

Aiming to be a global front-runner in the widespread use of Hydrogen Energy

Fukuoka Strategy Conference for Hydrogen Energy

January 30, 2013

Fukuoka Strategy Conference for Hydrogen Energy / Fukuoka Prefecture

An organization promoting Hy-Life Project

Fukuoka Strategy Conference for Hydrogen Energy

Japanese largest industry-academia-government project in the hydrogen energy field

Established : August 3, 2004

**Advisors : Hiroshi Ogawa (Governor of Fukuoka Prefecture)
Ikuro Hirozane (Director General of Kyushu Bureau of Economy, Trade and Industry)
Kenji Kitahashi (Mayor of the City of Kitakyushu)
Soichiro Takashima (Mayor of the City of Fukuoka)
Setsuo Arikawa (President of Kyushu University)
Keisuke Kuroki (Executive Advisor, Nippon Steel & Sumitomo Metal Corporation)**

President : Masakazu Iwaki (Representative Director and Executive Vice President, Nippon Steel & Sumitomo Metal Corporation)

**Vice Presidents : Takashi Funaki (Advisor, Iwatani Corporation)
Hiroya Nishijima (Senior Vice President and Executive Director, JX Nippon Oil & Energy Corporation)
Yukitaka Murakami (Director, Research Center for Hydrogen Industrial Use and Storage)
Hiroyuki Watanabe (Senior Technical Executive, Toyota Motor Corporation)**

Executive Board : Iwatani Corporation, Nippon Steel & Sumitomo Metal Engineering, Toyota, Kyushu University, Kyushu Electric Power, Saibu Gas, Saga University, Nissan, Kyushu Bureau of Economy, Trade and Industry, Fukuoka Prefecture, Kitakyushu City, Fukuoka City, etc.)

**No. of members: 671 as of Jan 1, 2013 (Corporations: 522, Universities: 112,
Government/Research/Sponsoring institutions: 37)
144 when first launched (Corporations: 63, Universities: 64,
Government/Research/Sponsoring institutions: 17)**

An overview of Hy-Life Project



Fukuoka Hydrogen Town

● Initiative of “Smart House in Fukuoka Hydrogen Town”

“Fukuoka Hydrogen Town” – Japan’s first demonstration project led by the private sector using SOFC, ENE-FARM system as a power source in case of power outage

The Smart House has been rooted in the community as a receiving station for visitors and a forum of exchange for the project participants in the community.

In the first 12 months since its opening, more than 370 groups and 2,100 individuals visited the Hydrogen Town.

[Location] 8-281, Minakazedai, Itoshima City, Fukuoka Prefecture

[Implementing bodies] JX Nippon Oil and Energy Corp.,

Saibu Gas Energy Co., Ltd., Heisei Co., Ltd.

[Commencement] November 7, 2011



Smart House in Fukuoka Hydrogen Town



SOFC,
ENE-FARM



Energy display

Roof-embedded
solar power system



Battery system



“ENE-FARM users’
gathering” – exchange of
views among the residents



First anniversary event

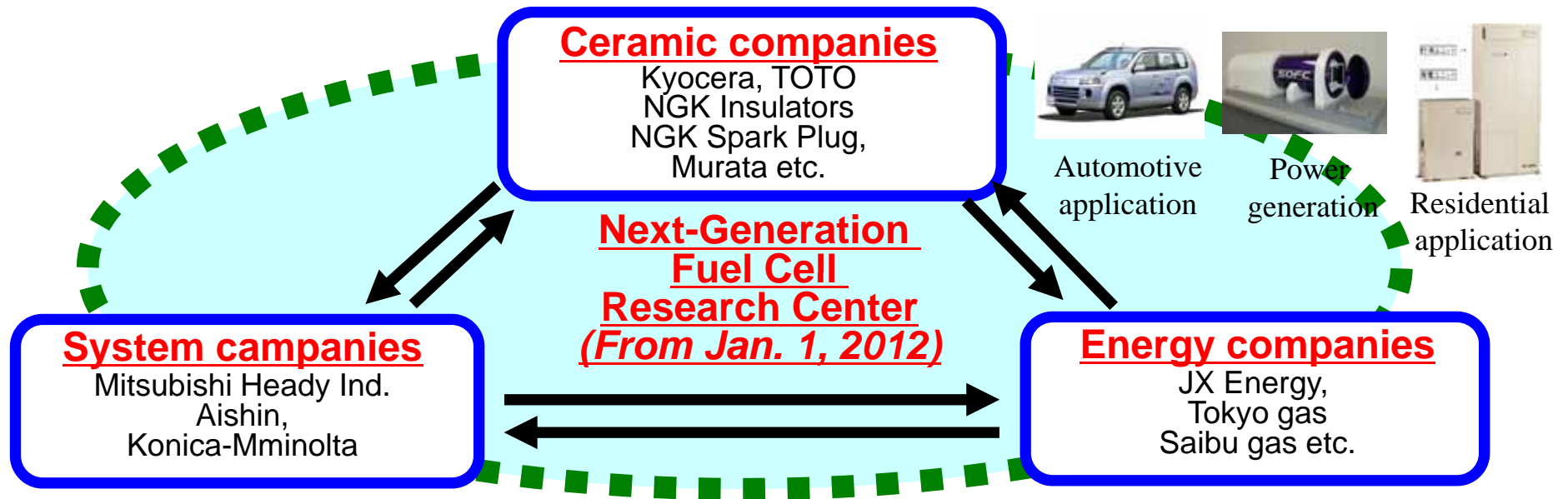
Left: Smart House illuminated only with
ENE-FARM and battery-operated
light bulbs

