Logistics and Transport Management System

The Institute of Industrial Energy
The Federation of Thai Industries

Mr.Thibodee Harnprasert

Executive Committee
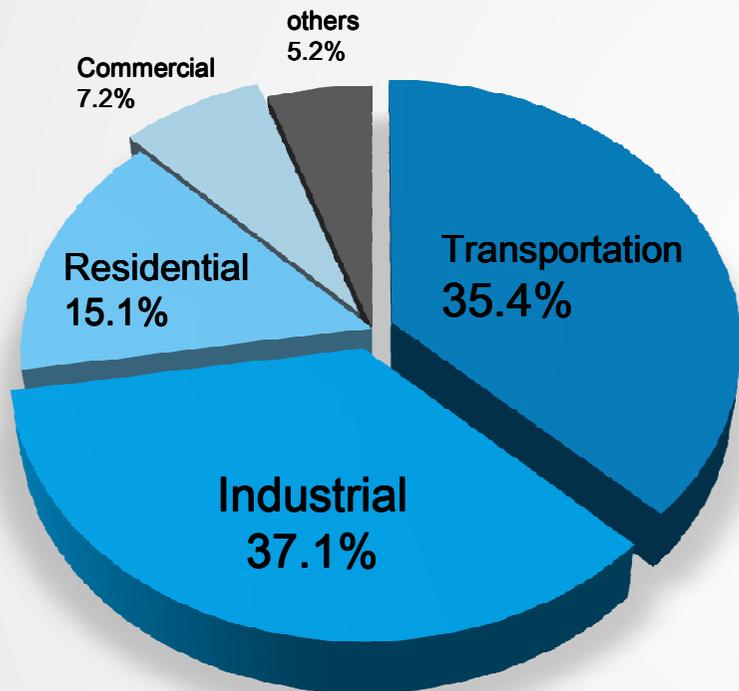
LTM

Supported by

สำนักงานนโยบาย
และแผนพลังงาน
กระทรวงพลังงาน

Background

Energy Problems in Road Transport

Commercial 7.2%
others 5.2%
Residential 15.1%
Transportation 35.4%
Industrial 37.1%

Final Energy Consumption 75,217 ktoe
Source: Ministry of Energy (2014)

Energy consumption in Transportation sector has been increasing.

Lack of energy management system available.

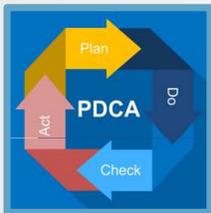Low awareness, lack of information management.

Lack of financing mechanism for improving energy efficiency.

Overview

Total Project Duration: 18 Months (January 2016 to July 2017)

Project's objectives

TEM* System

- Create and develop a Transportation Energy Management [TEM] System for road transport companies.

