

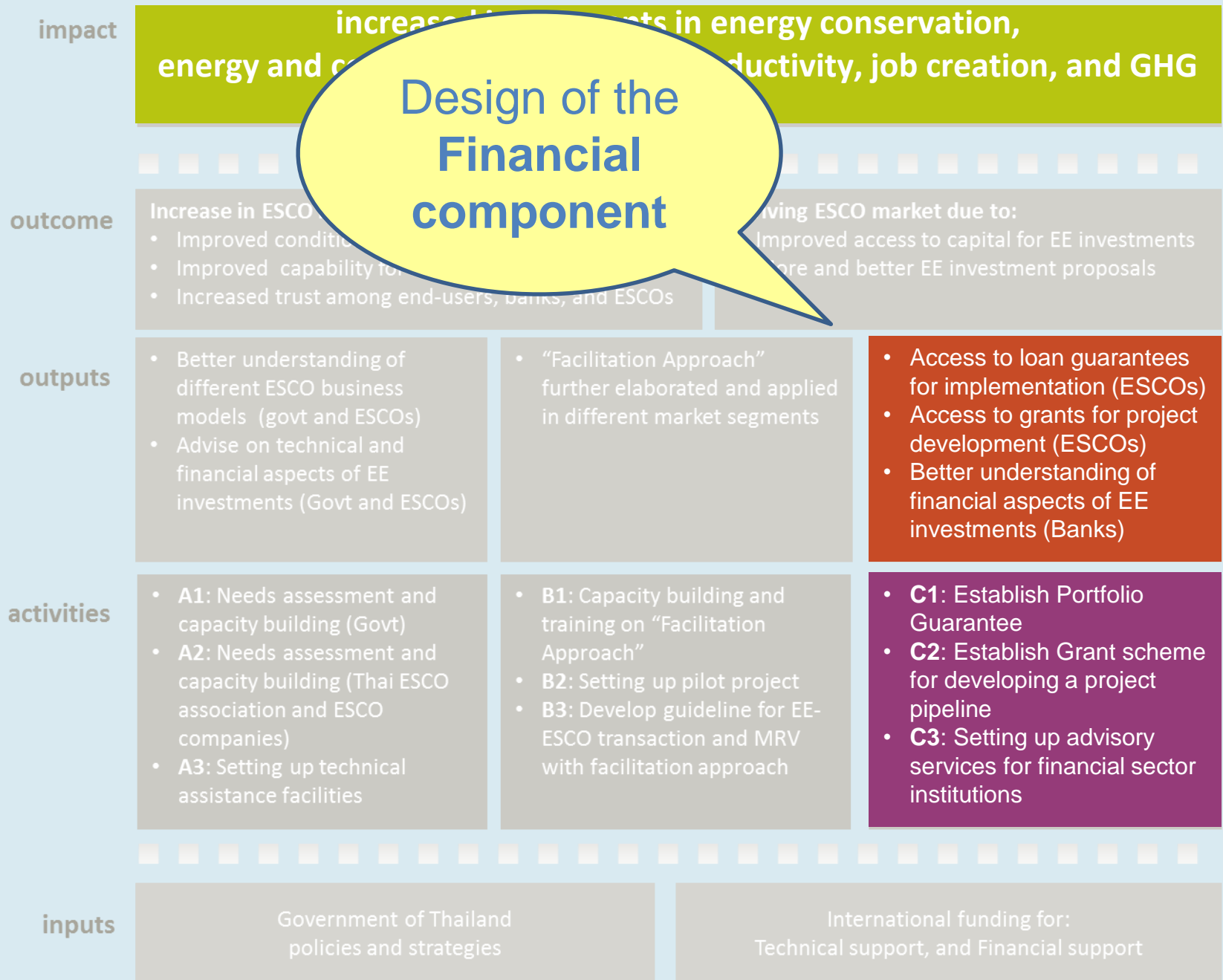


MitigationMomentum

Energy Efficiency ESCO NAMA **Financial Component**

Validation Workshop
Bangkok, November 5th 2015





Barriers to ESCO market growth in Thailand

Type of barrier	Barrier
Financial	High up-front capital requirements for energy efficiency technologies
	Lack of access to capital: banks are cautious to lend to energy efficiency projects therefore have high collateral requirements and charge high interest rates for loans
	High transaction costs: proportionally when implementing smaller energy efficiency projects
	Competition for limited finance: finances are reserved for other core business activities
Technical	Lack of technical knowledge of energy efficiency projects at the bank
	Lack of technical competency at the ESCO
	Lack of knowledge/expertise in energy efficiency measures at the end-user
Market	Lack of trust between the customer and the ESCOs: in the ESCO to be able to deliver the savings they guarantee; in the customer that they will not implement the measures themselves that are put forward by the ESCO
