



MitigationMomentum

A guarantee mechanism to stimulate the ESCO market in Thailand

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Matthew Halstead
Xander van Tilburg



What is a guarantee mechanism?

- Purpose is to persuade commercial banks to provide medium- and long-term loans with lower collateral requirements than they would otherwise require.
- Offers an 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 or has strict collateral requirements.
- Typically guarantees are partial, 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.

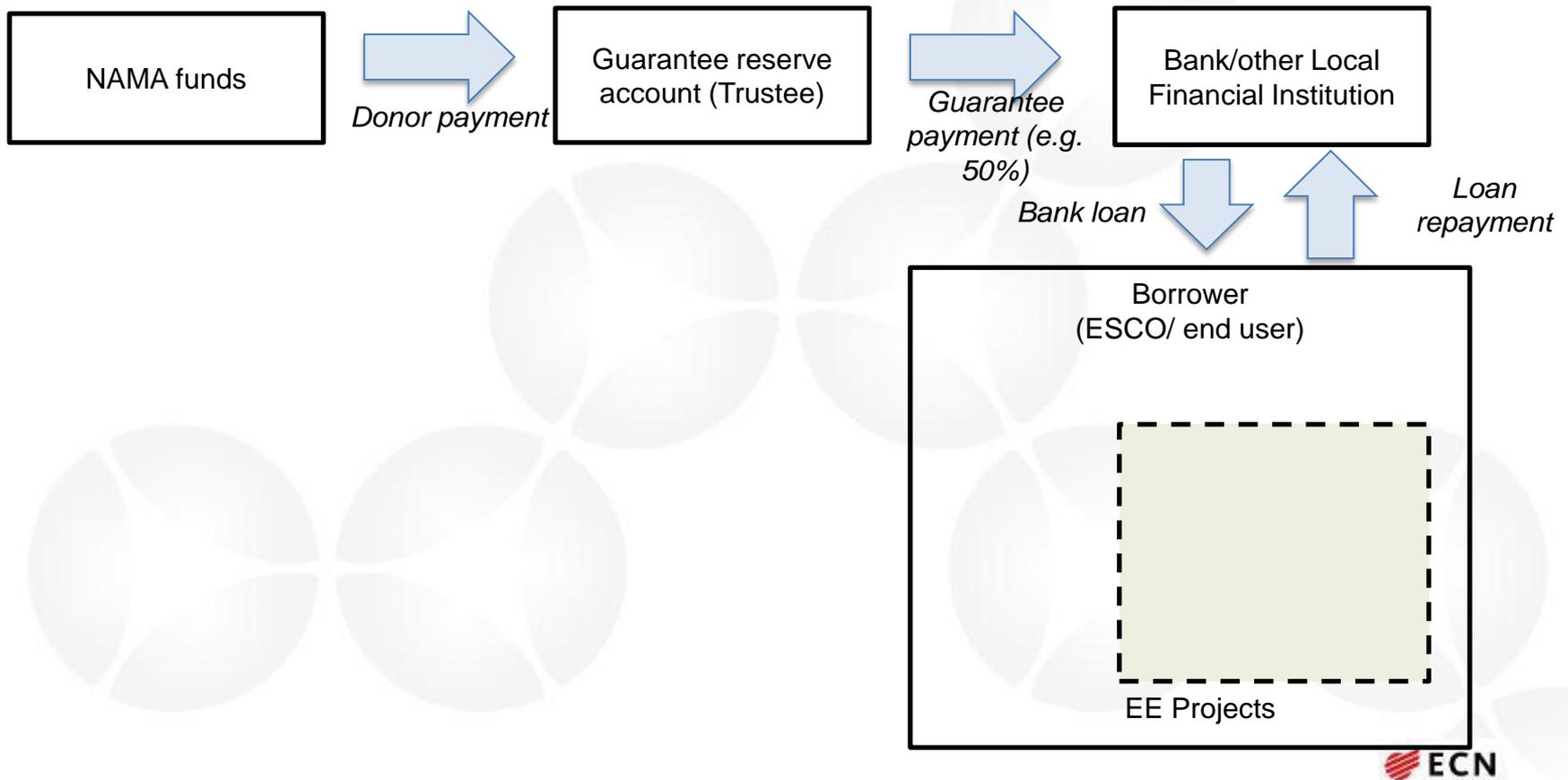
Why we explore a guarantee mechanism?

