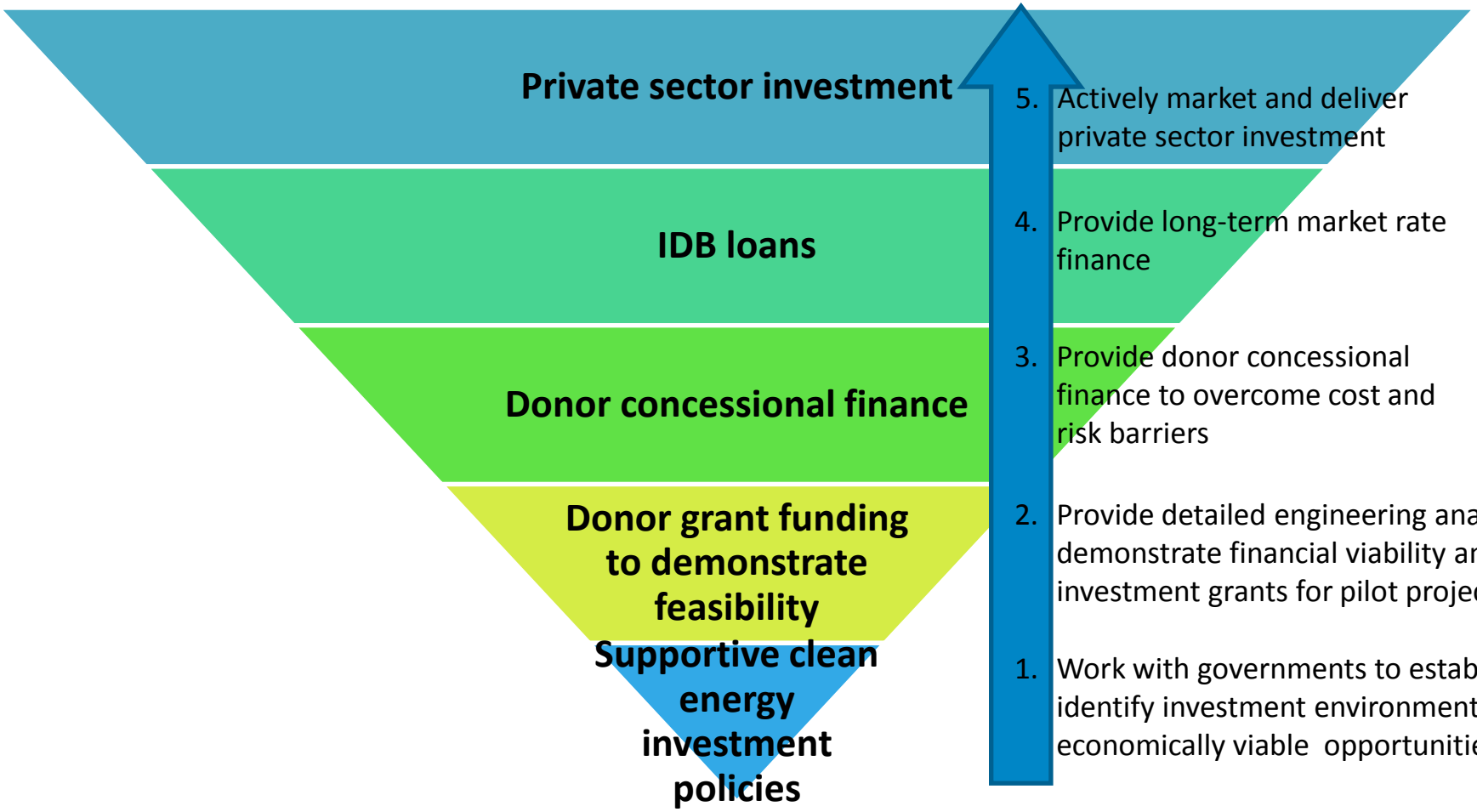
- Loans (syndications and parallel)
- Project Finance and Public Private Partnerships
- Guarantees
- Climate change concessional finance
- Clean energy audits

**In 2011-2013, over $2 billion lent for over $10B in climate investments**

- Renewables – solar, wind, biomass, hydro, biofuels
- Energy efficiency – direct in Industrial, commercial buildings and planetBanking "Green lines" for banks and PE funds
- Agriculture - methane capture and biomass use



# Layers of the cake - steps to using donor finance to bring in private capital



# Catalyzing climate investment with public funds

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## Barriers to Private Sector Clean Energy Investment

