

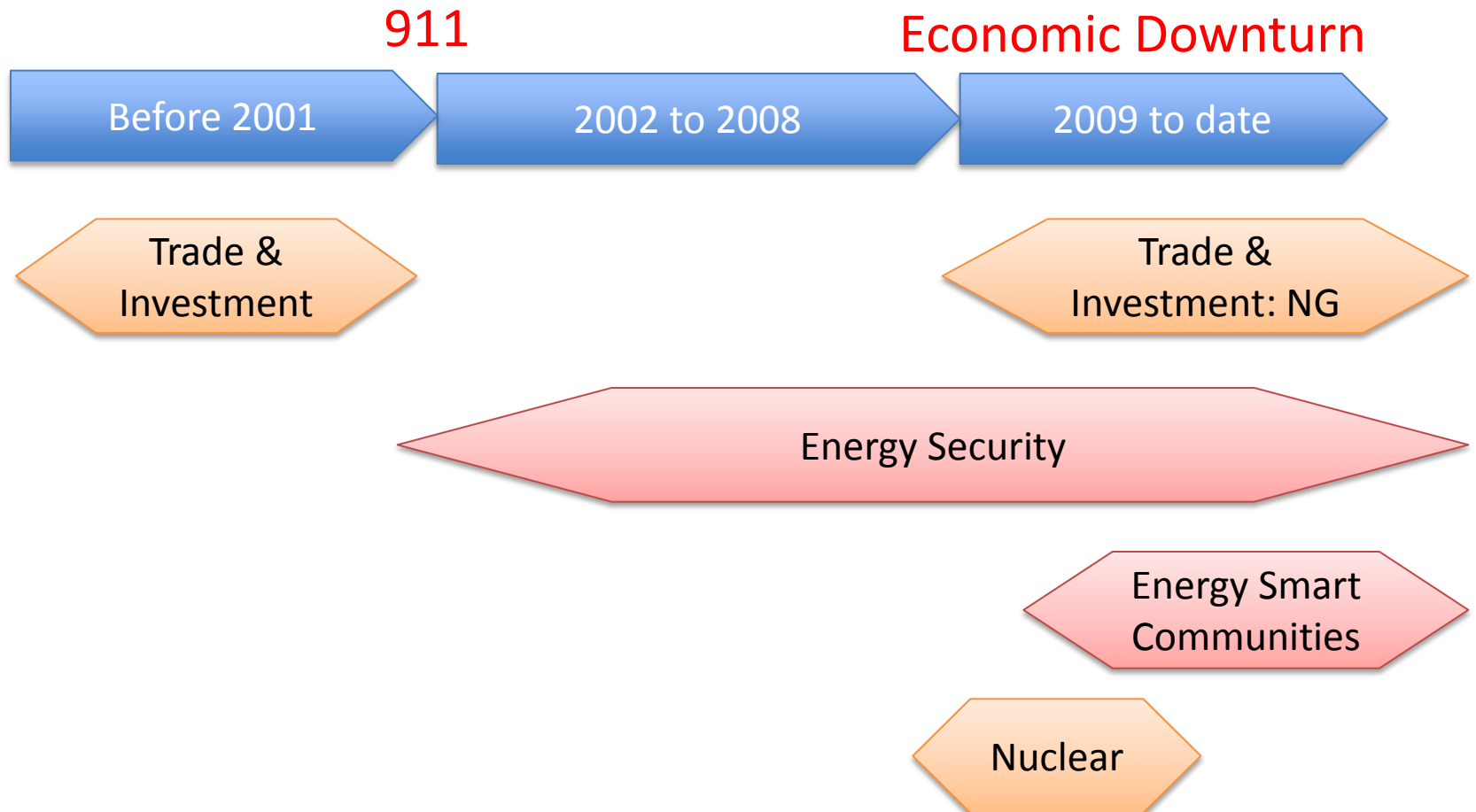
APEREC's Future Cooperative Activities

Jyuung-Shiauu Chern, PhD, CANTAB