ECO-Drive Training

- Educate drivers about eco-driving as well as defensive drive training with the aim of reducing fuel consumption
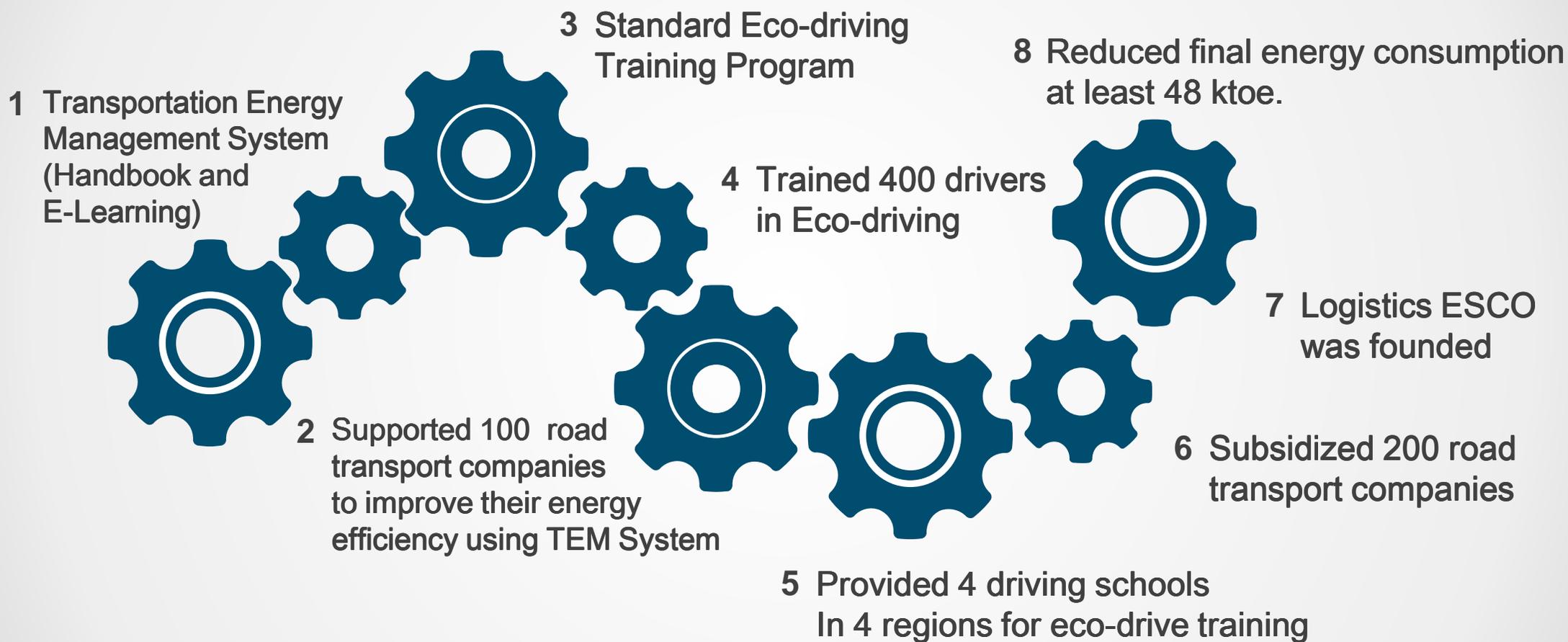
Subsidy

- Encourage road transport companies to improve their energy efficiency

Logistics ESCO

- Establish a ESCO mechanism in transportation sector to provide additional way to assist road transport companies reduce fuel consumption.

3

Project Outcome

1 Transportation Energy Management System (Handbook and E-Learning)

2 Supported 100 road transport companies to improve their energy efficiency using TEM System

3 Standard Eco-driving Training Program

4 Trained 400 drivers in Eco-driving

5 Provided 4 driving schools In 4 regions for eco-drive training

6 Subsidized 200 road transport companies

7 Logistics ESCO was founded

8 Reduced final energy consumption at least 48 ktoe.

4

Four-activities of implementation

| TEM System | Eco-Drive Training | Subsidy | Logistics ESCO |

1.Transportation Energy Management System

1

Develop a Transportation Energy Management System (TEM System)
prepare awareness manual for transport companies

2

Provide 30 technical experts teams helping on energy management

3

Technical Expert disseminate a TEM System to 100 road transport companies

4

Improve TEM System
TEM System will be set up for self-study by e-learning

Transportation Energy Management System has been provided to support road transport companies an energy efficiency improvement information.

2.Eco-drive Training

In order to reduce fleet fuel consumption, we need to change employee driving behaviors to use less fuel per kilometer driven being main factor of energy consumption.

1

Develop eco-drive training program
eco-driving handbook and teaching material will be also prepared

2

Provide driving school for eco-drive training
4 locations in 4 regions include Central, North, South and North East of Thailand

3

Arrange an Eco-driving training for 400 drivers of road transport companies
(4 locations x 5 classes x 20 persons)

4

Monitor trained driver's behavior and get feedback via LTMA or Logbook

3.Subsidy

Subsidy is offered to encourage road transport companies to improve their energy efficiency. Selected companies would have subsidized to replace cost associated with deploying green technologies based on the performance of fuel saving

