

Table 29 Technology action plans for smart grid

No.	Activities	Period			Related stakeholders	Key indicators	Priority	Fund sources
		Short	Medium	Long				
Financial								
A1	Control system and battery storage: Apply for international fund	✓			(i) Foreign agencies, (ii) Central agencies (MoE)	(i) Number of system implemented, (ii) the increasing rate of implementation	High	International level
A2	Smart metering : request financial support government	✓			(i) Central agencies (MoE)	(i) Number of system implemented, (ii) the increasing rate of implementation	High	National level
A3	Smart grid device: Financial support from government through special projects, tax incentive		✓		(i) Central agencies (MoE, PEA, MEA, DEDE, EPPO)	(i) Number of system implemented, (ii) the increasing rate of implementation	Normal	National level
A4	Encourage education and/or research works		✓		(i) Foreign agencies (ii) central agencies (MoE, MOST, research agency, education institute)	(i) Number of research studies (ii) Publications (iii) Seminars/participants	Normal	International level and national level
A5	Encourage PEA, MEA and EGAT to invest and develop main control system	✓	✓		(i) Central agencies (MEA, PEA, EGAT)	(i) Number of system implemented, (ii) the increasing rate of implementation	High	National level
A6	Feasibility study on CDM-PoA in smart grid	✓			(i) Foreign agencies (ii) Central agencies (MoE, MOST, research agency, education institute)	(i) The number of CDM-PoA project, (ii) The GHG mitigation potential	High	International level and national level

No.	Activities	Period			Related stakeholders	Key indicators	Priority	Fund sources
		Short	Medium	Long				
A7	Study on the potential of internationally supported NAMA concept		✓		(i) Central agencies (TGO, MoE, education institute)	(i) The number of NAMA project, (ii) The GHG mitigation potential	Normal	International level and National level
Policy and Regulatory								
A8	Develop smart grid national plan along with the roadmap	✓			(i) Central agencies (MoE, MEA, PEA, EGAT)	(i) the national plan	Very high	National level
A9	Develop clear policies and regulations with framework and timeline to internalize smart grid to REDP and NEEP	✓			(i) Central agencies (DEDE, EPPO)	(i) the national plan	Very high	National level
A10	Study international standard for smart grid device (e.g. IEEE, IEC and ISO)		✓		(i) Central agencies (MEA, PEA, TISI) (ii) Foreign certification center/institute	(i) Number of standard published/implemented	Normal	International level and national level
A11	Establish institute that can certify activities associated with smart grid			✓	(i) Central agencies (MEA, PEA, TISI) (ii) Foreign certification center/institute	(i) National Smart Grid Certification center	Low	International level and national level
A12	Set the policy to test both security and stability of smart grid by both system and each device		✓		(i) Central agencies (MEA, PEA, EGAT, MOST) (ii) Foreign agency	(i) The system security indicators implemented and tested (ii) The device security indicators implemented and tested	Normal	International level and national level

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Technology								
A13	Prioritize the needs for developing smart grid devices such as smart meter and storage	✓			(i) Central agencies (MEA, PEA, EGAT)	(i) Prioritized technology (ii) timeline	Very high	National level
A14	Technology feasibility analysis at the country level	✓			(i) Central agencies (MEA, PEA, EGAT), (ii) Foreign agencies/fund	(i) Study reports	Very high	International level and national level
A15	Demonstrate the full pilot smart grid project operation		✓	✓	(i) Foreign agencies, (ii) Central agencies (MoE, MOST, research agency, research institute)	(i) Number of pilots project of smart grid (ii) Expand from pilot project to full scale operation	High	International level
A16	Study the impact of the smart device market	✓			(i) Central agencies (MEA, PEA, EGAT), (ii) National Industry institute	(i) The market impact from smart grid report, (ii) the SWOT analysis of smart grid in Thailand	High	National level
A17	Analyze the climate change impact guideline of smart grid	✓			(i) Central agencies (TGO, education institute)	(i) The guideline of GHG mitigation from smart grid system	Normal	International level and national level
Capacity Building								
A17	Expand network among academic and research institutes	✓			(i) Education and research institute, (ii) foreign education institute/center/fund	(i) Number of participants in smart grid network, (ii) number of research papers, (iii) number of case study reports	High	International level and national level

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A18	Strengthen international research network/programme		✓		(i) Education and research institute, (ii) foreign education institute/center/fund	(i) Number of participants in smart grid network/programme, (ii) MOU with international agencies	Normal	International level and national level
A19	Scholarships or grants from agencies e.g. Energy Conservation Promotion fund or Power plant fund	✓	✓		(i) Education institutes, (ii) Research institutes	(i) Number of scholarships or grants , (ii) Budget ratio	High	National level
A20	Increase number of experts/researchers in the smart grid field	✓	✓		(i) Central agencies (MoE, MEA, PEA, EGAT), (ii) Education institutes	(i) Number of experts	High	National level
A21	Develop public relations program to promote the smart grid technology			✓	(i) central agencies (MoE, MEA, PEA, EGAT)	(i) the percentage increasing in understanding of the people in smart grid	Low	National level