- Information barriers
  - Unaware /lack of confidence in savings and performance predictions
  - Projects require $20 to $200K in engineering analysis to prove feasibility
- Lack of finance
  - High collateral requirements from banks and low value to energy savings assets once installed
- High transaction costs
  - Project finance is costly and risky
  - High engineering cost/project value ratio
  - MM&V if required by financier
- Resource risk - Production uncertainty
- Offtaker/purchaser risk
  - Long term contracts needed to recover upfront capex/energy payments
- Technology risks
  - Uncertain installation and O&M costs and life of project, warranties from new cleantech companies less valuable

**Investment in climate change**

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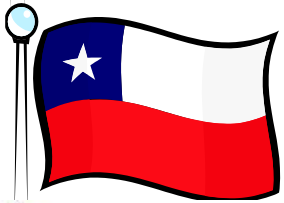
## IDB – Donor Partner Financial Tools

- Grants for technical assistance –audits, feasibility studies, green building analysis
- Direct corporate loans -facilitated approval of $500K - $5M loans & first loss guarantee via donor funds
- Dedicated Funds to lend to “high risk” ESCOs – with first loss subordinated debt from donors
- Concessional loans
- Guarantees to FI’s for ESCO finance
- Performance guarantees for Energy Savings Contracts
- “Greenlines” – loans to local Banks and PE Fund with training and market analyses provided with grant resources

# Climate Investment Fund – IDB Solutions Under Development

- Mexico CTF - Aggregation and securitization of EE projects via ESCO "Receivables" Purchasing/Factoring
  - CTF Guarantee of Bundled Energy Savings Performance Contracts for securitization and sale to third-party investors

- Colombia CTF – Dedicated Fund to undertake "high-risk" lending direct to ESCOs and SMEs



- Chile CTF – Renewable Energy Self-Supply and Energy Efficiency Program ($50M with IFC)

- Honduras SREP – First loss guarantees for IDB/Local Bank lending to corporates

- PPCR Jamaica (Proposed) – Utility smart-grid investments

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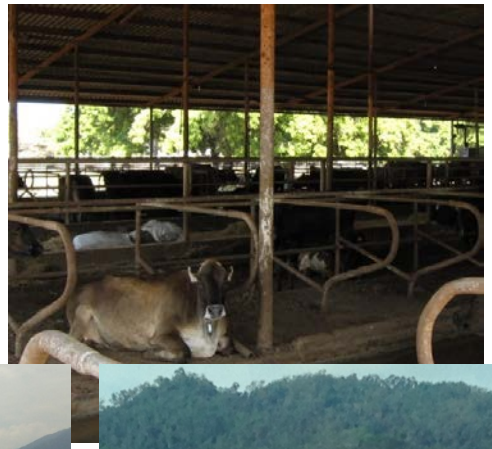
# Grant Funds are also important for building and expanding the markets for new clean technologies

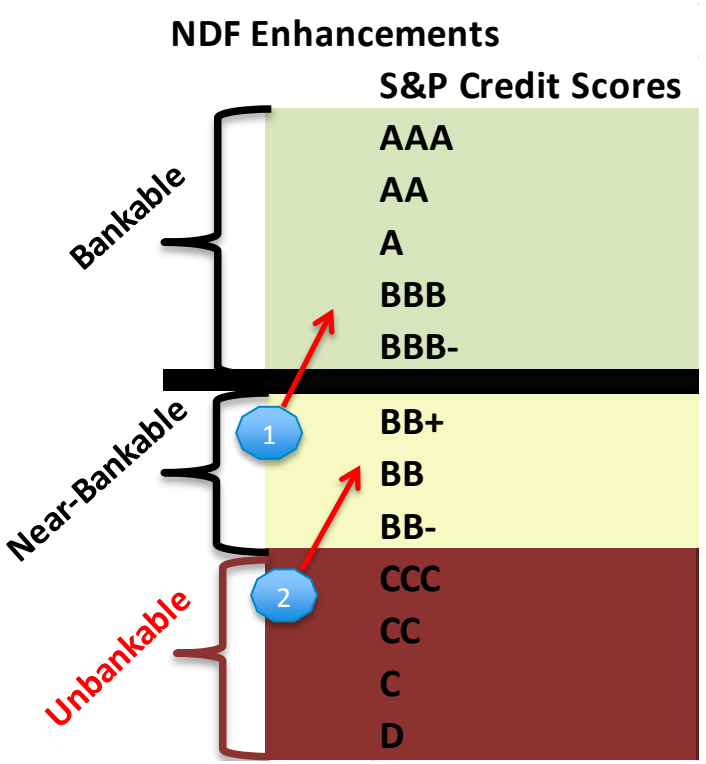
## Detailed engineering, regulatory and financial analyses conducted that identify challenges - but also demonstrate financial feasibility