Transport Subsidy
has been provided for 200 companies

Performance-based Subsidy
Paid 75 baht for 1 MMBTU saving per year

Maximum subsidy
500,000 baht per company

*Energy saving will be evaluated by LTMA
**Subsidy condition may be changed

1 Submit application and project proposal

2 Selected companies improve their energy efficiency and monitor fuel saving

3 Claim for subsidy according to the condition

4 Conclusion and assess feasibility of implementing energy conservation in the future

8

4.Logistics ESCO

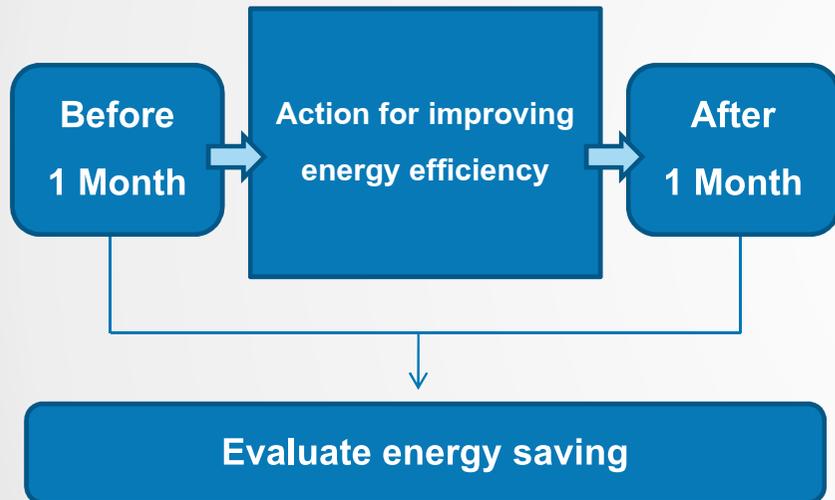**1** Establish rules and standards of services for Logistics ESCO

2 Logistics ESCO Registration
at least 5 companies will be registered as pilot logistics ESCO

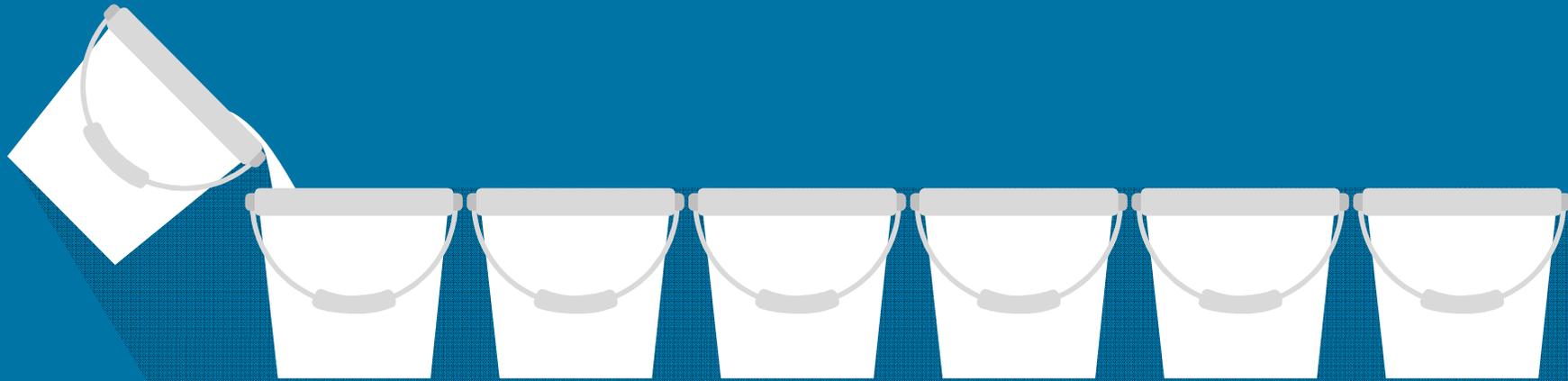**3** Test Logistics ESCO service
with a road transport company

4 Logistics ESCO Promoting
as part of THAI ESCO association

Logistics ESCO

Initiate Thailand's Logistics Energy Service Companies (Logistics ESCO) as financial mechanism to provide funds or support services such as energy audits/advisory services for fuel savings measures

9

Energy Saving Evaluation and Tracking

Collect data by using Logbook or LTMA

```
Before          Action for improving          After
1 Month    →    energy efficiency      →    1 Month
```

Evaluate energy saving

In order to identify energy savings by comparing measured use before and after implementation of the activities under this project improving energy efficiency, we will be using Logbook or Logistics and Transport Management Application (LTMA) to evaluate data collected

Thank you for your attention

Q&A