

Public Private Partnerships and Transfer of Clean Technologies under the Asia-Pacific Partnership (APP)



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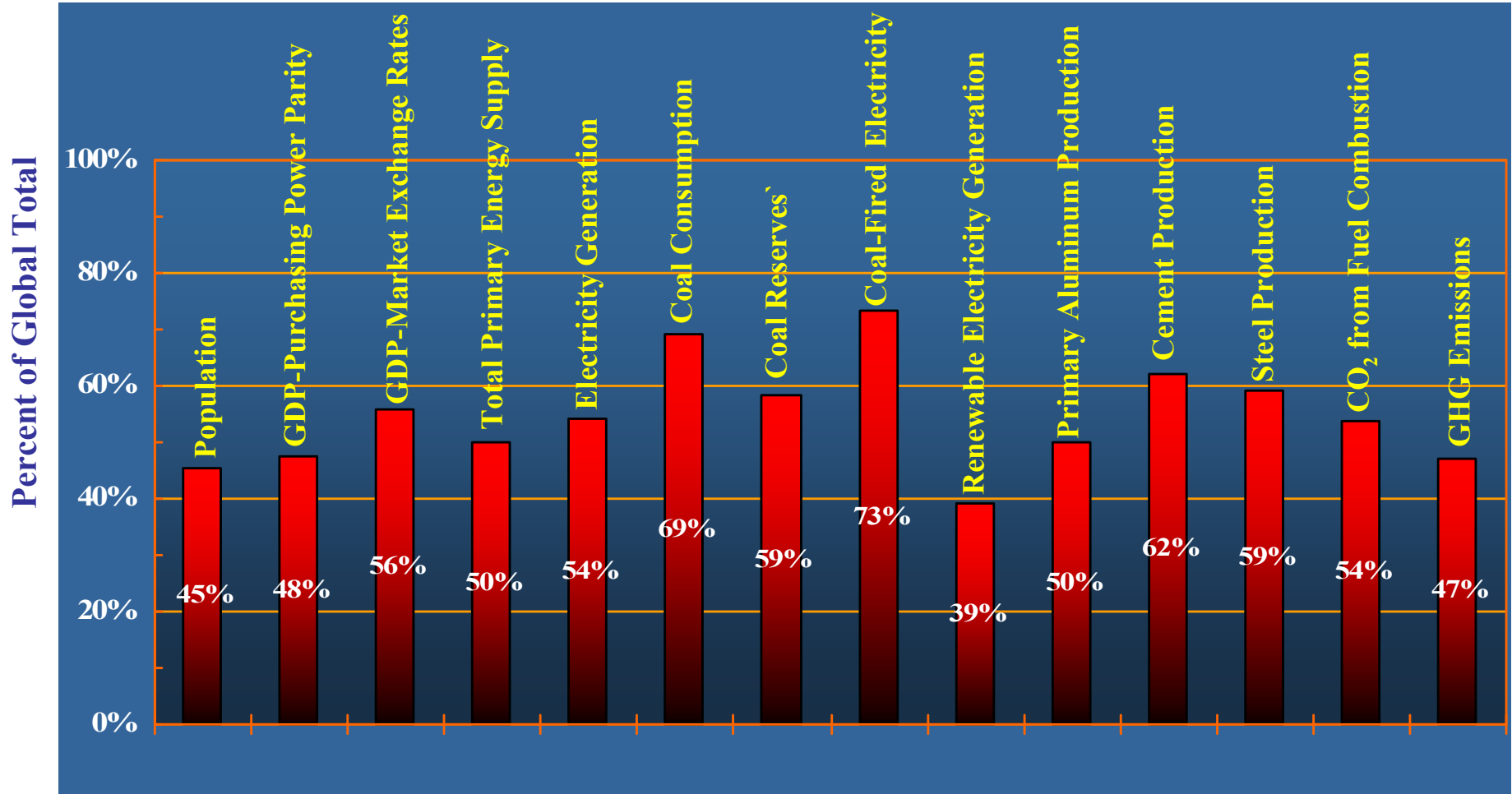