- Solar
- Biogas
- Biomass power from new sources of agricultural waste
- Biomass heat
- Cogeneration with LPG
- Waste heat recovery



# How Donor Guarantees can help MDBs catalyze projects:

1) Decrease the project's cost of capital
2) Enhance corporate credit scores
3) Extend tenors
4) Reduce collateral requirements
5) Decrease legal costs



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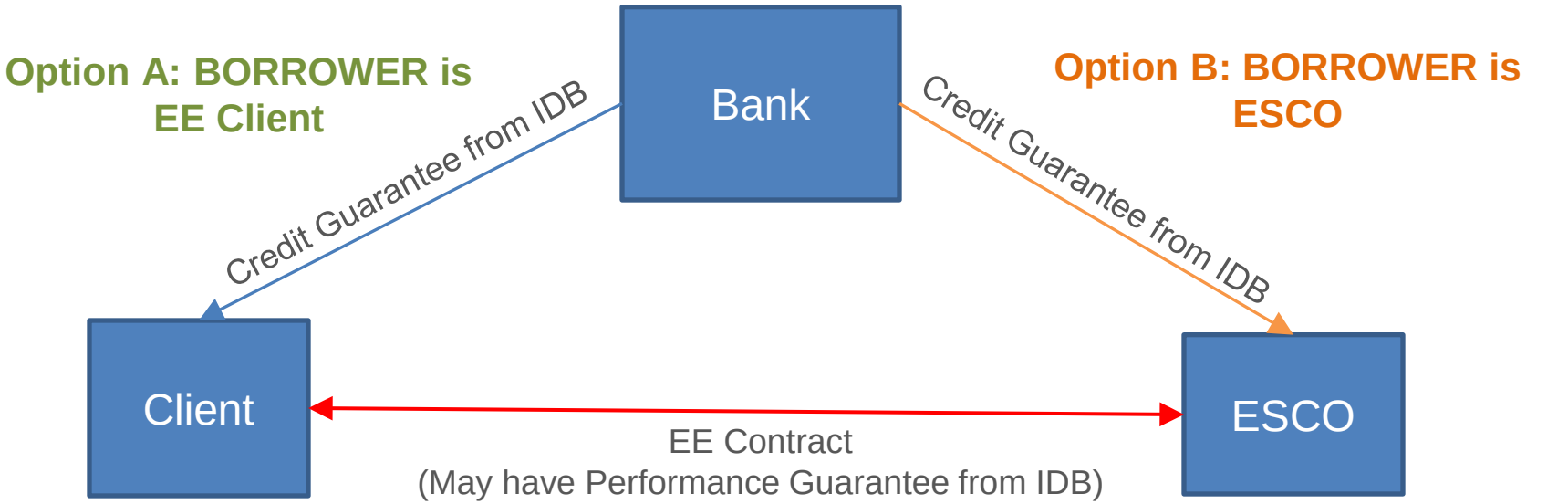
## Brazil Energy Efficiency Guarantee Mechanism

- Globally innovative program provides both performance and credit guarantees for 80% of EE project costs in commercial buildings (up to $800K per project)
- Can be used by ESCOs to obtain loans from banks (e.g. $1.6 million to the Brazilian ESCO, APS Soluçoes, to secure commercial bank financing for three projects); or
  - To insure building owners of the Guaranteed savings under ESCO energy savings contracts
- $25M available, $10M Global Environment Facility in first loss position – covers risks and reduces costs



Direct finance on concessional terms in local currency

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# Canadian Climate Fund for Energy Efficiency at University of San Ignacio de Loyola (USIL) - $1.5M

## Value Proposition/Need

- University is constructing new "green" low carbon buildings
- Willing to undertake advanced energy efficiency investments
- Will obtain LEED certification (no new-build LEED certified buildings in Peru) –demonstration impact

