Next Steps for Participating Economies to Develop EE Urban Passenger Transportation

5 March, 2012

APERC Workshop, Kuala Lumpur

Bing-Chwen Yang
Team Leader
Asia Pacific Energy Research Centre

Asia-Pacific
Economic Cooperation

Outline

- **Background of CEEDS Phase 3**
- **Major Challenge**
- **Good Framework**
- **Possible Regional Cooperation**

Background of CEEDS Phase 3

The fast growth of urbanization in APEC region has been leading to growing the energy consumption and GHGs emissions. The CEEDS Phase 3 project focused on economy-wide policy to improve the energy efficiency in urban passenger transportation by address on:

(1) Energy security;
(2) Greenhouse Gas (GHG) Emissions
(3) Costs of Urban Infrastructure
(4) Mobility and passenger safety
(5) Public health

Good Framework for EE Passenger Transportation - ASI

(1) Avoiding or reducing the need to travel or use motorized vehicles, e.g., through the integration of land use and transportation planning (TOD);

(2) Shifting to more energy efficient modes of travel, e.g., by improving and promoting the use of public transit systems and encouraging the use of non-motorized transport;

(3) Improving vehicle and fuel efficiency technologies in order to reduce the impact of each kilometer travelled.

Avoiding

(1) *Effective Transient Oriented Development* (TOD) to reduce the requirement of traveling;

--mixed urban uses

--convenient mass transit

--maximizing intermodal connectivity of transit hubs

--others

(2) 30-50% energy savings (compared to projected baseline by designing for better urban growth.

Shifting

(1) Important elements of BRT include well-organized connection, fare collection, Intelligent Transportation Systems (ITS), service and operating plans, and branding;

(2) Best practices for BRT include median-aligned bus lanes, dedicated lanes, off-board fare collection, wide doors and level boarding, and weather protected stations;

(3) To integrate BRT systems with other public transportation system and bike paths and bike sharing programs;

Improving

(1) Fuel economy standards;
(2) fiscal incentives (e.g., tax incentives for buying efficient vehicles, penalties for less efficient vehicles, and phasing out fuel subsidies) and technological options;
(3) Control of used car;
(4) Consumer education; (“Eco-Driving)
(5) congestion controls to reduce the volume of traffic entering the central business district.

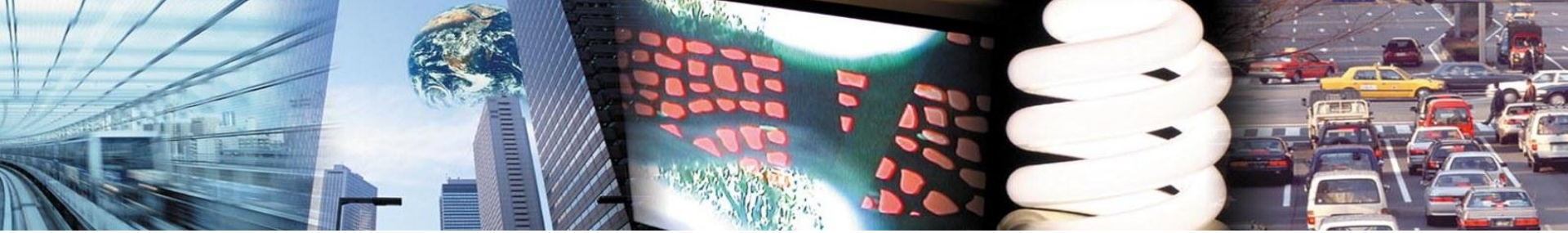
Possible Regional Cooperation

(1) Further collaboration and knowledge sharing among the CEEDS 3 participants ;

(2) APEC Low-Carbon Model Town (LCMT) project

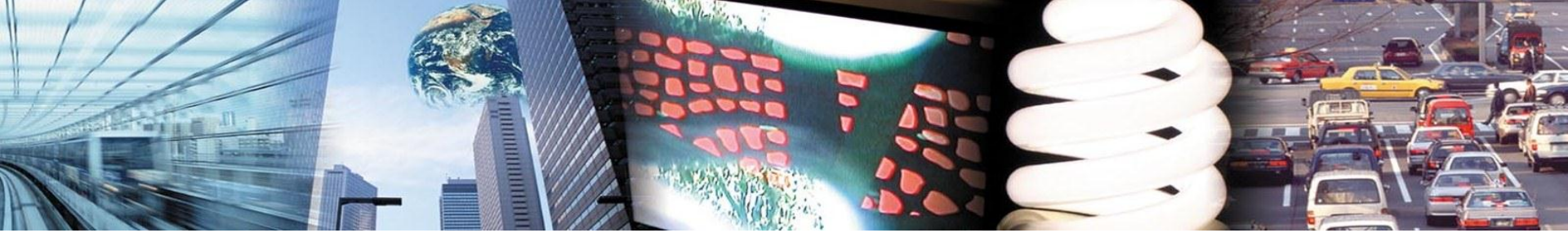
(3) Collaboration through the *Energy Efficient Urban Transport Network, under the APEC Energy Smart Communities Initiative (ESCI)*

(4) Collaboration on new regional Sustainable Transport Initiatives with support from the Asian Development Bank (ADB);



Thank you for your kind attention

http://www.ieej.or.jp/aperc/



Appendix

Key Findings from CEEDS Phase 3

Key Principles: Urban Design/TOD

- Transform badly designed areas
- Plan for mixed use
- Create dense networks and smaller city blocks
- Promote walking and biking
- Regulate parking
- Update zoning codes
- Pay attention to local needs
- Extend TOD beyond cities

Key Principles: Public Transportation

- Ensure high quality and attractiveness
- Create appropriate plans for each station area
- BRT!! Quicker and cheaper than rail

Key Principles: Vehicle Efficiency

- Technology + Fiscal measures important

- To address imported vehicles:
  - Tighten emission regulations
  - Require functioning catalytic converter, label

Other Key Recommendations

- Adopt short/medium/long term goals with measurable targets
  - Collect data
  - Set realistic timelines
- Measure and report progress toward goals
- Direct investment flows toward sustainable transport
  - Cost-benefit analysis
  - Innovative financing
- Foster inter-Ministerial collaboration
- Raise public awareness