ENERGY EFFICIENCY IN CONSTRUCTION SECTOR
FOR THE STABLE DEVELOPMENT IN HANOI CITY
Urban development in Hanoi

Year 2008

- 14 districts, 922 km²; 30 districts, 3.329 km²;
- Population: 3,4 m  Population: 7,2 m

- GNP: 2.257 USD/person/Year.
- Growth rate: 200.000 Person/year
- GDP growth rate:
  2011 - 2020: 9- 0%/year; 2021 - 2030: 8-9%/year.
- Energy growth ratio 2011-2020:
  6-10%/year; 2021-2030: 10-11%/year.
- The goal to develop the city: 1 core city and 5 satellite cities
Energy utilization and CO2 emission in civil and commercial building area account for large percentage (43%).

Electric power consumption (kWh/person/year):
+ Cities in ASEAN area: 4.000-22.000.
- In recent years, total building area in average, which was built in Hanoi City, is around 200,000 – 250,000 m²/year. *
- Office, hotel, supermall areas have high increasing rate as well, the highest rate is in citizen households
* Source: Ministry of Construction
- Fast urbanization rate is one of the causes that lead to increase energy utilization: Energy utilization has increased more than 50% from 2006 to 2015 (in 2006: 2,559,30 kTOE; in 2015: 5,430,70 kTOE)

- Energy saving potential in building construction in Hanoi:
  + New building projects, apply energy saving solutions early from the start can save 20 – 30% *
  + For existing buildings are energy audits, if the implementation of solutions in the energy audit report to reach the goal saving 15 – 25% *

* Source: Ministry of Construction
LIMITATION IN ENERGY EFFICIENCY

1. Lack of energy utilization strategy to develop city

State’s document system require energy saving in building projects has not widespread

2. Workforce

Lack of Engineering expertise workforces project consulting workforce about energy saving and recycling energy.

Not familiar with recycling energy and energy saving equipment

Energy management in building lack of training, skills
Finding financial supporters to promote energy saving to difficulty in exist buildings

3. Policy enforcement

New building project can not apply QC 09-BXD policy, satisfy green-project standard (QC-09 BXD: technical codes nation in construction)

4. Constructions management

The authorities have no incentives to apply QC-09 in new building projects or renovation projects.
5. Material, equipment, technologies using saving efficiency energy

Low rate of business change to saving energy equipment and technologies, Not widely popular

The device and material has not been standardized
SOLUTIONS TO IMPROVE EFFICIENCY IN ENERGY

1. Recycling energy into city development project in Hanoi

2. Ensure new projects follow QC 09-BXD policy, develop, apply design and calculation energy saving tools for each type of constructions (EDGE)

3. • Training sessions to enhance engineer expertise skills, consulting staffs about energy saving in companies, states.
   • Building training center to manage energy in Hanoi, improve energy saving in business.
SOLUTIONS TO IMPROVE EFFICIENCY IN ENERGY

4. Support business in building investment capital which can satisfy green projects follow QC 09-BXD standard.

5. Create technologies transformation market in saving energy, high productivity equipment: ENTECH HANOI FAIR, ESCO SERVICE.....
   Encourage consumers using saving energy products

6. Increase in cooperation, exchange knowledge with other countries to reach stable development, especially in South East Asia and Asia.
Thank you for attention!

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