	Government procurement procedures: not able to use ESCOs
	Difficult for customers to identify an ESCO (only 14 registered with the ESCO Association)

Finance interventions

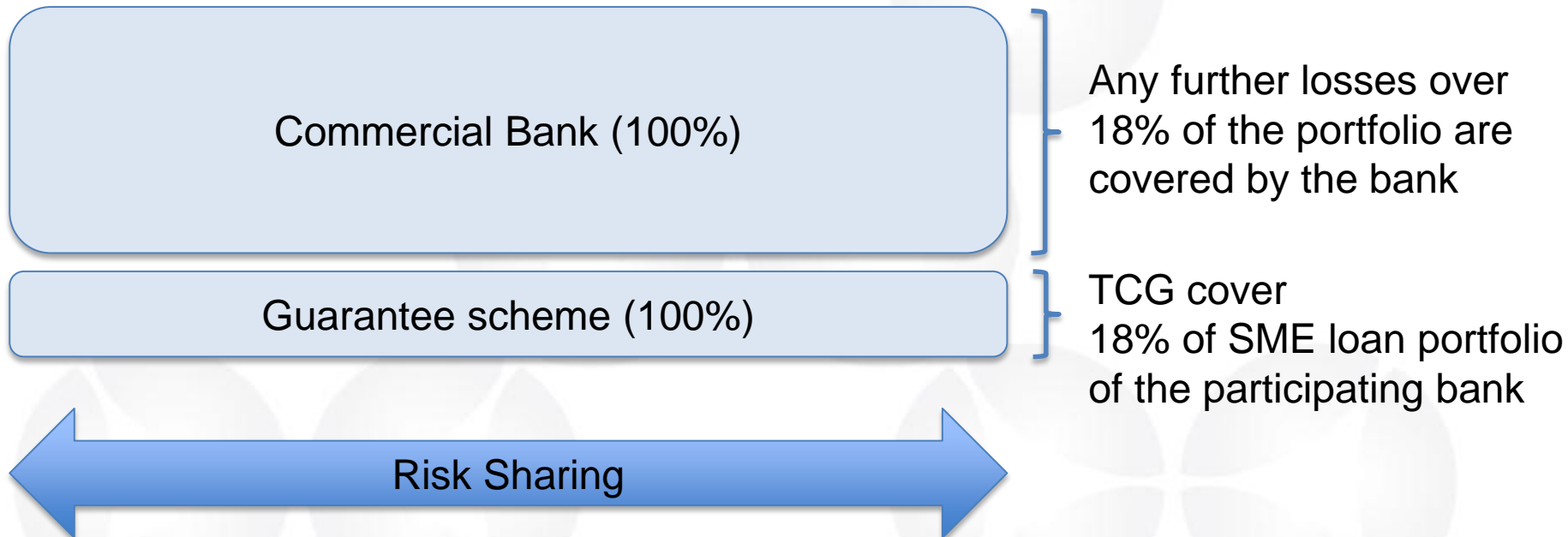
1. **Establish loan guarantee:** collaboration with Thai Credit Guarantee Corporation (TCG) to establish new guarantee product
 - Mitigate the perceived risk to the banks of EE lending
 - Better access to loans for energy efficiency projects
2. **Establish grant scheme for Investment Grade Audits (IGAs):** to help create a healthy pipeline of projects.
 - Energy use baselines enabling ESCOs to give a performance guarantees and sign EPCs
 - High up front cost of audits deters customers
 - Partially cover the costs to customers
3. **Advisory services for banks:** improve banks understanding of EE investments and ESCO business models
 - Build trust in the ESCO (can deliver the energy and cost savings)
 - Help banks identify and screen potential EE projects for investment