- There are many economically interesting opportunities for improving energy efficiency. These require investments in equipment, either directly by the end-users or through so-called ESCOs.
- Banks are reluctant to provide loans for equipment for energy efficiency projects, because of the perceived risk that these loans might not be paid back. They therefore have high collateral requirements.
- What would be an efficient way for the Thai government to stimulate banks to provide loans for energy efficiency projects?
- We would like to explore how with NAMA donor funds Thailand can introduce a 'guarantee mechanism' for transferring the various risks associated with providing loans for energy efficiency activities.

Potential guarantee mechanism

Partial Credit Guarantee

Provides an assurance to banks that they will receive repayments of loans that they lend to ESCOs/customers for energy efficiency activities.



Potential guarantee mechanism

Partial Credit Guarantee

Pros

- **Risk reduction:** addresses the risk that banks take when they provide loans to ESCOs/end-users, and assures that the loan will be paid back.
- **Allows for longer-term lending:** the guarantee can be structured so that coverage increases during later years of the loan.

Cons

- **Lack of experience:** not easy to assess how much money needs to be held in reserve to cover potential claims.
- **Only part of the solution:** additional efforts are needed to convince banks to make a more realistic (and favourable) assessments of risks and requirements for loan applications (especially for longer-term projects)

International experience

China Utility-based Energy Efficiency (CHUEE) program

- ESCO market created in 1998 when World Bank approved USD 151 million for China Energy Conservation Project (CEEP)
 - 3 pilot ESCOs
 - Energy Management Company Association (EMCA - trade association for ESCOs)
- ESCO market struggled to grow: most ESCOs are SMEs so limited access to finance due to high equity levels and heavy collateral requirements
- Led to establishment of *Partial Credit Guarantee* program by IFC in 2002
- USD 22 million placed in reserve account for the China National Investment and Guarantee Company (I&G).

International experience

Outcomes of the CHUEE Partial Credit Guarantee

Positives:

- Loan guarantees issued for 148 ESCOs between 2004-2009
- Totaled USD 69 million supporting USD 123 million in EPC project investments
- Attracted local partner banks of IFC to finance EE projects

Negatives:

- Limited number of ESCOs and SMEs accessed loans: no risk taken by I&G because still required collateral from ESCOs at 100% of the EE loans
- Many ESCOs only accessed the guarantee once to gain credibility in the marketplace. They paid a guarantee fee, but did not see any reduction in collateral requirements

Next steps

It's difficult to make an informed choice about whether to use a guarantee mechanism in Thailand. How will we help this decision?

- Evaluate the outcomes of today's discussions
- Conduct interviews with ESCOs and banks in Thailand
- ECN is commissioning research on international ESCO experiences and in particular on setting up guarantee facilities. Potential countries:
 - **China** – more insights into the CHUEE program
 - **India** – Partial Risk Sharing Facility for Energy Efficiency (PRSF) - GEF and World Bank
 - **Hungary** – Hungarian Energy Efficiency Co-Finance Program (HEECP) – IFC

How can a guarantee mechanism work in Thailand?

- What are the existing initiatives for guarantee mechanisms in Thailand? How do these work? Who could implement such a mechanism in Thailand? How can we build on existing guarantee initiatives for ESCO financing?
- What are barriers or challenges to offering a guarantees in Thailand?
For example:
 - *China - most ESCOs small and need to be scaled up in order to attract bank financing. Is this also the case in Thailand? How can this be overcome?*
- What support is required for a guarantee mechanism?



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Thank you!

