



2011 Annual

(April 1, 2011 – March 31, 2012)



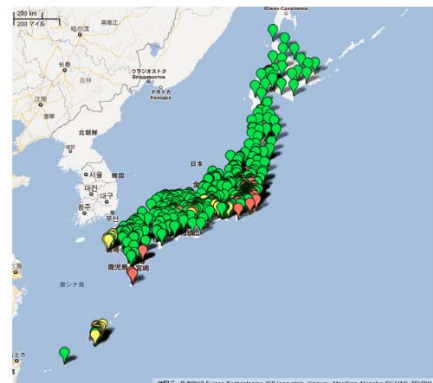
CHAdemo Association

CHAdE MO

Over 1000 Quick Chargers Installed and Counting....!

CHAdE MO is no longer a fantasy. CHAdE MO is happening today.

Ever since CHAdE MO Quick Chargers were launched in 2010, they have been steadily growing and expanding. As evidenced by the growing number of installations throughout the European continent that reached the 1000 unit mark in January 2012, CHAdE MO is increasingly being recognized as a unique and practical technology.



CHAdemo

Paving the Way for the EV

CHAdemo Fast Chargers

As of March 2012, fast chargers have been developed and sold in over 30 companies.

							
SGTE (France)	ABB (Switzerland)	EVTRONIC (France)	Efacec (Portugal)	Aerovironment (America)	Aker Wade (America)	Delta Electronics (Taiwan)	Petrotec (Portugal)
							
MAGNUM CAP (Portugal)	GH Electrotermia (Spain)	Schneider (France)	SIGNET Systems (Korea)	DBT (France)	ECotality NA (America)	Circontrol (Spain)	EVTEC (Switzerland)
							
Hasetec	Takaoka	Takasago	NS-ELEX	Kyuden Technosystems	ULVAC	Fuji Electric	NEC
							
SINFONIA TECHNOLOGY	Nichicon	Nissan	GS Yuasa	JFE Engineering	Kikusui	NTT Facilities	HITACHI

The DC Fast Charger Connector

The 2011 Working Group achieved a major milestone via the improvements they made to the connector.

They examined how to upgrade the quality and safety, as well as the interface specifications to better maintain the interoperability between the latest EVs and the new charging connectors. These efforts have led several manufacturers to release new connectors and JARI submitted a proposal of the detailed specifications as a potential IEC standard.



