

Action plans for EMM5, September 2011

	Industry	Transport	Commercial & Residential	Power	Education & Awareness
Australia	<p>2010</p> <ul style="list-style-type: none"> /Consulted with stakeholders on the potential for the expansion of the Minimum Energy Performance Standards (MEPS) program to include industrial equipment such as industrial fans and pumps. /Commenced work on increasing the stringency and coverage of MEPS for motors /Voluntary labelling scheme for swimming pool pumps was introduced. <p>2011</p> <ul style="list-style-type: none"> /Expansion of the Energy Efficiency Opportunities (EEO) program, established in July 2006, to cover electricity generators. By the end of 2010, 207 companies participating in the EEO program have reported the identification of over 100 petajoules of potential cost effective savings, and had committed to implementing over 60 per cent of those opportunities. 	<p>2011</p> <ul style="list-style-type: none"> /Introduce fuel consumption and CO2 emissions data into vehicle advertisements on a voluntary basis through an industry code of practice in 2012. /Introduction of mandatory CO2 emissions standards for new light vehicles in 2015. 	<p>2006</p> <ul style="list-style-type: none"> /Australian Government requires that when it leases or refurbishes buildings that a Green Lease schedule be included that requires owner and tenant to operate the building efficiently <p>2009</p> <ul style="list-style-type: none"> /Import and sales restrictions placed on general lighting service bulb as first stage of phase out of inefficient incandescent lighting /MEPS for Compact Fluorescent Lamps came into effect <p>2010</p> <ul style="list-style-type: none"> /Commenced implementation of phase out of inefficient and greenhouse intensive hot water systems in existing detached, row and terrace houses; training of existing qualified plumbers in the installation of solar and heat pump technologies commenced <p>2011</p> <ul style="list-style-type: none"> /Accelerate current Minimum Energy Performance Standards (MEPS) and labelling program to start development to cover new equipment types, including home entertainment; computers; monitors; Demand Response Enabling Devices (DREDS) /Implementation of phase out of inefficient and greenhouse intensive hot water systems in new detached, row and terrace houses /Develop strategic plan to increase the energy efficiency of street lighting /Building Energy Efficiency Certificates are required for sellers or lessors of office s /Implementation of phase out of inefficient and greenhouse intensive hot water syst 	<p>2010</p> <ul style="list-style-type: none"> /Eco driving trials under way <p>2011</p> <ul style="list-style-type: none"> /Implementation of actions from national long term training strategy for energy efficiency assessment skills /Launch of website to disseminate energy efficiency information and resources to large industrial users of energy in 2012. 	
Brunei	<p>2010</p> <ul style="list-style-type: none"> /promote energy management /published energy management guide /promote energy audit /promote EE equipment 	<p>2010</p> <ul style="list-style-type: none"> /promote energy saving driving skills 	<p>2010</p> <ul style="list-style-type: none"> /promote energy management /promote energy audit /EE 5-star labelling; voluntary basis /regulate operating hours for AC in gov. buildings /promote more EE lighting and other appliances /improve efficiency of street lighting 	<p>2010</p> <ul style="list-style-type: none"> /improve power generation efficiency via combine cycle mode or cogeneration for new power plant <p>2011</p> <ul style="list-style-type: none"> /enhance supply side management to increase efficiency and reduce use of energy; combined cycle, co-generation → efficiency more than 45% 	<p>2010</p> <ul style="list-style-type: none"> /introduce energy manager course to the higher education system /establish "Energy Club" in secondary schools /hold continuous awareness campaigns /declared 24th May as Energy Day to inculcate EE&C culture /published energy saving tips (English & Malay) /National EEC Initiative Award Competition
Cambodia	<p>2010</p> <ul style="list-style-type: none"> /introduce energy efficiency & saving tech. and equipments to designated factories /introduce energy management system to designated factories /development of energy database for designated factories /tech. assistance in energy auditing /program for energy saving plan by medium-large factories <p>2011</p> <ul style="list-style-type: none"> /lighting; improve design, new technology, control, skylights+light wells/shelves /boilers; design, insulation duct, steam trap, heat recovery /refrigeration; setting, controls, duct layout+zoning, new technology. /Compressed air; leak stop program, nozzles, sizing, control /Electric motors; replace with EE motors, variable speed drives, control 	<p>2010</p> <ul style="list-style-type: none"> /develop & promote public transport systems; railways, waterways /study on