Energy Policy and Planning Office
MINISTRY OF ENERGY

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Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

Workshop on Design of the Standard Offer Program (SOP) Pilot
Organised by the Thai-German Programme on
Energy Efficiency Development Plan (TGP-EEDP)
17 December 2014 (08.30-16.30)
Eastin Grand Hotel, Sathorn Bangkok, Thailand

Technical Input for Group Discussion

Session A1: Administrative Structure

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Nexant Asia

Project Owner (Funding and overseeing)

Suggested Potential Thai SOP Options:

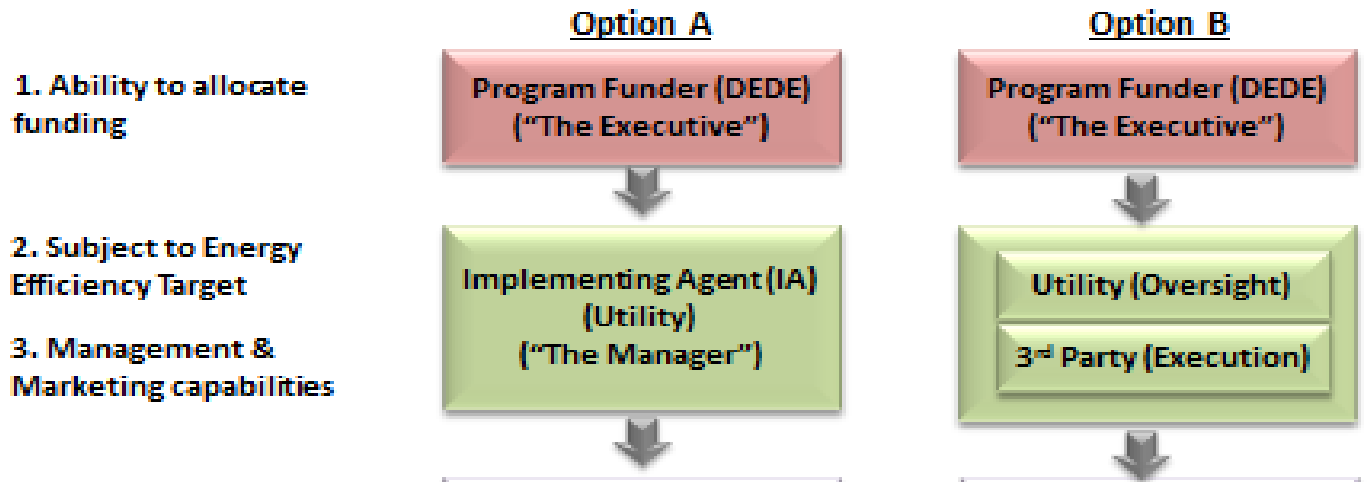
Organizational Structure

	Option A	Option B
1. Ability to allocate funding	Program Funder (DEDE) ("The Executive")	Program Funder (DEDE) ("The Executive")

Project Owner (Funding and overseeing)

Suggested Potential Thai SOP Options:

