



# WGC2010

## Daily News



Official Newspapers of  
the World Geothermal Congress  
25-30 April 2010

Issue 2 / April 26, 2010

Bali International Convention Centre, Nusa Dua, Bali-Indonesia



**HERMAN DARNEL  
IBRAHIM,**  
Chairman of the  
Organizing Committee

Dear Participants and  
Accompanying Persons,

**FIRST** of all please accept my sincere and warm greeting. On behalf of the Organizing Committee I welcome you all to this great geothermal event. Welcome to Indonesia, welcome to Bali the beautiful island. I and my team are very glad to have and to serve you at this congress. Thank you, thank you very much for coming. I regret that some of our registered participants from Europe are not able to come due to their flight abnormal cancellation. They missed this congress but I miss them more, and I believe you do so.

The congress technical activities start today. For those who come from far away or from other continents, I hope they already have enough rest to adapt the time and the climate different. For those who participated in pre congress field trip, I hope they found it beneficial, interesting and they did enjoy the trip. The congress activities provides you opportunity

to learn the past geothermal development achievement and the innovations for future development, conceptually, scientifically, technologically through the technical sessions, exhibitions and direct interactions. I appreciate if you all can participate in the opening and plenary sessions, and as there are 10 parallel sessions I hope you will participate at the session of your interest and choice.

I should say to all of you that Bali is a very beautiful island with a lot of panoramic view, rich of unique traditions and culture, full of art and tourism attractions. I guess many of you coming not purely because of the congress but also because of attractiveness of Bali, it is real and there is nothing wrong with it. For those who come for the first time, you have to see and to experience Bali, do not miss it. For those who come for the second time or more please take some of your time to learn and enjoy deeper about the more specific beauty of Bali. If you don't have much time staying in Bali don't worry we will bring some of the best attraction to the congress social event the Cultural Night and the Farewell Dinner.

I do hope this congress will be beneficial for participants both through technical and social activities. I wish you would be healthy, be productive and be happy during this congress. Very warm regards. Thank you. . .

WGC2010

## WGC2010 Turning distant dreams into reality



**THE** World Geothermal Congress (WGC2010) kicks off today, April 26, with official opening by the Indonesian President, Susilo Bambang Yudhoyono, at the Bali International Convention Centre, Nusa Dua, Bali. The five-yearly event, which will bring together more than 2,000 participants representing 85 countries, is expected to be an opportunity to change the world by promoting the use of geothermal as an environmental-friendly energy.

"This congress will be a good opportunity for stakeholders to share their practices in developing geothermal industry, ranging from the upstream industry to the downstream one. They will discuss about exploration, drilling and investment as well,"

Herman said, adding that stakeholders could also share the latest update on geothermal issues. With a huge number of participants, WGC2010 will be a defining moment for the development of geothermal energy in the world.

"If we traced back the history of WGC, this is a congress with the greatest number of participants. It proves the enthusiasm of geothermal communities in the world to be more serious in developing this sector," Surya Darma said. WGC was first held in 1995 in Florence, Italy, followed by participants from 70 countries. The first congress resulted in a guide book of theories and cases on the use of geothermal. According to Surya Darma, related stakeholders initiated this forum due to the urgency to utilize geothermal because



Iceland successfully utilizing its geothermal resources

**INDEX**  
**FIELD TRIP**  
Let's Enjoy the  
Beauty of  
Geothermal  
Regions in  
Indonesia!  
P.4

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## 2 WELCOME

R. GORDON BLOOMQUIST.  
Chair IGA WGC 2010 Steering Committee

ON behalf of the IGA Steering Committee I would like to take this opportunity to welcome you to WGC2010 in beautiful Indonesia on the island of Bali.

Each World Congress provides a unique opportunity to, once every five years, meet with old friends, celebrate personal as well as industry wide achievements and successes and lick the wounds the resulted from projects that did not go "exactly" as planned. It is an opportunity to exchange ideas, learn from one another, discuss the latest industry friends and to sit down with exhibitors to learn how their goods and/or services could benefit both existing and/or future projects with which you are involved.

With five year of planning by the IGA Steering Committee and the Indonesian Organizing Committee now completed, the success of the congress is now in the hands of you the delegates and exhibitors.

With hundreds of papers in 10 current session over five days, a special poster session, great exhibits, social functions and field trips to cap off the coming exciting week there should be something for everyone. Your full participation in the events is critical to achieving a successful outcome for the Congress.

