

# ANMC 21

Asian Network of Major Cities 21



## EFFICIENT ENERGY USE

FOR THE SUSTAINABLE DEVELOPMENT

# CONTENT



ENERGY SITUATION



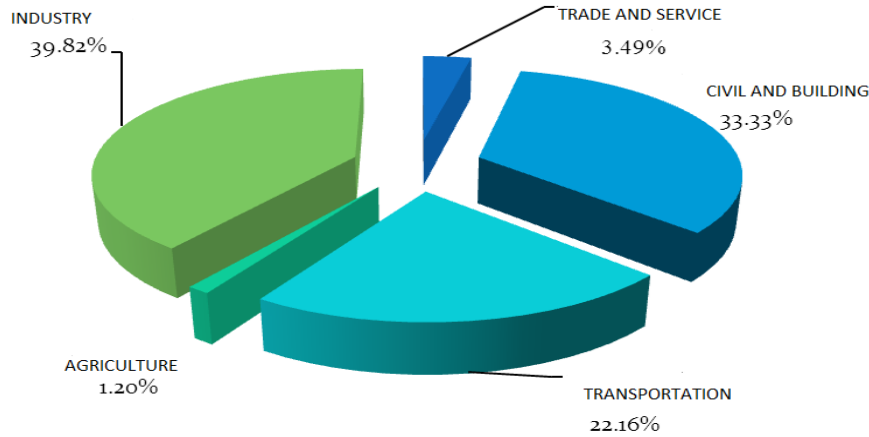
BARRIERS TO ENERGY EFFICIENCY  
OF HANOI



