

Dear members of EGEC,

dear readers of this newsletter,

This editorial comes to you directly from the European Union Sustainable Energy Week in Brussels. For the ninth time now, energy experts from all over Europe gather to exchange views and discuss technical and non-technical development in energy saving and clean, sustainable energy production. A plethora of events concur for the interest of the participants, with the High Level Policy Conference of the European Commission at centre stage. You can find all information on this "EUSEW", including live stream (and later recordings), at [www.eusew.eu](http://www.eusew.eu).

For the geothermal sector, the EUSEW started with a workshop organised by EGEC in the framework of the Regeocities project. Under the title: 'Developing Sustainable Energy in your city? Best practice for Shallow Geothermal Systems', we discussed what local administrations can do to integrate shallow geothermal technology in city planning, and how regulation and permitting can be done swiftly, but also secure the protection of environment and groundwater. The two best practice examples of municipal activity were a true highlight, and should encourage others to follow. I like to take this opportunity to say special thanks to Pia Winbladh Högfors from Stockholm and to Ella van der Hout from Rotterdam for coming and sharing their experience! See for more info on this event inside this newsletter.

Also at EUSEW, the Sustainable Energy Europe Awards ceremony was held. Within the two relevant 'hardware' categories, CONSUMING (energy efficiency in production and consumption processes and renewables) and LIVING (exemplary buildings), projects including geothermal technology where among those shortlisted as official

- In CONSUMING: High Temperature Borehole Thermal Energy Storage at Xylem in Emmaboda, Sweden,

a system storing heat from industry (Xylem Water Solutions AB) in the ground using 140 borehole heat exchangers each 150 m deep, and retrieving that heat for heating purposes in winter

- In LIVING: Open Garden - NGO Centre for Environment and Education, a group of office buildings of the Czech Environmental Partnership Foundation in Brno, using, among other technologies, a geothermal heat pump with 8 borehole heat exchangers each 105 m deep



Alas, none of them made it to the very top of receiving the award, but being shortlisted as one of only five nominations for each category is a good sign of the quality of the projects. And for the next year, I hope to see more geothermal technology in the contest, and maybe even a geothermal winner. More information can be found online [here](#).

This week, the targets for 2020 have been reaffirmed by almost everybody, up to Commissioner Oettinger himself. A new driving force has joined the issues of limitation of resources and of climate protection, which is energy security. The independence that can be achieved through energy efficiency and renewable (indigenous) energy is in the spotlight. My hope is this will fuel the discussion for measures for the time after 2020, and will encourage the political leaders to opt for much more ambitious renewable energy targets for 2030 than those we have seen recently.

I wish you an interesting read,

Burkhard Sanner

## European Energy Security Strategy: EGEC welcomes the relevance given to renewables for heating and electricity

On 28th May 2014 the European Commission published its Communication on Energy Security, which proposes a set of immediate actions to address the current crisis but mostly concentrates on other measures to be implemented in the longer term. The proposed measures include moderating energy demand, as well as increasing energy production and developing energy technologies in the EU.

In particular the European Commission recognises the “significant cost-effective potential for renewable electricity and renewable heating to further reduce natural gas use in a number of sectors by the end of this decade. Notably, a fuel-switch to indigenous renewable heating sources can displace significant amounts of imported fuels. According to their national renewable energy plans, Member States already plan to add an additional 29 Million tonnes of oil equivalent of renewable heating”.

According to projections from the industry, however, the EU could go beyond and reach a 25% share of renewables in the heating and cooling sector by 2020. At the current average import prices for natural gas, this would save the EU as much as €21 bn annually.

See:

The [Communication from the Commission](#)

the EGEC, AEBIOM and ESTIF [position paper](#)

and our [reaction to the Communication](#).

## Consultation on Carbon Capture and Storage Directive Evaluation

After five years from its entry into force, the CCS Directive requires a thorough review, in accordance with Article 38 of the Directive, to assess whether it still provides an adequate regulatory framework for CCS in the EU. The consultation is open until the 16th of July. For more information see [here](#).

In this regard, for years EGEC has been warning about possible underground competition and, in line with the European Parliament’s [resolution \(2011/2309\(INI\)\)](#), urges public authorities to introduce underground regional planning in order to optimise resource allocation between geothermal energy, shale gas, carbon capture and storage, and possible other underground usages, and therefore maximise the benefits of our underground resources for society.



## Work begins on new well in Çanakkale, Turkey.

Transmark renewables has announced that on 22nd May, it successfully spudded the geothermal well KOC-1 in North West Turkey. The company is now targeting two reservoir sections, one shallow and one deep. Temperatures of up to 170 °C have been recorded in shallow reservoirs recently, whilst KOC-1 is expected reach a medium enthalpy reservoir.