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Matthew Halstead
Xander van Tilburg

Contact:

Matthew Halstead
halstead@ecn.nl
Xander van Tilburg
vantilburg@ecn.nl
ECN Policy Studies



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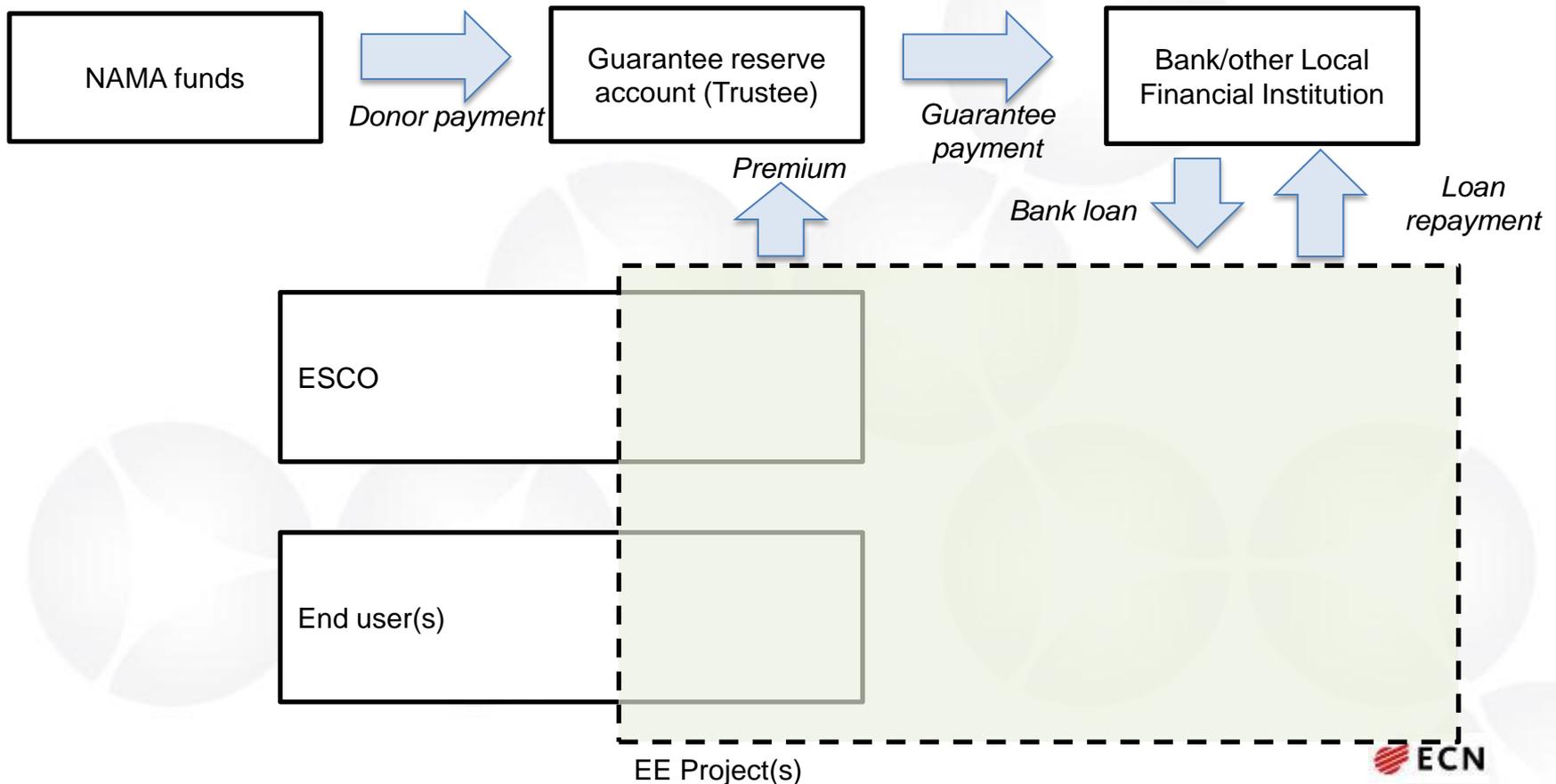
Federal Ministry
for the Environment, Nature Conservation,
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based on a decision of the German Bundestag