Overview

- **Public-private partnership involving Australia, Canada, China, India, Japan, Republic of Korea, and USA.**
- **Builds on the foundation of existing bilateral and multilateral initiatives, and is consistent with and contributes to Partners' efforts under the U.N. Framework Convention on Climate Change; complements but does not replace the Kyoto Protocol.**
- **Focus on:**
 - **Voluntary practical measures in key sectors** to create new investment opportunities, build local capacity, and remove barriers to the introduction of clean, more efficient technologies.
 - Helping each country meet **nationally-designed strategies** for improving energy security, economic growth, and addressing the long-term challenge of climate change.
 - Promoting the development and deployment of existing and emerging cleaner, more efficient technologies and practices that will **achieve practical results.**
 - **Seeking opportunities to engage the private sector.**



APP Significance: 2005



Sources: World Bank, International Energy Agency, Energy Information Administration, U.S. Geological Survey, and International Iron and Steel Institute



APP Charter Emphasizes Technology Transfer

2. Purposes

- 2.1.1 Create a voluntary, non-legally binding framework for international cooperation to facilitate the development, diffusion, deployment, and transfer of existing, emerging and longer term cost-effective, cleaner, more efficient technologies and practices among the Partners through concrete and substantial cooperation . . . to achieve practical results;
- 2.1.2 Promote and create enabling environments. . .

3. Functions

- 3.1.1 Exchange information on Partners' respective policy approaches relevant to addressing interlinked development, energy, environment, and climate change issues within the context of clean development . . .
- 3.1.2 Share experiences and exchange information about developing and implementing national clean development strategies and efforts to reduce greenhouse gas intensities;
- 3.1.3 Identify, assess, and address barriers to the promotion and creation of an enabling environment for development, diffusion, deployment, and transfer of existing, emerging and longer term cost-effective, cleaner, more efficient, and transformational technologies and practices. . .

3. Functions (Continued)

- 3.1.4 Identify and implement bilateral and multilateral cooperative activities among Partners for the development, deployment, diffusion, and transfer of existing, emerging and longer term cost-effective, cleaner, more
- 3.1.5 Facilitate collaboration among existing bilateral and multilateral initiatives and promote information-sharing on climate-related technologies of respective Partners;
- 3.1.6 Incorporate human and institutional capacity-building elements, as appropriate, into activities as a means to strengthen cooperative efforts;
- 3.1.7 Engage the private sector as an integral part of the cooperative activities of the Partnership, as well as development banks, research institutions, and other relevant governmental, intergovernmental, and non-governmental organizations, as appropriate;

5. Funding

- 5.1 Participation in the Partnership is on a voluntary basis. Each Partner may, at its discretion, contribute funds, personnel, and other resources to the Partnership.

6. Intellectual Property

- 6.1 All matters related to intellectual property and the treatment thereof arising from cooperative activities of the Partnership are to be addressed on a case-by-case basis within the specific context in which they appear, bearing in mind the purposes of the Partnership.



Organization: Key Sectors

Policy and Implementation Committee (PIC)
(USA, Chair)

Administrative Support Group
(USA)

Task Forces are staffed by representatives of both the public and private sectors of each Partner, representing broader national and sectoral interests.