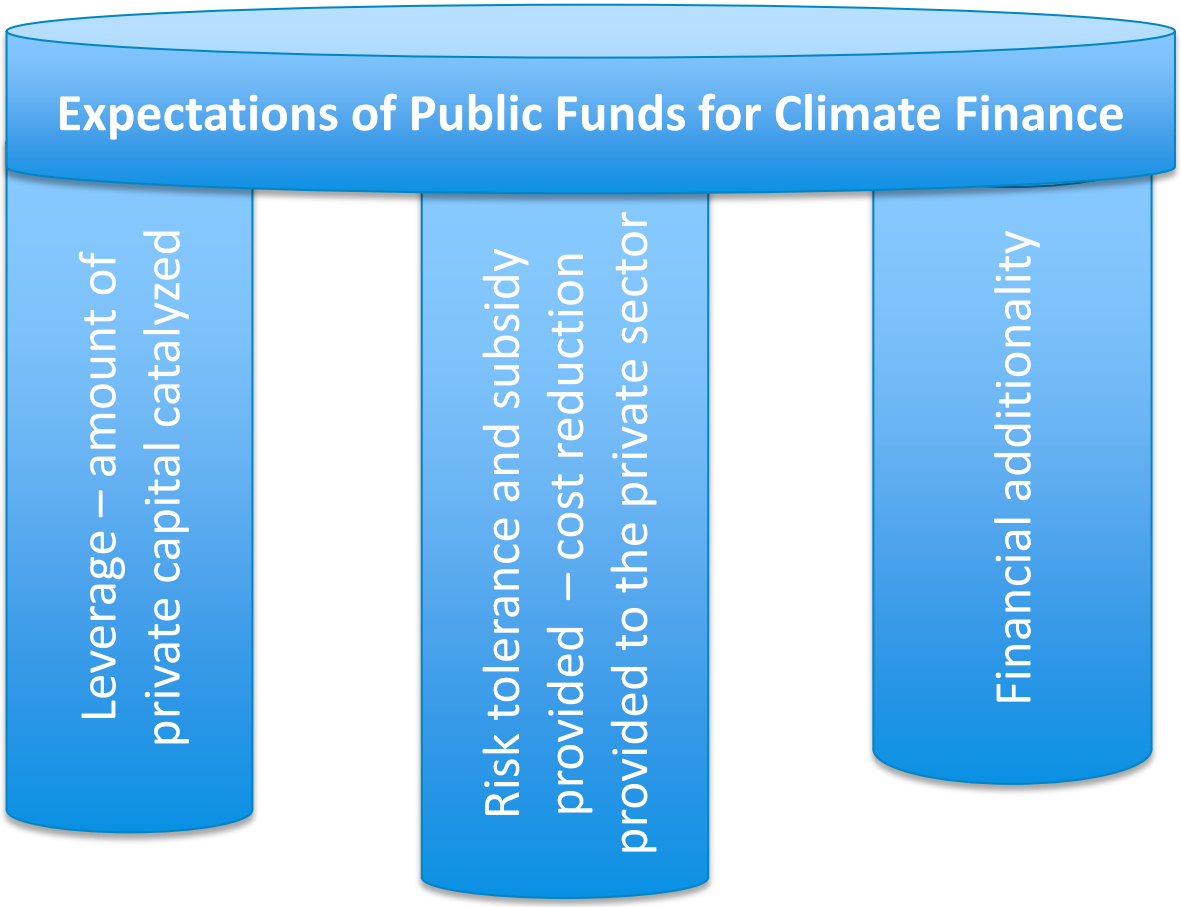
## Financial additionality

- Risk barrier – energy efficiency investments have uncertain paybacks, higher risk
- Cost barrier - many investments won't meet internal paybacks and funding needed in advance to design green

## C2F Solution

- Provide senior C2F debt at concessional price to reduce the first costs of the climate change investments
- Use investment comparison analysis to justify the C2F investment