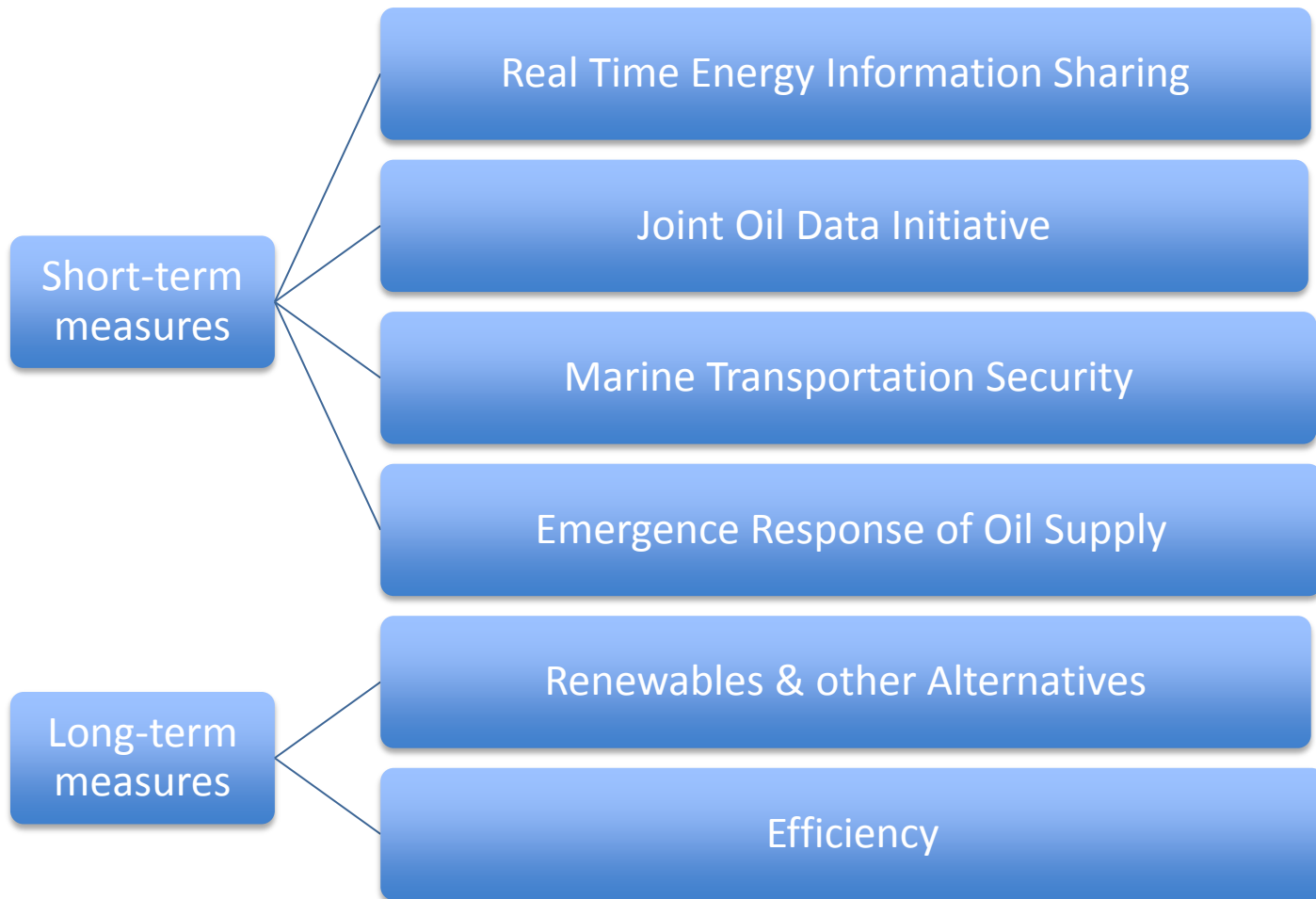
Bureau of Energy, Ministry of Economic Affairs
Chinese Taipei