And when you depart take with you the massage provided by our theme "Geothermal: The Energy to Change The World"; and do your part to make it more than a theme, make it a reality. 🙌

### WGC2010 DAILY NEWS

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To view current and past issues of the WGC 2010 Daily News online, please visit [www.wgc2010.org](http://www.wgc2010.org)

The views expressed in the articles, features and listings are not necessarily those of the WGC2010 Organizing Committee or the editors.

## HEADLINE

### WGC2010 : Turning distant dreams into reality.....

the energy is renewable and friendly for the environment.

"Geothermal should be utilized in greater scales. Since we are aware that we need a lot of investments to develop this energy, we need to build partnerships, and this forum is a good chance to work it out," he said. The second WGC took place in Beppu, Morioka in Japan in 2000, attended by participants from 61 countries. The next congress was held five years later in Antalya, Turkey, in April 2005, which saw participants from 80 countries.

WGC2010 is supported by governments with high-level representatives from China, Germany, Iceland, Indonesia, Italy, Japan, Kenya, Mexico, New Zealand, The Philippines, Uganda and USA, and many more, as well as from international institutions and financial organizations such as The World Bank, United Nation Environment Program and European Union. This year's forum is expected to accelerate the development of geothermal in the world.

John W. Lund from the Geo-Heat Center, Oregon Institute of Technology, said that geothermal power has produced electric power in 27 countries. Since 2000, the installed capacity in the world has increased by almost 3,000 MW. "Geothermal growth and development of electricity generation has increased significantly over the past 40 years, ranging from 3-11% annually. Direct-use has remained fairly steady over this period at 10% growth annually. Now, 78 countries report utilizing geothermal energy, an almost eight-fold increase in participation. At least 10 countries are expected to be online by 2015," said John. "One of the significant changes for WGC2010 was the increase in the number of countries reporting usage. Six countries were added to the list in the current report, up from 2005 figures. There has also been a large increase in geothermal (ground-source) heat pump installations," he added.

Several countries have also used geothermal more than 5% of their total energy needs, including Papua New Guinea, Tibet, San Miguel Island (Azores), Tuscany (Italy), Iceland, El Salvador, Kenya, Philippines, Nicaragua, Guadeloupe (Caribbean), Costa Rica and New Zealand. "One of the more significant aspects of geothermal power development is the size of its contribution to national and regional capacity and production of countries," John said.



As a host of this year's congress, Indonesia has yet to capitalize on its abundant geothermal resources. "We haven't made the most of our geothermal resources despite our huge potential since our country is situated in the Ring of Fire," Surya Darma said.

Data from INAGA revealed that the country's geothermal potential reached 28,000 MW or around 40% of the world's reserves. Out of 28,000 MW, only 1,200 MW had been utilized. So far, Surya Darma went on, geothermal in Indonesia has only been used to generate electricity.

Despite having huge capacity of untapped geothermal resources, the country has not been able to develop it due to funding problems. The Indonesian government has set a target of developing 9,500 MW of geothermal by 2025. To reach the goal, the government is targeting that 4,000 MW out of its massive 10,000 MW energy acceleration project should be generated from geothermal source by 2015. It is estimated that developing the 4,000 MW will cost around US\$12 billion or IDR 120 trillion. As an initial phase to develop the 4,000 MW, Indonesia will sign 30 agreements on geothermal development cooperation with various parties. The agreements value at between IDR 4 to 5 trillion. "I hope this would be a good start to improve geothermal more seriously," Surya Darma said.

The WGC2010 is expected to produce Bali Declaration for the sake of changing the world through promoting the development of geothermal. 🙌

### AGENDA | April 26, 2010

07.00am – 08.30am	Registration	Registration Counter
09.00am	Pre Congress Information	Nusa Indah Hall
10.00am – 10.30am	Break	Nusa Indah Hall
11.00am -- 12.00am	Opening Ceremony of WGC2010	Nusa Indah Hall
	Keynote Session 1	Room A
	Lunch break	
	Keynote Session 2	Room A
	Technical Session	Room A-J

# Indonesia Launch a 3,997MW Project in WGC2010

DR. IR. BAMBANG SETIAWAN, *Steering Committee Chairman of WGC2010, also Director General of Mineral, Coal, & Geothermal of Indonesia*



**THE** use of renewable energy, i.e. geothermal power, has been frequently promoted all over the world, including in Indonesia. Through the Regulation of the Ministry of Energy and Mineral Resources No. 32 of 2009 on the Power Standard Purchasing Price by State Power Company (PT.PLN) from geothermal power plant.