## Maximizing the impact of public funds when seeking to bring in private capital



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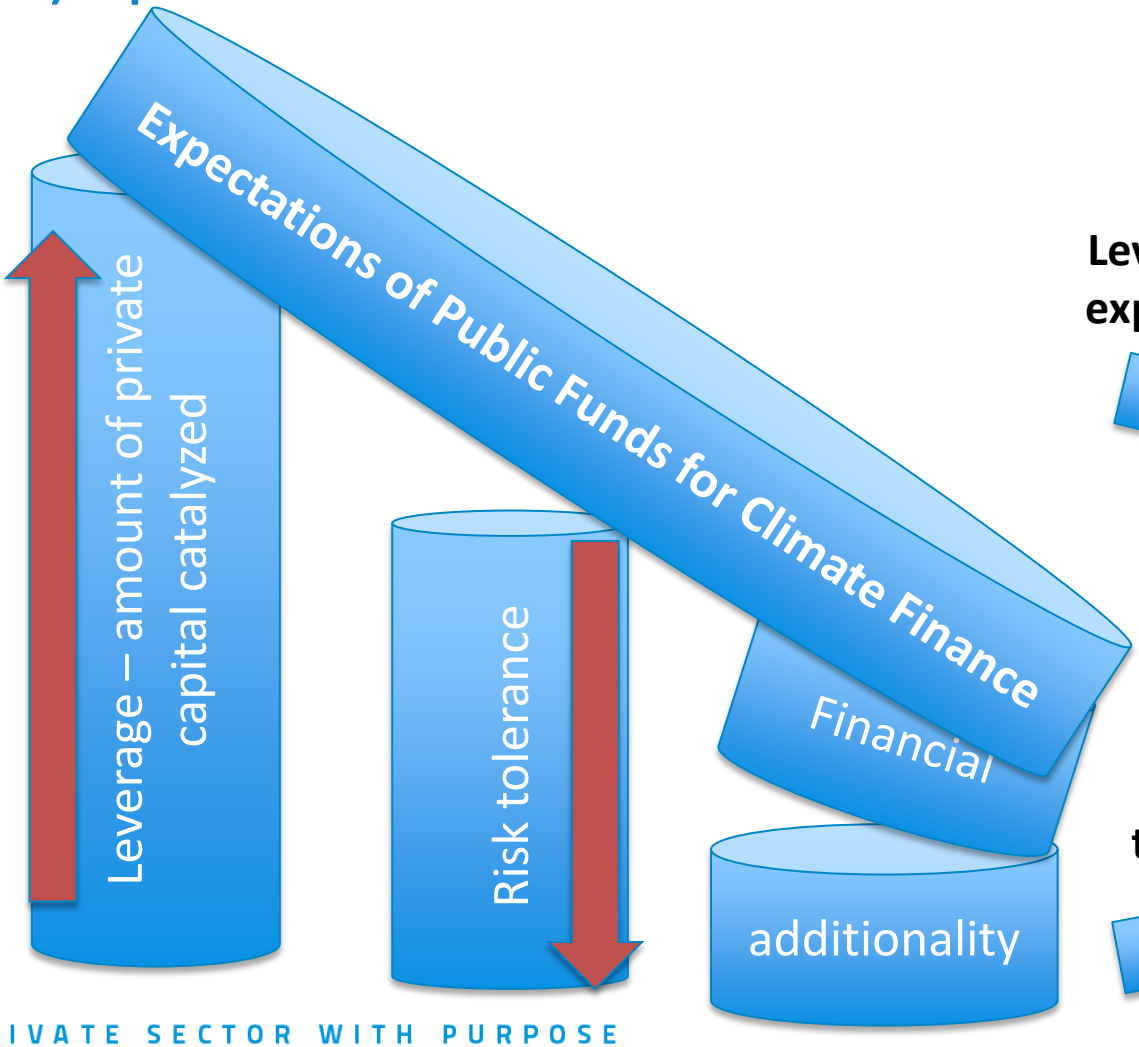
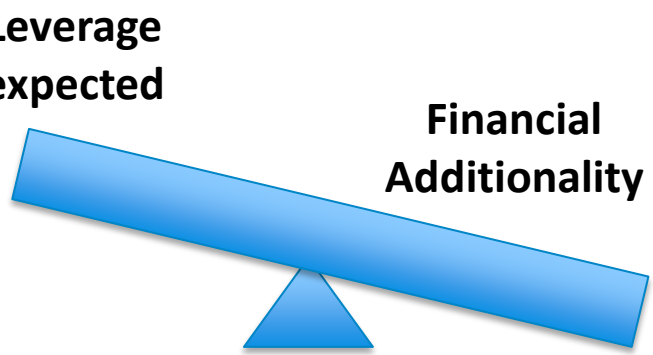
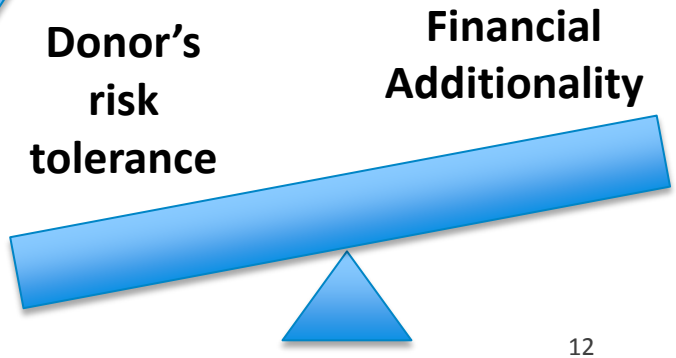
## Donor's Financial Additionality at the project level = ƒ (leverage, risk, financial return) expected

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http://www.iadb.org/en/structured-and-corporate-finance/climate-solutions,8136.html

