

# Roadmap for Home Network Market Formation, Diffusion and Expansion using ECHONET Lite

		FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2030	
Environment surrounding the ECHONET Consortium	“Roadmap on Promotion of Housing and Living Styles toward a Low-Carbon Society” *1	(Housing) ZEH (Net Zero Energy Houses) to be standard for new housing.							ZEH as average for new housing	
		(Buildings) ZEB (Net Zero Energy Buildings) achieved for new public buildings, etc.							ZEB as average for new buildings	
		“Visualization” of living and usage modes promoted: - Promotion of “visualization” of indirect benefits including comfort, health and intellectual productivity resulting from energy saving - Promotion of “visualization” of actual energy consumption volumes, etc. - Creation of annual energy consumption benchmarks, etc.								
	HEMS diffusion policy*2	HEMS diffused to all households by 2030.								
	Energy policy	Smart meters introduced	Smart meter B route service	Complete deregulation of electric power retail				Statutory separation of power generation & transmission /distribution and tariff regulation abolished		
Number of smart electric energy meters installed*3	3,660,000 units	7,500,000 units	12,250,000 units	12,260,000 units	12,020,000 units	9,640,000 units	9,530,000 units	15,280,000		
Progress in social reform based on IT*5	A society where data tied to individuals can be used		Toward a data-driven society using CPS A society in which interconnections between the real world and cyber states (Cyber Physical System) are established in all areas of society and generate major social value							
ECHONET Consortium Master Schedule	Targeted vision	Start year for diffusion and expansion of smart electric energy meters	Home appliances and HEMS connected using ECHONET, home appliances controlled, B route used	ECHONET used in shops, condominiums, small-medium buildings, etc., connected from cloud		ECHONET used in IoT/M2M		Diffusion and expansion of ECHONET overseas		
	Devices targeted as ECHONET Lite devices, and targeted shipments (domestic) (excluding smart electric energy meters)	Diffusion to 8 priority devices			Diffusion to ordinary homes and meters (other than smart meters)		Expansion beyond home appliances and energy devices			
		1,000,000 units	2,000,000 units	5,000,000 units	10,000,000 units	15,000,000 units	20,000,000 units/year			
	Targeted shipments of ECHONET Lite devices (overseas)				10,000 units	100,000 units	1,000,000 units	5,000,000 units	10,000,000 units/year	
Promotional activity	Domestic market promotion activity	ECHONET Lite products introduced on the website, forums (twice yearly) and seminars (once yearly) held, promotions at exhibitions								
		Technology seminars	Training program for engineers created		ECHONET Lite training program for engineers implemented					
	Overseas market promotion activity	Test bed established	Test bed expanded		Test bed expanded nationwide					
		Test bed established (Malaysia)	HEMS market survey in Asia		Overseas HEMS market surveys (Europe/N.America + Asia)			PR activity at overseas exhibitions		
Enhancement of the Specification	ECHONET Lite Specification	8 priority device apps I/F Specification		Controller definitions clarified		Expansion of Specification for IoT·M2M system studied				
		Expansion of Detailed Requirements for ECHONET Device Objects (twice-yearly revision following proposal by members)								
	International standardization activity in ISO/IEC	International Standardization of ECHONET Lite		Maintenance of ECHONET Lite Specification (ISO/IEC 14543-4-3) and Detailed Requirements for ECHONET Device Objects (IEC62394 Ed2.0)						
		Links with other standardized specifications		Method of linkage with other communication specifications studied and standardized (linkage at new lower-layer communication media or app level)						
Enhancement of the certification system	Development of third-party certification scheme	Start of SMA third-party certification (tentative)		Start of 8 priority device third-party certification						
		Tentative scheme for SMA certification system created	8 priority device third-party certification program created		Accredited certification bodies, accredited testing bodies expanded		Certification range expanded (software, systems, servers), engineer accreditation system created and implemented			
	International expansion of third-party certification system			Overseas expansion of third-party certification program studied		Expansion of third-party certification in Asia started		Expansion to other countries		

\*1 Source: Interim Report on Promotional Measures on “Housing and Living Styles toward a Low-Carbon Society”, July 2012, Ministry of Economy, Trade and Industry / Ministry of Land, Infrastructure, Transport and Tourism / Ministry of the Environment

\*2 Source: “Green Growth Strategy (Outline)”, November 2012, National Policy Unit

\*3 Source: “On Issues and Solutions Associated with the Installation of Smart Meters”, December 2014, Materials for the 15th Meeting of the Study Group on the Smart Meter System, Ministry of Economy, Trade and Industry

\*4: Number of new installations in 2021-2024 (excluding replacements due to expiry of test validity)

\*5 Source: “Interim Report – Changes in response to the arrival of a data-driven society using CPS – (Draft)”, April 2015, Information Economy Subcommittee / Commerce, Distribution and Information Committee / Industrial Structure Council