Director General of Mineral, Coal, & Geothermal of Indonesia, Dr. Ir. Bambang Setiawan said that Indonesia is rich with energy resources. One of them is renewable energy of geothermal power. This power has not been effectively used domestically, even though around 40% world's geothermal power are found in Indonesia. Bambang expects that through World Geothermal Congress 2010 in Bali, Indonesia can accomplish all of its geothermal plans. "This is also a campaign to promote and enhance pollution-free and environmental-friendly energy," explained Bambang.

In terms of geothermal energy development in Indonesia, Bambang said there is a number



of obstacle, such as the problem of upstream and downstream synchronization. The problem, however, does not impede the Indonesian government will to develop geothermal power. The

government has done some efforts to develop and enhance the use of geothermal power by facilitating related parties, among others, State Electric Company and Indonesian Geothermal Association (INAGA); also by issuing the aforementioned regulation of the Ministry of Energy and Mineral Resources No. 32 of 2009. "Of course, we must settle each existing problem, obstacle, and constraint," explained Bambang.

In this world congress, Indonesia plans to launch a 3,997MW project. This project indicates the government's will to really promote geothermal power. Hopefully, this great event will promote the prospective Indonesian potential internationally. Certainly, with the

support from the government to replace fuel with geothermal energy, Bambang expects that this will attract investors to help develop geothermal power in Indonesia. 🌱

## COLUMN

### Our Theme

# GEOTHERMAL: THE ENERGY TO CHANGE THE WORLD

R. GORDON BLOOMQUIST, *Chair IGA WGC 2010 Steering Committee*



**THE** theme for WGC 2010 was chosen by the organizers because it is our sincere belief that geothermal can not only play and ever increasing and important role in contributing to meeting the worlds future energy needs in an environmentally responsible manner, but that it can and should play as great a role in bring societal improvements to much of our world.

Access to an adequate supply of energy allows for increased industrialization and agricultural production. These in turn result in greater opportunities for meaningful employment. Employment brings an increase in the standard of living including improved access to education, medical care and better nutrition, lower instances of infant and child mortality and in increase in life expectancy.

Energy-Geothermal Energy-really can change the world and make our world a better place to live. 🌱

Signed the organizers



Salak Geothermal Field in Indonesia

# WGC2010 FELLOWSHIP PROGRAMME

MAHMUT PARLAKTUNA



**AS** in the previous World Geothermal Congresses, WGC2010 had a fellowship programme to facilitate the attendance of the delegates from developing countries by providing partial funding. An accepted and presented technical paper or poster at the congress is the first condition to be eligible for a fellowship. In addition, the fellowship holder must attend the Congress and only one fellowship was awarded per paper.

Despite the serious efforts of finance and fellowship committees of the WGC2010 to solicit funds for fellowships, the amounts raised were significantly less than anticipated. In large part this reflects the global economic situation and its impact on donors. Nevertheless, the total amount raised was about US\$

230,000 which is very pleasing. The sponsors of the fellowship programme were the UNU Geothermal Training Program in Iceland, National Renewable Energy Laboratory, IGA, Nevada Geothermal Power Inc., GPC IP, SKM, West Japan Engineering Consultants, New Zealand Geothermal Association, Thermochem Inc and an anonymous donor.

There were more than 350 applications for fellowship programme. Through the sponsor's generosity, 190 of them from 49 different countries have received fellowships. China, Indonesia, Iran, Kenya, Mexico, Philippines, Russian Federation and Turkey are the countries with more than 10 delegates receiving fellowships.

**THE** fellowship programme is one that allows members from distant and developing countries to attend the WGC. It is an essential partnership that ensures the sharing of geothermal techniques and knowledge across a wide spectrum. The programme allows members of the geothermal community to travel to WGC to share their extensive knowledge and also to learn new techniques to be taken home. The following is the interviews with a few members of the fellowship programme attending the WGC.



