



**Asia-Pacific
Economic Cooperation**

2011/SOM1/EWG/WKSP3/002

Agenda Item: II-3(a)

Policy Template on Best Practices for Energy Efficient Urban Passenger Transportation

Submitted by: Alliance to Save Energy (ASE)



**APEC Cooperative Energy Efficiency
Design for Sustainability - Energy Efficient
Urban Passenger Transportation
San Francisco, United States
14–16 September 2011**

Policy Template on Best Practices for Energy Efficient Urban Passenger Transportation

Cooperative Energy Efficiency Design for Sustainability (CEEDS)

Phase 3 Workshop
September 14, 2011

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**ALLIANCE TO
SAVE ENERGY**
Creating an Energy-Efficient World

What is the Alliance to Save Energy?



Mission:

- To promote energy efficiency worldwide to achieve a healthier economy, a cleaner environment, and greater energy security.

Organization:

- Non-profit organization headquartered in U.S.; operations world-wide
- Staffed by 80+ professionals
- 34 years of experience



CEEDS 3 Policy Template



- Focus on:
 - Transit-oriented Development (TOD)
 - Bus Rapid Transit (BRT)
 - Vehicle Efficiency

“Avoid-Shift-Improve”



- **Avoid** travel
- **Shift** to non-motorized/low C transport



- **Improve** efficiency of existing vehicles



AVOID:

Transit-Oriented Development



Strategies for TOD and livable communities:

- Zoning for mixed residential/commercial use
- Pedestrian paths, sidewalks, bicycle lanes
- Urban planning: Amenities within walking/biking distance
- Complementary and interconnecting mass transit systems

TOD can be pursued in existing and new/planned communities

Supporting policies and conditions include:

- Zoning regulations that enable mixed use development
- Parking management
- Tax or other financial incentives for mixed-use development
- Improvements in telecommunications infrastructure

SHIFT:

Non-Motorized & More Efficient Transport



Policies to Promote a Shift to Low-Carbon Urban Transport Modes

■ Non-Motorized Transport

- **Bicycles** – Beijing goal: A quarter of the population using bicycles by 2015
- **Walkability** – CAI-Asia walkability survey



■ Public Transit

- **Bus Rapid Transit** – In many APEC economies BRT has been the main focus for improving public transport (see next slide)
- **Subway** – Vietnam constructing subway system for Ho Chi Minh City

Bus Rapid Transit



- Provides faster, more efficient service than ordinary bus lines
- Uses or builds on existing road infrastructure:
 - May travel in exclusive bus lanes with traffic signal priorities
 - May share existing roadways with other traffic
- Combines advantages of rail (e.g., right of way, punctuality) with advantages of buses (e.g., low construction & vehicle costs)
- Criteria for success include:
 - Orientation
 - Accessibility
 - Speed, efficiency, frequency of service



Philippines - Cebu City
– BRT coming 2013 ?



