



CIGRÉ SEERC

SOUTH EASTERN EUROPEAN REGION OF CIGRÉ (SEERC)

BIH – GRC - HRV – ITA – MKD – MNE – ROU – SRB – SVN – TUR - UKR –AUT* - HUN*

December, 2014

MINUTES OF THE MEETING IN BELGRADE 2014

Second official meeting of the South East European Region of CIGRE (SEERC) was held in Serbia on Thursday, 6th November 2014, in Belgrade, in Hotel Crowne Plaza. Meeting was hosted by NC CIGRE of Serbia.

Agenda of the meeting (10:00)

1. Opening speech of the Chairman of the Serbian NC CIGRE
2. Minutes of the last meeting in Rome (January 2014)
3. Final Report of the Ad Hoc Advisory Group founded at Rome meeting
 - a. Position paper,
 - b. Results from Questionnaire,
 - c. Discussion on Regional working groups.
4. Corrigendum on Memorandum of Understanding
 - a. Regional Advisory Group on Technical issues
 - b. New full members: NC Greece, NC Turkey
5. Discussion on Regional Rules in coordination with Central Office Paris
6. Exchanging information country by country
7. Proposal for the First SEERC Conference
 - a. Selection of topics, programing committee,
 - b. Invitation for cooperation with MEDRING, ACER, ENTSO-E,
 - c. Academic and Industry forums
8. Any other business (cooperation with AORC-CIGRE))
9. Follow up

Presence: (15)

- Massimo Rebolini, Massimo Pompili, Lino Picheo, Fabio Capece, Sofiane Atek (ITA)
- Gojko Dotlić, Đorđe Golubović, Dragan Balkoski, Nebojša Petrović (SRB)
- Božidar Filipović-Grčić (HRV)
- Yuri Bondarenko, Anastasia Trukmachova (UKR)
- Rubin Taleski (MKD)
- Krešimir Bakič, Maks Babuder (SVN)

Excuses for absence: Milutin Ostojić, Claudio Marchiori (MNE), Rusmir Mahmutćehajić (BIH), Ciprian Diaconu (ROU), Dimitrios Michos (GRC); excuse was received also from the Austrian NC CIGRE.

Ad1) *Opening*

The meeting was opened by the chairman of the Serbian NC CIGRE Gojko Dotlić, who welcomed everyone present and briefly presented the Electric Power System of Serbia.

Chairman of SEERC Kresimir Bakic informed delegates that just before the meeting he received the document signed by chairmen of NC CIGRE of Turkey that they joined SEERC.

Ad2) *Minutes of the last meeting*

Minutes of the first official meeting in Rome was approved without any remarks. Meeting in August during the CIGRE Session in Paris was informal meeting which helped to improve results of work of Ad Hoc group and to exchange information between members.

Ad3) Final Report of the Ad Hoc Group

Ad Hoc group was dealing with three main tasks: preparation of **Position paper** on objectives and driving forces for regional cooperation of CIGRE National Committees, preparing and analyzing **Questionnaire** collecting the opinions of the representatives of the CIGRE National Committees due to preparing a platform of common interests and voluntary commitment in order to manage better the Regional CIGRE cooperation and proposal for setting up four **regional WGs**.