**Sheng Zhong Jie** – China (study in the environmental impact of geothermal utilization)

The programme has been a help to get me to the WGC2010 and it is very helpful. I would like to learn how we can use the knowledge of the impact of geothermal utilization in other countries, as the use of this knowledge and how it is applied are different in each country. In my province in China the level of subsidence is very high I would like to not only learn how other countries deal with this, but also to share my knowledge of this issue with people from other countries. Although in the area that I live the geothermal is of low heat,

it is used over in a large area for heating. We like to call this green energy



**Agoun Aissa** – Tunisia (study geothermal reservoirs)

I would like to find out about geothermal developments around the world and what other countries are doing to use geothermal energy as a solution to global energy issues. I would like to share the know-how of Tunisia: our sharing of geothermal reservoir with 3 other areas, our extensive use of geothermal to power greenhouses for heating, and how the used water in greenhouses is transferred to be used for irrigation. Geothermal is being widely used in Tunisia for Greenhouses,

baths and heating, but it is also used to bring cooled portable water to places without portable water, which is very important. Since we share our aquifer with two other countries we are also discovering ways to manage this.



**Fredolin Javino** – Malaysia (geologist)

I hope to learn from members of the world's community of geothermal about geothermal in terms of assessment, drilling, the cost of drilling, the cost of geophysical surveys, and surface assessment. At the moment Malaysia is in the second stage of development, we have identified the geothermal resources and now the next stage is to

begin drilling



**Mouldi Ben Mohamed** – Tunisia (Agro economist)

The fellowship programme has played a key role in allowing I and other people from distant and developing countries to attend the WGC2010. Tunisia is one of the world leaders in using geothermal energy especially in our use in greenhouses; we are the second in the world to do this. Another way we are using geothermal energy is by cooling the water which has been used to heat the greenhouses, and using it for irrigation. This is very important for an area where water is scarce and conservation of water is paramount.

## FIELD TRIP

WGC2010

# Let's Enjoy the Beauty of Geothermal Regions in Indonesia!



Plantation and tea-leaves picking near the Wayang Windu geothermal power plant

**DO** you want to see the biggest geothermal reserve in the world while enjoying unforgettable natural outing? Let's join us here, you will not regret it. This field trip will be held after the congress, on May 1-3, 2010. The field trip participants, besides visiting the geothermal locations, can also enjoy beautiful natural scenery of Indonesia.

The first choice of the field trip is the outfit to Bandung, West of Java, for 3 days-2 nights on May 1-3, 2010. The geothermal destination and power

plant in West Java is Wayang Windu. In this place you will see from nearby the biggest single geothermal power plant in Indonesia. According to Dr. Bret Mattes, President and CEO of Star Energy which operates Wayang Windu power generation facility, projects like Wayang Windu have helped to raise awareness of the potential of geothermal power and shown that while initial capital costs are high, maintenance costs are so low that geothermal power is significantly cheaper than coal-

Salak Geothermal Field



fired power on a life cycle basis. We have also been able to prove over time that geothermal power does not need the hidden “environmental subsidies” that coal, with its very high levels of air borne pollutants and carbon emissions, requires. Wayang Windu and projects like it (for example Chevron and Pertamina projects in West Java) have given the industry serious credibility in Indonesia and globally.

and friendliness. What’s not less interesting is, at the end of the field trip to Bandung, you will enjoy culinary and shopping tours in a range of restaurants and distribution stores in this chilly city.

The second choice is the trip to Jakarta for 2 days-1 night, on May 1-2, 2010. The geothermal destination and power plant is Gunung Salak, West Java. Gunung Salak, around 120 km from

Visiting Wayang Windu, you will also see the beautiful view of tea plantation and Gunung Malabar forests. You will also visit Ciater hot spring resort as well as take pleasure in the beauty of Tangkuban Perahu crater. You can also go to Bosscha Observatory, the oldest observatory in Indonesia. During the trip, participants will be welcome by the local people’s charm

Jakarta, is the location of the greatest geothermal power developed in Indonesia, up to now it reaches 337 MW. The Salak geothermal project was first started in 1982 and began to produce geothermal power in 1994.

According to Mr. Barry Andrews, President and GM of Chevron Geothermal Indonesia, Chevron Geothermal manages two geothermal projects in Indonesia—Darajat and Salak. The Darajat project supplies geothermal steam, which generates 259 MW of electricity. Chevron has a 100 percent operating interest in the Salak project, one of the largest geothermal operations in the world, with a total operating capacity of 377 MW. The combined output from our Darajat and Salak geothermal operations now produces sufficient renewable energy to supply approximately 4 million homes in Indonesia.

After the visit to Salak Mountain, the participants will directly go back to Jakarta to visit museums in Jakarta, to see the historical development of Jakarta, as well as visit the Beautiful Indonesia Miniature Park (TMII), a miniature park of Indonesia with 33 provinces that represent different cultures. Let’s enjoy the unforgettable field trip ... 🌋

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WGC2010

# BICC, Bali's Meeting Magnet



IF you ask national and international companies about a perfect venue to hold meetings in Bali, they would definitely refer to BICC, a magnet for world-scale conferences.

