





Lower Mekong Initiative (LMI) Renewable and Clean Energy Business Dialogue 2015

Enabling Energy Efficiency and Viable Power Grids to Promote Sustainable Development FROM ECC-HCMC'S PERSPECTIVES



Asian Development Bank, Manila, Philippines
June 15 -16, 2015



Agenda

1. ECC-HCMC & Viet Esco

2. Energy consumption & market segments in EE

3. Opportunities and challenges

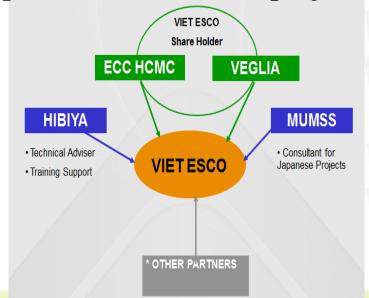




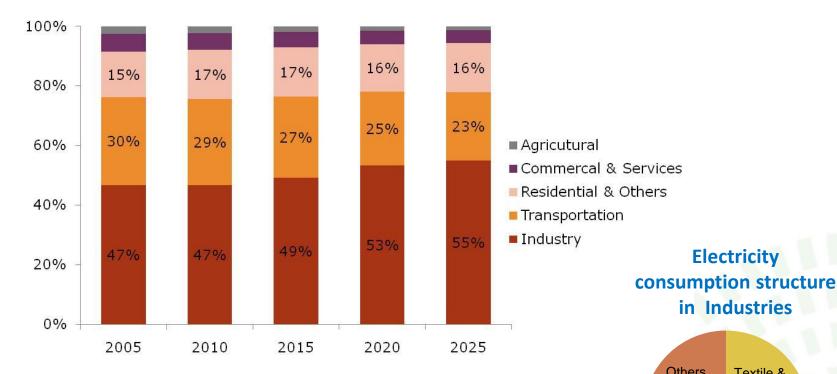


ECC-HCMC: The leading organization in energy efficiency and renewable in Vietnam for over 11 years.

ECC business lines **CONSULTANCY &** INVESTMENT Consultancy to CONSULTANCY **Public sector SERVICES ESCO** projects **Energy Audit** Renewable energy Establishment of energy management **Energy efficiency** system - ISO 50001 solutions Technology transfer TRAINING Feasibility study Training courses on energy audit and energy Public communication Management system to increase Design of Green public awareness building, BIM and **Project management** (cooperated with UCN Denmark) Viet Esco: The first ESCO in Vietnam with founding member and technical partner from Japan with strong international networks & high potential investment projects

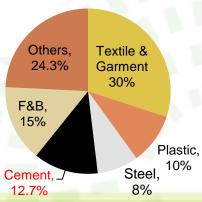


Vietnam's Share of Energy Consumption by Sector



Source: APEC. Peer review on energy efficiency in Viet Nam, 2009

Just Cement & Steel account for 20% electricity consumption in industry in Vietnam

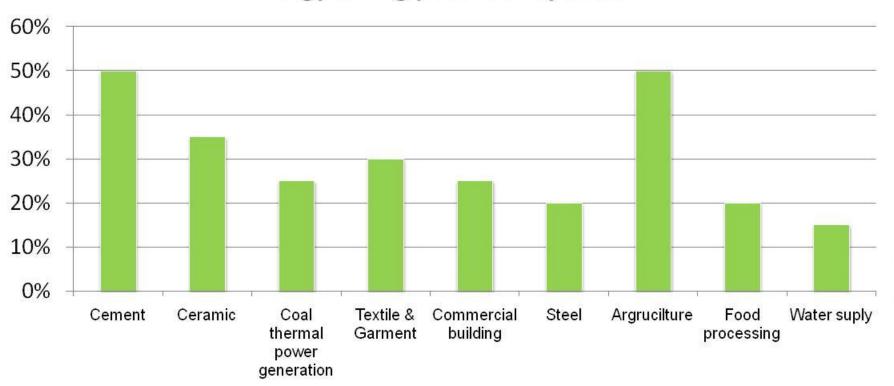


Electricity

in Industries

Energy consumption status

Energy saving potential by sector



Source: DSM project 2000, MoIT & ADB

Market segments

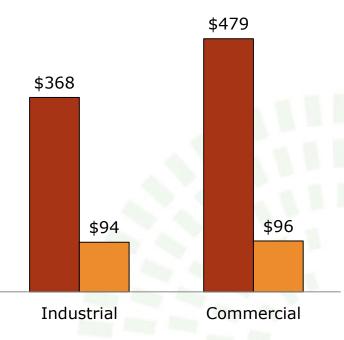
Huge market potential

- Power consumption is forecast to increase from 81TWh in 2010 to 451TWh in 2030 while supply is shortage.
- 1,190 key energy-consumption facilities using over the country in 2011.
- The total investment needed for EE projects during 2011-2015 is US\$ 847m

Fuel shortage after 2015

- Vietnam has started to import steam coal and oil products over the last 5 years
- Although oil is currently its largest source of export revenue, Vietnam is projected to become a net importer by 2015

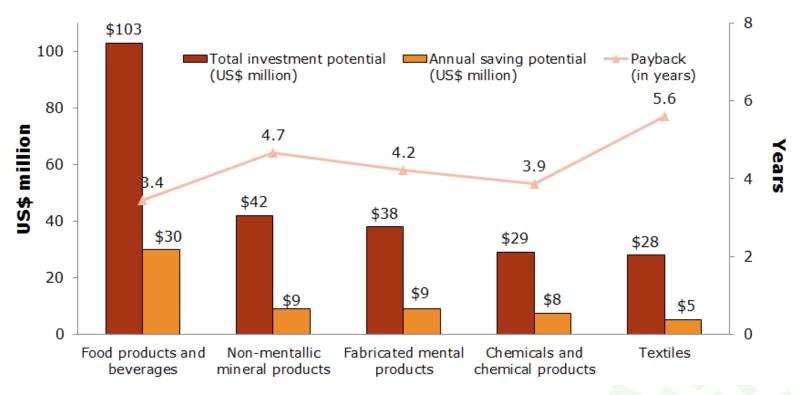
- ■Total investment potential (US\$ million)
- Annual saving potential (US\$ million)