eco-car project to enhance fuel consumption for automobile /implement alternative fuels foot transport; biofuels, ethanol /improve transport and communication system <p>2011</p> <ul style="list-style-type: none"> /vehicle efficiency; maintenance, testing, regulations, new technology /fuel substitution; biofuels, encourage natural gas, EV+hybrid vehicles /transport system efficiency; public transport systems, trains, non-motorized transport, plan towns/buildings/events 	<p>2010</p> <ul style="list-style-type: none"> /establish standard and labelling for appliances /promote high energy efficiency lighting and cooking stoves /establish building code for new and existing buildings /promote use of indigenous & alternative fuels; solar, wind, biomass.biofuels <p>2011</p> <ul style="list-style-type: none"> -Residential /building design; orientation, natural lighting & ventilation, insulation /cooking; gas utilisation, efficient wood/coal stove /lighting; CFL, task lighting rather than whole space /space cooling; ceiling fans, sealable living & bedrooms /appliances; EE labelling, refrigerator setting and maintenance /street lighting; EE bulbs, timers & sensors -Commercial Buildings /design; orientation, insulation, natural lighting & ventilation, double glazed windows /lighting; design, new tech., automatic control, zoning, /water heating; solar and gas, heat pumps, insulation, heat recovery, setting /AC; setting, controls, duct layout+zoning, new technology. 	<p>2010</p> <ul style="list-style-type: none"> /promote energy efficiency awareness for public /capacity building and training courses for designated factories & buildings on EE&C /introduce Energy Service Company (ESCO) business 	
China	<p>2009</p> <ul style="list-style-type: none"> /adjustment of industry structure 		<p>2009</p> <ul style="list-style-type: none"> /energy efficiency improvement 		<p>2009</p> <ul style="list-style-type: none"> /promote social awareness on 'green consumption'
India	Not submitted				
Indonesia	<p>2009</p> <ul style="list-style-type: none"> /mandatory energy audit and energy manager /energy management system /subsector specific benchmark; 2.17t-CO2/t-cement (2025BAU) => 1.09 11.58t-CO2/t-steel (2025BAU) => 9.56 	<p>2009</p> <ul style="list-style-type: none"> /introduce EE vehicles /encourage public transportation /promote the utilization of gas and biofuel for public transportation /encourage eco-driving /promote bike to work 	<p>2009</p> <ul style="list-style-type: none"> Household /conduct public advertisement of EE&C /promote energy saving lamp, compact fluorescent lamp and appliances /promote standard and labelling system; household appliances /switch utilization kerosene to LPG for cooking activity Commercial /introduce high efficiency equipment for lamps, AC etc. /Energy Management system 		<p>2009</p> <ul style="list-style-type: none"> /EE&C seminar/WS, Energy Award for efficient buildings /capacity building, partnership program on energy conservation
JAPAN	<p>2009</p> <ul style="list-style-type: none"> /encourage SME for fine-tuned energy management system /introduce the most advanced technologies <p>2010</p> <ul style="list-style-type: none"> /use common EE benchmarks for EEC law; iron & steel, cement, power generation sector <p>2011</p> <ul style="list-style-type: none"> /summer electricity demand reduction by 15% for large customers; coordinating shift of operations and running schedules, staggering holidays and days off /summer electricity demand reduction by 15% for small customers; planning the voluntary restraint measures. Standard format for saving electricity action plan, website to register goals of consumers 	<p>2009</p> <ul style="list-style-type: none"> /improve continuously fuel efficiency of conventional vehicles /introduce next generation vehicles such as hybrid and EV <p>2010</p> <ul style="list-style-type: none"> /expand energy management system; truck business 	<p>2009</p> <ul style="list-style-type: none"> /promote highly insulated houses and buildings /replace all CRT TVs to more efficient display type /encourage efficient lighting equipment <p>2010</p> <ul style="list-style-type: none"> /expand energy management system; large customers, retail chain stores restaurant chains /eco-point system; a kind of subsidies for purchase of EE appliances /promote highly insulated houses and buildings; subsidies, eco-point system <p>2011</p> <ul style="list-style-type: none"> /summer electricity demand reduction by 15% for households; prevailing basic knowledge of saving electricity and indicating the numerical effect of saving of ACs, refrigerators and room lights through TV, website, posting and brochures /establish website allows each house to set target and measure for saving electricity to promote action 	<p>2009</p> <ul style="list-style-type: none"> /improve power generation efficiency by some 3% 	<p>2009</p> <ul style="list-style-type: none"> /national campaign for low carbon society <p>2010</p> <ul style="list-style-type: none"> /EEC law; submit annual consumption reports and future plans for EE (large customer)