And now, BICC is again chosen to host another high-level event: the World Geothermal Congress 2010, because the place is perfectly proper to accommodate around 2,000 congress participants.

According to Rainata Tjoa, Marketing Communication Director of the Westin Resort Nusa Dua Bali, in preparation for the WGC2010, the Convention team at Bali International Convention Centre has conducted a series of pre-event meetings to ensure all arrangements carried out as planned. She added that several coordination meetings with the event organizer Pacto Convex have also taken place.

"We believe that communication and coordination within our internal teams together with the organizing team will play a vital part in the overall success of the event".

"Therefore, representatives from the Convention, Sales, Food & Beverage and Security Departments along with the General Manager and Hotel Manager were also invited to attend the final coordination meeting with the organizer. Each respective department has been actively involved in the preliminary details of this international event."

For day to day correspondence, the organizer needs only to keep in touch based on the guidance our dedicated event specialists, who will be the central point of contact. This strategy avoids miscommunication as the information comes from one source only. "We are extremely proud to be trusted by the International Geothermal Association (IGA) and the Indonesian Geothermal Association (INAGA) to host such a prestigious event. We are confident that everything will run exceedingly well.



People meeting at BICC

"We look forward to welcoming all the participants and offering them our warm Balinese hospitality together with our world class facilities and services. I wish the event every success and hope that all delegates will leave the island with an enriching Bali experience that will encourage them to return again soon for business or leisure," commented the General Manager of the Westin Resort Nusa Dua, Bali and BICC, Mr. Bipan Kapur.

Bali International Convention Centre (BICC) in Nusa Dua has long been famous as one of the most representative venues for international-scales meetings, witnessing the world's delegates agreed

upon a number of important global treaties.

Established in 1991 in Bali's tourism development complex, BICC has been designated as international-class venue with 17 theater-styled meeting rooms having capacity for 2,500 people, an auditorium, a performance stage and 2,700-squaremeter exhibition area.

Exhibitions can be held not only in the usual arrangement of indoor, but also outdoor, heading to the beach. BICC management also provides warehouses to store logistics for exhibitions, as well as an adequate facility to load goods. A supporting team is also ready to professionally assist the event organizer.

Other facilities are also available at the convention center, including banks, tour desks, clinics, boutiques, and shopping arcade. 🏠

## CORNER



Among the 78 paintings on display

### Geothermally Speaking .....

**TO LIVEN** things up, the Organizing Committee of WGC2010 has invited children from Bali province as well as university students and public from Indonesia to participate in the WGC2010 Painting Competition with Geothermal as Clean Energy as the central theme.

The total artworks of 78 paintings which includes 12 winners are now being exhibit at the congress venue at BICC from April 25 to April 30, 2010. Each of them will be auctioned off with proceeds for local charity foundation in Bali. That's right! You can own a little piece of painting, and support the Bali community.

Silent Auction of Paintings begins at 8:00 a.m. on 25 April 2010 and ends at 5:00 p.m on 27 April 2010, and to be auctioned off on 27 April 2010 and announced at the Indonesian Cultural Night at Garuda Wisnu Kencana for a minimum of USD 5000 value for one of the paintings. 🏠



A number of participants enrolled in regristrastion desk before attending the congress to be opened on April 26 by Indonesian President Susilo Bambang Yudhoyono



WGC2010 golf tournament at New Kuta Golf, Pecatu.



Iceland President Olafur Ragnar Grimsson having a chat with Bali Governor Mangku Pastika at WGC2010 Welcome Reception



A participant is singing after the WGC2010 golf tournament



Welcome Dance at WGC2010 Welcome Reception at Westin Poolside

# GLOBAL CONSULTING COMPANY

## SENIOR EXECUTIVE APPOINTMENTS – ENERGY SECTOR



### **Regional Director, Energy, Asia**

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**Location: Flexible although anticipated to be in Singapore or Kuala Lumpur, Malaysia**

### **Business Development Lead, Indonesia**

You will be responsible for business development in the Indonesia Energy Sector as well as other infrastructure sectors particularly Water and Transportation.

You are required to prepare and develop proposals as well as manage and deliver engineering assignments.

**Location: Jakarta, Indonesia**

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