1. Loan Guarantee

Recap: overview TCG Portfolio Guarantee Scheme

Product of the Thai Credit Guarantee Corporation (TCG) since 2009.

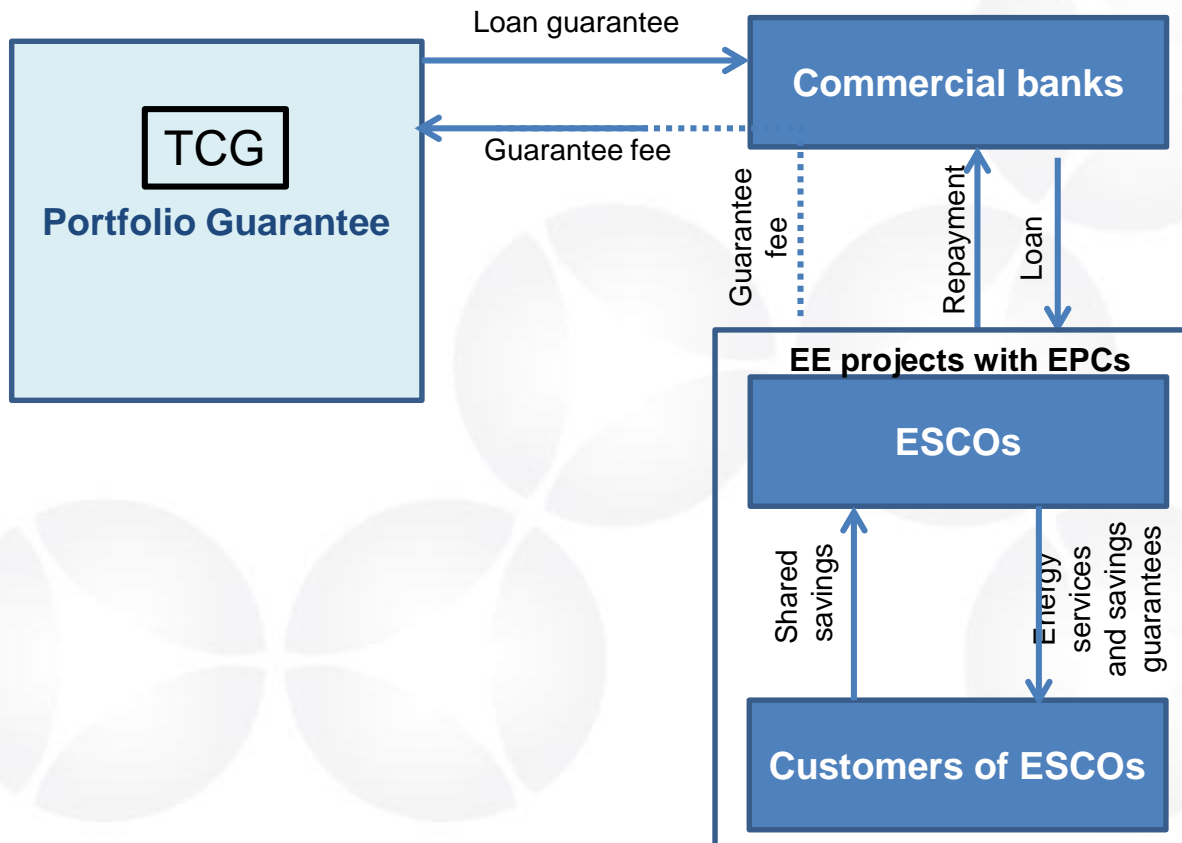
Provides an assurance to banks that, up to a specified percentage, 100% of their SME loan portfolio is protected against non-repayment by the borrower