Korea	<p>2009</p> <ul style="list-style-type: none"> /voluntary agreement with heavy energy consuming companies /obligatory energy audit for heavy energy consuming workplaces /Energy Saving through Partnerships(ESP) /investment of EE facilities through soft loans and ESCOs <p>2010</p> <ul style="list-style-type: none"> /More support on the investment in energy saving by the private sector /Fostering partnership and cooperation for energy saving /Voluntary Agreements(VA) of GHC and energy reduction for large energy-consuming companies /Obligatory Energy Audit for heavy energy consuming workplaces since 2007.1 	<p>2009</p> <ul style="list-style-type: none"> /average fuel economy standards for newly produced passenger cars /EE labelling /incentives for light duty vehicle and hybrid cars (tax reduction, etc.) <p>2011</p> <ul style="list-style-type: none"> /Various policy measures to improve national average fuel economy (average fuel economy for the newly produced passenger cars(12.4km/ℓ → 17km/ℓ by 2012) /Expansion of bus rapid transit(BRT) network and enhancement of intermodal transfer facilities /Light rail transit(LRT) network expansion and more efficient rail freight transfer /Promotion of bicycle riding and construction of bicycle paths and facilities 	<p>2009</p> <ul style="list-style-type: none"> Residential /EE labelling /mandatory the Minimum Energy Performance Standards (MEPS) /reduce standby power in electronic devices (Standby Korea 2010) /certification of high efficient products and partially rebate on specified models Building /EE ratings for newly constructed apartments /diffusion of small scale CHP and district heating /energy saving guidance in public institutions <p>2011</p> <ul style="list-style-type: none"> /Promotion of district heating and cooling /Reinforcing regulations and incentives for the energy efficiency of houses and buildings /VA on energy saving with large energy consuming buildings (Voluntary Agreement Incentive) /building energy efficiency rating for newly constructed apartment and office buildings 		<p>2011</p> <ul style="list-style-type: none"> /Green Government Buildings by various energy saving systems /Promotion of energy saving by implementing Regional Energy Programs

Lao PDR	2010 /promote introduction of equipment and facilities with high energy conservation capacity	2010 /improve fuel efficiency of passenger car and promote car battery /promote using new cars	2010 /labelling systems for buildings and appliances /develop demand side management programs /control the quality of electric appliances	2010 /promote new tech. of the energy management system /promote sustainable renewable energy application in electricity generation	2010 /introduce Energy Service Company (ESCO) business
Malaysia	2009 /EE equipment list; fans, motors, chillers, transformers, air-compressors /Malaysian Industries EE Improvement Programme; 51 companies audited /fiscal incentives to promote efficient use of energy /Efficient Management of Electrical Energy Regulations 2008 /reporting, energy audits, measures to reduce electricity consumption 2011 /Sustainability Achieved Via Energy efficiency rebate programme(SAVE): rebated are given to encourage the purchase of energy efficient equipments to initiate market development of energy efficient appliances (Anticipated savings -> 127.3GWh)	2009 /improve fuel efficiency /substitute with renewable energy (biofuels) and natural gas /energy savings through exploiting efficient trans. Networks including road, waterway, rail, air and sea	2009 /Low Energy Building; Office for M. of Energy, Water and Communications /Zero Energy Building; Malaysian Energy Centre /Code of Practice on the use of REN Energy and EE in non-residential Buildings (MS1525) /labelling 2011 /Sustainability Achieved Via Energy efficiency rebate programme(SAVE): rebated are given to encourage the purchase of energy efficient equipments to initiate market development of energy efficient appliances (Anticipated savings -> 127.3GWh)	2009 /training programmes for teachers and students /activities to promote and create awareness on EE and REN /A Guide to EE at Home(2008) /TV commercial on energy saving tips	
Myanmar	2009 /develop energy statistics /introduce EE equipment and facilities /develop the goals of voluntary action plans /labelling system for appliances	2009 /improve fuel efficiency /substitute with renewable energy (biofuels) and natural gas /energy savings through exploiting efficient trans. Networks including road, waterway, rail, air and sea	2009 /labelling systems for buildings and appliances /develop the demand side management /thorough management of energy and other resources /encourage the use of alternative energy and EE improvements in buildings /promote the use of EE appliances and equipment		
