# SIXTH FRAMEWORK PROGRAMME



Project contract no. 043363



## **MANMADE**

# Diagnosing vulnerability, emergent phenomena and volatility in man-made networks

### SPECIFIC TARGETED PROJECT

**NEST PATHFINDER** 

Sub-Priority Tackling Complexity in Science

# M33: Deliverable 6.2: The Deregulated European Energy Market

Revision [1]

Submission date: December, 2009

Start date of project: 1<sup>st</sup> of January 2007 Duration: 36 months

Lead author for this Report: D.K. Arrowsmith (QMUL).

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)			
Dissemination Level			
PU	Public	X	
PP	Restricted to other programme participants (including the Commission Services)		
RE	Restricted to a group specified by the consortium (including the Commission Services)		
СО	Confidential, only for members of the consortium (including the Commission Services)		

# 1. Purpose of this report

This report provides a project update to the project Science Advisors, as of the report date. This report summarises:

- 1. the deliverable
- 2. the team leaders for the deliverable an outline of the activities
- 3. a report by the coordinator

### 1. Workshop on the "Deregulated European Energy Market"

The meeting was held at Collegium Budapest on September 24-25 September 2009. The participants were a mixture of academics, energy providers and government scientific advisors. The presentations are all available in the FTP folders on our manmadenet.eu web site. There were follow-up meetings of COLB and eon, the major energy distributor in Hungary. These meetings were facilitated by the workshop interactions.

#### 2. The team leaders

The organisers were Prof. Gabor Papp and Prof. Gabor Vattay (COLB and Eotvos Lorand University), Dr Laszlo Varga (eon).

#### 3. Report by the coordinator

The coordinator attended the meeting at which some five scientific presentations were made directly relevant to the theme of deregulation and new energy sources. There were presentations from JRC, COLB and EON. The talks covered

Wind power and its variability over Europe by Peter Kiss (COLB),

Data mining techniques by Laszlo Varga E.ON,

How to upgrade the European power grid to enable high penetration of wind power, by Zeno Farkas and Gabor Papp,

The behaviour of day-ahead electricity prices: Analysis of spot electricity prices using statistical, econometric, and econophysical methods, Zita Marossy

On the implementation of Geographic Information Systems and vulnerability assessment of networks to natural hazards, Flavio Bono.

# **Conference details**

COLLEGIUM BUDAPEST Institute for Advanced Study



Szentháromság utca 2. H - 1014 Budapest Tel: (+36-1) 2248 300 e-mail:info@colbud.hu web-site: www.colbud.hu

#### Workshop on

## DEREGULATED EUROPEAN ENERGY MARKET

24-25<sup>th</sup> September, 2009 Collegium Budapest, Hungary

The workshop presents an overviews of the recent changes in the European energy market, such as consequences of the deregulation, increasing percentage of renewable energy, risks induced on the energy networks, energy supply and price fluctuation.

#### Topics include:

- European regulations
- Vulnerability and risk
- · Energy price fluctuations
- · Critical cascading failures
- · Interconnected energy networks
- · Effects of renewable energy

#### Speakers include:

- · Dr. Flavio Bono, Joint Research Centre
- · Dr. Zénó Farkas, Collegium Budapest
- Dr. Rita Labundy, National Office for Research and Technology
- Zita Marossy, Corvinus University
- Dr. László Varga, EoN Hungary

#### Schedule:

24 September, Thursday 12:00 Registration 14:00-18.00 Lectures

25 September, Friday 09.15-12.00 Lectures

The workshop is open to the public and free of charge. In the framework of and funded by the MANMADE EU FP6 project.

## Detailed program

24 September, T 12:00-12:30	hursday registration			
12:30-14:00	lunch			
14:00-14:15	Opening remarks	Andrew Sors		
	Data Mining Techniques in Electricity Prici			
14:15-15:00				
15:00-15:45	The behaviour of day-ahead electricity price	es. Zita Marossy		
15:45-16:15	coffee break	to Book William		
16:15-17:00	Estimating wind power potential and variabilities over Europe	its Péter Kiss		
17:00-17:30	Wind power plants and the Hungarian pov system (T.B.C.)	wer Zoltán Romhányi		
18:00-	banquet			
25 September, F	riday			
9:15-10:00	On the implementation of Geograp Information Systems and vulnerabil assessment of networks to natural hazards			
10:00-10:30	coffee break			
10:30-11:00	Hungarian participation in FP7	Rita Labundy		
11:00-11:45	How to upgrade the European power grid	to Zénó Farkas		
12:00-	enable high penetration of wind power lunch			
Participants:				
Prof. Arrowsmith		d.k.arrowsmith@qmul.ac.uk		
David	School of Mathematical Sciences, Queen Mary University of London			
Boja, Áron	student			
Boja, Atoli				
Dana Elavia	Eötvös Loránd University	flania hana @ina na annana an		
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	Institute for the Protection and			
D F 1 7/ /	Security of the Citizen			
Dr. Farkas, Zénó	Research fellow	farkas.zeno@gmail.com		
Dr. Labundy, Rita	Collegium Budapest National Office for Research and	rita.labundy@nkth.gov.hu		
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Aleksandra	Faculty of Electrical Engineering and			
	Information Technologies, Skopje			
Kiss, Péter	Collegium Budapest	kisspeter@complex.elte.hu		
Marossy, Zita	Corvinus University	zita.marossy@uni-corvinus.hu.		
Prof. Nowak,	Jagiellonian University, Kraków,	nowak@th.if.uj.edu.pl		
Maciek	Poland	no nake diminajioda.pi		
Romhányi, Zoltán	Hungarian Transmission System			
-	Operator Company Ltd.			
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