1. EXTERNAL DIMENSIONS

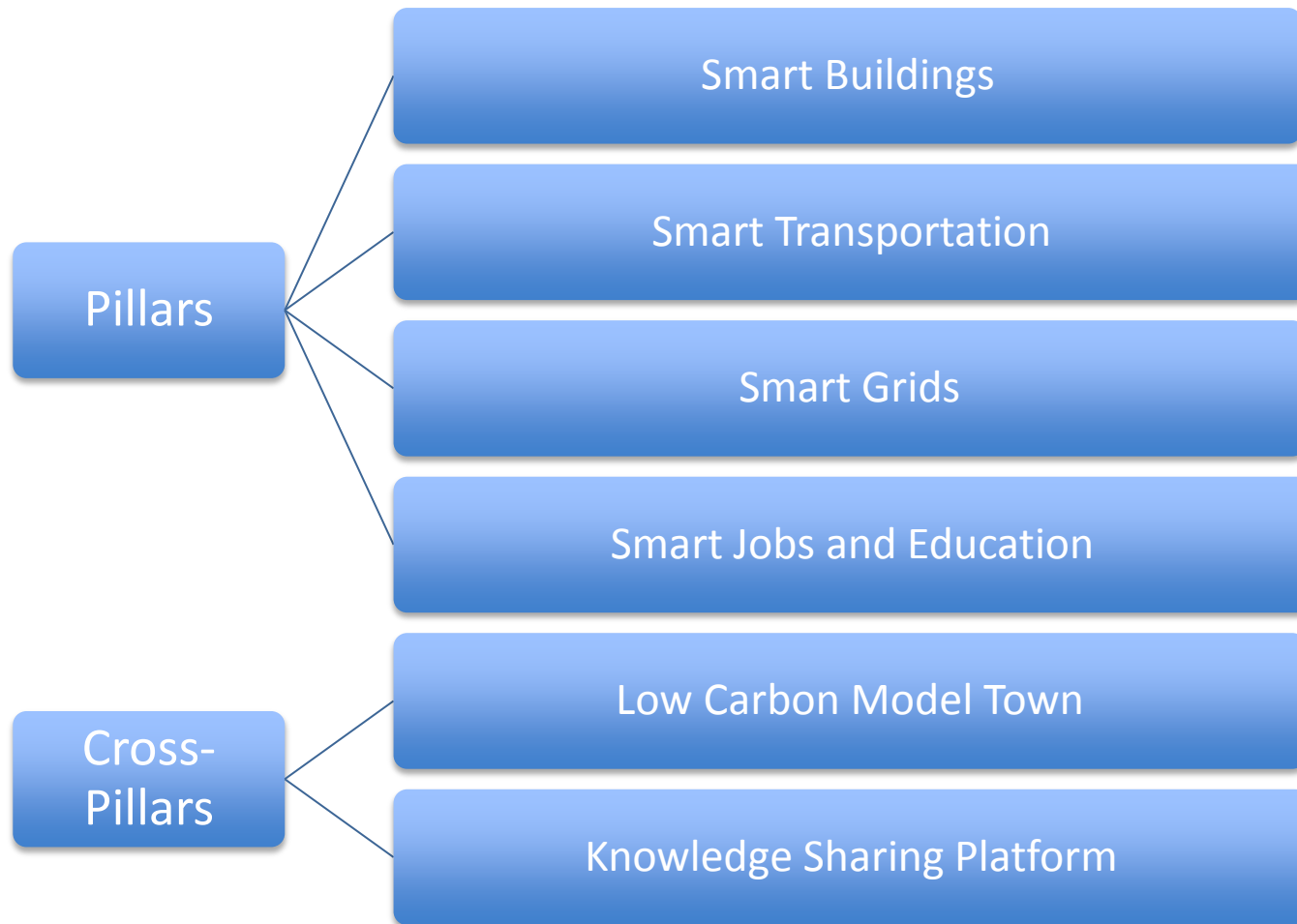
The Mega-Trend of APEC Energy Issues



APEC Energy Security Initiative



APEC Smart Communities Initiative



ADVANCED POWER GENERATIONS

- Cleaner coal technologies, incl. CCSU
- Integrated gasification combined cycle (IGCC)
- Distributed generations