Yazaki



Fujikura



Japan Aviation Electronics



Sumitomo Electric



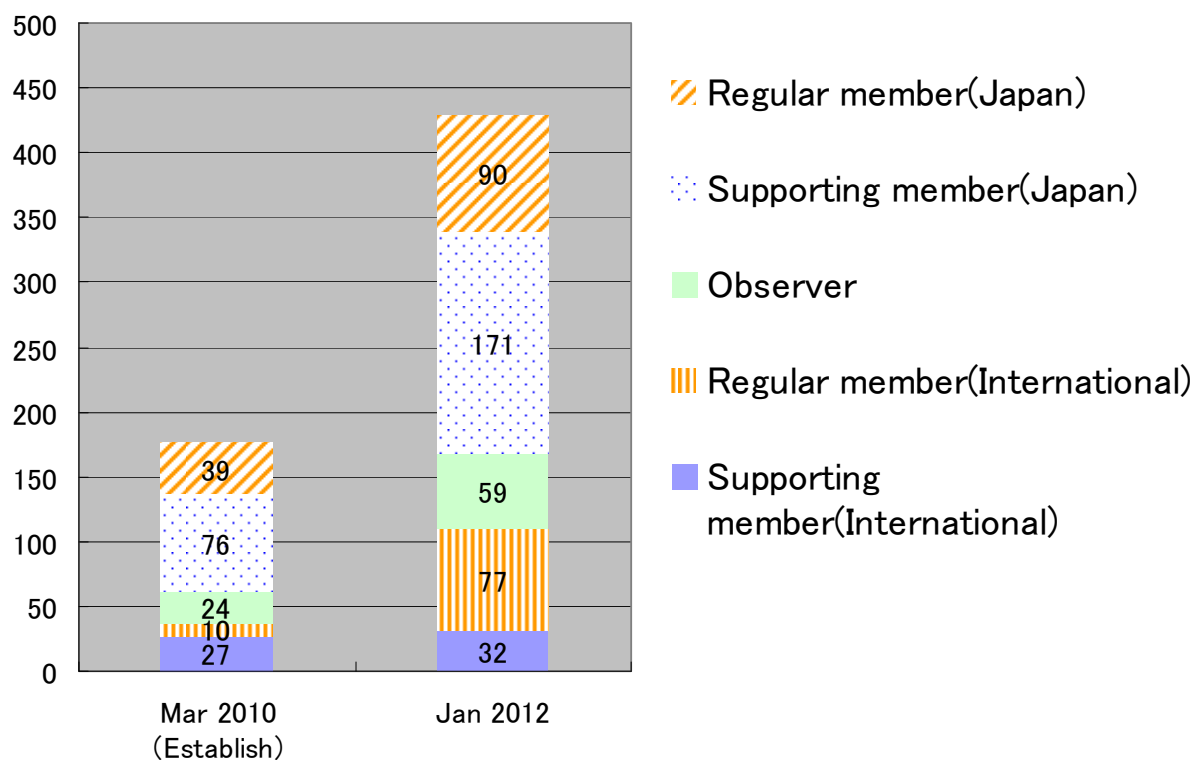
DYDEN



FURUKAWA ELECTRIC

Membership Profile

From March 2010 to March 2012, membership numbers have grown from 158 companies and organizations to 429 with international regular members marking the highest growth rate. This confirms that CHAdeMO protocol is attracting worldwide interest.



	Mar 2010 (Establish)	Jan 2012	Growth
Supporting members(International)	27	32	119%
Regular members (International)	10	77	770%
Observers	24	59	246%
Supporting members (Japan)	76	171	225%
Regular members (Japan)	39	90	231%
Total	176	429	

Key Accomplishments in 2011

Activities for International Standardization

2011 Activity Results and Work Progress of the Standardization

- Proposal of IEC62196-3 standard regarding CHAdeMO connector
- Proposal of IEC61851-23 standard regarding safety requirements and the fundamental control sequence of the CHAdeMO specification 1.0.0
- Proposal of IEC61851-24 standard regarding CAN message of CHAdeMO specification 1.0.0
- Proposals of IEC61851-21-2 (provisional) regarding EMC requirement of CHAdeMO specification 1.0.0

June 6-10 IEC TC69/61851-23,-24 (Beijing)

-China explained its proposal in detail and clarified that the system was not related to fast chargers in spite of its physical resemblance to the CHAdeMO connector.

-The submission of the German/American proposal has been postponed until after the summer. In particular, the evident delay in the -24 led to the formation of an editing team, which would expedite the work through conference calls by the next Munich meeting.

October 19-26 IEC TC69/61851-23,-24 (Munich)

-The end of the long lasting feud between Germany represented by BMW and the US represented by Ford concerning different approaches to -24 was signified by an announcement released just before the meeting by seven German/US automakers (Daimler, BMW, VW, Audi, Porsche, GM, Ford) that they will be harmonizing their efforts to deploy the high speed broad band PLC (HPGP).

-Although progress of the 61851-23 was smooth and the main body is almost completed, the joint German/American Annex was not submitted. However, as the information pertinent to the 61851-23 specifications has been included in the main body, agreement was reached and this has resulted in much accelerated work progress.

Currently, there is existing European consensus by CEN/CENELEC to regard CHAdeMO as at least a short-term standard. In the US, however, SAE insists on the adoption of COMBO as its only standard.

Revision of CHAdeMO Specifications (ver. 1.0.0)

The latest specifications were published in January 2012. The Technology WG started the revision in August 2010, held a total of 17 meetings and issued a draft in July 2011 that was followed by comment/discussion. The revision not only includes power quality requirements including EMC and electrical current ripples, but also covers vehicle protective functions such as voltage overload protection, and vehicle contactor welding diagnosis etc.

Creating New Value

In the transportation sector, there are increasing expectations that EVs will become a key contributing factor to the reduction of carbon emissions. Furthermore, amidst the recent worldwide promotion of global warming countermeasures utilizing renewable energies such as wind and solar power, EVs have been attracting much attention as they could potentially stabilize technical difficulties that may arise due to the mass integration of renewables into the power system. CHAdeMO Association has begun a technical study of bidirectional current flow using the DC charging interface. The extended V2H specification WG led by Nissan and Mitsubishi Motors was started in October 2011.

Membership Business Model Adhoc WG

Many corporations/organizations have installed DC fast chargers for their own use or for the general public in view of corporate social responsibility. However, many have pointed out the real challenge involved in having it evolve into a sustainable business. CHAdeMO Association has studied the feasibility of the "membership" business model in the adhoc WG to see how its initial investment cost can be reduced. Upon completing the study, in December 2011, 9 core members of the adhoc WG (ULVAC, KANENATSU, Kandenko, Suzuyo Shoji, Chubu Electric Power, Toyota, Development Bank of Japan, Honda, Mitsubishi Motors) established a corporation to handle the membership DC fast charging service.