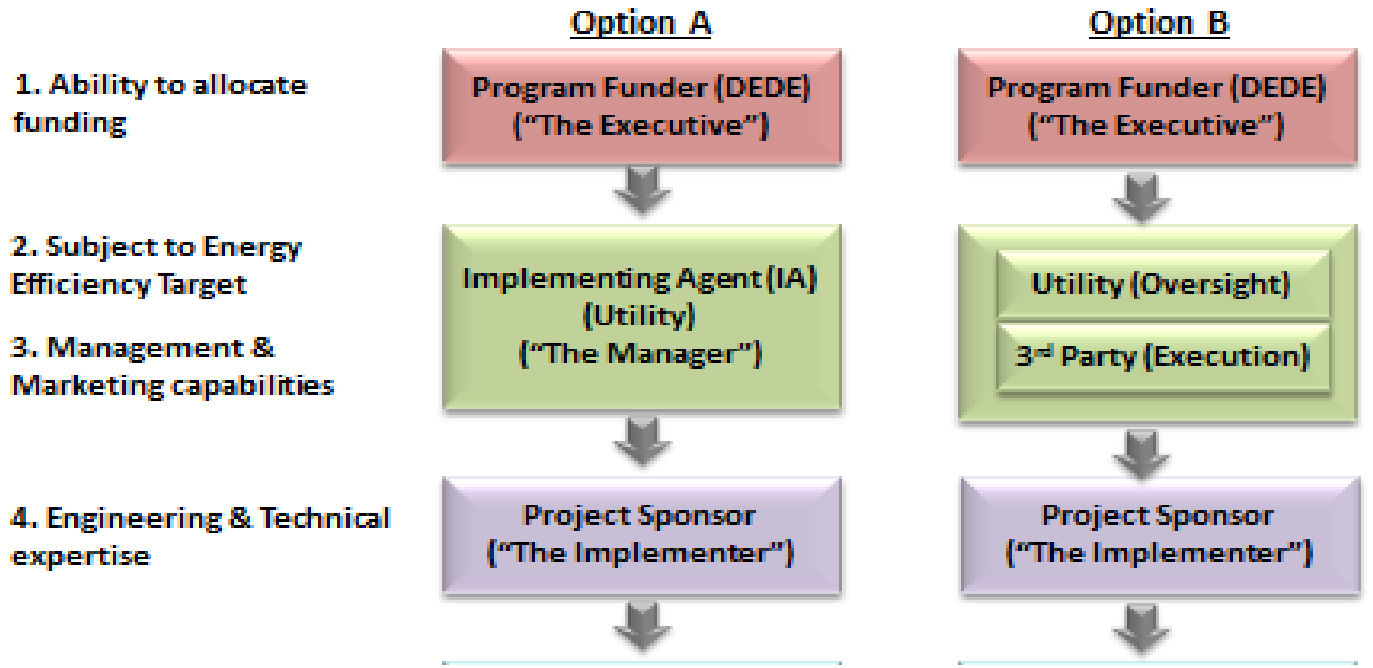
Organizational Structure



Project Owner (Funding and overseeing)

Suggested Potential Thai SOP Options:

Organizational Structure



Project Owner (Funding and overseeing)

Suggested Potential Thai SOP Options:
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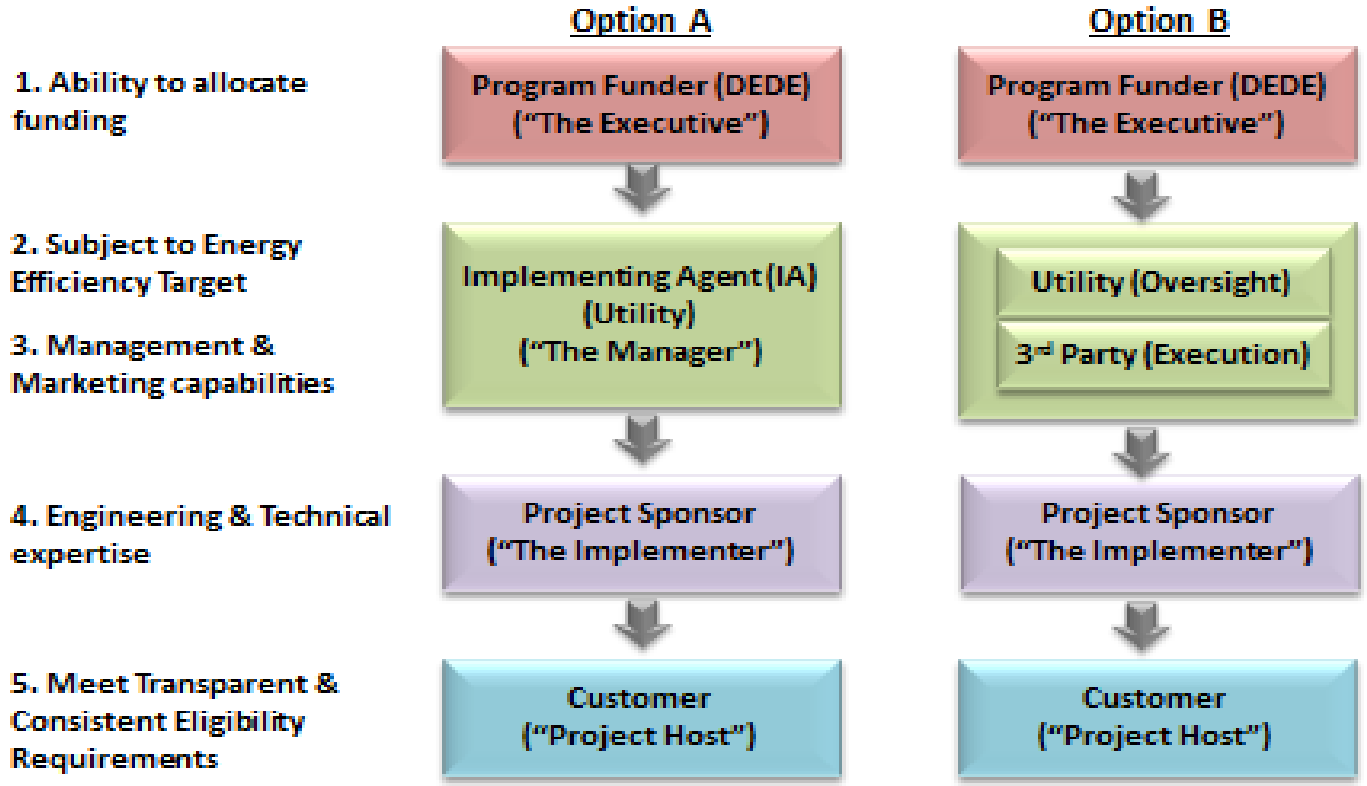