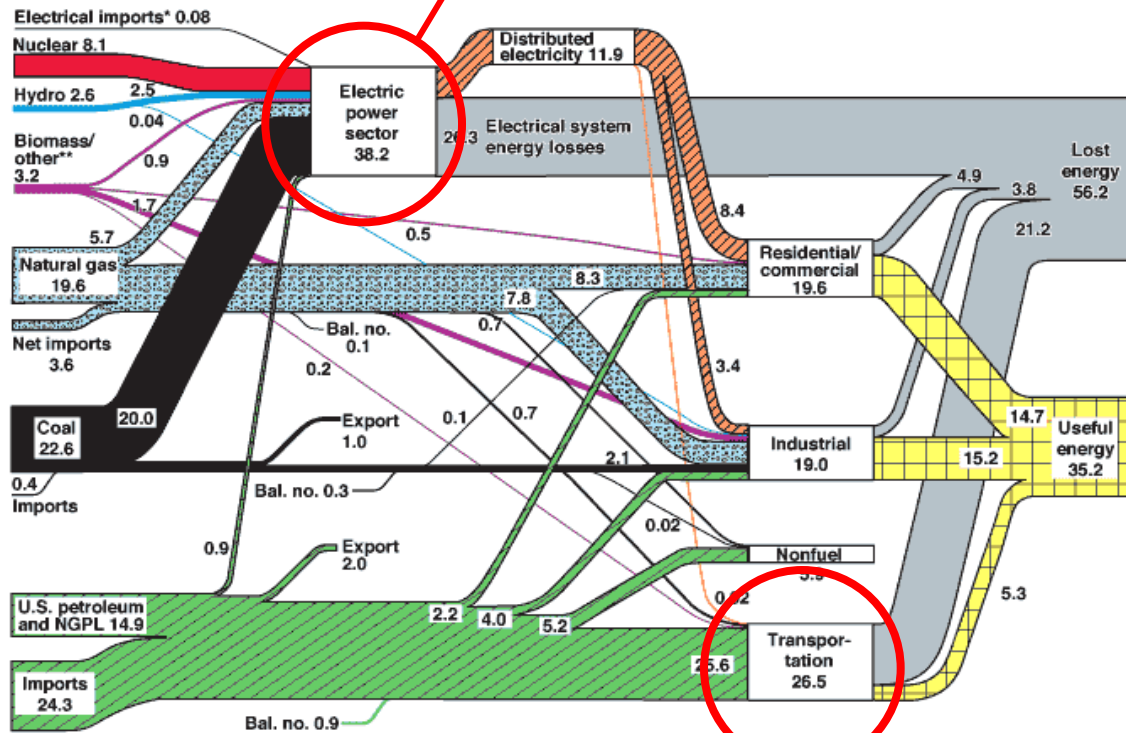
CLEANER ENERGY SUPPLY

- Natural gas
- Renewable energy
- Nuclear fuels

ALTER-NATIVE FUELS

- Bioethanol
- Biodiesel

U.S. Energy Flow Trends - 2002 Net Primary Resource Consumption ~97 Quads



Source: Production and end-use data from Energy Information Administration, *Annual Energy Review 2002*.
 *Net fossil-fuel electrical imports.
 **Biomass/other includes wood, waste, alcohol, geothermal, solar, and wind.