Location Information Sharing WG

The general public can search for DC fast charger locations on the CHAdeMO website using Google Map. CHAdeMO members will also be able to download an Excel file with the location's address, operating hours, and charging rates.

As the website becomes more popular, new information is being provided to the Association even from non-member users. However, it has also been pointed out that improving the management of information quality is vital to maintain a high standard for business/professional usage. This has led to the formation of a new WG headed by INCREMENT P and Zenrin to study information-sharing issues.

Government Supports in 2011

Fire Prevention Safety Measures

The regulations applied to DC fast chargers differed per district as fire prevention safety measures were not uniform at the state level. In December 2010, the Fire and Disaster Management Agency of the Ministry of Internal Affairs and Communications established a study group to investigate technical regulations. They published a report in December 2011, and created uniform technical regulations that were made effective from March 2012.

Green Investment Tax Reduction Policy

The green investment tax reduction policy allows for special depreciation or a corporate tax deduction for listed state-of-the-art high-efficient energy saving and low carbon equipment in 2011. DC fast chargers have also been added to the list of such equipment.

Loosened Electricity Supply Restrictions for DC Fast Chargers

Up until now, residential customers were only permitted to enter into one primary electricity contract to meet all of their power needs. However, as of April 2012, they will be permitted to enter into a separate contract solely for DC fast charger usage.

This new rule may result in reduced additional costs in the form of customer electricity facility upgrades and is expected to stimulate increased installations at relatively small facilities, such as gas stations and convenience stores, where such upgrades have normally been very difficult.

Infrastructure Workshop

Infrastructure workshops were held a total of seven times with 1,133 participants in attendance.

	Date	Participants	Main agenda	Presenter
8th	7-May	247	New Type of Plug-In Electric Boat Project “RAICHO-I” 2010 Activity Report ▪ 2011Activity Policy	TUMSAT CHAdEMO Secretariat
9th	5-Jul	231	The report of the Saitama city E-KIZUNA Project Support for EV/Quick Chargers in light of The Great East Japan Earthquake. The report at the IEC Beijing Conference	Saitama city Mitsubishi Motor, TAKAOKA, Fujikura, TEPCO CHAdEMO Secretariat
10th	6-Oct	235	The charging stations business in the overseas IT infrastructure development of the charging service <ul style="list-style-type: none"> ■The status and future in the charging infrastructure business ■The charging management of cloud service in Okinawa ■The introduction problems in the user authentication system. ■The case study in the authentication system through different models ■The charging infra-system “smart oasis” The earth detector supported by CHAdEMO The verification experiment of the setup/location of charging facilities.	ABB NTT Data Hitachi NEC Kanematsu Nihon Unisys SEIKO C&E CO. MLIT
11th	1-Dec	225	The activity report of CHAdEMO in Europe The report of the verification project of the charging infrastructure in mansions. The status and challenges in the Times normal charging. EV for commercial MINICAB-MiEV The report of WG charging facilities location sharing information.	ABB Nissan Park 24 Mitsubishi Motor INCREMENT P
12th	9-Feb	195	The report of next generation SS actual business by Energy Agency. Accomplishment report of Connector WG The activity report of CHAdEMO	METI Yazaki CHAdEMO Secretariat

CHAdEMO Europe Activities

CHAdEMO main activities in Europe are as follows.

Date	Conference • Place	Main Agenda • Participants
23-May	Board meeting • Paris	Strategy, lobbying activities The exchange of opinions on methods from the Europe board meeting concerning standardization.
23-Sep	General meeting • Amsterdam	New member presentation, the introduction of CHAdEMO Europe governance, strategy, The introduction of Nissan chargers, ACEA status report, Connector presentation, Green e-Motion presentation , 70 people participated.
24-Jan	International Relations WG • Barcelona	The action policy of each WG chair, opinion exchanging, External affairs, WG (improvements for communication, communications on the safety aspect, renewal of the website in Europe.) 20 people participated.
24-Jan	Technology WG • Barcelona	Technology WG, (The contributions in the specification sheet improvements by Europe, improvements of the authentication process, the sharing of the set-up process, The measures for ad-hoc technical problems, involvement in the technical taskforce as CHAdEMO Europe.)
24-Jan	Infrastructure • User & Implementation	WG • Barcelona Infrastructure User & Implementation WG(How to share installation position information, billing methods, improving communications through Yazaki, improving the quality of information on the website for general users)

International Activities

In CHAdeMo Europe, we held The 2nd Europe CHAdeMO General meeting in September, 2011 and elected ENDESA to be the next chairman, established 3 WGs and WG leaders (General affairs WG/ENDESA, Engineer as WG/ESB, Infrastructure WG/City of Amsterdam).