1. Loan Guarantee

Recap: guarantee fee

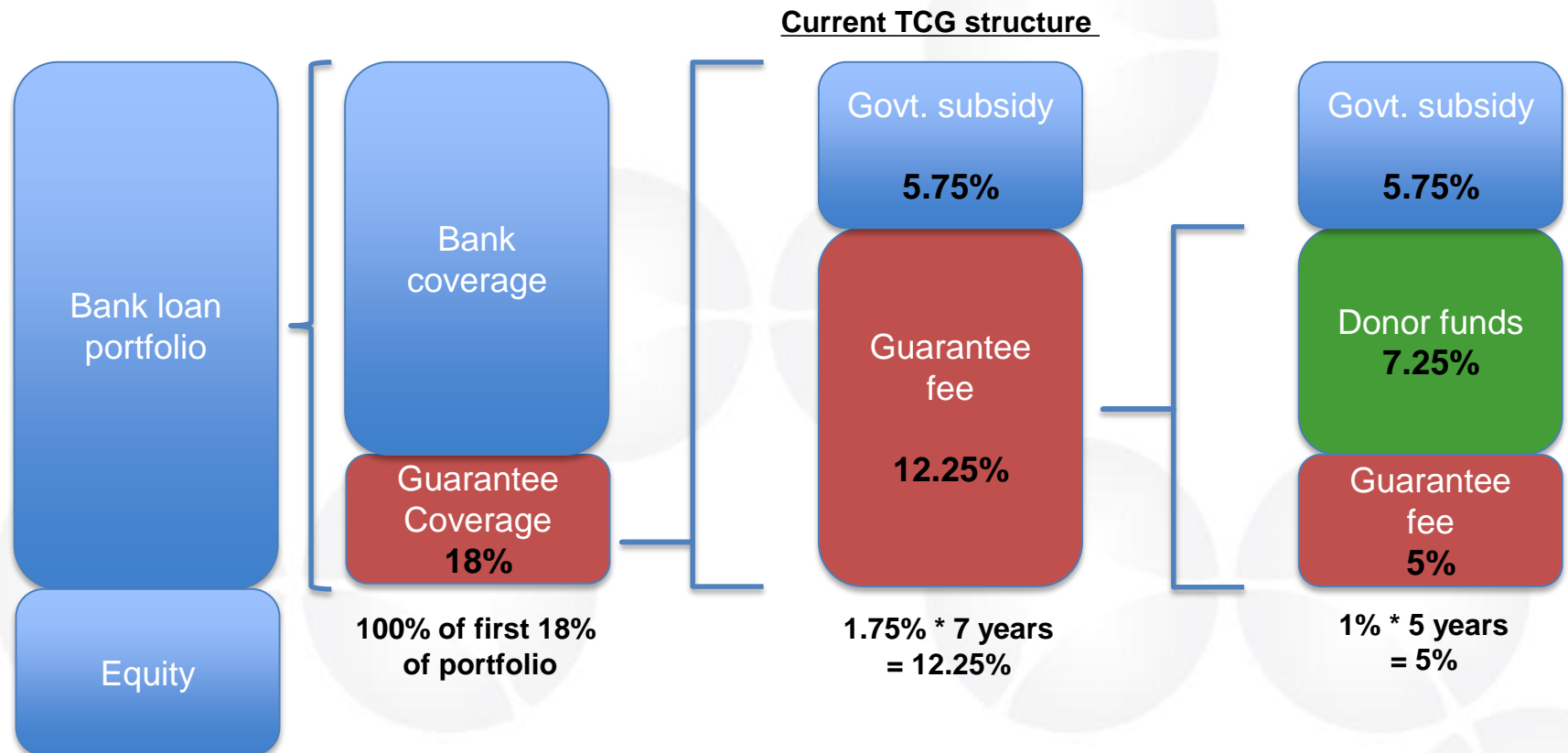
- A guarantee is not for free. There will be a cost to the ESCO / customer.