Potential guarantee mechanisms

Savings Guarantee

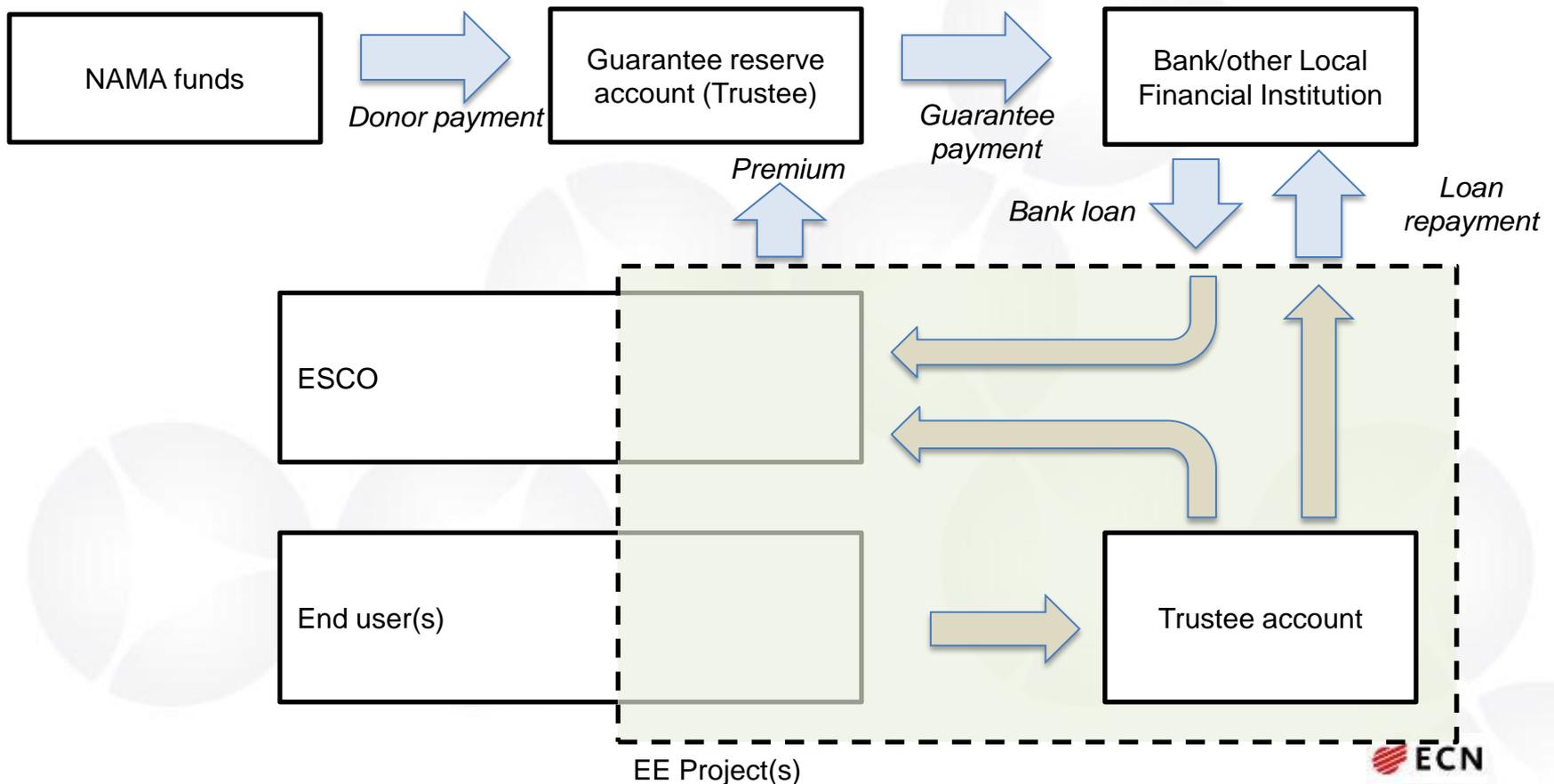
Provides guarantee/assurance to banks that the projected energy savings from an EE project will be achieved.



