SINGAPORE'S ENERGY EFFICIENCY FINANCING

SCALING UP TODAY'S BASELINE WITH INNOVATIVE SOLUTIONS

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BACKGROUND

- Are Singapore's energy efficiency (EE) financing programmes delivering according to original objectives?
- How can these programmes be strengthened?
- Will they need new financial structures, vehicles, products or mechanisms?

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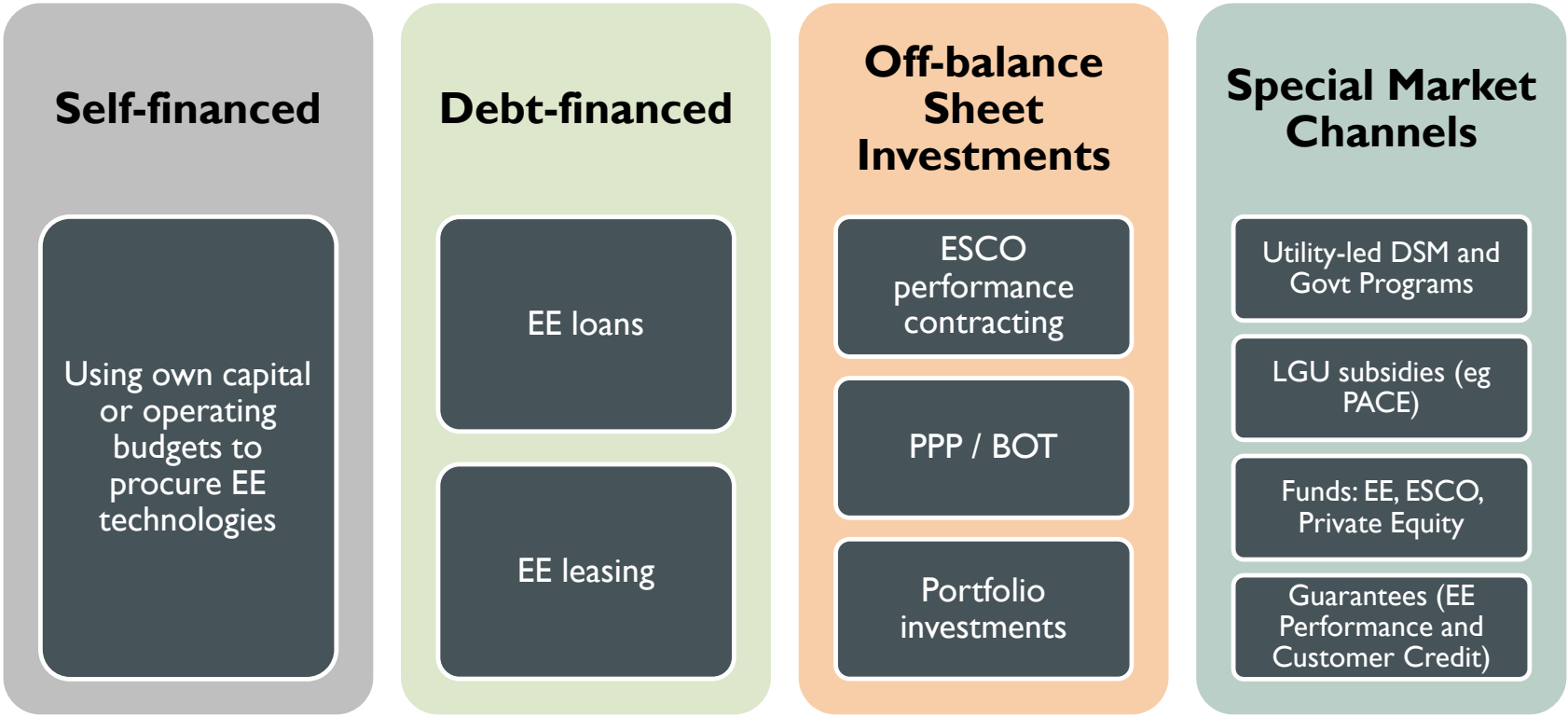
DEFINING MARKET GAPS ACCORDING TO MODALITIES OF ENERGY EFFICIENCY FINANCE



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RECOMMENDED MEASURES

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RECOMMENDED MEASURES (1/3)

Proposed Measures to Bridge Financing Gaps – Self-financed EE Projects

- Policy-driven reduction of specific energy consumption will prioritize energy efficiency projects in the utilization of own capital budgets

Proposed Measures to Bridge Financing Gaps – Debt-Financed EE Projects

- Mainstream energy efficiency loans as key financial product
- Explore how performance guarantees can help collateralize energy savings
- Design and establish a one-tier or two-tier risk sharing facility blending guarantee funds of bank and government
- Design and establish an ESCO Guarantee Fund or introduce new insurance products
- Study new incentive scheme to make leasing rates more attractive
- Bundle or aggregate projects through portfolio structures or vehicles
- Study new incentive scheme to make lending rates and terms more attractive

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RECOMMENDED MEASURES (2/3)

Proposed Measures to Bridge Financing Gaps – Off-balance Sheet Investments

- Promote this financing scheme more aggressively
- Study feasibility of reducing transaction costs through special project development subsidies
- Study feasibility of replicating this model for smaller ESCO projects and measures
- EDB should consider to raise loan guarantee cover from 60% to 80%-90% which is expected to lower loan pricing
- Study new incentives to increase after-tax equity returns
- Government may allow second partner for off-balance sheet investments, unless first partner delivers targeted volume