NZ	2010 /promote energy management, APs and audits providing grants for audits /encourage new and under-used EE tech. projects /develop wood fuel industry /minimum energy performance standards 2011 /loans scheme for upgrades to public facilities	2009 /more efficient transport modes /improve the efficiency of the transport fleet /develop and adopt renewable fuels 2010 /vehicle fuel economy labelling /public transport service and infrastructure funding /safe & efficient fuel efficient driving programme /support for school and business travel plans /integrated land use and transport planning /road tax relief for electric vehicles /excise tax relief for ethanol blended petrol /grants for biodiesel production	2009 /better home insulation /clean heating /home energy ratings (voluntary) 2010, 2011 /building energy ratings scheme (voluntary) /expand Minimum Energy Performance Standards (MEPS) and labels; motors, pumps, fans, chillers /Energy Star endorsement label /grants for retrofitting insulation and installation of clean heating /additional grants for clean heaters in areas of poor air quality /grants for installation of efficient hot water systems	2010 /90% of electricity to be generated by renewable energy sources by 2025 /remove unnecessary barriers to investment in large-scale renewable electricity generation, building on recent changes to streamline and simplify consenting process under the Resource Management Act. /investigate and remove unnecessary barriers to deployment of smaller scale distributed electricity generation and to the modernisation of electricity networks /foster deployment of new renewable sources; marine, solar sources of energy /monitor industry rollout of smart meter, smart network, smart appliance tech. to promote consumer choice and a more efficient electricity system	2010 /Energy Wise information campaign for consumers /EECA awards; celebrate excellence in innovation in energy efficiency and renewable energy /Energy Wise Rally; four day car rally to demonstrate efficient vehicles and driving techniques /Energy Spot Campaign; utilize TV and other media /undertake regular research into public attitudes and behaviour in relation to energy efficiency, and stakeholder research /publication of updated data sets and tools
Philippines	2009 /Expand standards and labelling program to include fans and blowers /Partnership and Voluntary agreements focusing EE 2010 /development of super ESCO /ESCO Accreditation by DOE /Development and application of Energy Management Standard Manual in the industrial sector /Conduct of Policy study on the training / capacity development and accreditation of Energy Manager and Energy Auditor in the industrial sector /Conduct of Seminar Workshop on EE&C opportunities in Industry /Conduct of annual recognition award on energy efficiency – specifically, the Don Emilio Abello Energy Efficiency Award /Conduct of Energy Audits. /Conduct of energy consumption monitoring for the establishment of sectoral energy consumption indices / benchmarks /Technical assistance in the implementation of Industrial Energy Efficiency Project for the Philippines on Industry System Optimization	2009 /Promote fuel economy run 2010 /Conduct of Seminar workshop on fuel conservation and efficiency in the road transport Sector /Conduct of Fuel Economy Run. /Development of Energy Efficiency labelling program for road transport vehicles. /Implementation of the Biofuels Act of 2006 (RA 9367) mandating blending of biofuels in petroleum products sold in the country. /Implementation of the pilot phase of the Natural Gas Vehicle Program for Public Transport (NGVPPT).	2009 /Expand standards and labelling program to include lamps and ballasts /Policy study and development of legal framework for residential buildings 2010 /Conduct of Seminar workshop on EE&C opportunities in the Commercial and Residential Sectors. /Implementation of Philippine Energy Efficiency Project (PEEP) : Residential Lighting Initiative (promotion of CFLs and LED lighting technologies) Component /Conduct of Policy study on the training / capacity development and accreditation of Energy Manager and Energy Auditor in the Commercial building sector. /Conduct of annual recognition award on energy efficiency – specifically, the Don Emilio Abello Energy Efficiency Award. /Conduct of Energy Audits in the Commercial building sector. /Conduct of energy consumption monitoring for the establishment of sectoral energy consumption indices / benchmarks. 1. Implementation of PEEP Project Components: Lighting Retrofit of Government Office Building, and Public Street Lighting Retrofit.	2009 /Manage power plant EE performance improvement audit /Manage system loss reduction in transmission and distribution	2010 /Implementation of Executive Order 110, 126 on Government Energy Management Program (GEMP). /Development of EE&C legal policy framework; Energy Conservation bill for passage into law in the 15th Philippine Congress. /energy Manager and Energy Auditor Capacity building and Accreditation System Development /Technical assistance for the development of National Energy Consumption Database Monitoring System.
