l In-	Datad A	otion pla	ns for EMM8, Sept 2014		<u> </u>	T	<u> </u>
Ор		conditions	Industry	Transport	Commercial & Residential	Power	Education & Awareness
2	Brunei		/Monitoring the energy consumption of big industrial sectors (BSP, BLNG & BMC). /Visiting big industrial sectors to provide consultation and briefing as well as to exchange idea on the reduction of energy consumption. /To introduce Energy Manager to conduct energy audit and prepare recommendations on how to reduce energy costs in inductrial sector.	transportation sector as it is the highest contributor in terms of carbon emission in Brunei Darussalam. /To set up an Electric Vehicle Task Force (EVTF) lead by the Ministry of Communication and Energy Department, Prime Minister's Office. /To identify the major key industry players serve as the 'service provider' of EVs in Brunei Darussalam in order to support and to achieve government's vision towards the successful implementation of EVs in the country. /To establish coherent and effective incentive models such as import duty and excise duty exemption on EVs and hybrid cars in order to fully encourage more Bruneian to embrace environment—friendly or green vehicles.	2010 /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 2014-2015 /To implement the National Appliance Standards & Labeling Regulation in Brunei Darussalam towards the use of energy efficient products. /Monitoring the effectiveness of the new electricity tariff on residential sector which was introduced on 01 January 2012. /Development of Energy Efficiency and Conservation Program in Brunei Darussalam. /Development of the EEC Building Code in collaboration with Ministry of Development. /To undertake a project on the replacement of the existing High Pressure Sodium Vapour (HSPV) street lighting to low wattage and better light intensity lighting. /To expand the EEC awareness raising programme to the government officers and staff, students and rural communities at Mukim & Kampong by delivering talks on energy saving. /To approach selected household for a quick talks on energy saving. /To introduce Energy Manager to conduct energy audit and prepare a coherent recommendations on how to reduce energy costs in commercial & residential sectors.	/Improving the overall existing power generation efficiency to greater than 45 percent by replacing simple cycle power plant with more efficient combined-cycle or co-generation plant. /Reducing partial load operation, transmission and distribution losses. /Integration of renewable energy to meet the demands on power in Brunei Darussalam. /Monitoring the reduction of energy consumption in the residential	2010 /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 2014–2015 /Collaboration work with the Curriculum Department, Ministry of Education in setting up EEC curriculum in the National Education System. /To continue partnership with STEP Centre, Ministry of Education in enhancing EEC activities and projects in Energy Clubs at secondary schools both on energy saving mechanism and project on renewable energy (solar panel). /Continuously organize the energy expo/exhibition and roadshows, workshops and seminars on capacity building. /Conduct a seminar on energy savings to newly appointed government officers and staff as well as rural communities at Mukim & Kampong level. /To encourage both government agencies and private sectors to participate in the annual ASEAN Energy Award.
3	Cambodia		/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 2011 /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	/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 2011 /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	/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 2011 -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,		2010 /promote energy efficiency awareness for public /capacity building and training courses for designated factories & buildings on EE&C /introduce Energy Service Company (ESCO) business
4	China		2009 /adjustment of industry structure		2009 /energy efficiency improvement		2009 /promote social awareness on 'green consumption'
5	India		Not submitted				
6	Indonesia		2009 /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	/introduce EE vehicles /encourage public transportation /promote the utilization of gas and biofuel for public transportation /encourage eco-driving /promote bike to work	2009 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		2009 /EE&C seminar/WS, Energy Award for efficient buildings /capacity building, partnership program on energy conservation

		ns for EMM8, Sept 2014				
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		2009 /encourage SME for fine-tuned energy management system /introduce the most advanced technologies	2009 /improve continuously fuel efficiency of conventional vehicles /introduce next generation vehicles such as hybrid and EV	2009 /promote highly insulated houses and buildings /replace all CRT TVs to more efficient display type /encourage efficient lighting equipment	2009 /improve power generation efficiency by some 3%	2009 /national campaign for low carbon society
7	JAPAN	2010 /use common EE benchmarks for EEC law; iron & steel, cement, power generation sector 2011 /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 2012 /nationwide transmission and SETSUDEN action for electricity supply shortage in peak time. /"electricity supply shortage alarm" will be announced 2013 /concrete SETSUDEN menus are introduced to promote further SETSUDEN action	2010 /expand energy management system; truck business	2010 /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 2011 /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 2012 /nationwide transmission and SETSUDEN action for electricity supply shortage in peak time. /"electricity supply shortage alarm" will be announced 2013 /concreate SETSUDEN menus are introduced to promote further SETSUDEN action		/EEC law; submit annual consumption reports and future plans for EE (large customer)
8	Korea	/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 2010 /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 /2012 GHG- Energy Target scheme poilicy has been activated since 2012.1	/EE labelling /incentives for light duty vehicle and hybrid cars (tax reduction, etc.) 2011 /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 /Hybrid Car tax credit 2012 /Energy efficiency rating for Tire /Energy frontier program(similar to Top runner program of Japan) for 4 appliances (TV, refrig. air—conditioner, Washing machine)	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 2011 /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 2012 /The law for fostering green building construction enacted since 2012.2 2013 /Certification of energy consumption for building(2013.1)		2011 /Green Government Buildings by various energy saving systems /Promotion of energy saving by implementing Regional Energy Programs /2012 Green school program to enhance the energy efficiency on school building
9	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