June 2004
 Lawrence Livermore
 National Laboratory
<http://eed.llnl.gov/flow>

END-USE EFFICIENCY & CONSERVATION

- Efficient Appliances
- Co-gen
- LED

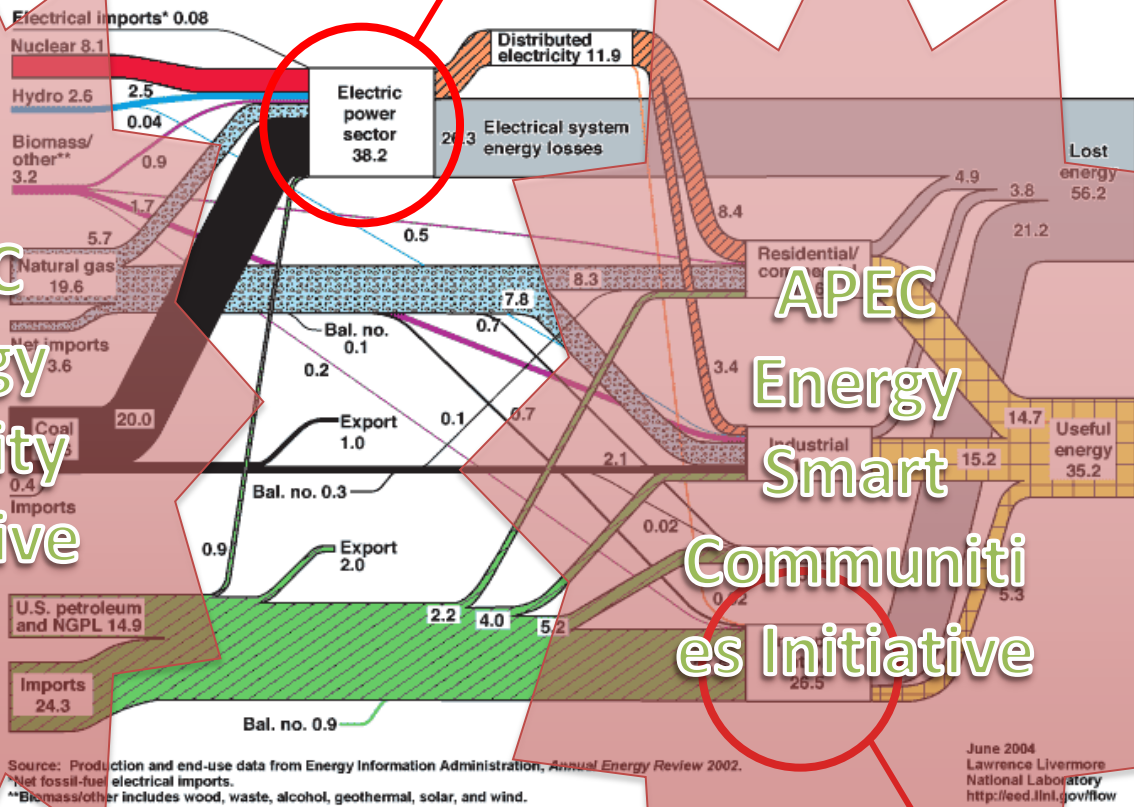
ENERGY EFFICIENT TRANSPORTATION

- Hybrid/electric/fuel cell/CNG vehicles
- Mass transit

ADVANCED POWER GENERATIONS

- Cleaner coal technologies, incl. CCSU
- Integrated gasification combined cycle (IGCC)
- Distributed generations

