

Promoting Energy Efficiency - An Option for Development of Low Carbon Society in Vietnam

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PRESENTATION SUMMARY

Located in the South East region of Asia and with a total land area of 331,690 km², Vietnam is a country endowed with rich fossil fuels (coal, oil, natural gas) as well as non-commercial resources in the form of solar, biomass, wind, and geothermal. During 2004-2008, Vietnam has enjoyed an average impressive GDP growth rate of 8.4% per annum. However, with the use of low energy efficiency equipment in almost economic sectors of the country, the annual growth rate of energy demand has been in the order of 11.5% - 14.0%.

Already signed and rectified the Kyoto Protocol in December 1998 and September 2002, respectively, the Government of Vietnam has so far formulated a framework for energy efficiency that commenced with the approval and implementation of the Electric Law in 2005. In 2006, the Prime Minister of Vietnam endorsed the Vietnam National Energy Efficiency Program (VNEEP) that targets to reduce 3% to 5% and 5 % to 8 % of the national energy consumption for 2006-2010 and 2011-2015, respectively in comparison with the business as usual (BAU) scenarios for these two periods. Within the program, a number of activities were identified of which development and dissemination of high energy efficiency (EE) devices and equipment as well as formulation of sustainable energy management (EM) action plans for the industrial, building and transport sectors are recognized particularly important.

During the first 5 years of the VNEEP implementation, 17 Vietnamese standards for energy efficiency and standardized testing procedures for CFL, electronic ballast, electric fans, electric water heater, ACs, Refrigerators, 3-phase asynchronous motors were developed. Energy efficiency labeling of Fluorescents T5 & T8 and ferromagnetic ballasts were also completed. It is expected that energy efficiency labeling of air conditioners and refrigerators commences from 2011. In parallel, two programs of promoting the use of energy saving lighting appliances and solar water heaters (SWH) were successfully implemented that helped save about 5.2 billion kWh during this period. In order to promote EE measures in the industrial and building sectors, development of pilot training curriculums and materials on EM, energy audit (EA) and EE were carried out by firstly Hanoi University of Science and

Technology (HUST), and then Electric Power University (EPU) and Energy Conservation Center in Ho Chi Minh City (EEC-HCMC). It is expected that with the technical support by Japanese International Cooperation Agency (JICA) and Danish International Development Agency (DANIDA), a standardized training curriculum on EM and EA will be available by May 2011.

Being one of the key implementing institutions for the VNEEP, during 2006-2010, HUST has conducted a variety of research, development and promotion of some energy efficiency and yet environmentally friendly equipment such as Fluidized Bed and Circulating Fluidized Bed (FB&CFB) boilers, SWH, heat pumps and inverter - typed air conditioners. For the capacity building on EM and EA in Vietnam, HUST has also implemented 8 pilots training courses for energy key consuming (EKC) entities from Vietnam Electricity (EVN), Vietnam National Chemical Group (VINACHEM), Vietnam Steel Corporation (VNSTEEL) and Vietnam Paper Corporation (VINAPACO). The results obtained from implementing such activities were highly appreciated by all the above mentioned beneficiaries and the VNEEP Steering Committee as well.

Within the framework of the VNEEP, 150 projects and tasks were conducted during 2006-2010 with a total budget of 169.1 billion VND. As a result, an amount of approximate 5 mTOE was saved that was equivalent to 3.4% of the total national energy consumption for the entire period. Through the implementation of these projects and tasks, major EE measures and equipment were clearly identified that would potentially applicable in Vietnam in the coming years in order to reach the targets of the VNEEP.