		ns for EMM8, Sept 2014				
	conditions	Industry	Transport	Commercial & Residential	Power	Education & Awareness
) Malaysia		/EE equipment list; fans, motors, chillers, transformers, air-compressors /Malaysian Industries EE Improvement Programme; 51companies 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) 2012-2013 /Mandatory implementation of Malaysian Standard on Minimum Energy Performance Standard (MEPS) for 5 electrical appliances; Refrigerator, Air Conditioner, Television, Fans and Lighting. /Energy Service Companies (ESCO) are incorporated to ensure successful implementation on energy efficiency improvement projects based on the Energy Performance Contracting (EPC) concept.		/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	generation. /Promote new technology and energy efficient equipment in electricity generation such as supercritical boiler to enhance efficiency in coalbased generation and the use of gas turbine (H-class) CGGT with higher efficiency. /Promote co-generation for electricity generation. /Improvement and reduction of system losses in the transmission and distribution system. /Initiatives In Electricity Pricing To Promote Conservation— • Thermal Energy Storage Tariff	/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		2013 /encourage to renovate EE machinery and equipment in industry		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	/improve power generation efficiency	2013/2014 /Energy Management Handbook has been translated to Mother langua and published /Energy Efficiency and Conservation seminar/workshop /Energy Management Training /encourage to compete Energy Awards for all sectors
2 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 /audit for increasing the efficiency of compressed air systems 2014 / Initiative to support increased energy efficiency of meat and dairy heat plant (due to start 1 July 2014) / Establishment of a regional renewable heat hub (in Southland) (due to start 1 July 2014)	/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 (COMPLETED) 2012 /heavy vehicle fuel efficiency programme 2014 / Extension to the heavy vehicle fuel effciency programme to small and medium sized fleets (due to start July 2014)	/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 (COMPLETED) /additional grants for clean heaters in areas of poor air quality(COMPLETED) /grants for installation of efficient hot water systems (COMPLETED)	/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 (COMPLETED) /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 renewable energy, held every two years, the lastest one on 28 May 20 /Energy Wise Rally; four day car rally to demonstrate efficient vehicle and driving techniques (COMPLETED) /Energy Spot Campaign; utilize TV and other media /undertake regular research into public attitudes and behaviour in relation energy efficiency, and stakeholder research /publication of updated data sets and tool 2013 / Key sponsorship of TV programme - Mitre 10 Dream Home (feature two families renovating/building their 'dream home') that features er efficiency products and messages. (COMPLETED)

Up-Dated Ac	ction plans for EMM8, Sept 2014				
	conditions Industry	Transport	Commercial & Residential	Power	Education & Awareness
13 Philippines	/Expand standards and labelling program to include funs 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	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).	/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.	/Manage power plant EE performance improvement audit /Manage system loss reduction in transmission and distribution	/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.
14 Singapore	companies can share their efficiency ideas /EENP recognition scheme where companies will be recognized for introducing excellent energy management practices and demonstrated	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	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	2014 /The Energy Industry Programme Office (EIPO) announced research grants amounting to \$11 million to support innovations for the power generation sector on 6 June 2014.	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 2014 /A new pilot will enable consumers with e-billing accounts to compare their electricity consumption against the average consumption of their neighbours; and through such comparisons, reduce their electricity usage over time. They could compare their electricity consumption in the last 6 months against the national average consumption and the average consumption of their neighbours living in similar housing types.
15 Thailand	2010 /energy management in large factories /funding and tax incentives 2011-2014 /Regulations on Energy Management /Soft Load Program (Revolving Fund) /Co-investment Program (ESCO Fund) /Tax Incentive Program /Direct Subsidies Program	2010 /efficient mode; dual track system, comprehensive train system throughout the country /promote public transportation; subway, Sky-train, bus system, park-n-ride /promote alternative energy; biofuel, gasohol, tax privilege /encourage carpool 2011-2014 /Master Plan on Transportation Infrastructure /ban Benzyne 91 /Improvement of public transportation including buses and trains /Awareness Raising Programs /Promote EE Logistic(Rail & Mass Transit)	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 2011–2014 /Building Energy Codes /Implement HEPS,MEPS,Labeling /Promotion of Green Building /Promotion of Low Carbon City Development /EE Standards for householed electric appliances	2011-2014 /Reengineering existing power plant /TOU rates /Demand side Management /Smart Grid Pilot Projects	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 2011-2014 /Energy Literacy /Thailand Energy Awards /Training for Person Responsible for Energy /Increase in capacity building /TV and Radio campaign for energy efficiency and renewable energy
16 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	of commercial buildings	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