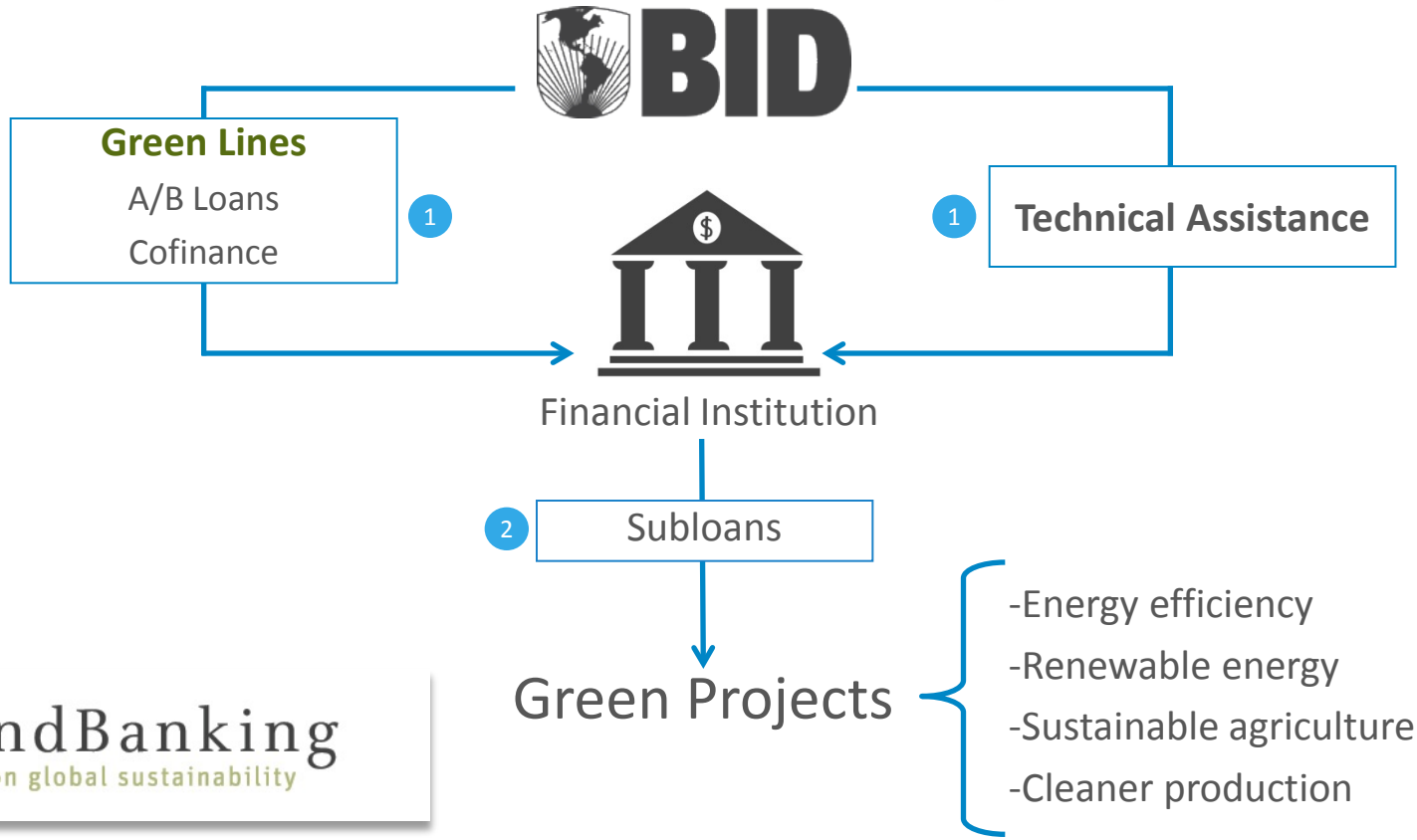
# Private Sector with Purpose

- We seek to create opportunities for current and future generations in Latin America and the Caribbean through sustainable private sector investments.

- Through the Structured and Corporate Finance Department (SCF), IDB partners with private sector stakeholders to achieve breakthrough financial results with high development impact.