ENERGY POLICY OF HANOI

# I. Energy situation

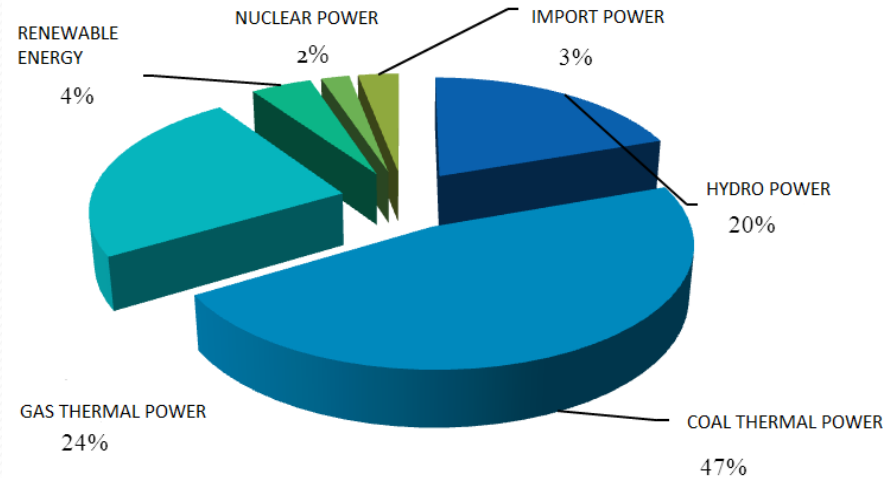
VIETNAM ENERGY USE BY SECTORS 2010



50.547 ktoe

\* Source: Institute for Energy

VIETNAM POWER STRUCTURE DEVELOPMENT 2020

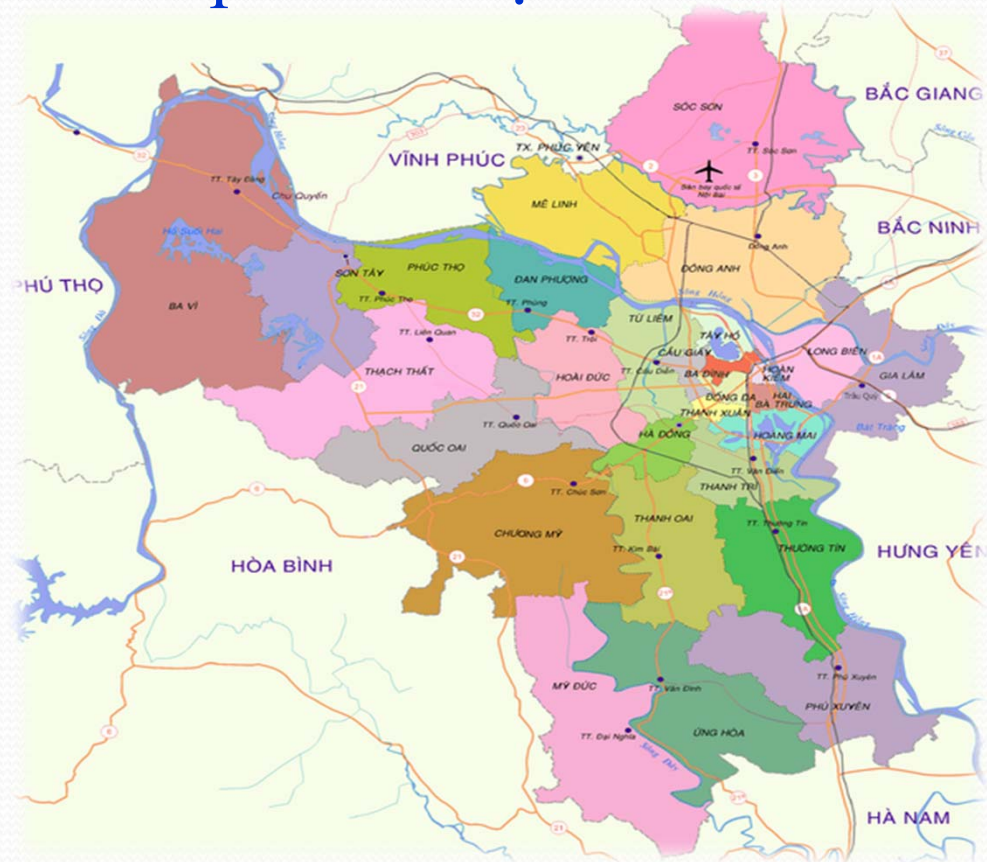


\* Source: Planning national electricity development period 2011 - 2020 with visions to 2030

- ❖ Vietnam's GDP increased 7.2% / year, energy use increased by 12.4% / year.
- ❖ The intensity of energy consumption in Vietnam is higher than other countries in the region: Vietnam, 1.43; countries in the region <1; Singapore: 0.26.