1. Loan Guarantee

NAMA proposal: subsidise the guarantee fee.

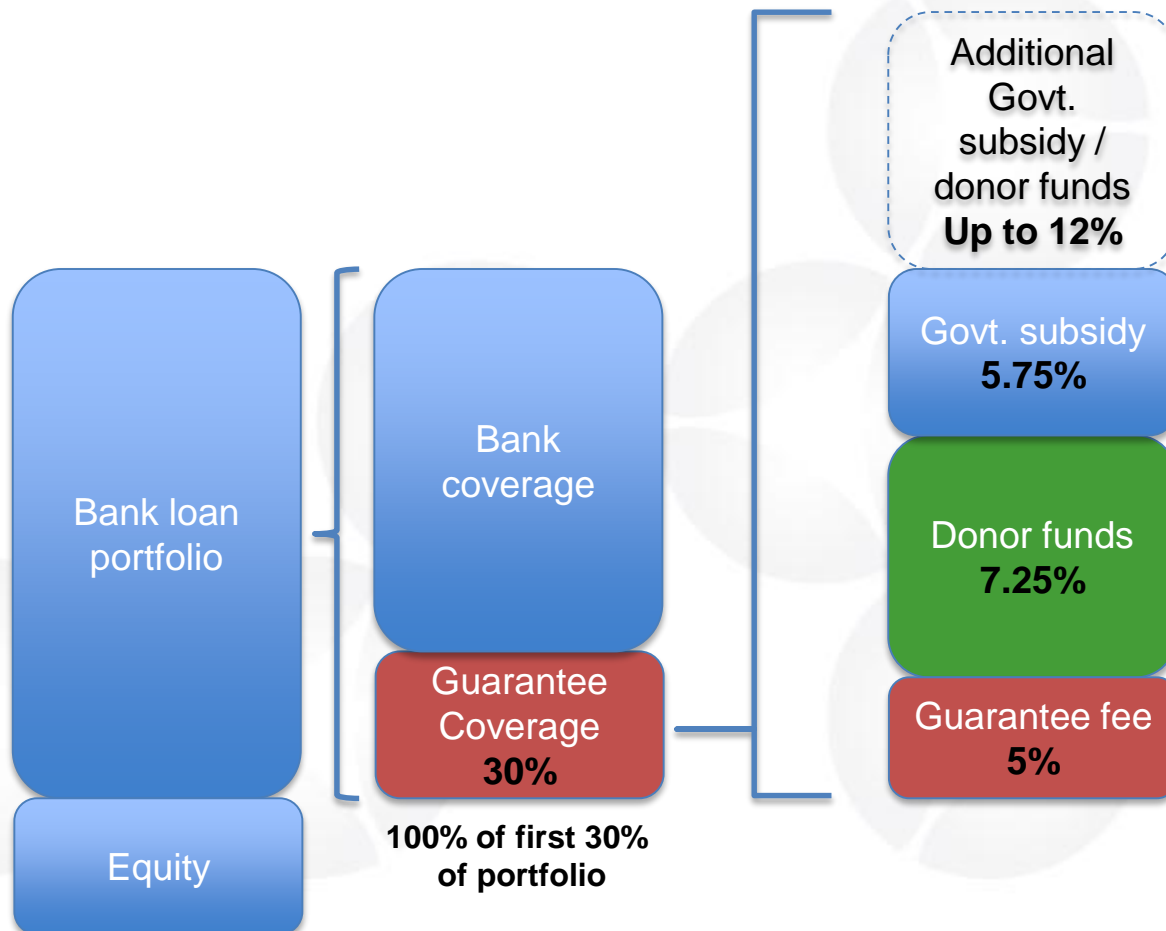
- reduce fee from 1.75% to 1% annually over 5 years instead of 7 years
– reduce cost of accessing the guarantee for ESCOs and customer



1. Loan Guarantee

Additional funding required to subsidise a coverage ratio above 18%:

- If required by banks and necessary to establish a loan guarantee?