U.S. Energy Flow Trends - 2002
Net Primary Resource Consumption ~97 Quads



CLEANER ENERGY SUPPLY

- Natural gas
- Renewable energy
- Nuclear fuels

ALTERNATIVE FUELS

- Bioethanol
- Biodiesel

APEC Energy Security Initiative

APEC Energy Smart Communities Initiative

END-USE EFFICIENCY & CONSERVATION

- Efficient Appliances
- Co-gen
- LED

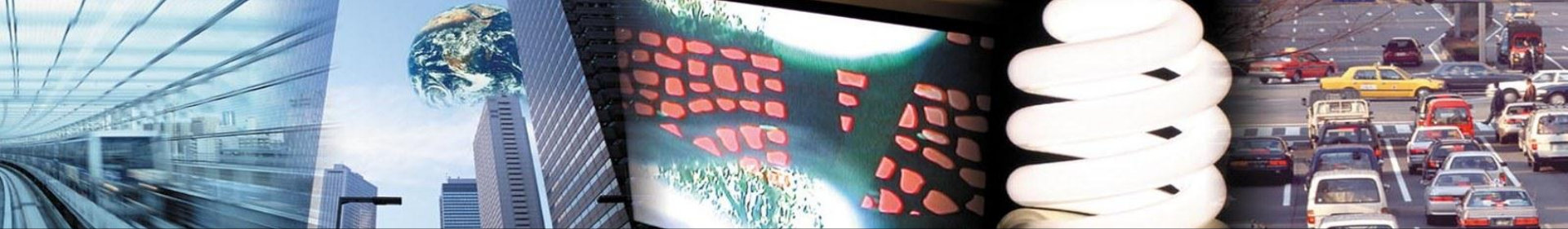
ENERGY EFFICIENT TRANSPORTATION

- Hybrid/electric/fuel cell/CNG vehicles
- Mass transit

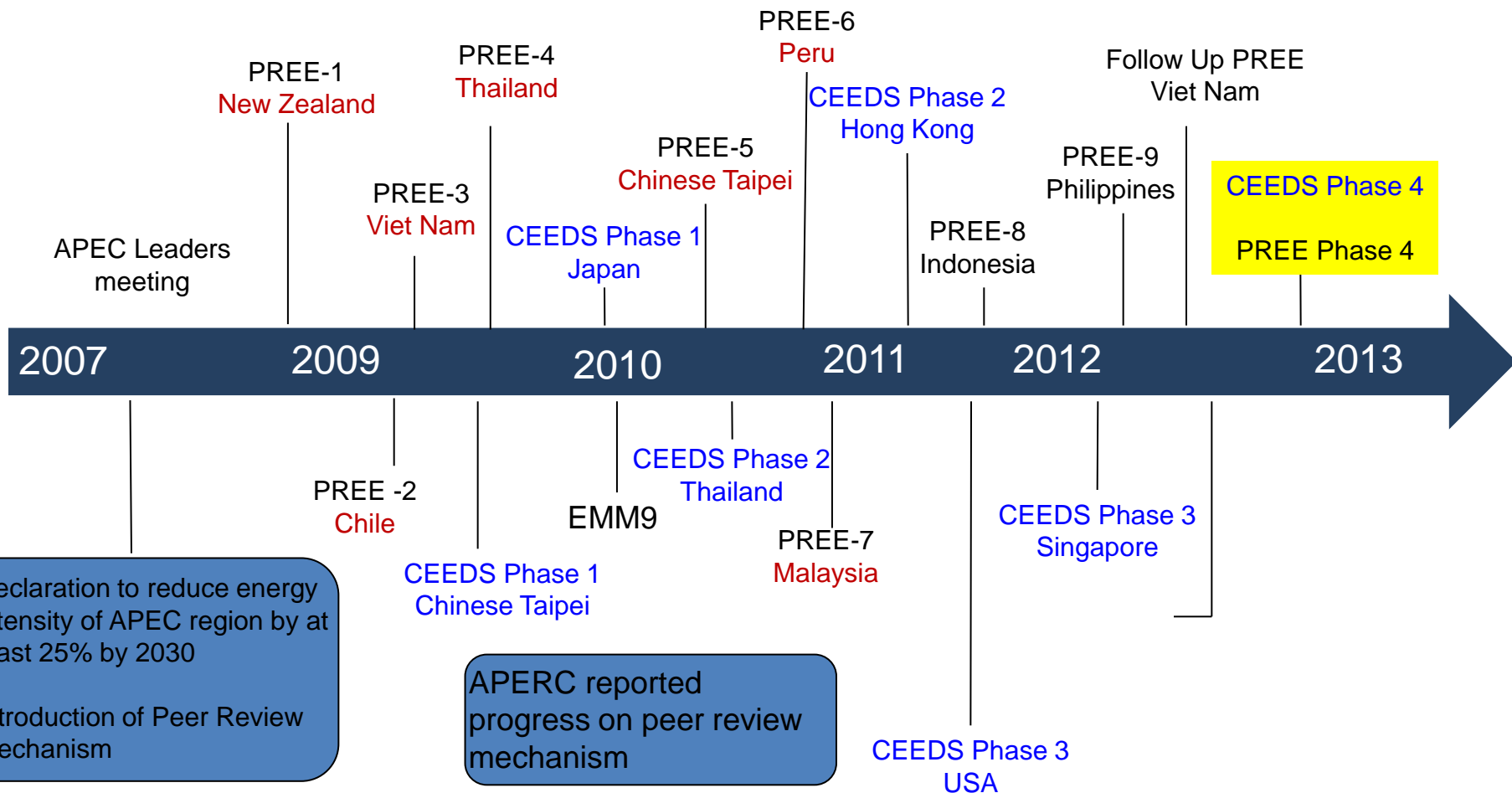
2. APERC'S COOPERATIVE ACTIVITIES

Current APERC Cooperative Activities