Potential guarantee mechanisms

Savings Guarantee

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Potential guarantee mechanisms

Savings Guarantee

Pros

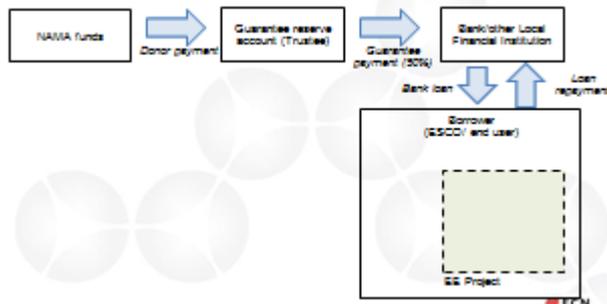
- **Risk reduction:** provides banks with guarantees for EE project cash flows
- **High leveraging potential:** performance history of ESCOs is favourable – the reserve funds required in the trustee account are low meaning that high leveraging is possible

Cons

- **Credit risk remains:** doesn't address strict credit risk assessments and requirements of banks
- **Longer-term loans:** doesn't address unwillingness of banks to offer longer-term credit

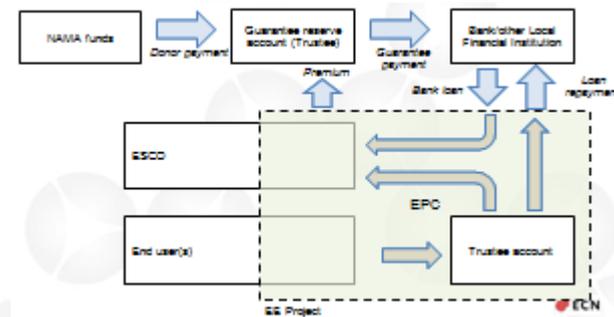
Potential guarantee mechanisms

1) Partial Credit Guarantee



- Guarantees creditworthiness of the borrowing entity (ESCO or end-user)
- Easier to assess, but more difficult to replicate and scale-up
- Offers an alternative source of protection for the bank than using ESCO/end user balance sheet as collateral

2) Savings Guarantee



- Guarantees creditworthiness of the EE project
- Assessment requires expertise, but easier to scale up and replicate
- Offers an alternative source of protection for the bank than using project cash flows as collateral

Extra slides

NAMA financial mechanisms objectives

- NAMA funds to attract private sector investment – ‘leveraging’
- NAMA funds to mitigate energy efficiency project risks – ‘risk mitigation’
- NAMA funds to increase the affordability of projects

NAMA financial mechanism criteria

- NAMA donor funds should be used efficiently – ‘Sustainability’
- NAMA funds should mobilise as much private investment as possible – ‘leveraging’
- NAMA funds should make energy efficiency projects more affordable to invest in (e.g. lower interest rates for loans, lower up-front investment costs)

Extra slides

Barriers

- High transaction costs for smaller projects
- High interest rates for loans
- Lack of technical knowledge at the bank on EE technologies
- High perceived credit risk of borrower
- High perceived performance risk
 - Lack of access to loans based on project cash flows – banks want a strong balance sheet or high amounts of collateral

What criteria should a guarantee mechanism satisfy to be suitable for a NAMA?

Sustainability: NAMA funds provide support for a limited duration and used to start a mechanism that can be sustained once the support is no longer available.

Leveraging: NAMA funds should mobilise as much private investment as possible.

Efficiency: NAMA funds should reduce the costs and risk of financing projects.

Transformational impact: initiate a structural change in attractiveness of energy efficiency investments.