1. Loan Guarantee: activities

Main activities

- Detailing the design characteristics of the guarantee – coverage ratio, length of guarantee, guarantee fee percentage
- Guarantee application procedures developed and disseminated to ESCO and customers (TCG)
- Training for ESCOs and customers on how to apply
- Awareness campaign to promote the guarantee and convince ESCOs and customers of its value
- Signing of Memoranda of Understanding between the TCG and commercial banks

2. Grant scheme for Investment Grade Audits

Main activities

- Detailing the design characteristics of the grant scheme – process for approval, grant portion of audit costs (50%)
- A secretariat established to process and approve applications.
 - Account managers trained on promoting value of energy audits customers
- Develop minimum quality standards and verification of IGAs
- Awareness raising – seminars and marketing material

3. Advisory services for banks

Main activities

- Remote advisory service established for banks to learn about ESCO business models and risks in energy efficiency project loans
- Domestic and international energy efficiency and ESCO experts contracted to provide this service to banks
- Training sessions organised on how to assess and screen energy efficiency projects at the banks

Outputs and Milestones

NAMA Output	Milestones
1. Establish Loan Guarantee	<ul style="list-style-type: none"> - Up to 100 ESCOs accessing loan guarantees. - Customers of ESCOs also using guarantee scheme directly. - Over 2000 projects and close to USD 500 million in accumulated investments.
2. Establish grant scheme	<ul style="list-style-type: none"> - More than 1000 grants issued for IGAs in Phase 1. - 500 grants issued in phase 2.
3. Set up advisory services for banks	<ul style="list-style-type: none"> - 3 banks using the service in 2016. - 1 additional bank using the service per year of the project. - 10 banks using the service by 2023.

Key takeaways

- Main objective of the interventions is to improve access to finance for energy efficiency projects
- 3 elements to the financial component
 - Loan Guarantee
 - Grant Scheme for energy audits
 - Advisory services for commercial banks.
- There is no **‘silver bullet’**.



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Thank you!

ขอบคุณ!

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ECN Policy Studies



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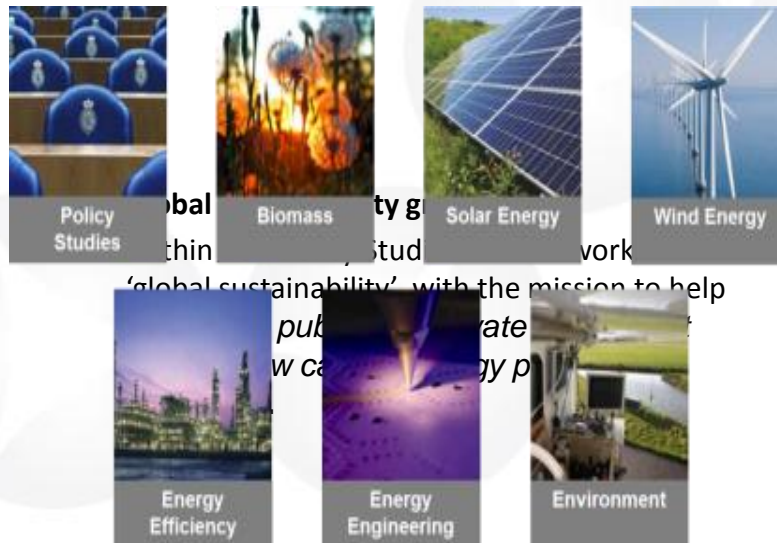
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ECN – INDC and NAMA support

ECN Policy Studies

Energy research Centre of the Netherlands since 1955

- Research NGO – not for profit
- Over 500 staff in seven research areas
- 60 staff in Policy Studies unit
- Main think tank for Dutch government on energy and climate.



