

**Preparatory status of Grand Renewable Energy 2014 International Conference,  
GRE2014  
(July 27 – August 1, 2014 at Tokyo Big Sight)**

**1. Due date and Mile Stone**

- Official Home Page Open : April, 2013, but tentative HP already opened,  
<http://www.renewableenergy.jp>
- Call for Papers Issue : April, 2013
- Due of Abstract to Secretariat Office : December, 2013
- Early Bird Registration : April 30, 2014
- Program Fix and Feedback to those having presentation : Mid June, 2014
- International Conference, Full papers submission : July 27 – August 1, 2014
- Proceedings delivery : September end, 2014

**2. Members Status of The GRE2014 Organizing Committee** as of January 18, 2013

**2.1 The number of experts accepting to be members of GRE2014**

The 297 experts willingly accepted to be members composed of Area1(Policy) 25, Area2(Photovoltaic) 31, Area3(Solar Thermal) 21, Area4(Innovative Bioclimatic Architecture) 34, Area5(Wind) 54, Area6(Biomass) 18, Area7(Hydrogen & Fuel Cell) 10, Area8(Ocean Energy) 26, Area9(Geothermal & Geo-Heat) 32, Area10(Energy Network & Power Electronics) 15, Area11(Energy Conservation & Heat Pump) 15, Area12(Small Hydro & Non-Conventional Energy) 13.

**2.2 The number of members in International Advisory Committee**

The international advisory committee is organized by the experts worldwide basically except Japan. The leaders of all 12 areas listed up asking for the members to be international advisory committee, totaling 140 experts. During February 2013, we sound and solicit them for acceptance in turn individually.

**2.3 The number of members in Domestic Advisory Committee**

The 20 managerial prominent personnel have accepted to join the domestic Advisory Committee. We expect their activity and support. In addition, further five persons are under negotiation.

**2.4 The Executive Advisors**

We took honorably acceptance from 17 executives to be Executive Advisor of GRE2014, composed of the 11 executives from enterprise and business league, and 6 from academia group. In addition, sounding is underway for a few executives.

**3. Toward the fixation of contents in Call for Papers**

**3.1 The Target of Papers to be collected for GRE2014**

After discussion of steering committee, held two times where all area leaders gather, the following number was set as the target area by area, totaling 1200 papers;

Area1(Policy) 50, Area2(Photovoltaic) 220, Area3(Solar Thermal) 80, Area4(Innovative Bioclimatic Architecture) 80, Area 5(Wind) 210, Area6(Biomass) 150, Area7(Hydrogen & Fuel Cell) 60, Area8(Ocean Energy) 80, Area9(Geothermal & Geo-Heat) 80, Area10(Energy Network & Power Electronics) 60, Area11(Energy Conservation & Heat Pump) 80, Area12(Small Hydro & Non-Conventional Energy) 50.

### 3.2 Topics Title in Area by Area

We decided the topics in area by area as a slot when the person submits the abstract of papers.

Written below are the topics slot by area:

No	Area	Respective Challenging Keywords (Slot when submitting the abstract)
1	Policy, Integrated Concept	<ul style="list-style-type: none"> <li>• Policy Instruments, e.g.FIT</li> <li>• Scenario</li> <li>• RE and Climate Change</li> <li>• RE in the Context of Sustainable Development</li> <li>• Mitigation Potential and Costs</li> </ul> <ul style="list-style-type: none"> <li>• Financing and Implementation</li> <li>• R&amp;D Policy</li> <li>• Energy Technology Loadmap</li> <li>• International Cooperation and Collaboration</li> </ul>
2	Photovoltaic	<ul style="list-style-type: none"> <li>• Fundamentals;</li> <li>• novel materials and concepts (nanostructures, multi exciton generation, intermediate band,plasmonics, etc.)</li> <li>• Crystal Silicon Solar Cells and Modules;</li> <li>• Thin Film Silicon Solar Cells and Modules;</li> <li>• II-IV Thin Film Solar Cells and Modules;</li> <li>• III-V Solar Cells and Modules;</li> <li>• Concentrator and Space Applications;</li> </ul> <ul style="list-style-type: none"> <li>• Dye-sensitized solar cells;</li> <li>• organic thin film solar cells;</li> <li>• PV systems and grid integration;</li> <li>• Reliability;</li> <li>• lifetime testing;</li> <li>• PID;</li> <li>• failure analysis;</li> <li>• outdoor performance;</li> </ul>
3	Solar Thermal Energy	<ul style="list-style-type: none"> <li>• Solar thermal collector;</li> <li>• Solar based heat pump technology;</li> <li>• Solar-fired power generation;</li> <li>• Solar Binary Power Generation</li> <li>• Thermal Energy Storage;</li> <li>• Solar-thermally driven chemical processes;</li> </ul> <ul style="list-style-type: none"> <li>• Solar thermal utilization for hydrogen and fuel production;</li> <li>• Solar desalination;</li> <li>• solar cooker;</li> <li>• solar thermal detoxification;</li> </ul>
4	Innovative Bioclimatic Architecture	<ul style="list-style-type: none"> <li>• Vernacular Architecture / Passive Design;</li> <li>• Green Building / Zero Energy Building;</li> <li>• Building Stock Activation / Refinement;</li> <li>• Smart City / ICT;</li> <li>• Comfort and Indoor Climate;</li> </ul> <ul style="list-style-type: none"> <li>• Energy Management System / Commissioning;</li> <li>• Elements and Materials;</li> <li>• Building Evaluation Index/Tool;</li> </ul>
5	Wind Energy	<ul style="list-style-type: none"> <li>• Wind Power National Program and Overview;</li> <li>• Planning;</li> <li>• Wind Resources and Forecasting;</li> <li>• Technology and Development;</li> <li>• Offshore Wind Power;</li> </ul> <ul style="list-style-type: none"> <li>• Small and Hybrid Wind System;</li> <li>• Grid Connection;</li> <li>• Environmental Issues;</li> <li>• Trading;</li> <li>• Marketing and Social Issues</li> </ul>
6	Biomass	<ul style="list-style-type: none"> <li>• Bioethanol</li> <li>• Biofuel</li> <li>• Biomaterials</li> <li>• BFD</li> <li>• Gasification</li> <li>• Biomass Refinery</li> <li>• Marine Biomass</li> </ul> <ul style="list-style-type: none"> <li>• BTL</li> <li>• Pyrolysis</li> <li>• Anaerobic Digestion</li> <li>• Carbon Neutrality</li> <li>• Forestry</li> <li>• Sustainability</li> </ul>
7	Hydrogen & Fuel Cell	<ul style="list-style-type: none"> <li>• Hydrogen Energy Systems</li> <li>• Hydrogen Production;</li> <li>• Hydrogen Supply and Storage;</li> <li>• Hydrogen End-Use Technology;</li> </ul> <ul style="list-style-type: none"> <li>• Technology and Fabrication;</li> <li>• Fuel Cell for Transportation;</li> <li>• Fuel Cell Power Plants;</li> <li>• Fuel Cell for Co-generation;</li> </ul>
8	Ocean Energy	<ul style="list-style-type: none"> <li>• Wave Energy;</li> <li>• Tidal Current Energy;</li> <li>• Ocean Current Energy;</li> <li>• OTEC;</li> <li>• Off-shore Wind Energy;</li> </ul> <ul style="list-style-type: none"> <li>• Utilization with Aquaculture;</li> <li>• Resource Assessment and Monitoring;</li> <li>• Economic Assessment;</li> <li>• Ocean Resources for Energy;</li> <li>• Ocean Marine Biomass;</li> <li>• Deep Sea Water Application;</li> </ul>
9	Geothermal Energy & Ground-Source Heat Pump System	<ul style="list-style-type: none"> <li>• Exploration;</li> <li>• Geothermal Field;</li> <li>• Reservoir Engineering;</li> <li>• EGS</li> <li>• Power Generation;</li> </ul> <ul style="list-style-type: none"> <li>• Environmental Aspects;</li> <li>• Geo-Heat;</li> <li>• Ground-Source Heat Pump;</li> <li>• Direct Use;</li> <li>• Geothermal Frontier</li> </ul>
10	Energy Network & Power Electronics	<ul style="list-style-type: none"> <li>• Smart Grid;</li> <li>• Micro-grid;</li> <li>• Energy Network</li> <li>• Distributed Energy Resources;</li> <li>• Battery;</li> </ul> <ul style="list-style-type: none"> <li>• Vehicle to Grid;</li> <li>• Vehicle to Home;</li> <li>• Demand Response;</li> <li>• Power Electronics;</li> <li>• Advanced Electric Car;</li> </ul>

11	Heat Conservation & Heat Pump	<ul style="list-style-type: none"> <li>• Thermal Energy;</li> <li>• Thermal Storage;</li> <li>• Energy Management;</li> <li>• Heat Pump;</li> <li>• Combined Heat and Power;</li> <li>• Energy Conservation;</li> </ul>	<ul style="list-style-type: none"> <li>• Air-Conditioning;</li> <li>• Effective Energy Utilization;</li> <li>• Community Energy System;</li> <li>• Environmental Issues;</li> <li>• Global Warming and Heat Island;</li> </ul>
12	Small Hydro & Non-Conventional Energy	<ul style="list-style-type: none"> <li>• Hydropower Development and Utilization;</li> <li>• Practical Examples and Field (Model) Tests;</li> <li>• Micro &amp; Pico System;</li> </ul>	<ul style="list-style-type: none"> <li>• Undeveloped Energy for Human Life;</li> <li>• Unused Energy Recovery;</li> <li>• Wasted Energy Recovery;</li> </ul>