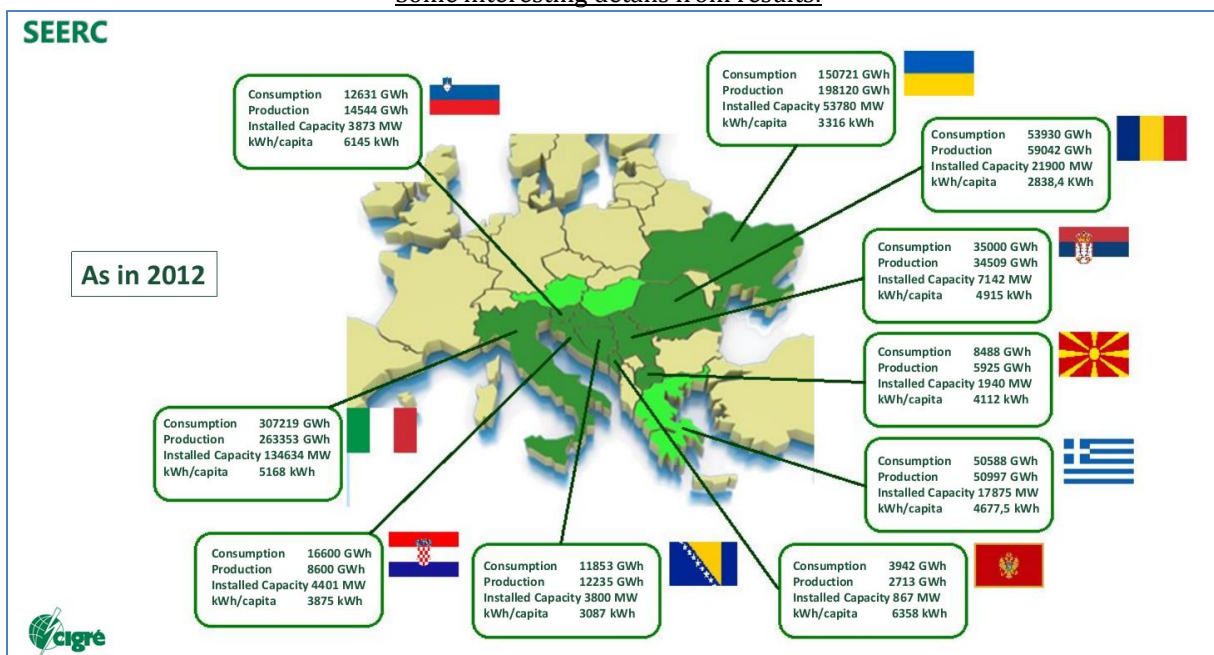
After detailed discussion all members agreed with last version of Position paper.

Action 3.1:

Position paper (attached at Minutes of Meeting) has approved as document which describe the objectives and driving forces for cooperation in this region of CIGRE. SEERC will follow results of Position paper.

Analysis of Questionnaire was presented by Professor Massimo Pompili, member of Ad Hoc group. Main aim of the document was surveying and collecting the opinions of the representatives of the CIGRE National Committees. Complete of the Questionnaire and presentations of results are attached to this Minutes of Meeting.

Some interesting details from results:



AHG received answers from (10) countries: **Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Serbia, Greece, Romania, Macedonia and Ukraine**, covering population of 150 million people. Total install capacity in those 10 countries (as in 2012) where 58% thermal, 18% hydro, 8% solar, 7% nuclear, 5% wind and 1% other RES. Hydro pump storages counts 3% of all install capacity. Total length of Transmission lines was 140.000 km and distribution lines about 1.7 million kms. The number of employs in all 10 countries was (in 2012) 195.000. Interesting figures were also regarding to the universities teaching electric power systems; in total of 116 universities (in 2012) produced about 8.000 graduated engineers in power engineering.

Technical fields of interest for regional cooperation were in following merits:

- 24% Systems and interconnection studies,
- 24% Renewables and Smart Grids,
- 22% Subsystems, Distribution
- 11% Institutional arrangements,
- 8% Environmental issues in power sector
- 6% Elements of Electric Power System, and
- 5% IT in Power sector

Specific tasks of the technical subjects of interest for regional WGs were emphasized:

a. Power System development, Innovations and Standards

- Large Transmission regional projects and strategies,
- OHL European Standardization and harmonization of standards (**RWG 01**)
- Power Quality Standards in South East Europe
- Protection of Cross-border OHLs
- Smart Grids development, innovations and ICTs,
- HVDC transmission – environmental issues particularly with submarine cables,
- HVDC submarine interconnection – integration with mainland power system,
- Regional centers of WAMS,
- Future of Thermal Power Plants,
- ENTSO-E policy impact on the SEE Transmission grid,
- Harmonization of the environmental approaches,
- Aerospace assets and maintenance / recovery of regional HV Transmission systems,
- Reactors for HV Transmission networks, SEE issues (**RWG 02**),
- Environmental and technical assessment for Submarine cable siting issues (**RWG 03**)

b. Renewable Energy Sources (RES) and Power Energy Accumulation (PEA)

- RES as Mini Hydro, Micro Hydro, Solar, Biomass, Wind power,
- RES Integration, Support mechanism and Operational aspects,
- Power Energy Accumulation (PEA) issues: energy storages,
- Hydro Pump Storages, general issues, economical and technical evaluation (**RWG 04**)
- Influence of large installation of RES on System (including Hydro Pump storages),
- Reactive power planning considering large penetration of RES
- Environmental issues regarding to large Hydro Pump Storages

c. Market Design and Operation

- Cross-border capacity allocation in SEE and harmonization of Congestion management methods,
- Regional Market Issues,
- Development of SEE electricity exchange – possibilities for cooperation, gap analyses, harmonization,
- Experiences with RES integration and Market Design.

