

Paper 09GM0116

Energy Developments in South East Europe

Tom Hammons and Niko A Iliadis

Working Group European Electricity Infrastructure

2009 IEEE PES General Meeting, July 26-30 2009, Calgary, Alberta, Canada

Sponsored by: International Practices for Energy Development and Power Generation

Chairs: Tom Hammons, University of Glasgow, Scotland, UK
Niko A Iliadis, EnerCoRD, Athens, Greece

Track 1: Transmission Enhancements in the 21st Century

INTRODUCTION

On behalf of the Energy Development and Power Generation Committee, welcome to this Panel Session on Energy Developments in South East Europe (SEE).

The SEE energy market consists of the countries of: Albania, Croatia, Romania, Serbia, Montenegro, Turkey, FYROM, Bosnia-Herzegovina, Bulgaria and Kosovo. In this coalition, important role-players are the countries of: Greece, Italy, Slovenia, Hungary, Austria and other countries of Central East Europe (CEE).

The SEE energy market is growing fast where in the last 10 years it has gained significant importance. This is due mainly to the: transportation of fuels from Middle East and Russia to Central Europe, synchronization and coordination with the UCTE network, lucrative opportunities for investment in the development of energy projects, political stabilization in the area, strong economic growth of the area, inclusion of several countries of SEE in the EU and political decision of governments to act as an energy hub. Heavy investment is taking place from the largest European companies in both fields of energy and electricity. Infrastructure projects for gas, oil and electricity are studied and developed in all the above-mentioned countries and across them. New developments and repowering is taking place both in the conventional and renewable fields of technology.

In this session, we have invited authors from both academia and industry to present their professional and scientific advance through theory and case studies. We will focus on energy projects studied and developed in SEE and closely related countries, their role in energy market development, their influence from the current and planned regulation and the issues of expansion and operation modeling of this market.

PANELISTS

The Panelists and Titles of their Presentations are (in format of name of Authors and Title of the Paper):

1. Davor Bajcs (Energy Institute Hrvoje Pozar, Croatia). *Existing SEE Transmission System and Development* (Invited Panel Presentation Summary 09GM886).
2. Massimo La Scala (Politecnico di Bari, Bari, Italy) and George Gross (University of Illinois at Urbana-Champaign, USA). *Modeling and Simulation of the Interconnected SEE and Italy Electricity Markets* (Invited Panel Presentation Summary 09GM1029).
3. Manuel V. Tinoco (SNC-Lavalin Inc., Canada). *Development of the SEE Electricity Market – Current Obstacles and Way Forward* (Invited Panel Presentation Summary 09GM0582).
4. Jorge Karacsony (Mercados EMI, USA). *Achieving Adequacy in South East Europe* (Invited Panel Discussion).
5. Manfred Pils (Verbund, Austria). *Development of Coordinated Cross-border Congestion Management in the SEE Region* (Invited Panel Presentation Summary 09GM0907).
6. Niko A. Iliadis (EnerCoRD, Greece) and P. Biskas (Desmie (Hellenic Transmission Operator, Greece)). *Trading Opportunities in SEE* (Invited Panel Presentation Summary 09GM0948).
7. Sergi L. Palamarchuk and Nikolai Voropai (Energy Systems Institute, Irkutsk, Russia). *Status and Development of the Russian Electricity Market* (Invited Panel Presentation Summary 09GM1410).
8. Invited Discussers

Each Panelist will speak for approximately 20

minutes. Each presentation will be discussed immediately following the respective presentation. There will be a further opportunity for discussion of the presentations following the final presentation.

The Panel Session has been organized by Tom Hammons (Chair of International Practices for Energy Development and Power Generation IEEE, University of Glasgow, UK) and Niko A Iliadis (EnerCoRD, Athens, Greece).

Tom Hammons and Niko A Iliadis will moderate the Panel Session.

INVITED DISCUSSIONS

Achieving Adequacy in South East Europe

Jorge Karacsonyi (Mercados EMI, USA).

Reliability of supply, both in respect to adequacy and security, is presently one of the main issues in all electricity markets around the world. In particular, there are concerns about the ability of the electricity markets to attract enough investment to ensure the system's adequacy. This issue is relevant in the South East European countries, where presently the levels of capacity reserves are low and substantially below the margins in the European Union. The country strategies to address this issue vary; for instance, from Albania that has been trying to obtain an appropriate level of supply through imports from neighboring countries, to Turkey that recently passed a wide package of measures that encompass suppliers' obligations to contract, a capacity market, and last resort actions by the government and the system operator.

This discussion analyses the present state of adequacy in the SEE countries and the ongoing strategies to address this issue, comparing them with similar actions in other parts of the world, particularly the EU, Latin America and the USA. Finally some measures are proposed, oriented to a common approach for achieving an appropriate level of adequacy, based on a higher level of integration.

