# Myanmar Carbonix Project (Energy Saving & Energy Efficiency)

- In No(1) Refinery (Thanlyin), own power Plant's boiler furnace chimney vented out flue gas into atmosphere.
- liquid CO<sub>2</sub> and dry ice are produced from Myanmar Carbonix factory in No (1) Refinery by using waste flue gas.
  - $\Leftrightarrow$  Reduction of CO<sub>2</sub> emission 24 tons / day

#### <u>Advantages</u>

- Liquid CO<sub>2</sub> and dry ice plays an important role in some industries
- $\blacksquare$  Reduce the  $CO_2$  emission into atmosphere.

### No.(3) Fertilizer Factory (KyawZwa)



Year Built – 1982

Capacity – 600 MT Urea/day

Contractor – UHDE GmbH

Germany

Rehabilitation – 1988,

Nissho Iwai and

Chiyoda

Corporations

Energy Conservation – 2000 NEDO, Japan (New Energy & Industrial Technology Development Organization)

### **Energy Conservation Project**

- Energy Conservation Project (No-3 Fertilizer Factory, Kyaw Zwa) was implemented in MPE as AIJ (Activities Implemented Jointly) by NEDO of Japanese Government.
- 11 items of equipment for ammonia plant and 6 items of equipment for urea plant were modified and replaced to get highest efficiency.
- As a result of project, the estimated energy consumption before / after the project is as follows:

Plant	Before	After
Ammonia Plant	12.26 G.Cal/Ton-NH <sub>3</sub>	9.67 G.Cal/Ton -NH <sub>3</sub>
Urea Plant	8.32 G.Cal/Ton-Urea	6.58 G.Cal/Ton -Urea

#### **Advantages**

- Efficient use of energy and the protection of environment in Myanmar
- Achieving new advanced technologies
- Modifying of the equipment and addition of new equipment
- Reducing of the emission of greenhouse gases especially carbon dioxide.

# Energy Consumption and Energy Efficiency Target in Year 2020 - 2025

- To reduce Energy Consumption by 5% in 2020 and 8% in 2030 relatively with existing BAU (Business As Usual) scenario
- To Improve Energy Efficiency 7% in 2020, in the residential sector and 16% in all sectors at 2020

# Activities for Energy Efficiency

Year	Activities	Assisted by
1996	Seminar on Energy & Conservation in the industrial	UNESCAP
	sector	
1998	Seminar on practical training course on Efficient Energy	UNESCAP
	Management in Industries(phase 1) & (phase 2)	
2001	Seminar on Energy Audit of Mann petroleum refinery	ASEAN
	(PROMEEC for major industries )	EE&C SSN
2003	PROMEEC Building Energy Audit Training	Yangon ASEAN
		EE&C SSN
2003	Workshop of working group for benchmarking and	Yangon
	Energy Audit Guideline Development project	ASEAN
		EE&C SSN
2004	PROMEEC Energy Management training	Yangon ASEAN
		EE&C SSN
2004	PROMEEC Energy Management training,	Yangon ASEAN
		EE&C SSN

2005	Workshop on EE&C for building Best Practices in South	Yangon
Seminar	East Asia	ASEAN
		EE&C SSN
2005	Seminar on Energy Management	Yangon UNESCAP
2006	National Consultation Workshop on the establishment	Yangon
	of a framework of Energy Management System in	UNESCAP
	industries and building	
2006,	Seminar on PROMEEC for major industries in South East	Yangon ASEAN
	Asia	EE&C SSN
2006	Seminar on Energy Audit of Kyanhin Cement Plant	ASEAN
	(PROMEEC major industries)	EE&C SSN
2006	Seminar on Energy Audit of Thanlyan Oil Refinery Plant	ASEAN
	(PROMEEC major industries)	EE&C SSN
2008	Seminar on Energy Audit of Mayangone Textile Factory	Yangon ASEAN
	(PROMEEC major industries)	EE&C SSN
2009	Seminar on Energy Audit of Automobile Factory No(1)	Nay Pyi Taw
	(PROMEEC major industries),	ASEAN EE&C SSN
2014	The Energy Policy Workshop	Nay Pyi Taw
Phase	Implemented by the Overseas Human Resources and	
(1-6)	Industry Development Association (HIDA)	

## EE & C in Myanmar

The currently low awareness of EE&C in Myanmar is due to subsidized energy pricing system. Barriers for energy efficiency are considered to be: weakness of follow up activities and initiatives to implement EE&C action;( အသိစိတ်ရှိမှုနှင့် အခက်အခဲများ ကိုဖြေရှင်းလုပ်ဆောင် စတင်ကြီးပမ်းချက်)

- 🕨 need for more training programme for EE&C; ( ပညာပေးအစီအစဉ်များ)
- 🕨 need for energy efficiency laws; ( ဥပဒေဆိုင်ရာများ)
- need for a mechanism to get comprehensive, reliable, accurate energy consumption data of industries and buildings;
- need for provision of tax incentives programme to industries and building sector to implement EE&C measure; institutional constraints; and financial constraints. ( အခွန်အခလျော့ပေါ့ဖို့အဖွဲ့အစည်းဆိုင်ရာ ငွေကြေးဆိုင်ရာ ကန့့်သန့့်ချက်)

### **Strategies** of Energy Efficiency & Conservation

- Capacity Building (Training, Workshop, etc.)
  (အများဆုံးလက်ခံနိုင်သည့်ပမာကာ)
- Energy Awareness and Education( အသိစိတ်ရှိမူ နှင့် ပညာရေး)
- > Best Practices of Energy Efficiency (လက်တွေ.ပြုလုပ်ခြင်း)