KOC-1 is being drilled by Transmark Service's 125 tons Semi-trailer Mounted Rig Gerry-II. A database of drillers was created last year by the GeoElec project, to which those working in the drilling sector are invited to contribute.

## Global Renewable Energy Generation Jumps to Record Level.

The REN21 Global status report, launched this month, found that Renewable Energy Generation capacity has reached new capacities thanks to policy support in emerging economies. Last year, renewables accounted for more than 56% of net additions to global power capacity. In the European Union, 2013 marked the sixth consecutive year in which renewables represented the majority of new electricity generating capacity; in 2013 the share was 72%, a huge change compared to 2003, when fossil fuels accounted for 80% of new capacity. Heating and cooling from RES remains small but is growing, amounting to an estimated 10%.

Geothermal saw a growth in investment from the end of 2012-2013 of 0.5bn USD. In terms of Geothermal power capacity, the top five countries in descending order were: the United States, the Philippines, Indonesia, Mexico, and Italy. For heat the top five countries were: China, Turkey, Iceland, Japan, and Italy

About 530 MW of new geothermal generating capacity came on line in 2013 bringing total global capacity to 12 GW. This 4% growth compares to 3% in 2010-2012.

## EUROGIA2020 Call 03

The EUREKA low-carbon energy technology cluster has announced its latest call (CALL 03) for the submission of transnational low-carbon energy related research and development projects.

The goal of EUROGIA2020 is to help important collaborative project ideas to become reality. Between the years 2008 -2013, 29 transnational projects were labeled representing close to 200 €Mio of project costs.

The next cutoff date is 22nd September. Submitted projects will then be reviewed on 9th October. For more information visit [www.eurogia.com](http://www.eurogia.com)



EGEC is a non-profit membership organisation whose sole aim is the promotion of the geothermal industry. It supports its members by lobbying on their behalf.

More than 130 members from 28 countries (including private companies, national associations, consultants, research centres, geological surveys, and public authorities) make EGEC a strong and powerful network, uniting and representing the entire sector.

## CEGE signs new geothermal concession contracts in Hungary

CEGE Ltd, owned by MOL Pls and Australian Green Rock energy International Ltd. has obtained rights for geothermal exploration in a 390 km<sup>2</sup> concession area in Jászberény, Hungary. The two year exploration phase aims to explore the geothermal potential of the area through reinterpretation of existing 3D seismic data, shooting new magnetotelluric points, drilling a close to 3,000 m deep geothermal production well and through the establishment and testing of a geothermal system composed of a doublet. The expected CAPEX of the exploration project exceeds the amount of HUF 3.1bn/ EUR 10 Mio.

## Work about to start on world's largest geothermal plant.

Work will begin this month on the Sarulla project, north Sumatra, Indonesia. The announcement, made after the country's chief economic minister, comes after long delays for the 1.6 bn USD 330 MW project.

## New Non-Domestic Renewable Heat tariffs in the UK

Tariffs for the Non-domestic Renewable Heat Incentive (RHI) have been almost doubled, in a move which should boost the shallow geothermal sector.

David Matthews of the GSHPA said that "the GSHP sector will now really begin to grow again. In future, GSHP systems should soon be recognised by all as a technology of choice"

The tariffs change from 4.8p (6€c)/ kWh for installations less than 100kWth and 3.5p (6€c)/ kWh for large installations, to 8.7p (10.8€c)/ kWh for the initial heat produced.

*With 10% of the global market, the French industry has taken its place in the geothermal sector and will continue its development in international markets.*

*Christian Boissavy, GEODEEP chair and EGEC board member*

## Campaign for the development of the French Geothermal Electricity industry and a €100mio risk insurance scheme

On the 25th June, 12 French companies officially joined forces under the 'GEODEEP' cluster. Together they call for a €100mio risk insurance fund, and the development of around 20 geothermal plants in France by 2020, leading to €2bio in revenues and the creation of 1,000 jobs. The Cluster brings together companies representing more than €119 mio and 300,000 employees globally.

### **A €100mio risk insurance fund to unblock project financing.**

France has a history of geothermal insurance schemes for the geological risk dating back to the 80s, and now the GEODEEP cluster is now raising support for an innovative insurance fund. The geological risk is today considered by the industry to be the main financial barrier.

The fund would be divided into two sections: one for pre-commercial EGS projects (50MW, 10 doublets), and the other for high temperature projects in French overseas departments (60MW, 4 projects) and internationally (180MW, 6 Projects).





## GeoDH Training courses about to begin

On the courses:

### Geothermal technology

- Overview of geothermal energy
- Prospective for geothermal DH in Europe & Geothermal DH potential in Europe, webmap viewer
- Geothermal project phases and concepts
- Drilling technologies, Production, Operation and Management

### District Heating technology

- Planning (Existing infrastructure or new, Heat demand, Other producers, Interaction between geothermal and other producers to meet heat demand)
- DH network (Transmission and/or distribution network, temperature level)
- Geothermal plant (Principal sketch with elements, Heat exchangers, Heat pumps, Design of plant size, Water chemistry)

### Non-technical issues

- Regulations, standards and codes
- Environmental issues
- Risk insurance
- Financing costs and investment analysis

GeoDH training courses for local authorities, the building sector, and District Heating companies will be held across Europe over the next few months.