Aluminum Task Force

Australia
(Chair)
USA
(Co-Chair)

Buildings And Appliances Task Force

Korea
(Chair)
USA
(Co-Chair)

Cement Task Force

Japan
(Chair)
Canada
(Co-Chair)

Cleaner Fossil Energy Task Force

Australia
(Chair)
China
(Co-Chair)

Coal Mining Task Force

USA
(Chair)
India
(Co-Chair)

Power Generation And Transmission Task Force

USA
(Chair)
China
(Co-Chair)

Renewable Energy and Distributed Generation Task Force

Korea
(Chair)
Australia
(Co-Chair)

Steel Task Force

Japan
(Chair)
India
(Co-Chair)

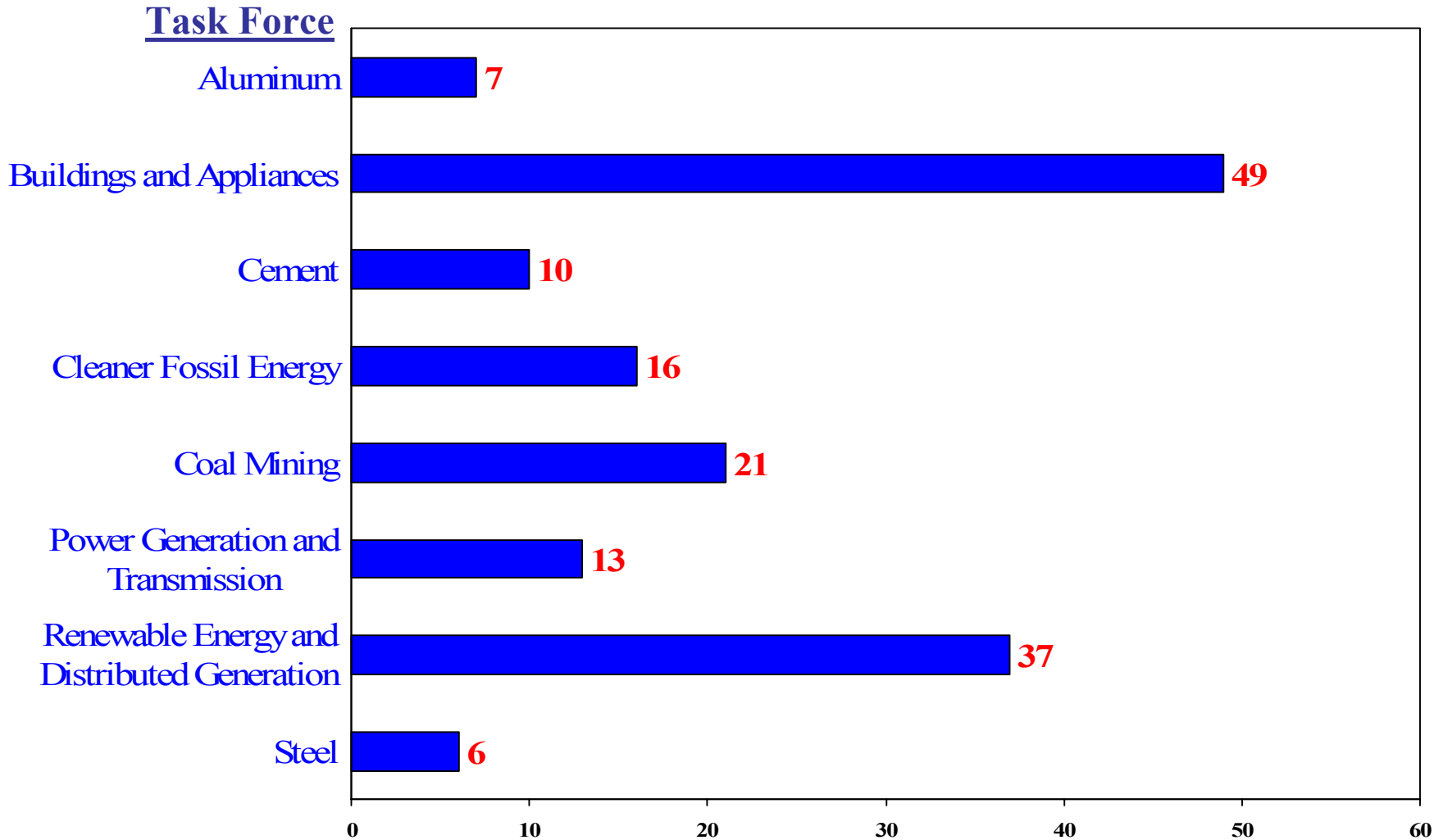


APP Private Sector Engagement

- **More than 200 businesses, and a dozen major industry associations participate in APP activities.**
- **U.S. Private-Sector Participants include:**
 - Aleris International, Inc.
 - The Aluminum Association
 - AmerCable, Inc.
 - American Electric Power
 - American Iron and Steel Institute
 - American Petroleum Institute
 - Association of Home Appliance Manufacturers
 - CEMEX
 - Edison Electric Institute
 - General Electric
 - Holcim (US) Inc.
 - National Association of Energy Service Companies
 - National Mining Association
 - North American Insulation Manufacturers Association
 - Nucor Corp.
 - Orb Energy
 - Peabody Energy Corporation
 - Portland Cement Association
 - Secat, Inc.
 - Solar Turbines, Inc.
 - U.S. Energy Association
 - U.S. Steel



159 APP PIC-Endorsed Projects by Task Force





Green Buildings Flagships in China



Olympic Village Near-Zero Energy Building

- U.S. Department of Energy worked with Olympic Village Developer to construct near-zero energy Welcome Center (to be converted into a Kindergarten after the Olympics).
- As close to zero-energy as possible, generating the bulk of its power from renewable sources. The project also demonstrates:
 - Water conservation and reuse
 - On-site waste processing
 - Green building materials and technology
 - Passive and active energy efficient technologies
 - Day lighting
- 42 additional buildings were constructed that are 50% more energy efficient than similar buildings in Beijing
- U.S. Green Building Council awarded the the entire Beijing Olympic Village (of which this building is part) the Leadership in Energy and Environmental Design (LEED) Gold award.



China: Combined Heat & Power Project