PANELISTS:

1. Davor Bajš
Energy Institute Hrvoje Požar
Zagreb, 22250-906
Croatia
E-mail: dbajš@eihp.hr
Tel: +385 1 6326 102
Fax: +385 1 6040 599
2. Massimo La Scala
Politecnico di Bari
Bari
Italy
E-mail: lascala@poliba.it

George Gross
University of Illinois at Urbana-Champaign
339 Everitt Laboratory
1406 W. Green Street
Urbana, IL 61801
USA
E-mail: Gross@illinois.edu
Tel: +1 217 244 1228
Fax: +1 217 333 1162

3. Manuel V. Tinoco
Team Leader Power Sector Consulting Group
SNC-Lavalin Inc.
T&D Division
2425 Pitfield Blvd.
Montreal, Quebec
Canada H4S 1W8
E-mail: manuel.tinoco@snclavalintd.com
Tel: +1 (514) 334-6780, ext. 5435
Fax: +1 (514) 334-6057
4. George Karacsonyi
Mercados EMI
8th Floor
34 Orense Street
28020 Madrid
Spain
E-mail: jkaracsonyi@mercadosemi.es
Tel: +34 91 579 5242
Fax: +34 91 570 3500
5. Manfred Pils
Head of Unit Market Management (UMM)
Verbund -- Austrian Power Grid AG
Wagramer Straße 19
IZD-Tower
1220 Wien
Austria
E-mail: Manfred.Pils@verbund.at
Tel: +43 (0) 50313 – 56102
Fax: +43 (0) 50313 - 56102
6. Niko Iliadis
EnerCoRD
Plastira Str.4
Nea Smyrni – 171 21
Athens
Greece
E-mail: Niko.ILIADIS@EnerCoRD.com
Tel: +30 210 932 1700
Mob: +30 694 437 0555
Fax: +30 210 932 1717

P. Biskas
Desmie (Hellenic Transmission Operator)
Greece
E-mail: pbiskas@desmie.org

7. Sergi L. Palamarchuk
Energy Systems Institute
130 Lermontov Str.,
Irkutsk, 664033
Russia
E-mail: palam@isem.sei.irk.ru
Tel: +7 3952 42 2955
Fax: +7 3952 42 6796

Nikolai I. Voropai
Professor, Corresponding Member of RAS
Director of Energy Systems Institute
130 Lermontov Str.,
Irkutsk, 664033
Russia
E-mail: voropai@isem.sei.irk.ru
voropai@ieee.org
Tel: +7 3952 42 4700
Fax: +7 3952 42 4444

PANEL SESSION CHAIRS

Tom Hammons

Chair International Practices for Energy Development
and Power Generation
Glasgow University
11C Winton Drive
Glasgow G12 0PZ
UK
E-mail: T.Hammons@ieee.org
Tel: +44 141 339 7770

Niko Iliadis

EnerCoRD
Plastira Str.4
Nea Smyrni – 171 21
Athens
Greece
E-mail: Niko.ILIADIS@EnerCoRD.com
Tel: +30 210 932 1700
Mob: +30 694 437 0555
Fax: +30 210 932 1717

BIOGRAPHIES



Faculty of Engineering, University of Glasgow,

Thomas James Hammons (F'96) received the degree of ACGI from City and Guilds College, London, U.K. and the B.Sc. degree in Engineering (1st Class Honors), and the DIC, and Ph.D. degrees from Imperial College, London University. He is a member of the teaching faculty of the

Scotland, UK. Prior to this he was employed as an Engineer in the Systems Engineering Department of Associated Electrical Industries, Manchester, UK. He was Professor of Electrical and Computer Engineering at McMaster University, Hamilton, Ontario, Canada in 1978-1979. He was a Visiting Professor at the Silesian Polytechnic University, Poland in 1978, a Visiting Professor at the Czechoslovakian Academy of Sciences, Prague in 1982, 1985 and 1988, and a Visiting Professor at the Polytechnic University of Grenoble, France in 1984. He is the author/co-author of over 400 scientific articles and papers on electrical power engineering. He has lectured extensively in North America, Africa, Asia, and both in Eastern and Western Europe.

Dr Hammons is Chair of International Practices for Energy Development and Power Generation of IEEE, and Past Chair of United Kingdom and Republic of Ireland (UKRI) Section IEEE. He received the IEEE Power Engineering Society 2003 Outstanding Large Chapter Award as Chair of the United Kingdom and Republic of Ireland Section Power Engineering Chapter (1994~2003) in 2004; and the IEEE Power Engineering Society Energy Development and Power Generation Award in Recognition of Distinguished Service to the Committee in 1996. He also received two higher honorary Doctorates in Engineering. He is a Founder Member of the International Universities Power Engineering Conference (UPEC) (Convener 1967). He is currently Permanent Secretary of UPEC. He is a registered European Engineer in the Federation of National Engineering Associations in Europe.



Niko A. Iliadis received his Diploma in Civil Engineering from EPFL (Swiss Institute of Technology of Lausanne) with specialisation in hydraulic structures and energy systems management. He conducted

his diploma thesis research in the Energy Laboratory of MIT within an ABB project. He conducted his PhD at EPFL on energy systems optimization subject to financial risk constraints. In 2005 he earned an executive certificate in Financial Engineering from HEC Business School in Lausanne, Switzerland.

He has worked for Energie Ouest Suisse (EOS Holding) in Switzerland as an analyst and trader. He has continued as a portfolio manager of the French Generation assets for Energy Suez Europe of GDF-Suez Group in Belgium. He then worked for Power Systems Research (PSR) in Rio de Janeiro Brazil as a senior engineering analyst and consultant on energy systems projects. Since 2007 he has worked for EnerCoRD as a senior engineering analyst and

consultant on Energy Systems.

He is a member of IEEE, Informs, SIAM, TEE and COSP. He has published a series of publications in the fields of operational research,

hydrothermal optimization, risk management and Power Systems Development.