- Peer Review of Energy Efficiency, PREE
- Follow-up PREE
- Cooperative Energy Efficiency Design for Sustainability, CEEDS
- Peer Review of Low Carbon Energy, PRLCE
- Low Carbon Model Town, LCMT
- APEC Energy Review
- Compendium of Energy Efficiency Policies of APEC Economics
- LNG Producer-Consumer Conference
- Oil and Gas Security Exercises



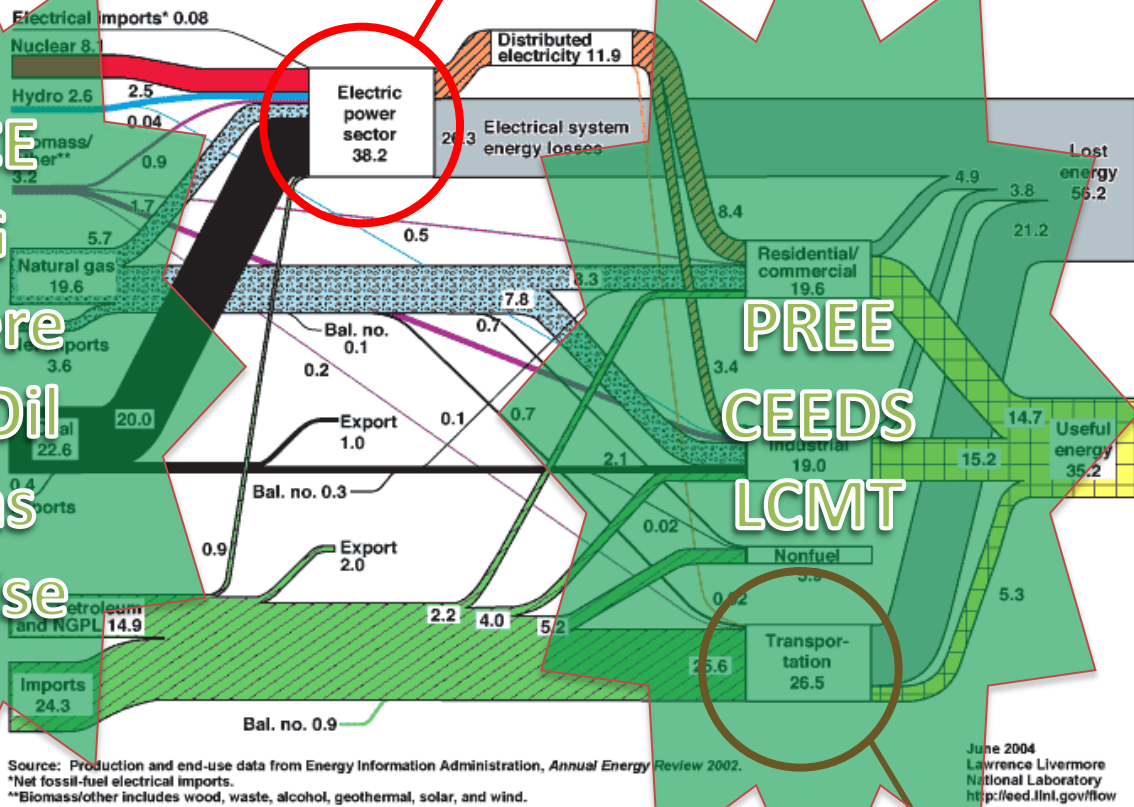
Progress in PREE & CEEDS



ADVANCED POWER GENERATIONS

- Cleaner coal technologies, incl. CCSU
- Integrated gasification combined cycle (IGCC)
- Distributed generations