- Solar Turbines installed a 15 MWe gas turbine at Shandong Jinneng Coal Gasification Co., Ltd. to create electricity from burning coke oven gas at an operation in Shandong province.
- Plant operates at 68 percent efficiency and uses about 26 percent less fuel than equivalent separate heat and power.
- U.S. EPA estimates that the CHP system reduces CO₂ emissions by 40,000 tons per year, the equivalent of removing annual emissions from approximately 6,600 automobiles.
- Shandong Jinneng Coal Gasification Co. received the first U.S. EPA International CHP award ever given to a foreign business.



Accelerating Clean Energy Markets in India

- World Resources Institute (WRI) is accelerating the growth of clean energy markets in India through its Local Investment Capacity Building strategy, involving three complementary elements:
 - Engaging current and potential investors in the clean energy space;
 - Identifying promising clean energy enterprises to showcase to investors; and
 - Providing analytic support for innovative financing mechanisms that would increase the ability of investors to transfer capital to the clean energy sector.
- Leveraging an expected US\$125 million in committed investment in renewable and energy-efficient products and services.
- WRI will seek to encourage investment into at least twenty SMEs in the clean/renewable energy sector, deploy 130MW of renewable power, and eliminate over 2.1 million metric tons of CO₂.



Accelerating Clean Energy Markets in India

- Solar experts are working with Morse Associates, Inc. to facilitate the development of a first, large-scale (1 MW), solar photovoltaic power plant for the Tata Power Company, Ltd. through:
 - Conducting a systematic assessment of solar generating opportunities in Tata's service areas;
 - Finding suitable sites for solar generation;
 - Working with the solar industry on plant design; and
 - Assisting Tata in negotiations to obtain financing..





APP Financing/ Intellectual Property

- Announced funding commitments of approximately \$200 million from various Partners.
- U.S. participates in 113 projects and has provided about \$65 million since APP initiation.
- U.S. funds have resulted in committed cost-share funds of \$44 million for selected projects and is expected to leverage more than \$480 million in addition downstream funding through ancillary funding and financing from commercial banks.
- No intellectual property issues..