Thailand -
Bangkok
BRT



Mexico –
Mex City
Metrobus



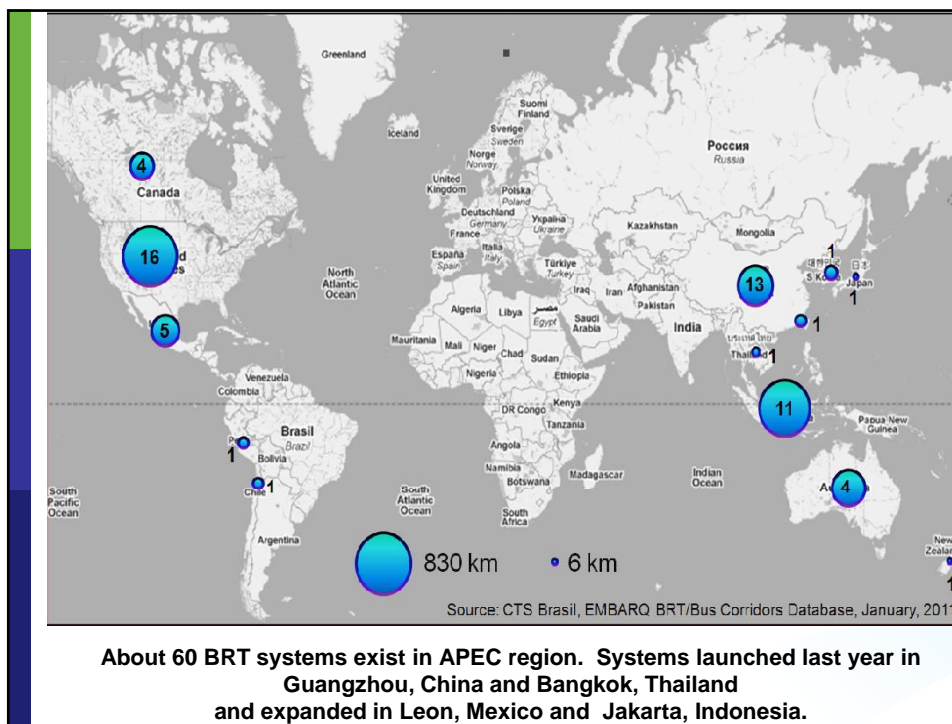
China –
Guangzhou
BRT



Vietnam –
Hanoi BRT
planned

Photo Credits: Vietnam http://mva.com.hk/projects/Vietnam/Project_Vietnam.pdf
Thailand <http://www.mythailandblog.com/2010/05/a-ride-on-the-brt-dedicated-bus-in-bangkok/>

All others from wikipedia "Bus Rapid Transit"

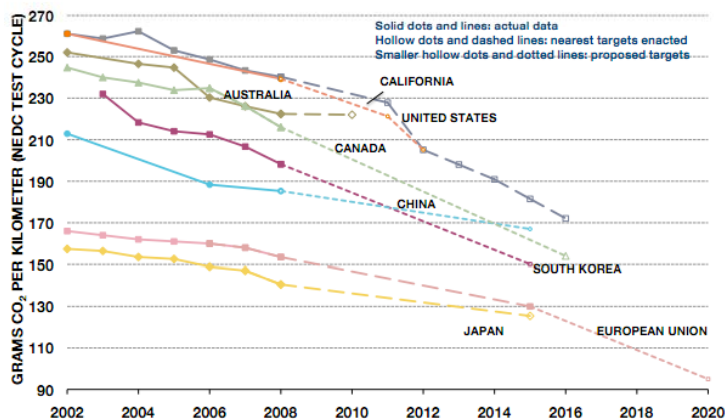


IMPROVE: Vehicle Efficiency



- Fuel economy standards
- Other policies to incentivize improvements in fuel economy:
 - Emissions regulations
 - GHG performance standards
 - Financial incentives (feebates, fuel taxes)
 - Early retirement incentives
 - Vehicle labels
- Technology innovations for private motorized vehicles: **E.g., Electric Vehicles**
- Improved fleet efficiency

Improving Vehicle Fuel Efficiency Standards



Source: ICCT, 2011 Updates

Policies and Programs to Promote Electric Vehicles



- US – Tax credits of up to \$7500 and R&D funding
- China – Pilot program launched in five cities to subsidize purchase of electric and hybrid vehicles
- Indonesia – Incentives for hybrid and electric vehicles
- Malaysia – Extended exemption of import duties for EVs
- Philippines – Held 1st Philippine EV Summit in 2010
- Thailand – Preferential tax rate for EVs
- Japan – Incentive up to \$14,000 per vehicle; and Fukuoka pilot project
- Canada – Tax credits in Quebec and Ontario provinces



The all-electric Nissan Leaf

Market Barriers for EVs:

- Upfront cost
- Range Anxiety
- Availability of charging infrastructure
- Technology uncertainty
- Sunk costs in existing supply chain
- Lack of public information

[PHOTO: The all-electric Nissan Leaf is available in some markets now and will be available globally in 2012]

THANK YOU!



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