

Cogeneration Top Priority in Thailand's Energy Efficiency Efforts

US-AEP and the Alliance to Save Energy assisted in the establishment of the Energy Efficiency Development Association (EEDA), a non-profit association of energy efficiency technology and service providers in Thailand. EEDA's goal, to reduce energy consumption, will be supported by expanding markets for energy efficient products and services in Thailand and by working with the Government of Thailand to improve energy efficiency policies and their implementation.



EEDA's objectives are to increase awareness of the contribution of energy efficiency to economic development and job creation, to provide forums for energy efficiency and conservation businesses to market their products and services to energy consumers, and to enable energy efficiency companies to assume a greater role in the development of energy efficiency policies and programs in Thailand.

Among EEDA's top priorities for Thailand is increased adoption of cogeneration, a process that converts fuel into both thermal and electrical energy. The Energy Subcommittee of the Science and Technology Committee of the Thai Parliament appointed EEDA as the only official private sector group to provide technical support and guidance on cogeneration development and promotion. EEDA was also instrumental in enabling cogeneration projects to be recognized as eligible to receive financing from the Thai Revolving Loan Fund for Energy Conservation, which was officially launched in January 2003. In addition, EEDA members are finalizing a policy position paper on the need for cogeneration in Thailand, which they will present to policymakers in the Spring of 2003.

EEDA members credit their recent successes to a US-AEP sponsored study tour in Washington, D.C., where they were exposed to the U.S. experience in energy efficiency, such as the implementation and administration of energy efficiency funds; the development of federally-sponsored energy efficiency initiatives, like the Energy Star and Federal Energy Management Programs; and the critical role of NGOs in the promotion of national energy efficiency policies.

US-AEP Partners Recommend Strategy for Unleaded Gasoline

In Indonesia, US-AEP has worked closely with the USEPA, the Ministry of Environment, the Committee for Unleaded Gasoline (KPBB), Swisscontact, the Partnership for Clean Air, and other key stakeholders to make recommendations for long-term and interim options for supplying unleaded gasoline (ULG).

Switching to unleaded gasoline nationwide is an important prerequisite for many air quality improvements. It is the most effective way to reduce the health impacts of lead emissions, particularly lead poisoning in children. ULG is required for catalytic converters, which can reduce gasoline vehicle emissions by up to 90%. The automotive industry has already prepared for manufacturing and import with catalytic converters according to ASEAN standards, so the delays in the ULG supply are costly.

The long-term recommendation, adopted by the Government of Indonesia, is to upgrade Indonesia's refinery infrastructure to produce sufficient quantities of a leaded gasoline additive, high octane mogas component (HOMC). Since July 2001, the Balongan refinery has supplied the Jakarta area with ULG

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Helping Kolkata Switch Old Vehicles to Liquefied Petroleum Gas

"Our priorities are driven by local demand and air pollution is one of the priorities of the central and state governments," Ms. Kristen Easter, Country Program Manager, US-AEP India

In December 2002, US-AEP and the U.S. Department of Energy (DOE) arranged for a group of eight delegates from Emobility International LPG to travel to Kolkata and other Indian cities to meet with federal and state governmental officials from the oil and automobile sector. The meetings were held to discuss the government of Kolkata's recent decision to switch its old motor vehicles to Liquefied Petroleum Gas (LPG). The delegation also explored technology transfer options for automobile LPG kits and dispensers for petrol pumps.

Many cities, like Delhi, are switching to Compressed Natural Gas (CNG) as a less polluting alternative fuel. However, Kolkata can not produce CNG locally and the cost for piping

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using imported HOMC. In March 2003, PERTAMINA, the government-owned oil company, obtained a \$200 million syndicated loan to finance the project. The new processing units are expected to be operational in 2006, but foreseeable delays could push actual supply back to 2007 or 2008.

During the 2003 to 2007 interim period, the recommended strategy, which has been presented in numerous workshops and meetings, is to replace the imported lead additive with a lead-free additive. There remains, however, an unwillingness to stop procuring lead additive. The Ministries of Environment, Energy and Mineral Resources, and the private sector are in dialogue regarding additive selection. Once an additive is selected, the Ministry of Environment will conduct a risk assessment. Approval is also required from the Ministry of Finance. PERTAMINA has begun testing several possible alternatives.

The interim strategy is less costly to the economy than continuing to use leaded gasoline until 2007. Because the costs of delaying ULG far outweigh the marginal cost of switching to a lead-free additive for a 4-year period, the interim strategy is a cost-effective solution that will protect human health and the environment.

Sri Lanka's Industrial Service Bureau Benefits from US-AEP Partnerships

"...We have just begun a long journey, right along and at the end of it, I am sure, we would be able to be happy for what we are trying to achieve." Mr. Gamini Senanayake, Director, Industrial Service Bureau

Last year, US-AEP facilitated the participation of the Director of Sri Lanka's Industrial Service Bureau (ISB) in the Arizona – Sri Lanka State Environmental Initiative, the Air and Waste Management Association's Exposition in Maryland, and the Water Environment Federation's Exposition in Illinois. Partnerships formed from these activities enabled ISB to identify products to improve wastewater management and promote cleaner and more efficient power generation in Sri Lanka.

ISB is working with three Arizona companies to study the feasibility of wind power use in telecommunication, eco-tourism, and rural electrification and to find ways to improve water quality in lakes and shrimp ponds and coconut wastewater. In addition, with USAID's Global Development Alliance Program, a "Fleet Characterization" study is measuring emissions from over 100,000 vehicles of different types and makes. The results will help inform the Government's decisions about a vehicle inspection and certification program proposed for next year.

In addition ISB has started an awareness program on environmentally friendly U.S. oil separation technologies targeted to owners of restaurants, hotels and vehicle service stations. Based on the feedback, ISB is working with US-AEP to establish a demonstration project on oil separation for hotel kitchens and car wash facilities.

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the gas in is prohibitively high. As a result, the city will rely on LPG for reducing pollution and meeting specific air quality and vehicular pollution prevention standards.

A variant of propane, LPG is the most popular alternative fuel in the world. LPG vehicles emit approximately one third fewer reactive organic gases, twenty percent less nitrogen oxide, and sixty percent less carbon monoxide than gasoline-fueled vehicles. In addition, LPG is an odorless, non-poisonous gas that has the lowest flammability range of all alternative fuels.



Gasoline-fueled vehicles are relatively easily retrofitted with inexpensive LPG kits. The kits include a regulator/vaporizer that changes liquid propane to a gaseous form and an air/fuel mixer which gauges and combines the fuel with filtered intake air before the mixture is drawn into an engine's combustion chamber.

Most commercial vehicles in Kolkata run on diesel fuel and are more difficult to convert to LPG. US-AEP and the DOE are working with the city of Kolkata to encourage original equipment manufacturers to provide the option for LPG conversion in their new vehicles. Kolkata has set a target of opening seventy LPG stations within the city by the end of 2003 and vehicle manufacturers are ready to roll out LPG vehicles per market demand.

CALENDAR OF EVENTS

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| April | 1-2 | CERES 2003 Conference: Advancing Sustainable Governance , New York City, NY; USA |
| | 5-6 | South Asia Mayor's Conference , Indore, India |
| | 6-21 | Oil Spill Contingency Planning Study Tour , Washington, DC; Seattle, WA; USA |
| | 20-26 | Socialization of Solid Waste Management , Study Tour from Vietnam to Honk Kong and Taiwan |

For a complete listing of upcoming events, please visit:
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