Singapore	2009 /encourage companies to invest in energy efficient equipment /co-fund energy audits, design workshop /utilize green procurements by the government to deploy EE goods /Innovation for Environmental Sustainability(IES) to provide seed funding for industry-led projects including energy efficiency projects 2010 /Energy Efficiency National Partnership (EENP) learning network where companies can share their efficiency ideas /EENP recognition scheme where companies will be recognized for introducing excellent energy management practices and demonstrated tangible results. /EENP high-level committee on EE partnerships, comprising industry reps, experts and policy makers to spreadhead the EE partnership and EE awards	2010 /mandatory fuel economy labelling scheme; passenger cars and light goods vehicles; hybrid-electric, electric 2011 /increase public transport model share; expand rail network, enhance integration of public transport system, extend priority for buses, integrated ticketing system, public transport fare, public transport service information /managing road usage; Vehicle Quota System to control the vehicle growth rate, Electronic Road Pricing based on the pay-as-you-use, Off-Peak Car scheme to offer incentives to use car during off-peak period, Park & Ride scheme, Intelligent Transport System /green vehicle rebate; rebate on a vehicle's additional registration fee /green mark for rapid transit system; promote sustainable and environmentally friendly RTS design	2009 /energy audits of government office buildings 2010 /BCA Green Mark scheme; to evaluate a building for its environmental impact and performance /Building & Construction Authority (BCA) Green Mark Incentive Schemes to encourage private developers and building owners to design construct and operate /Envelope Thermal Transfer Value (ETTV) to provide an accurate measure of the thermal performance of building envelope /Energy Smart Building Labelling Programme to promote energy efficiency and conservation practices; office, hotel buildings, retail malls /Mandatory Energy Labelling Scheme to empower consumers to make informed choices about the energy efficiency of household appliances; ACs, refrigerators, clothes dryers /Electricity Vending System (EVS) to empower small consumers, such as households, to make conscious decisions to track and potentially reduce their electricity usage using smart meters 2011 /building control regulations; minimum environmental sustainability standard for buildings and the administrative requirement /voluntary agreement to promote EE appliances in households to increase the market	2010 /Liberalisation of the power generation sector to achieve greater efficiency and innovation	2009 /Singapore Certified Energy Manager(SCEM) programme and supporting training grant to build up energy management capability 2010 /training and certification schemes for green building specialists /10% energy challenge awareness campaign to reduce household electricity consumption by at least from 2007 to 2012; retailer and suppliers
Thailand	2010 /energy management in large factories /funding and tax incentives	2010 /efficient mode; dual track system, comprehensive train system throughout the country /promote public transportation; subway, Sky-train, bus system, park-ride /promote alternative energy; biofuel, gasohol, tax privilege /encourage carpool	2010 /energy management in buildings and Building Energy Codes /labelling for household appliances; AC, refrigerator, rice cooker, water heater, etc /energy labels for buildings and houses /high efficiency and minimum efficiency performance standards /promotion of high energy efficiency lighting; demonstration at market places, temples, etc. /funding and tax incentives	2010 /basic advanced training for energy managers /software simulation to practical and on-the-job training /EE curriculum in vocational schools and universities /Thailand Energy Awards, Thailand Energy Fair /youth programs; green classroom, energy camp /TV campaign, brochures, web-site /energy conservation demonstration houses	
Vietnam	2009 /Provide technical assistance to domestic manufacturers for EE /Assist manufacturers to improve production lines for better EE	2009 /Exploit capacity of means of transportation minimizing consumption	2009 /EE Commercial Building Code 40/2005/QĐ-BXD to reduce energy loss of commercial buildings /Public Buildings: saving at least 10% of electricity consumption /Construct pilot energy efficient buildings /develop standards and energy-saving label /government offices will save at least 10% of yearly consumption	2009 /Electricity Law(July, 2005) specifies efficiency in generation, and T&D. /encourage electricity efficiency in generation, transmission, distribution and end-user	2009 /Awareness rising and capacity building at government, public and private /Electricity saving campaign