Action 3.2:

Technical subjects of interest for cooperation as result of Questionnaire will be considered as the main topics for future regional working groups and for Regional CIGRE Conferences.

Action 3.3:

First four CIGRE regional working groups will start with activities in the beginning of 2015. New established Regional Working Groups are:

RWG 01 - Regional aspects on creation of NNA for new standard for overhead lines EN 5034,

RWG 02 - Regional perspective of shunt reactor introduction in the transmission system,

RWG 03 - Environmental and technical assessment for submarine cables siting issue in Mediterranean area,

RWG 04 - Technical and economical features of Hydro Pumped storage power plants (HPSPPs) in power systems.

Conveners of the WGs have been approved:

RWG 01 – Kresimir Bakic, Slovenia,

RWG 02 – Maks Babuder, Slovenia

RWG 03 – Massimo Pompili, Italy,

RWG 04 – Yuri Bondarenko, Ukraine.

Terms of Reference (ToR) for each WG are attached to this Minutes of Meeting (MoM).

First meeting of the RWGs will be invited by conveners, as soon as possible.

First invitation for membership will be made by chairman of SEERC Kresimir Bakic.

Regarding to **SEERC Management Survey** the majority of the members agreed to select **variant 1** (see attached document - Results of Questionnaire).

Action 3.4:

Organization of work of SEERC will be organized in accordance with following managerial bodies:

1. Management Board (MB) of SEERC representing each NC CIGRE by one person, usually actual chairman of NC CIGRE. Meeting of management Board of SEERC should be at least one meeting per year.

2. Ad Hoc Advisory Group (AHAG) of SEERC will be set up occasionally for strategy plans with free selection of members.

3. Advisory Technical Committee (ATC) of SEERC will be set up for preparation of topics for **Regional CIGRE Conferences** and for preparation technical subjects for new Regional Working Groups. Members of this body will be experts from Electricity Supply Industry, Universities as well as from Manufactures from

SEERC countries. Term of the ATC of SEERC will be same time as leadership of particular National Committee. Selection of members by country is free.

4. Last day of each Regional Conference the new chairman of MB will be selected in accordance with MoU. At the first next meeting new chairman of MB will propose the new chairman of ATC of SEERC.

5. Regarding to the frequency of Conferences members agreed that Regional Conference will be held after **one up to 4 years**. Depending of the Chairing NC, the Regional Conference is possible to organize more frequently.

Action 3.5:

Based on proposal of present Chairman of SEERC, members selected **prof. Maks Babuder for the first chairman of Advisory Technical Committee of SEERC**. His term will be up to the first Regional Conference. ATC will prepare a new document "Rule of Operation" which has to be in line with CIGRE good practice and above actions.

In accordance with Results of Questionnaire SEERC information exchange should be published on separate SEERC web site (www.cigre-seerc.org) while reporting the main information should be presented at the main CIGRE website (www.cigre.org).

At the end of discussion on Final Report some additional proposals were discussed for better cooperation on academic level in power engineering in region inside SEERC. One of proposal was to organize regional students and young engineer's Regional conference.

Action 3.6:

Final report was very well accepted by members and many find out those results as very useful for future work of SEERC. With this presentation of results the first SEERC Ad Hoc Advisory Group was disbanded.

Ad4) Corrigendum on Memorandum of Understanding

In discussion on approach how to join new NC CIGRE members to SEERC, couple of approached have been discussed. Members agreed that entry of the new National Committees to SEERC with Corrigendum on MoU could be very complicated, due to needs of signatures of all NCs representatives.

Very easy approach will be just as **Addendum to the Memorandum of Understanding** for establishment of SEERC, which could be signed just by present chairman of SEERC and chairman of new NC CIGRE. This approach was used in case of Turkish National Committee of CIGRE.