Source: Reex Capital Asia, October 2010

Market segments

EE in Industrial Sectors



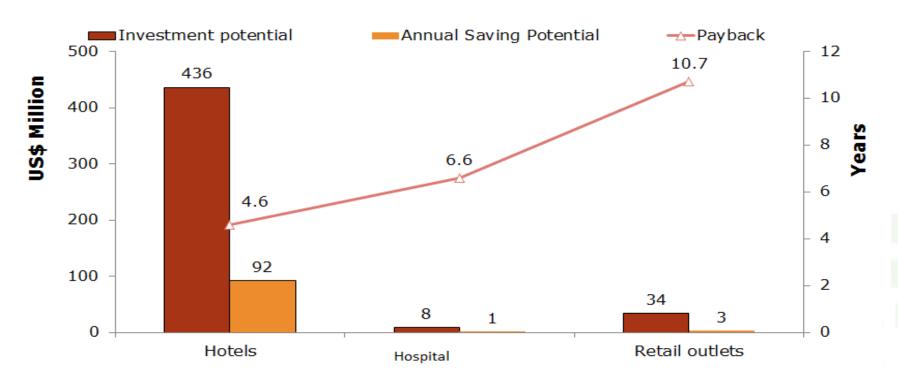
Source: Reex Capital Asia, October 2010

- Cement sector, potential electricity generation capacity is over 200 MW nationwide: Capital required is about 500 million US\$.
- ECC HCMC has many potential projects in Food product, Steel and water supply with required capital is around 20 million US\$.



Market segments

EE in Building Sector



Source: Reex Capital Asia, October 2010

ECC-HCMC has 50 ESCO potential projects as in hotels in Hanoi and HCMC with required capital of 10 million US\$, and 30 potential projects in hospitals in HCMC with required capital of 36 million US\$.



Other: Public lighting



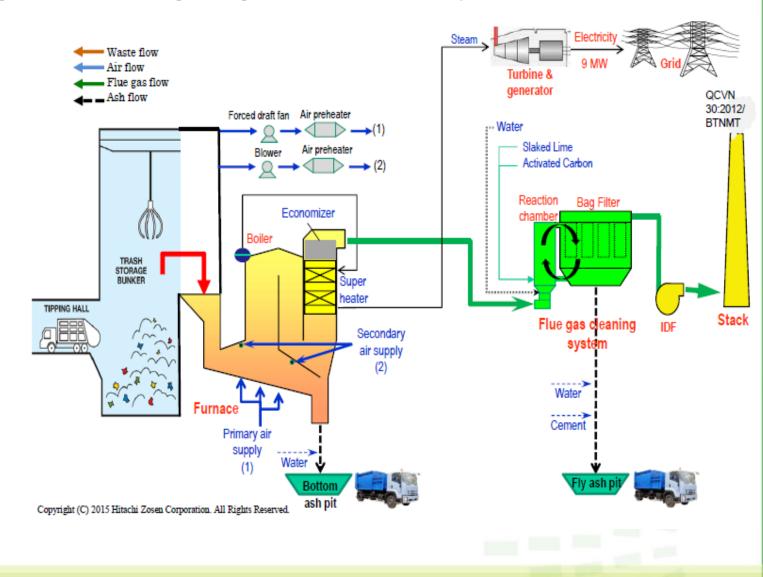


Replacement of existing light bulbs with high efficiency LED light bulbs. Capital required 100 million US\$ in HCMC and 7 Provinces in South of Vietnam



Other: Electric generator from garbage in Hochiminh city

- Total capacity of garbage in Ho Chi Minh city: 7000 tons/day
- Capacity of energy from waste plant: 182,5 Million kWh/year with 1000 tons/day
- Investment cost: 149Million US\$





EE's investment opportunities

- Current efforts of the Government and international organizations to create electricity market based on competitiveness
 - Removal of fuel subsidies
 - Power sector reform based on competitive market
- Interest of stakeholders in energy efficiency market
 - Vietnamese firms having EE projects will have an opportunity to borrow capital from various financial institutions such as:
 - ✓ IFC at \$100 million
 - ✓ Danish embassy at \$30 million
 - ✓ Asian Development Bank at \$100 million
 - ✓ World Bank at \$70-\$100 million, and
 - ✓ Japan International Cooperation Agency at \$50 million
 - ✓ The other (VDB, etc...)



EE's investment challenges

- Difficulty accessing financing
 - > Scarce capital and immature banking sector
 - ✓ Lenders is lack of familiarity with EE financing
 - ✓ Lenders is lack of confidence in return of EE projects
 - > Challenging in accessing to finance
 - ✓ Unawareness of existing grants, loans, credit facilities offered by a large number of international financial support mechanism.
 - ✓ Unclear system for accessing domestic source of capital
- Governmental supports in terms of policies and measures are not sufficient:
 - No tax incentives
 - > Lack of an effective overarching and comprehensive EE policy framework
 - Insufficient financial support and assistance
 - > Electricity price subsidies negatively EE investment
- □ EE is not yet regarded as top business priority by many companies
 - Users are not fully aware of EE and not confident that measures deployed can achieve projected savings



Thank you for your attention!