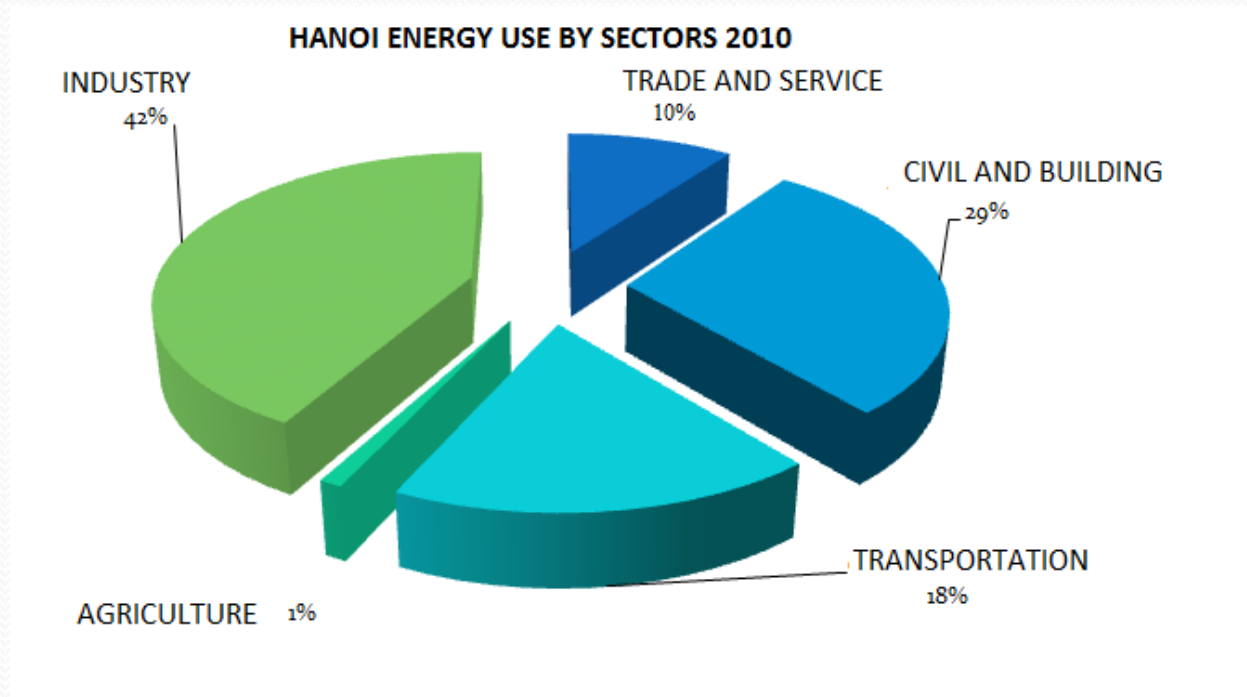


# Giới thiệu thành phố Hà Nội



- + Area: 3,329 km<sup>2</sup>, 7 million people.
- + \$ 2,257 / person / year.
- GDP growth 2011-2020: 9-10% / year from 2021 to 2030: 8-9% / year.
- The increase in power 2011-2020: 6-10% / year, 2021-2030: 10-11% annually.

\*: Source: Strategy for socio-economic development of Hanoi in 2030, with a vision to 2050



\* Source: Institute for Energy

❖ Sectors: industry, residential and transport represent a large portion

*Commercial power (kWh / person / year):*

+ Hanoi: 1,388 in 2010, \* 3,700 in 2020.

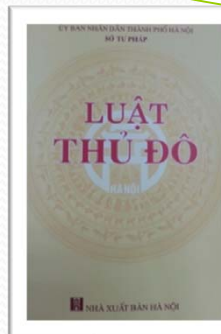
+ Cities in the ASEAN region from: 4,000-22,000.

\* Source: Power Development Plan Hanoi City in 2011-2015, with a vision to 2020.



## II. Barriers to energy efficiency

### 1. Regarding the executive direction and communication of energy efficiency



The system of government documents are not synchronized, difficulties for enterprises to execution.

Community and enterprises 's lack of awareness of energy efficiency

## 2. Human resources



Technical experts, project consultant on energy efficiency and renewable energy are weak and few



Experience of project implementation and technology transfer is limited

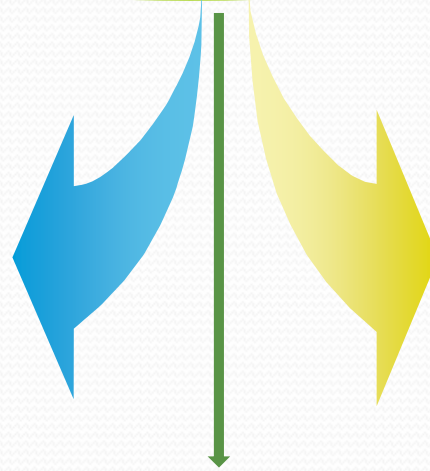


## Barriers to energy efficiency

### 3. Regarding the implementation of planned power

Slow Development planning grid :

- Development of the electricity and transportation are not synchronized.
- Slow clearance.



Most of 110-220 kV grid are overload:

- Substation and transmission cables are not guarantee
- Low reliability



Prices of electricity, coal, oil ... non market goods ⇒ Community not pay much attention to the use of energy efficiency





## 4. Investment



Enterprises face difficulties in accessing concessional loans

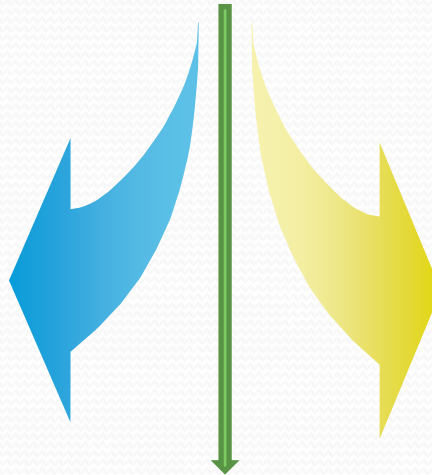


Capital investment for power projects and energy efficiency projects lacking.