Action 4.1:

Members agree to use **Addendum to the Memorandum of Understanding** as approach to join new members of SEERC. As Agreed in MoU the new member of SEERC could be only country with NC CIGRE.

Action 4.2:

The new member of SEERC is **NC CIGRE of Turkey** as new equal member with all the rights and obligations that arise from Memorandum of Understanding.

Ad5) Discussion on Regional Rules in coordination with Central Office Paris

In accordance with discussion at Belgrade meeting as well as meeting with President of CIGRE and Secretary General during the Skopje meeting, members concluded

Action 5.2:

Present chairman of SEERC Kresimir Bakic will prepare the documents for operation of Regional CIGRE Councils as sample for worldwide Regional CIGRE Councils. This has to be strictly in coordination with Central Office Paris.

Ad6) Exchanging information country by country

Each National Committee presented national CIGRE events in 2015, invited each other for papers submission, cooperation and agreed overlapping dates.

Ad7) Proposal for the First SEERC Conference

Chairman proposed first SEERC Conference in **April 2016 in Portorož in Slovenia**. He also proposed the main structure of the conference stressing on nearing South East Region with Central and Western Europe energy cooperation in framework of CIGRE strategy directions. Due to the fact that half of the countries at SEERC belong to the European Union, one of the important technical issues will be Energy union and

closer energy collaboration between countries. CIGRE can play very important role supporting technical activities from different point of view between countries particularly in view of the future networks.

Action 7.1:

Members agree to organize the first Regional CIGRE (SEERC) **Conference in April 2016 in Portorož**, Slovenia. Program of the Conference and topics have to be agreed in the Advisory Technical Committee of SEERC.

Action 7.2:

All national Committees, members of SEERC are **inviting to candidate members for Advisory Technical Committee (ATC)**. Members of ATC should be technical oriented experts from Utilities, Universities, Researching Institutes, and manufacturing Companies. From each country is expecting 2-3 experts.

Action 7.3:

The first meeting of Advisory Technical Committee will be organized in Vienna in Austria **on March 25, 2015**. Invitation for this ATC meeting in Vienna will be sent as soon as possible.

Ad8) *Any other business*

Next Meeting of Management Board of SEERC

Action 8.1:

NC CIGRE of Ukraine invited members of SEERC for the next meeting in Kiev. The meeting will be on June 22-24. The details and invitation will follow in coming days.

Workshop "Maintenance and recovery of HV electricity transport systems and aerospace assistance" and Questionnaire on monitoring systems

Official second SEERC meeting followed with very interesting WORKSHOP in cooperation with European Space Agency (ESA).

Action 8.2:

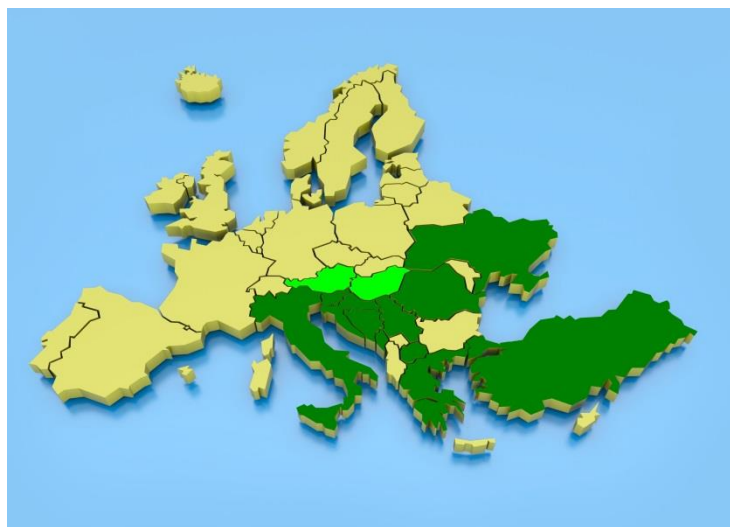
Members of SEERC countries are asking to answer on the questionnaire related to *Maintenance and recovery practice of HV electric grids*.

Questionnaire was prepared by Department of Electrical Engineering of University of Roma (La Sapienza).

Meeting in Belgrade was excellent organized by NC CIGRE of Serbia.

At the end of meeting Chairman expressed thanks for excellent organization and kindness.

Chairman of SEERC:
Krešimir Bakič



SEERC 2014