Our focus is on four key themes:

Clients include: [European Commission](#), [UNFCCC](#), [UNEP](#), [UNDP](#), [CDKN](#), [DFID](#), [GIZ](#), [BMUB](#), [World Bank](#) and the [IPCC](#)

Policy and strategy development

Increased policy effectiveness

Scoping and prioritisation

Renewable energy deployment

ECN – INDC and NAMA support

ECN experience on NAMAs (2012-2015)

- In-country experience in developing concrete NAMA proposals
- Assistance for attracting implementation funding.
- Convene stakeholders on NAMA prioritisation and design
- Robust analyses on costs and benefits, mitigation potentials, feasibility, financial risks, and business models
- ECN supports the UNFCCC Secretariat with their NAMA Day 2015

ECN experience on INDCs (2014-2015)

- Supported the development of the Pakistan INDC (with IISD)
- Supported the development of the Mongolia INDC (with NewClimate)
- Indonesia: Technical analysis INDC for the power sector

What we offer:

- NAMA and INDC trainings for various audiences
- Practical assistance to conceptualise and develop NAMAs and refine INDCs
- Thought leadership on the concept of NAMAs and INDCs, bringing insights to international dialogues, reviews, and workshops
- Comparative case studies, country profiles, and policy briefs
- Publications on issues such as development impacts, finance, benefits, ODA, and sectoral priorities

Highlighted project: **MitigationMomentum**
*Encourage learning on NAMA development,
and assist selected countries with developing a
NAMA proposal ready for finance*

www.mitigationmomentum.org

funded by IKI/BMUB



Back-up slides

Introduction: what is a guarantee mechanism?

- A financial instrument to encourage commercial banks to provide medium- and long-term loans with more relaxed requirements than they would otherwise require – lower collateral, lower interest rates.
- Offers a kind of insurance to lenders for the non-payment of a loan by a borrower. Guarantees can therefore encourage lending when a financial institution considers the risk of non-payment too high.
- Typically guarantees are partial credit guarantees, meaning they cover a portion of the outstanding loan principal (50-80 %). This ensures that the financial institutions still retain some risk which helps to maintain good lending practices.

1) Introduction: why we explore a guarantee mechanism as part of the NAMA?

- There are many economically viable opportunities for improving energy efficiency. These require investments in equipment, either directly by the end-users or through ESCOs.
- Banks are reluctant to provide loans for the implementation of energy efficiency projects, because they perceive the risk of these loans not being paid back as high. They have strict lending conditions (incl. high collateral requirements)
- What would be an efficient way for the Thai government to stimulate banks to provide loans for energy efficiency projects?
- We are exploring how Thailand can introduce a guarantee mechanism to improve the access to capital for ESCOs and energy end-users wanting to implement EE projects

1) Introduction: why we explore a guarantee mechanism as part of the NAMA?

- **American Council for an Energy-Efficient Economy (ACEEE):** undertook a review of 24 EE loan programs and found extremely **low default rates ranging from 0-3%** throughout the life of the financing program.
- **Hungary EE guarantee fund (HEECP):** financed by GEF and World Bank. By the end of 2006, the US\$55 million loan portfolio that HEECP co-financed was supported with US\$17 million of guarantees represented US\$93 million worth of energy efficiency investments including a total of 331 energy efficiency projects. **No defaults recorded in EE portfolio.**
- **Lithuania EE and housing pilot project:** World Bank \$10 million loan between 1996-2001 for EE projects. **No defaults recorded.**
- **China Utility Based EE Program (CUEEP):** assumed default rates of 4% for entire program at start of project. **Only 6 major defaults in 330 projects implemented.**
- **Bulgarian EE Fund (BEEF):** World Bank grant of \$10 million. Loan facility and guarantee facility set up. Defaults were reduced to zero. **A number of payment delays but no defaults.**
- **Central & Eastern Europe Commercializing EE Finance Program (CEEFP):** IFC/GEF provided \$50m to establish a Partial Risk Guarantee. **The default rate was less than 0.5% over the course of the program.**

Very low default rates



1. Loan Portfolio Guarantee

Recap: why a portfolio guarantee in the NAMA?

TCG has experiences declining non-performing guarantee rates (red line) combined with a sharp increase in the accumulated approved guarantees.