# Greening SME's through planetBanking loans to Local Banks and Technical Assistance

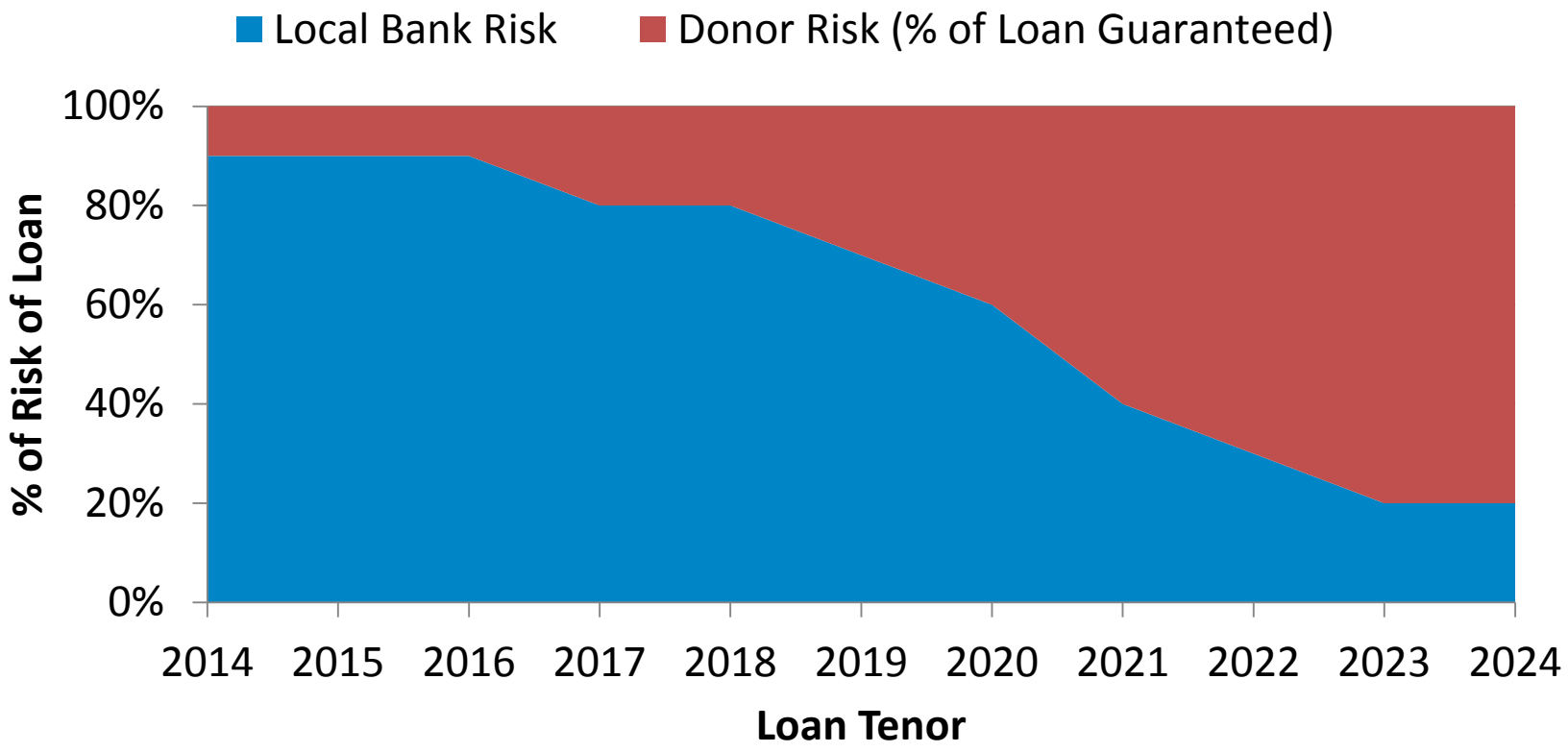
Curso | Criterios de Elegibilidad para Líneas de Crédito Verdes




beyondBanking
banking on global sustainability

PRIVATE SECTOR WITH PURPOSE

# Potential Tenor extension products-covering the long-term risk to entice FIs to lend



# SCF's climate team manages the $250M Canadian Climate Fund for the Private Sector in the Americas (C2F)

- Co-financing with IDB Group loans for climate change mitigation and adaptation projects
- No grant funding, no equity
- Concessional loans to overcome barriers:
- Risk barriers, e.g.:
  - Technology risk (Output, costs, reliability)
  - Resource risk (Probability scenarios)
  - Offtaker risk (Credit or alternative purchasers)
- Cost barriers, e.g.:
  - Bridge the gap between renewable energy production costs and market prices
  - Reduce costs of "greening a project" – (e.g. energy efficiency, methane capture, reforestation) to meet corporate hurdle rates

## Financial Tools

**Risk Tools**

- Subordinated loans, e.g.:
  - Unsecured
  - Payment terms
  - Targeted risks
  - Local currency

**Cost Tools**

- Lower cost loans, e.g.:
  - Longer tenor
  - Lower interest rate
  - Lower fees
  - Local currency

# $10M NDF Energy Efficiency Guarantee Fund supporting a $50M SCF Energy Efficiency Finance Facility

**Eligible projects**

- Energy efficiency and small-scale, self-supply renewable energy projects, including agricultural methane, biomass, solar