### 3.3 Skelton of Program

July 27 (SUN)	July 28 (MON)	July 29 (TUE)	July 30 (WED)	July 31 (THU)	August 1 (FRI)
	PLENARY NEF	PLENARY NEDO	OPENING & KEYNOTE SPEECH	PLENARY AIST	CLOSING
REGISTRATION	ORAL	POSTER		ORAL POSTER	
	WORKSHOP		ISES/JSES Session		
			RE2014 International Exhibition		
		Mini-Tour	BANQUET	Mini-Tour	TECHNICAL TOUR (August 2, Sat)

### 3.4 Keynote Speech and Invited Speakers

#### 3.4.1 Speakers in Keynote Speech on July 30 AM

Basically, the following four persons were nominated as first path, (1) Hiroaki Nakanishi, president of Hitachi, (2) Haruhiko Kuroda, president of Asian Development Bank, (3) Maria van der Hoeven, IEA Secretary General, (4) Adnan Z. Amin, IRENA Secretary general. We will contact them in appropriate timing and manner.

#### 3.4.2 Invited Speakers in each area

Basically one person is selected in each area, summing 12 speakers, plus several persons will be selected through the world. Each leader is underway of listing, and in February, we will do the commencement of contacting to the candidate of invited speakers, aiming for acceptance.

### 3.5 Special Session

The following programs are listed on the table, which are materialized hereafter.

#### 3.5.1 International panel discussion type session

The subjects to be considered are one or two theme written below, while detail is programmed under consultation of MEDI and government organization.

- ① Retrieval and Vitalization Project of East Japan from the 3.11 catastrophic incident
- ② The verification project of Smart City; its Experience and What learnt
- ③ Mega Project using Renewable Energy Resources, focusing trans-continent, country, and district.

### 3.5.2 NEDO Session

They will plan well organized program covering all areas of NEDO activities from the initiative view of point in government. The development and dissemination of New Energy to the industry is a mission of them.

### 3.5.3 AIST Session

AIST will plan the presentation meeting on advanced and fore front technology regarding the renewable energy from both points of individuality and systematization.

### 3.5.4 JST Session

JST will plan the presentation meeting on their program of SATREPS, Science and Technology Research Partnership for Sustainability Development, jointly with project contractors.

### 3.6 Joint Session

We will plan the joint session or conference with following organizations, if the detail is confirmed. We believe such a collaboration will creat more fruitful event.

#### 3.6.1 ISES Asia Pacific 2014

#### 3.6.2 The 2<sup>nd</sup> AWTEC, Ocean Energy related conference in Asia

#### 3.6.3 Joint session with various Embassy in Japan, such as UK, Germany, France, etc

#### 3.6.4 Joint session with Metropolitan Tokyo

#### 3.6.5 Regulatory meeting or symposium of academic society in same venue

#### 3.6.6 Ad-hoc workshop organized by business group in same venue

### 4 Technical Tour

All tours written below are registered in advance through the home page when you register the conference.

#### 4.1 Full Day Tour (August 2, 2014) : Two courses planned as follows,

##### Course 1: Observation tour for Off-Shore Wind Turbines

Such two areas we visit as 2.4MW off-shore wind turbine in off-shore CHOSHI chartering the ship, and the 8 off-shore turbines with upwind 2MW each in KAMISU, continuing well operated and which had beard to the Tsunami at 3.11 catastrophic earthquake. These are installed in the ocean alongside the shore wall in one line.



##### Course 2: Observation tour for Mega Solar and Smart Community Projects

Looking at Mega Solar Power generation plant and modernized gas Power generation plant in UKISHIMA, Kawasaki, then go to YOKOHAMA, where, a few national smart community projects under verification step we observe to share the advanced energy management control including battery system.



**4.2 Half Day Tour** (July 30, July 31, 2014) : Two courses planned as follows,

**Course 1 : Tokyo Sky Tree, Energy management system with Ground–Source Heat Pump**

The tallest tower in the world 634m, Tokyo Sky Tree opened in May, 2012, was equipped with advanced thermal storage system using ground–source heat pump. Observer can look at this enormous energy management system at site. Tour is limited in Wednesday, July 30.