In North America, technical proposals were made mainly in SAE by Nissan and Mitsubishi Motors. The main overseas PR activities in 2011 are as follows.

2011/4/15 CIMOD • Caen (France)

2010/9/28 Smart Grid World Forum 2011 (Beijing)

Interaction of DC fast charger and the grid (Pictured left)



2011/10/24-26 APEC Workshop - Energy and Green Transport Benefits of EVs (Hong Kong)

The Charging Infrastructure for the Sustainable Diffusion of Battery Electric Vehicles
(Pictured Right)

2011/12/1 IEA Advanced Vehicle Forum (Barcelona)

Activities in Japan

The scheduled events of the first half year in Japan have been cancelled due to the Great East Japan Earthquake in March, 2011. Reports of the following CHAdeMO Council activities were conducted at EV PR activities supported by the government, meetings and exhibitions.

2010/7/6-7 JARI 13th EVS Forum

2011/10/14 CSF electric technology meeting symposium

2011/10/26-28 Nikkei Smart City Week 2011 (Pacifico Yokohama)

Exhibitors at CHAdeMO booth (Nissan, Mitsubishi Motor, Takasago, ULVAC, Kyuden technology systems, DENGEN, Kikusui Electronics, Yazaki, Fujikura, Japan Aviation Electronics Industry, Sumitomo Electric, DYDEN, WAGO Company of Japan, Delphi Japan, Hitachi)



2011/7/26 Niigata prefecture EV promoting conference

2011/11/8 Mekong 5 countries public and private cooperation program

2011/11/10 JENESYS program (Monglian)

2011/11/15 Saitama the 2nd E-KIZUNA summit and forum

2011/11/29 Chubu charging infrastructure promoting conference

2011/12/13 JENESYS program (Brunei university)

2012/1/11 Nagano prefecture new generation vehicle promoting conference

2012/1/19 University of Tokyo APET seminar

2012/1/20 Kinki region EV meeting

2012/2/14 Osaka EV action conference

2012/2/16 EV・PHV town Symposium

2012/3/14 Saitama prefecture new generation vehicle seminar

Activities in 2011

	2011 April	May	June	July	August	September	October	November	December	2012 January	February	March
Board Meeting	★	★	★★	★	★	★	★	★★	★ ★	★	★	
CHAdemo Europe		★Board Meeting				★General Assembly			★Technical/Infrastructure WG			
ver.1.0 comment WG V2H extension WG International standardization meeting							★★ ★ ★ ★(10/13)	★★ ★ ★	★★ ★ ★	★★ ★ ★	★ ★ ★ 8th(1/24)	
Certification Test	★SIGNETSYSTEMS(KR) ★Takasago ★Schneider(FR) ★DBT/IES(FR) ★GH Electrotermia(ES) ★Hitachi	★IEC62916-3 Draft	★IEC61851-23,24 draft(Beijing)	★ECotality(US)	★JFE Engineering	★Kyuden Technosystems	★Shindengen Electric ★Delta Electronics(TW) ★Nissan ★Petrotec(PT) ★Fuji Electric ★Magnum Cap(PT) ★NICHICON ★Circontrol(FR)	★Nissan	★ULVAC	★Delta Electronics(TW) ★ULVAC	★61851-1 (Berlin)	★Shindengen Electric ★Fuji Electric ★Hitachi ★Kyuden Technosystems
Infrastructure Workshop Location information sharing WG Installation guideline WG Members-only business model WG Connector WG		★(5/9)		★(7/5)			★(10/6) ☆☆☆ ★(10/19)	☆☆☆ ★	★(12/1) ★(12/7)	★★ ★	★(2/9)	★
PR activity, etc. Fire and Disaster Management Agency (Chargin installation safety measure review meeting) Exhibition•Lecture		★	★	★	★	★		★ ★	★Final report(12/12)			
				★(7/6)EVS Forum ★(7/26)Niigata pref EV promoting conference		★(9/28)SmartGridForum@Beijing	★(10/14)CSF electric technology meeting ★(10/24)APEC EV Workshop@Hor ★(10/26-28)Nikkei SmartCityWeek	★(11/8)Mekong 5 gouns program ★(11/10)JENESYS Mongolia ★(11/15)Saitama E-KIZUNA ★(11/29)Chubu charging infrastructure promoting conference	★(1/19)University of Tokyo APET seminar ★(1/20)Kinki region EV meeting ★(2/14)Osaka EV action conference ★(2/16)EV town Symposium			★(3/14)Saitama pref. new gen
								★(12/1)IEA Advanced Vehicle Forum@Barcelona ★(12/13)JENESYS Brunei university program	★(1/11)Nagano pref. new generation vehicle prom			