Right: Mini concert

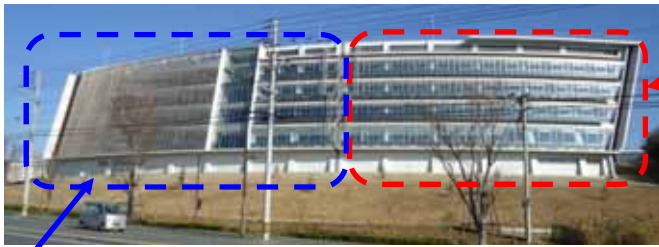
Set-up of equipment for “Smart House in Fukuoka Hydrogen Town”

Next-Generation Fuel Cell Research Center, Kyushu University

Advanced fuel cell research facilities for academia-industry collaborations: “One stop support” from basic science to applied research and demonstration.



I2CNER & NEXT-FC



I2CNER

(MEXT(JSPS)-support, Director: P. Sofronis)

Next-Generation Fuel Cell Research Center

(METI-support, Area: 3400m², Total budget: 20 mio US\$
Director: K. Sasaki)

With advanced facilities, for applied research with industries

(more than 10 companies open labs).

Vision for the Plan to Introduce FCVs in Northern Kyushu

Purpose:

It aims to foster and cluster FCV-related businesses and stimulate the local economy by taking a lead in creating a self-sustained market for FCVs and hydrogen supply infrastructure in Northern Kyushu through cooperation among industry, academia and government.

- Create an initial market for FCVs by 2015 by taking a lead in setting up hydrogen filling stations in Northern Kyushu.
- Accelerate the construction of hydrogen filling stations to encourage a widespread use of FCVs in Northern Kyushu by 2020.
- Take the lead over other regions in Japan in initiating a self-sustained diffusion of FCVs and hydrogen supply infrastructure in Northern Kyushu by implementing measures to facilitate the introduction of FCVs through cooperation among industry, academia and government.

Targets for the Full Commercialization of FCVs in Northern Kyushu

- Accelerate the diffusion of FCVs to ensure that the sales of FCVs in Northern Kyushu will go far beyond the current share at the beginning of the early commercialization phase in 2015
- Launch a self-sustained expansion of FCVs and hydrogen stations in Northern Kyushu, ahead of other regions in the nation, by taking measures to encourage the introduction of FCVs through cooperation among industry, academia and government.

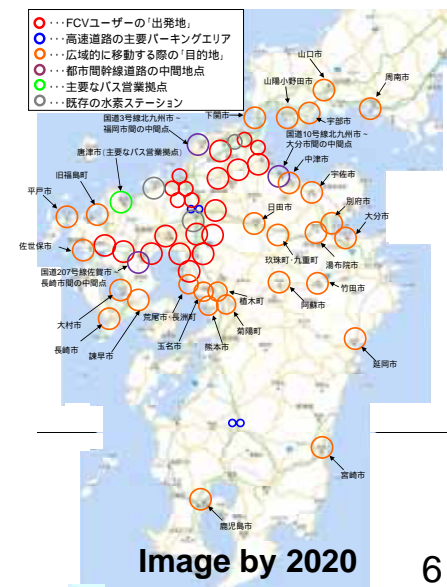
Concept of Developing Hydrogen Supply Infrastructure

By 2015

- Locate H₂ stations at “origins” of FCV users
- Locate H₂ stations at major rest stops along expressways
- Locate H₂ stations at “destinations” of primary importance to users with wide-area mobility

By 2020

- Locate H₂ stations at “destinations” of users with wide-area mobility
- Locate H₂ stations at midpoints between the “origins” and “destinations” along inter-city highways
- Locate H₂ stations at major bus offices



Efforts toward the realization of the concept (Intensive implementation of “Hydrogen Energy Awareness Program”)

- Hydrogen energy sector including fuel cell vehicles
Intensively implementing a hydrogen energy awareness program to contribute to this sector’s market expansion and advancement of related industries.
- Conducting test ride events and other experience-based activities supported by private businesses and in cooperation with Kitakyushu, Fukuoka and Itoshima cities and Saga and Kumamoto prefectures.
- Expanding the circle of cooperation partners to allow for activities in wider area in the future.