**Eligible countries**

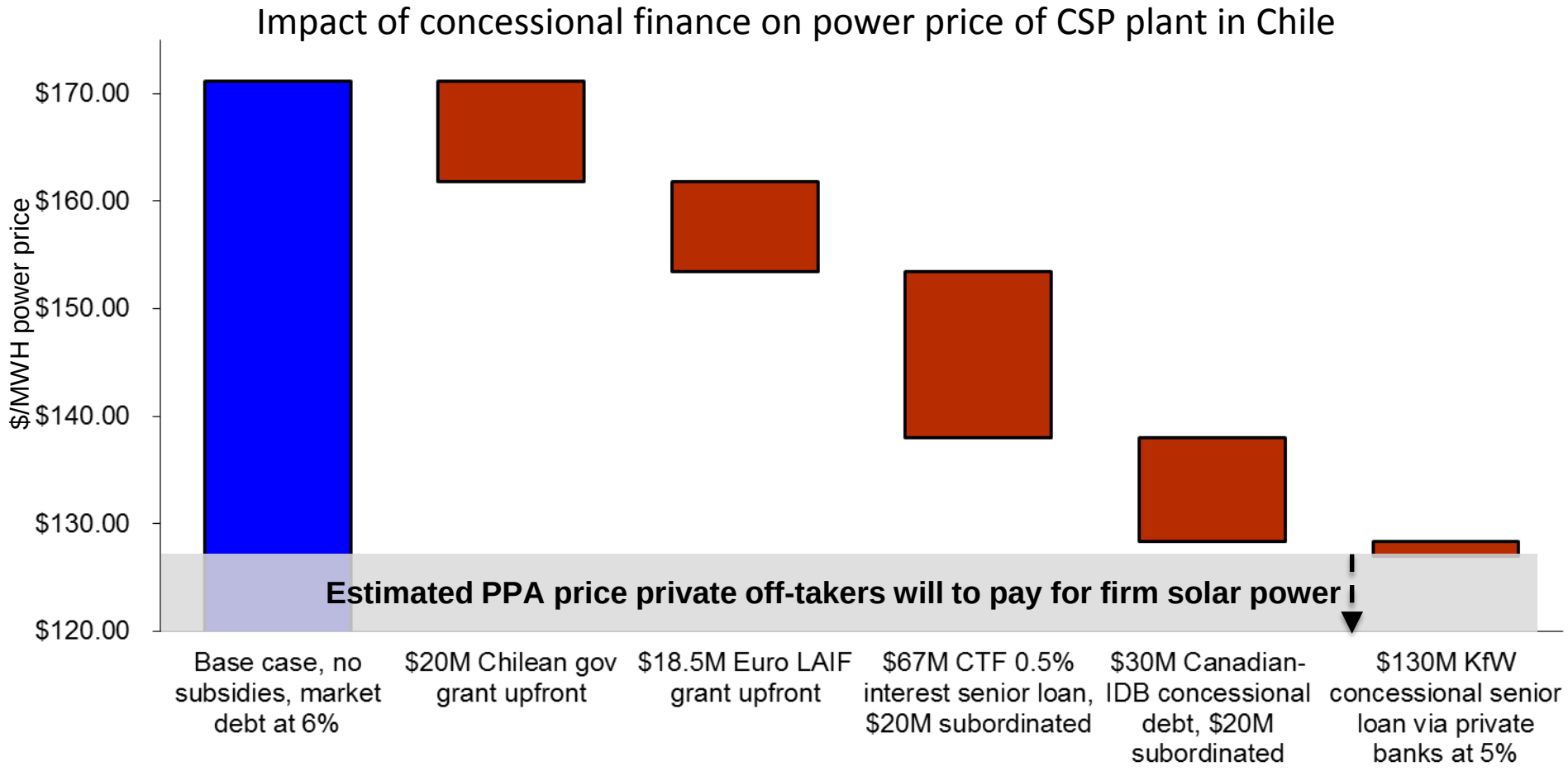
- Central America, Colombia, Dominican Republic, Jamaica and Bolivia
- Max Loan Size: $5M

**Concessional finance**

The Energy Efficiency Finance Facility will benefit from an €8 million contribution from the Nordic Development Fund:

- €7M is reimbursable funding to provide up to 25% first-loss guarantees to SCF loans in NDF eligible countries.
- The guarantees will enhance the credit profile and reduce the price of the IDB A loan
- €1 million is non-reimbursable grant funding critical to reduce the transaction costs – support engineering feasibility and environmental impact analyses and legal costs as necessary to make small loans economically viable

# Stacking incentives to achieve a grid-parity solar power price




- *Return on equity 12%*
- *Debt-Equity ratio 70:30 initally*
- *CTF debt reduces D/E ratio from 70:30 to 75:25*
- *Canadian IDB debt reduced D/E ration from 75::25 to 80:20*
- *50MW plant size*

**Concessional Finance Type**

- *$6.58/MW capex estimate*
- *Fixed annual $650K opex and $67K/MW variable*
- *60% capacity factor*
- *Debt tenor 17 years*