## 5. Equipment, technology for efficient energy use

Low proportion of Enterprises who have innovation equipment, advanced technology, energy saving

High investment costs for the line energy saving technology



The transfer of energy saving technology is not common





## 6. Transport Sector

Individuals Vehicles have large proportion in circulation  
Increased levels of personal motorcycle than 10% / year

Public transport accounts for 7-8% of low density, low quality



Transportation infrastructure can not meet demand  
⇒ Traffic congestion at several intersections



\* Source: General Plan build Hanoi until 2030 and vision to 2050

## Energy policy of Hanoi

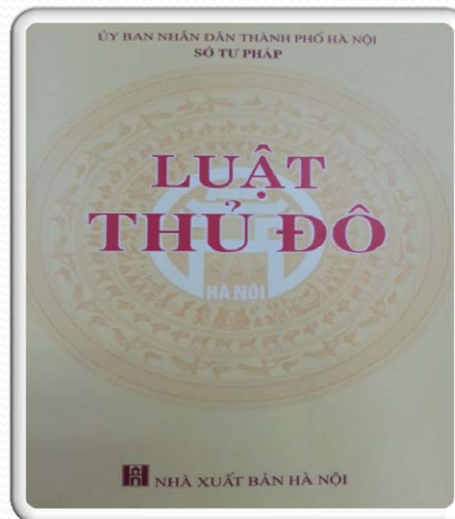
1

Development of power supply system in sync with other urban infrastructure of the city \*.

\* Source: Capital Law

2

To enhance communication, increase awareness of the community about energy efficiency \*





## Energy policy of Hanoi

**3**

Training human resources of energy management . Developing the training center energy management of Hanoi

**4**

- ❖ Modernizing the power grid, grid 110 immediate development, 220kV ⇒ improve reliability and power quality assurance
- ❖ Forming retail electricity market competition period after 2022

**5**

- ❖ Support for businesses seeking funding incentives and abroad.
- ❖ Improving the investment climate.



## Energy policy of Hanoi

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- ❖ Forming technology transfer markets energy-saving, high-performance equipment.
- ❖ Use energy equipment labeling: 07/01/2013: Fluorescent lamps, integrated washing machine stand, electric rice cookers, electric fans, machines 3 phase distribution transformers, electric motors, 1/1/2014: fridge, washing machine horizontal cage, television





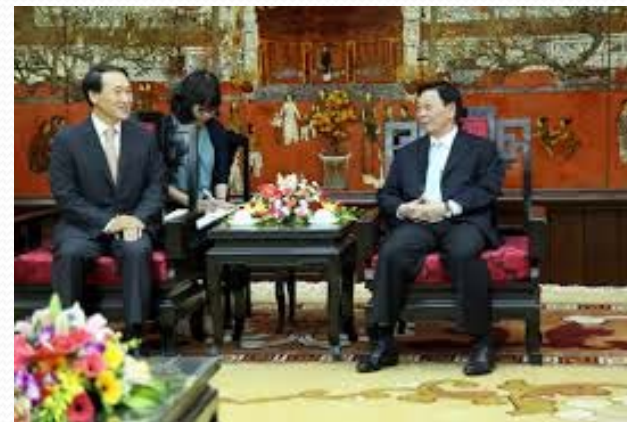
## Energy policy of Hanoi

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- ❖ Development of uniform texture urban transport: Building the ring road, radial, other multi-level crossings.
- ❖ To enhance the quality of public transport: large volumes bus rapid transport, elevated railway, metro.

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Strengthening cooperation and exchange of experiences with other countries in the world for sustainable development, especially in Asia City



# THANK YOU FOR YOUR ATTENTION