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Source: Nexant

Nexant

Roles and Responsibilities of the Project Owner :

1. *Set program target and overall strategic plan*
2. *Select IA*
3. *Review and approve pilot program action plan*
4. *Endorse key program aspects i.e. subsidy rates, technology selection, M&V process etc.*
5. *Allocate budget and set reimbursement process.*
6. *Oversee and monitor program operation.*
7. *Plan and conduct program evaluation and assessment.*

Possible Project Owner and Implementing Agency

	EPPO	DEDE	Other
Project Owner (responsible for allocation of funding)	Advantage(s): • As owner& developer of SOP, more insight info and obligation to justify program elements. • Direct link and involve to EERS	Advantage(s): • Experienced in EE program regulatory issues and implementation	Advantage(s):
	Disadvantage(s): • Not sufficient time and human resources allocation to oversight project implementation • Likely to emphasis on policy and planning than to operation function	Disadvantage(s): • Indirect link to EERS	Disadvantage(s):

Implementing Agency (IA) Qualifications

- *Engineering Expertise*
  - *Technology selection*
  - *EM&V*
- *Management Availability*
  - *Marketing, Education & Outreach*
  - *Application Review – customer & project eligibility*
  - *Administration of Incentives – e.g. SOP payments*
- *Alignment between institutional objectives and program objectives*
  - *Value project success to deliver savings that will help achieve EERS objectives*

Roles and Responsibilities of the Implementing Agent (IA) :

- *Select technologies and measures including testing facility.*
- *Determine subsidy rates, criteria, and all necessary conditions.*
- *Propose all key conditions to get approval from program owner.*
- *Set program sponsor and host customer requirements and eligibility.*
- *Prepare program manual for program sponsors and host customers.*
- *Prepare all legal documents for contracting purpose. Develop program database and communication channels (e.g., web site) with program participants.*
- *Set marketing plan and launch program to target market including PR, seminar, workshop etc.*
- *Develop Action Plan for the Pilot Program.*

Roles and Responsibilities of the Implementing Agent (IA) :
(continued)

- *Endorse program sponsor and sign contract.*
- *Approve project proposed by program sponsor.*
- *Reimburse financial subsidy from program owner to pay to program sponsor and host customer.*
- *Monitor and assess performance of program sponsor/ host customer.*
- *Perform program monitoring and evaluation to determine program of savings impacts.*
- *Be a center of service for program operation and promotion.*
- *Prepare regular progress report and final report for submission to program owner.*