[Core period]
October 2012

[Organizer]

Fukuoka Strategy Conference for Hydrogen Energy

[Partners]

Industry: automobile manufacturers, energy businesses, local businesses, etc.

Academia: Kyushu University, Hydrogen Energy Test and Research Center, etc.

Government: Kyushu Bureau of METI, Saga and Kumamoto prefectures, Kitakyushu, Fukuoka and Itoshima cities

[Event statistics]

Total number of events held - approx. 30

Total number of participants - approx. 4,000

水素 EVENT CALENDER

福岡地域

- 10月20日(土) 燃料電池自動車展示会 環境フェスティバル in エコカー展示 試乗会 場所: 福岡市役所 市民交流広場 (西側広場)
- 10月21日(日) 燃料電池自動車同乗試乗会 内容: 燃料電池自動車の同乗試乗会を実施 場所: 西日本鉄道福岡自動車教習所 (大野城市)
- 10月22日(月) 燃料電池バス 運転試乗会 内容: 市内の主要バス会社を対象に、燃料電池バスを運行試乗会を実施 場所: 西日本鉄道福岡自動車教習所 (大野城市)
- 10月22日(月) 燃料電池自動車 講座 実習 主催: 場所: 専門学校 衛生工科大学 福岡市博多区東比恵) 協力: 自動車整備 内容: 自動車整備、自動車開発設計を学ぶ学生400名を対象に、燃料電池自動車に関する講義、実習を実施
- 10月24日(水) 燃料電池自動車 運転試乗会 内容: マスコミ地域の主要企業(タクシー会社等)を対象に、運転試乗会を開催 場所: 九州大学伊都キャンパス (福岡市西区)

北九州地域

- 10月13日(土)~14日(日) 北九州エコライフステージ 内容: 北九州水素タウン展示、燃料電池自動車同乗試乗会 場所: 北九州市役所周辺広場 豊山公園
- 10月11日(木)~13日(土) 北九州水素タウン展示 燃料電池自動車同乗試乗会 場所: 西日本総合展示場
- 10月25日(木) 消防間による水素ステーション講習会 実習 主催: 福岡水素エネルギー戦略会議 協力: 北九州水素エネルギーセンター、北九州水素ステーション 内容: 2013年度からの水素ステーション整備を投入した勉強会を開催
- 10月26日(木) 燃料電池自動車展示会 到津の森公園ちからまつり 場所: 森公園 問い合わせ先: 北九州水素エネルギー戦略会議 TEL:092-643-3448
- 11月4日(日) まつり起業祭八幡 場所: 北九州水素タウン、北九州水素ステーション、北九州市環境ミュージアム 内容: 見てみよう! 水素のまち! 10:30/11:20/12:45/13:45/14:45/15:45 乗ってみよう! 燃料電池自動車 10:30~16:30 最終受付15:30 水素ステーションの併設型 体験型 モジュール型 燃料電池自動車展示会 11月14日~16日 場所: 西日本総合展示場 問い合わせ: 福岡水素エネルギー戦略会議 TEL:092-643-3448
- 11月14日(水)~16日(金) 再生可能エネルギー先端技術展 高圧水素 教育研究分科会 11月15日 午前 燃料電池セミナー編 11月15日 午後 水素エネルギー企業展示 11月14日~16日 燃料電池自動車同乗試乗会 11月14日~16日 場所: 西日本総合展示場 問い合わせ: 福岡水素エネルギー戦略会議 TEL:092-643-3448

佐賀地域

- 10月6日(土)~7日(日) 糸島市民まつり 内容: 福岡水素タウン エネファーム展示、燃料電池自動車展示 対象: 一般参加、事前申し込み不要 主催(展 示): 福岡水素タウン (試乗会) 福岡水素エネルギー戦略会議 場所: 志摩中央公園 (福岡県糸島市)
- 9月20日(水) 二木中学校 (主催: 福岡水素タウン) 11月7日(前) 桜小学校 (主催: 北九州水素エネルギー)

