



Role of EGAT on Energy Efficiency in Thailand

EGAT's Demand Side Management: Energy Efficiency Programs

1991/1992

The Cabinet set up
DSM Project
on Dec. 3rd, 1991

The DSM Office
was established
on Dec. 28th, 1992

1992-1997

DSM Project
officially started on
Sept. 20th, 1993 with
the project called
"Together
Conservation"

1997-present

The DSM Office
was split into 2
Divisions under the
Deputy Governor -
CSR

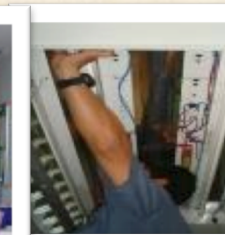
CSR

DSM -Planning

**DSM -
Implementation**

EGAT's Demand Side Management: Energy Efficiency Programs

DSM Strategy



A 1

Energy Efficient Appliances

1. Refrigerator (1994)
2. Air conditioner (1995)
3. Compact Fluorescent Lamp (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. -12. Standby 1 Watt- TV & Monitor (2010)
13. T5 Luminaire (2010)
14. Electric Thermal Pot (2011)
15. Ventilation Fan (2012)
16. Water Heater (2012)
17. Electric Iron (2012)
18. Washing Machine (2012)
19. T5 Retrofit Set (2013)
20. LED – MR 16 (2013)
LED – T8, Par (2014)
21. Freezer (2014)
22. Microwave Oven (2014)
23. Induction Cooker (2014)
24. Electric Pan (2015)
25. Electric Oven (2015)
26. Electric Water Pump (2015)



Results of Energy Efficiency Labelling Program

Achieved to date (as of July 2016)

Program	MW	GWh	CO ₂ (Ton)
Lighting	1,170.0	6,549.2	3,865,795.6
- Fluorescent Tube (T8)	401.5	1,957.5	1,446,682
- Fluorescent T5 Program	175.0	794.5	426,305
- CFL	532.3	3,441.8	1,793,598
- Low-Loss Ballast	18.4	92.2	60,707
- HPSV Street Light	-	17.2	12,723
- LED	42.8	246.0	125,780
- Street lighting (EGAT)	-	1.1	543
- Bulb E27	27.5	169.9	86,885
- MR16	4.4	22.4	11,458
- LED T8	11.0	52.6	26,894
Refrigerator	838.3	4,867.5	3,024,818
Air Conditioner	1,698.0	11,837.7	6,575,584
Fan	87.9	761.7	388,244
Double oscillating fan	7.8	20.9	10,865
Rice cooker	49.6	75.0	38,331
Motor			
Comercial			
Standby - TV & Computer			
Electric pot	16.5	6.0	13,607
Electric fan	119.6	119.0	81,804
Washing machine	5.1	1.9	1,000
TV	15.5	1.9	1,000
Microwave	26.1	1.0	46,532
Demand Respond (Apr, Jun 15)	1.0	0.4	202
Electric kettle*	65.5	0.8	2
Automatic water pump*	0.4	1.6	801
Refrigerated display cabinet*	5.3	1.4	16,068
	8.7	0.6	40,690
Total	4,119.3	24,578.8	14,144,705.6

24,579 GWh

4,119 MW

14,144,706 Ton

As of Jul. 2016

A 2



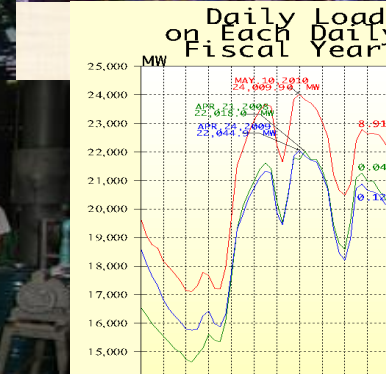
Energy Efficient Architecture

Energy audit & load management

Green Buildings (1995) Providing energy audit, consulting, installation services of energy efficiency measure and financial service for commercial buildings and factories

Peak-cut Project (1997) Encouraging large consumers (such as industrial factories) to use their existing standby generators during peak hours, on request by EGAT's system control. Participants received compensation for increasing fuel and associated cost.

ESCO Pilot Project (1999) Initiate the ESCO system in Thailand, by supervising, supporting and providing supports in terms of financial sources, ESCO & customers matching, stakeholders management (as Super ESCO) to stimulate the ESCO business taking place in Thailand



Energy Efficient Architecture

GAT Head Office



Award Winning



- ASA green building awards by the Association of Siamese Architects Under Royal Patronage.



- Thailand energy awards 2009 for excellence in energy conservation of innovative building (new and existing building) by the Department of Alternative Energy Development and Efficiency, Ministry of Energy.



- ASEAN energy awards 2009 for energy efficient building competition (new and existing building) by ASEAN Center for Energy (ACE).



- The Emerson Cup 2009 for honorary prize: innovation of human comfort by Emerson Climate Technologies.

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Energy Efficient Attitudes

Attitude creation program

Green Learning Rooms :

educating energy efficiency awareness for students (414 schools in 76 provinces) influencing more than 2 million students.

Upgrade to **'Green Schools' for both energy & environment conservation:** EGAT has supported schools to achieve efficient and environmental-friendly energy use and waste management. 112 Green Schools are certified between 2009-2015.

Educate and initiate Carbon Footprint's calculation and reduction measures to schools' staff and certify **45 Low Carbon Green School** in 2014



**New ways
for
Energy Efficiency Labelling**

Energy Efficiency Labelling for Communities

Energy Efficiency Labelling for Communities



Energy Efficiency Labelling for Buildings

Energy Efficiency Labelling for Buildings



Energy Efficiency Labelling for Buildings

2016 - Plan

- Literature Review
- SWOT Analysis
- Set Strategic for Buildings' Labelling
- Risk Analysis
- Set Draft for Building Labelling Criteria
- Set Pilot Buildings for MV&E
- Report to Top Managements to Approve for the Implementation.

Thank you!