Implementing Agency (responsible for implementation of SOP – but practical tasks can be outsourced)	**DEDE**	**EGAT, MEA, PEA (utilities mentioned in EEAP for having responsibility in SOP program)**	**other**
	Advantage(s): • Experienced in EE program regulatory issues and implementation • possibility to modify SOP concept and re-package with the 80/20 program	Advantage(s): • Experienced in energy efficiency implementation program with sufficient administrative, personnel resources. • Availability of end-user consumption data could facilitate SOP program operation • Direct capacity-building for EERS obligations	Advantage(s):
	Disadvantage(s): • no direct link to EERS • Might modify SOP concept based on experience with 80/20 program and not take advantage of "project sponsor"	Disadvantage(s):	Disadvantage(s):

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Session B1: Target Sector and Technology Selection

Why Focus Program on a Target Sector

Technologies may be applicable to multiple sectors; but, program success relies on understanding diverse customer needs:

- Unique customer engagement challenges in different sectors:
  - SME – lack of understanding & budget for EE
  - Healthcare – concern for energy reliability over perceived efficiency changes

- Varying Customer – Stakeholder Relationships
  - Role of Key Account Managers (large C&I customers)
  - Trade allies – suppliers, contractors/installers
  - Retailers – upstream programs

Program Design Concepts

- SOP is a performance-based incentive
- SOP Pilot will focus on energy saving measures for all sectors including residential, commercial, and industrial customers. For those large customers with complicated energy consumption processes, DSM bidding scheme will be applied as a performance-based incentive.
- Measures and technologies should be differentiated from existing programs.
- SOP has a simplified measurement and verification process for retail and small customers.
- SOP has a streamlined operation process.
- Should minimize program free-ridership.

Implementation Focusing on Sector and/or Technology List

Items	Residential Sector (mentioned in the EEAP as target group for SOP)	Commercial & Industrial Sector	
		Small & Medium Enterprise (SME)	Large C&I Customer
Advantage(s)	• Technologies are not complicated; therefore, needs low administrative effort for M&V • Large scale savings impact can be expected (many HHs eligible) • Although lower potential saving per customer may lead to higher overhead costs and low cost-effectiveness , this can be avoided by introducing "project sponsors" which could be e.g. exist of technology suppliers or retail shops of HH appliances or ESCO	• Technologies are not complicated; therefore, needs low administrative effort for M&V • Experience with 80/20 program will make implementation easier • Large scale savings impact can be expected (large number of potential SME eligible) • Potential market for ESCO business	• Experience with 80/20 program shows that these customers will participate and there will be significant savings • Potential saving per customer is high, therefore, it's an attractive market for ESCOs
Disadvantage(s)	• Not attractive market for ESCO business		• Not in line with the idea in EEAP that large building/industry can use DSM Bidding and small building/industry/residential can use SOP. • Possible overlap between SOP and DSM in case large building/industry use DSM bidding and at the same time use technologies with SOP subsidy • Probably require long lead time to develop full scale M&V.

List of technologies /measures

)EDE's 80/20 Program	EGAT's labeling no.5	KMUTT's SOP research study
Program promotion for 5 measures with pay-back period not more than 7 years. Target sector: SME Measures are motor, VSD, air compressor, boiler, and lighting.	1. Refrigerator (1994) 2. Air conditioner (1995) 3. CFL (1996) 4. Electromagnetic Ballast (1998) 5. Electric Fan (2001) 6. Automatic Rice Cooker (2003) 7. Lighting Luminaire (2003) 8. T5 (2009) 9. Electronic Ballast (2009) 10. Double-oscillating Fan (2009) 11. Standby 1 Watt- TV & Monitor (2010) 12. T5 luminaire (2010) 13. Electric Thermal Pot (2011) 14. Ventilation Fan (2012) 15. Water Heater (2012) 16. Electric Iron (2012) 17. Washing Machine (2012) 18. T5 Retrofit Set (2013) 19. LED – MR 16 (2013) 20 LED – T8, Par (2014) 21 Freezer (2014) 22 Microwave Oven (2014) 23 Induction Cooker (2014)	➢ Recommended list of measures for C&I • LED • Air conditioner (VRF) • Cooling water machine • Motor • Air compressor • Boiler • Heat Pump ➢ Recommended list of measures for residential sector • LED • Inverter air conditioner

Thank you

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