熊本地域

- 10月23日(火) 九州燃料電池自動車セミナー 内容: 燃料電池自動車の環境性能や、将来性についてのお話~福岡燃料電池自動車同乗試乗会を開催します。 場所: グランセント熊本 問い合わせ: (一財)九州産業技術センター TEL:092-411-7394 http://www.kitec.or.jp
- 10月23日(火) 地域内で実施される国の実証事業 環境省チャレンジ25地域づくり事業 燃料電池バス実証研究(10月) 受託者: 小倉自動車九州 12月自動車九州での運転実証実証 福岡-小倉間長距離走行実証 10月20-21日 内容: 燃料電池バスの環境性能や事業性を検証。
- 10月23日(火) NEDO支援事業 地域水素供給インフラ技術 社会実証 / 地域実証研究 / 福岡県 佐賀県における実証研究 燃料電池自動車広域走行実証 内容: 北九州・九大・鳥栖の水素ステーションを利用して福岡・北九州 在野から、熊本県を目指す。
- 10月20日(土)~21日(日) 長距離路線バス実証 内容: 小倉伊弉諾営業所 - 天神、天神 - 小倉伊弉諾営業所 詳細はこちら http://www.tokai-kyushu.com

10月20日(土)~21日(日) 長距離路線バス実証 内容: 小倉伊弉諾営業所 - 天神、天神 - 小倉伊弉諾営業所 詳細はこちら http://www.tokai-kyushu.com

水素エネルギーを体験できるイベントが盛りだくさん! 当日参加可能なイベントもありますので、ぜひお出かけください!!

問い合わせ先 福岡水素エネルギー戦略会議 事務局 TEL.092-643-3448 最新のイベント情報は、情報会議のホームページをご覧ください。 http://www.f-usio.jp

Awareness Program for the general public

(1) FCV exhibitions and test ride events

FCV exhibitions and test ride events in conjunction with other events held in various parts of the prefecture



Hakata Gion Yamakasa festival,
July 14-15



Itoshima Citizens' Festival,
October 6-7



Gas Style 2012, October 20

(2) Fuel cell classes

Fuel cell classes for elementary and junior high school students and FCV workshops for automotive technical college students



Fuel cell class at an elementary school



Junior high school students
visiting a hydrogen station



Practical training at a technical
college

Awareness Program for bus and taxi companies

(1) FCV test ride and briefing session

October 24, 2012 - FCV test ride session for taxi companies, banks and other businesses was held at Ito Campus, Kyushu University. An unprecedented event in Japan.



Briefing session



Venue of the test-drive session



Visit to a hydrogen station

(2) FC bus test ride and briefing session

October 22, 2012 – FC bus test ride session for local bus drivers was held at the driver training school of Nishitetsu Bus company.



Briefing session



Explanation of the FC bus



FC bus on a test drive

Improving conditions for the development of hydrogen infrastructure

(1) Roundtable discussion with officials from relevant departments of Fukuoka Prefecture

Sharing information and exchanging views with officials from departments with jurisdictions over permit, licensing, laws and regulations regarding hydrogen stations

[Date] Wed. December 5, 2012

[Attendees]

- Urban Planning Div., Structures & Urban Planning Dept. (development permit)
- Construction & Real Estate Permit Div., Structures & Urban Planning Dept. (building permit)
- Fire & Disaster Prevention Div., General Affairs Dept. (permit for relocating hazardous materials handling facilities)
- Industrial Safety Div., Commerce & Industry Dept. (permit for high pressure gas production)



(2) Seminars and hydrogen station tours for fire departments

Fukuoka City Fire Department

[Date] Tues. July 17, 2012

[Venue] Hydrogen station, Kyushu University



Classroom session



Explaining the mechanism of FCVs

Kitakyushu City Fire Department

[Date] Thurs. October 25, 2012

[Venue] Kitakyushu Hydrogen Station



Classroom session



Observing a vehicle being filled with hydrogen

Activities for spreading the use of FCVs to the entire Kyushu region

(1) Wide area driving demonstration of FCVs

October 23, 2012 – Fukuoka and Saga prefectures and Kitakyushu city jointly conducted a wide area driving demonstration. They drove five FCVs manufactured by three automakers to Kumamoto Prefectural Government Headquarters and staged a test ride event in conjunction with Kyushu FCV Seminar held in Kumamoto on the same day.



Vehicle being refueled at Tosu Hydrogen Station



Vice Governor Ono of Kumamoto test-riding a FCV



Kyushu FCV Seminar



Five FCVs participated

(2) Integrated approach committed by Kyushu Area Strategy Conference

November 1, 2012 – Kyushu Area Strategy Conference comprised of prefectural governments in Kyushu and business community decided to include in their agenda hydrogen energy along with renewable energy as a sector which will allow Kyushu to thrive together with its Asian neighbors.

Developing an industrial hub that drives green innovation

Green Asia Special Global Strategy Synthesis Area



Realize a hydrogen energy society by establishing the world's first hydrogen energy society model in Fukuoka and disseminate its achievements across Japan and to the world.