**Course 2 : New Campus of University using fore front Energy system**

New campus was designed to equalize the power consumption regardless the time. In order to do that various equipment and facilities using advanced technology were introduced, and achieved not only 59% saving of power cost buy also reduced CO2 emission. Observer can look at the system and equipment installed in the 69,200m<sup>2</sup> as total floor area. Tour is held July 31.

**5. Abstract Preparation and Full Paper**

■Due date of Abstract submission; December 10, 2013

Detail is shown in Home Page later

■Acceptance Notice of Paper to those submitted; During February, 2014

■Registration Fee payment; Within One Month after receiving Acceptance Notice

■The information when presentation is planned is noticed to the person before one month at the latest of that presentation date.

■All accepted abstracts can be down loaded by category, but registered person only

■Program book is handed to the registered participant at site, to show program in detail

■Those having presentation must submit the full paper at site, if not so, presentation is omitted.

■All full papers which was presented were compile to the proceedings then to DVD

■All participants paid the registration fee can receive this DVD around in end of September, 2014.

■For those who want to submit own full paper also to the other academic society, we coordinate in advance with nominated societies to make easy this process.

**6. CONFERENCE ORGANIZATION**

**Organized by**

•The Grand Renewable Energy 2014 Organizing Committee (GRE2014)

**Co–Organized by**

•Japan Council for Renewable Energy (JCRE)

•International Solar Energy Society (ISES)

•New Energy and Industrial Technology Development Organization (NEDO)

•National Institute of Advanced Industrial Science and Technology (AIST)

- Nagoya Industrial Science Research Institute (NISRI)
- New Energy Foundation (NEF)
- Japan Solar Energy Society (JSES)
- Japan Wind Energy Association (JWEA)
- Japan Science and Technology Agency (JST) ←under acceptance process
- RIKEN ←will start acceptance process

#### Assented by

- The Federation of Electric Power Companies of Japan
  - The Japan Electrical Manufacturer's Association
  - Japan Automobile Manufacturers Association, Inc.
  - Petroleum Association of Japan
  - The Japan Gas Association
  - The Japan Iron and Steel Federation
  - Japan Federation of Construction Contractors
  - Japan Electro. and Info. Tech'gy Industria Association
  - Communications and Info. network Association of Japan
- etc, other 70 organizations, composed of industry, academia, and government agencies

#### Supported by

- Ministry of Economy, Trade and Industry
  - Ministry of the Environment
  - Ministry of Land Infrastructure and Transport
  - Ministry of Agriculture, Forestry and Fisheries of Japan
  - Ministry of Education, Culture, Sports, Science and Technology
  - Ministry of Internal Affairs and Communications
  - Ministry of Foreign Affairs of Japan
  - Cabinet Office, Government of Japan
  - Tokyo Metropolitan Government
  - Yokohama Municipal Government
- A part, under acceptance process

#### Cooperated by

- will start the talking with plural Foreign Embassies in Japan

#### Collaborated with

- Takahashi Industrial and Economic Research Foundation
- Fuji-Sankei Business i
- Commemorative Organization for the Japan World Exposition '70 (expected)

## 7. Registration Fee

Registration is carried out through exclusive website, which is under preparation.

The cost needed for optional technical tours is not included in Registration Fee.

- Standard Rate** : 70,000 Japanese Yen per person including Program Book, Full Paper compiled Proceedings, Banquet, Welcome Party, and attendance to any sessions organized by RE2014 Organizing Committee.
  - Early Bird** : 55,000 JPY before April 30, 2014 at the same conditions as the Standard rate.
  - Special Rate** : 60,000 JPY and 45,000 JPY depending on the above date of the registration, only for members of Organization ; “Co-Organized”, “Assented by” and “Supported by”.
  - Student Rate** : 15,000 JPY including Proceedings DVD, excluding Banquet fee.
- A student ID is necessary to apply this rate.

Note: 1 USD = roughly 90JPY, but fluctuated. Please check hot exchange rate.

## **8. World Exhibition focusing Renewable Energy**

- Grand RE2014 International Conference is held simultaneously with two world exhibitions in the same venue, Tokyo Big Sight, for July 30(Wed)–August 1(Fri).
- Two exhibitions are PVJapan2014 organized by JPEA and The 9<sup>th</sup> Renewable Energy World Exhibition organized by JCRE.
- Keynote Speech in auditorium of international conference is held on July 30 AM, the first overlapping date between International Conference and Exhibition
- Detail is informed through the website,  
<http://www.pvjapan.org> for PVJapan2014  
<http://www.renewableenergy.jp> for The 9<sup>th</sup> RE World Exhibition