Proposed Measures to Bridge Financing Gaps – Special Market Channels

- Study feasibility of new Government programmes or vehicles:
  - Utility-based contracts
  - Super-ESCO-like structure to flow project equity capital and capacity building resources to ESCOs/EPCs

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RECOMMENDED MEASURES (3/3)

Proposed Measures to Bridge Market and Policy Gaps

- Design, fund and implement campaigns that would drive CEO top-down push of energy efficiency in end-user companies
- Review and amend energy efficiency policy framework, especially the Energy Conservation Act, to introduce specific energy consumption reduction obligations particularly for existing buildings and facilities
- Design, fund and implement capacity building programmes for ESCO/EPC sector, specifically to:
  - Train, certify and enable ESCO/EPC personnel to conduct investment-grade audits
  - Develop and adopt industry-standard performance contract templates
  - Train, certify and enable ESCO/EPC personnel to perform baseline/project measurement and verification
  - Design and establish an ESCO Guarantee Fund or introduce new energy efficiency insurance products that would provide financial cover behind energy savings performance guarantees or enable ESCOs to take on more credit risk of medium-sized customers
- Study potential of targeting process efficiency improvement in certain industrial sub-sectors

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CONCEPTS: INNOVATIVE VEHICLES

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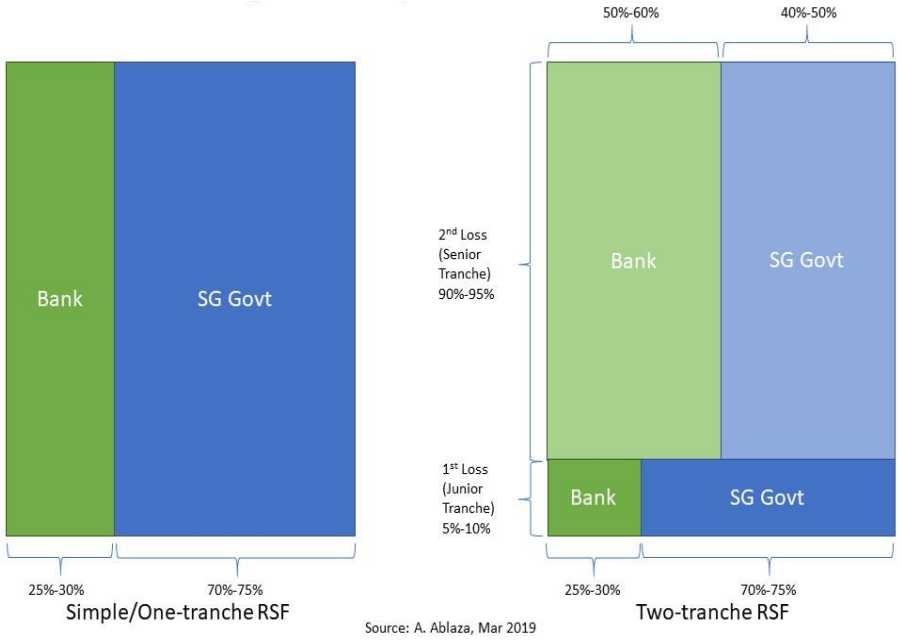
RISK SHARING FACILITY

- The risk management and credit committees of banks and other regulated financial institutions in Singapore are expected to allow a larger portfolio exposure to energy efficiency projects if they share credit risk with a government or climate fund for both either a simple/one-tranche structure or a two-tranche structure that covers both first loss and senior loss.
- Although a risk sharing facility (RSF) can serve in other jurisdictions to reduce counter-party risk, and thereby reducing loan pricing, the Singapore government should allow the possibility that these incidental positive impacts are not delivered by this market intervention in the local financial market.

Risk Sharing Facility – Indicative Structures



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ESCO GUARANTEE FUND (OR INSURANCE FACILITY)

The ESCO and EPC market will need a guarantee facility that would mitigate performance risk related to the energy savings (or production) performance guarantees and customer credit risk for medium sized industries and building owners that are not as creditworthy as the large conglomerates, especially due to long-term business uncertainty.

Type of Guarantee Cover	Guarantee or Insurance Beneficiary	Purpose of Guarantee or Insurance	Desired Market Impact
Energy Savings (or Production) Performance Guarantee Risk	Entity raising bulk of upfront project capital (equity investor, bank, lessor, facility owner)	To provide, in part or in whole, any deficit to the cash flows resulting from guaranteed energy savings or production under a performance contract	Investors of upfront project capital can collateralize energy savings or production and engage small and medium-sized ESCOs and EPCs
Customer Credit Risk	ESCO, EPC or entity raising bulk of upfront project capital	To assume the balance of all guaranteed payables to an investor, ESCO or EPC of a customer that becomes unable to meet its financial obligations under a performance contract due to business uncertainties	ESCOs, EPCs or investors of upfront project capital can go down-market by engaging medium-sized industries or building/facility owners and other customers that are less creditworthy due to lack of financial strength or business uncertainty

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SUPER ESCO CONCEPT FOR SINGAPORE

- Singapore Government-owned
- Non-bank specialist vehicle
- Providing debt, equity, guarantee and capacity building resources to small and medium ESCOs
- Not to compete with private ESCOs
- May be established in lieu of guarantee fund or 2nd equity vehicle
- Direct ESCO for large public sector projects in Singapore (and other ASEAN markets)

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THANK YOU

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