U.S. Energy Flow Trends - 2002
Net Primary Resource Consumption ~97 Quads



CLEANER ENERGY SUPPLY

- Natural gas
- Renewable energy
- Nuclear fuels

ALTERNATIVE FUELS

- Bioethanol
- Biodiesel

PRICE
LNG
Conference, Oil & Gas
Exercise

PRECEEDS
LCMT

ENERGY EFFICIENT TRANSPORTATION

- Hybrid/electric/fuel cell/CNG vehicles
- Mass transit

END-USE EFFICIENCY & CONSERVATION

- Efficient Appliances
- Co-gen
- LED

Personal Observation

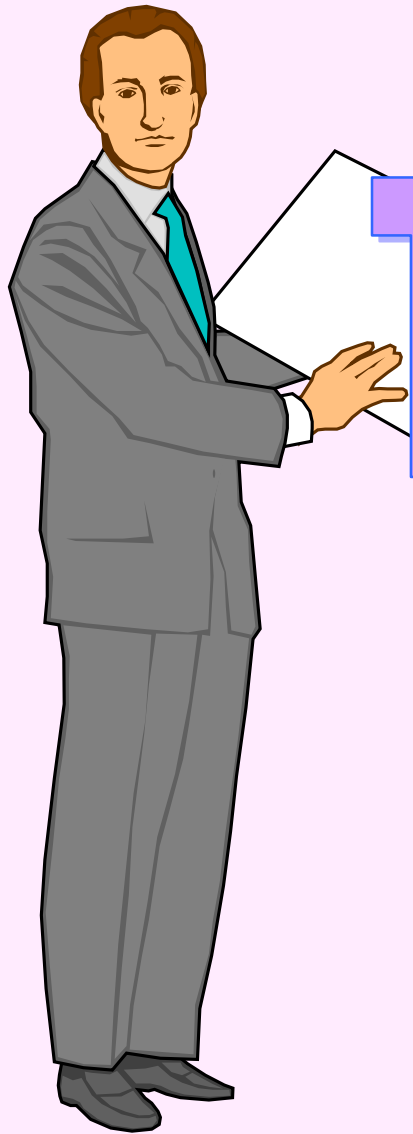
- Loss linkage to the mega-trend of EWG's work
 - APEC Energy Security Initiative: PRLCE, LNG Conference, Oil and Gas Exercises
 - Energy Smart Community Initiative: LCMT
 - Both: PREE, CEEDS
- Overlap concept but with different focusses
 - PREE, CEEDS (one issue), LCMT (one location)
 - Too many acronyms to comprehend
- Options on advanced power generation have been neglected
 - Block-building approach; Overall policy review is not adopted due to historical reason

3. SUGGESTION TO THE FUTURE ACTIVITIES

Personal Suggestion

- Interweave of related activities under a new theme to gain new momentum for old measures?
 - PREE, CEEDS, and LCMT
 - Trade and business opportunities to be enhanced?
- Should the aged APEC Energy Security Initiative be modernised?
 - Trade and security was missing
 - Natural gas and its security implication were ignored
 - To provide stronger legitimacy for LNG Conference and Oil & Gas Security Exercises

- Should PRLCE cover the traditional fossil fuels?
 - Cleaner and higher efficiency in power generation using fossil fuels are as important as renewable energy
 - However, this field is highly technology intensive
- Indispensable but requires greater visibility
 - APEC Energy Review
- Possibly to be adjourned?
 - Compendium of Energy Efficiency Policies of APEC Economics



Thank You