The purpose is to give participants an opportunity to improve and update their knowledge about GeoDH, to find out about best practices and how to transfer these experiences to their own work, and understand how the industry can be developed at a national and regional level.

More dates will be available soon at [www.geodh.eu](http://www.geodh.eu). If you are interested in a training course, sign up to the GeoDH mailing list or contact [com@egec.org](mailto:com@egec.org).

**Are you interested in geothermal District heating? Click to sign up to our mailing list**

Training course/Workshop	7 July	Westland	Netherlands
Training course/workshop	26-27 August	Copenhagen	Denmark
Training course/Workshop	7 October	Heerlen	Netherlands

# REGEOCITIES

On the integration of shallow geothermal energy at a local and regional level

## Best Practices for Shallow Geothermal Energy Systems 23rd June 2014

### Session 1: Geothermal energy for Smart Cities: Moderator: R. Pasquali (SLR)

- Shallow geothermal systems: Technology and market development: B. Sanner (UBeG)
- Overview of the REGEOCITIES project: J. Cuevas (AIDICO)
- Best practices from Stockholm: P. Winbladh Högfors (Stockholms stad)
- Best practises from the Netherlands: E. van der Hout (Gemeente Rotterdam)

### Session 2: Measures to Remove Barriers to Geothermal in Cities. Moderator: B. Sanner (EGEC)

- Solutions from REGEOCITIES: Parallel Info Booths
  - Registration of Shallow geothermal systems: database and handbook: B. Godschalk (IF Technology)/ A. Goumas (CRES)
  - Main aspects related to the integration of the SGE systems in cities and buildings J. Benson (SP)/ R. Pasquali (SRL)
  - Geothermal Training Schemes: A. Montero, (University of Valencia)/D. Cucueteanu (RGS)
  - Repowermap - a tool to visualise your region's renewable installations: A. Latham (EGEC)
- Energy Planning and Financing of Heating and cooling Projects A. Aguilo (EC)
- Sustainable Energy Action Plans - why include geothermal energy? D. Cucueteanu (RGS)/ E. Annunziata (SSSA)

### About the Event

European Sustainable Energy Week began in earnest on Monday with the ReGeoCities project event 'Developing Sustainable Energy in your city? Best practice for Shallow Geothermal Systems.'

The event was an opportunity for those interested in enabling and increasing the use of geothermal energy in cities to find out about the project and what tools are available to help them.

The presentations from the workshop are now available at [www.regeocities.eu](http://www.regeocities.eu).



ReGeoCities Training courses	March-August	Across Europe	<a href="#">website</a>
ReGeoCities: Integrating shallow geothermal energy in cities at a local and regional level	23rd June	Brussels, Belgium	<a href="#">Website</a>
2nd International Symposium on Energy Challenges and Mechanics	19-21 August	Aberdeen, Scotland	<a href="#">website</a>
Status and Future of Geothermal Energy in the peri-Adriatic Region	24-28 August	Veli Losinj, Croatia	<a href="#">website</a>
Der Geothermiekongress 2014	11-13 November	Essen, Germany	<a href="#">website</a>
GeoPower Global Conference	2-5 December	Istanbul, Turkey	<a href="#">website</a>
World Geothermal Congress 2015	19-25 April 2015	Australia & New Zealand	<a href="#">website</a>



## GeoPower Global Congress

2-5 December  
Istanbul, Turkey



# E G E C

EGEC MARKET REPORT 2013/2014



Third Edition,  
December 2013

**T**he Annual EGEC market report maps and analyses the **entire geothermal sector**, covering both electricity and heating&cooling uses.

It includes **market development analysis, financial tools and incentives, market forecasts, and key players**. The details of every electricity and large heating project (in operation, under development and under investigation) is given.

The market report is available to non EGEC members for €250, and is **free to members**.

Order your copy of the market report or find out more about joining EGEC by emailing [com@egec.org](mailto:com@egec.org).

## For Shallow Geothermal

The market- development so far, today, and until 2020

- Legislative developments
- Regulations, training, and quality
- Financial Incentives across Europe

## For Electricity

- Analysis of the turbine market
  - Market conditions
  - Market developments
  - Hot Markets
- Potential for Electricity development until 2050
  - Regulatory Framework
- Details of Existing, developing and planned electricity projects

## For District Heating

- New developments in 2012
  - Market Analysis
- Focus on three hot markets
  - Development potential
  - Business models
- Market conditions and competition
- Financial Support schemes across Europe