



SEERC

**SOUTH EASTERN EUROPEAN
REGION OF CIGRE**

3rd Technical Advisory Committee

CIGRE TÜRKİYE

Ahmet MEREV, Ph.D.

Vice President of Executive Committee

Total of Transmission Lines: 59.300 km

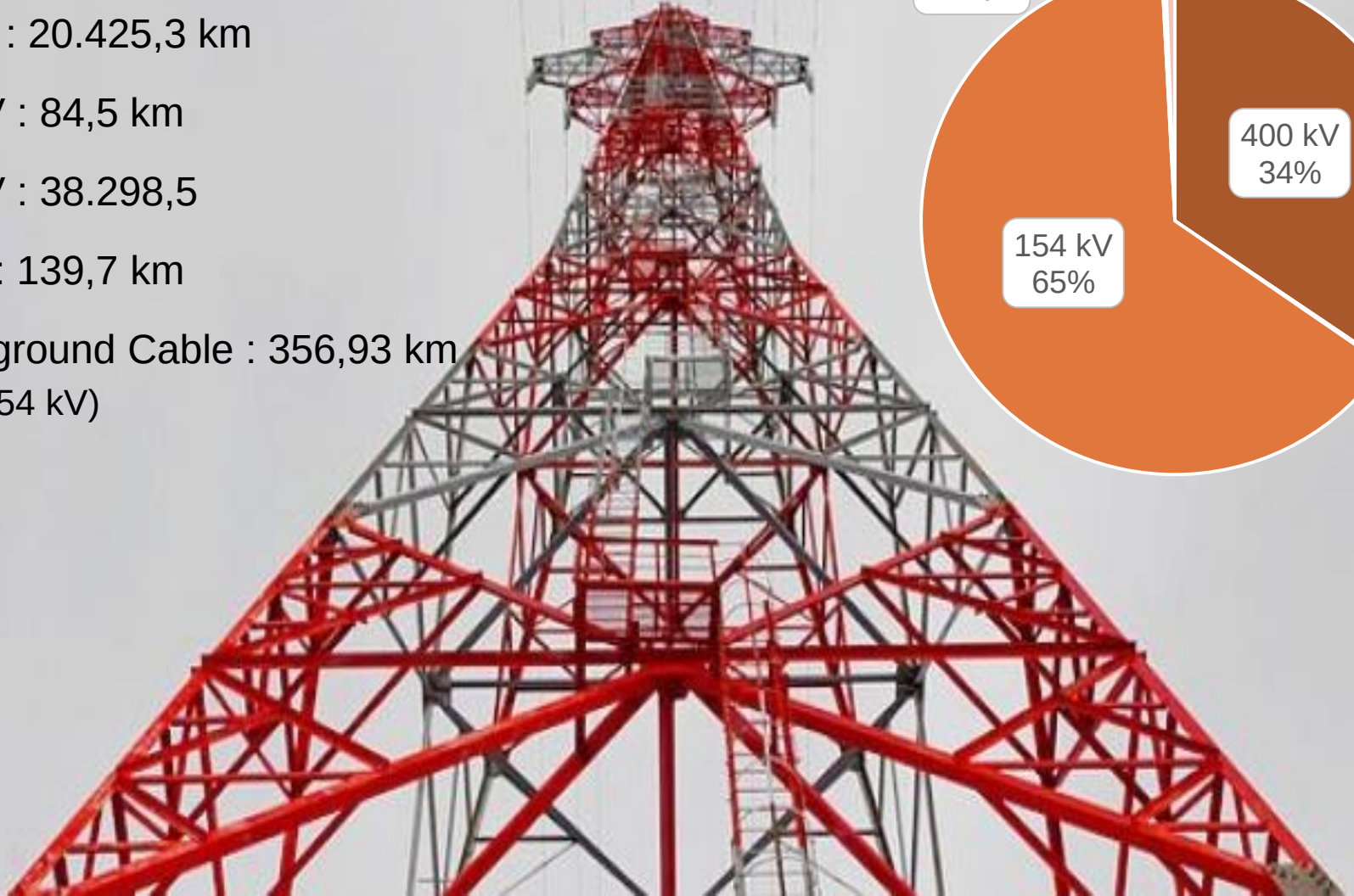
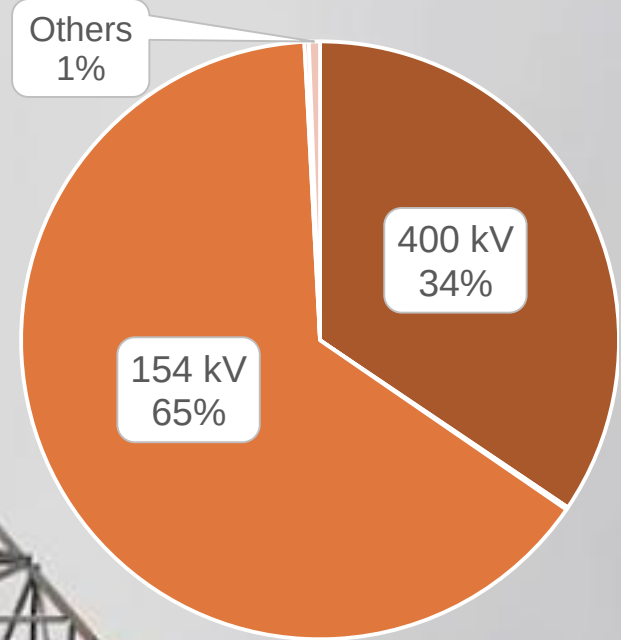
400kV : 20.425,3 km

220 kV : 84,5 km

154 kV : 38.298,5

66 kV : 139,7 km

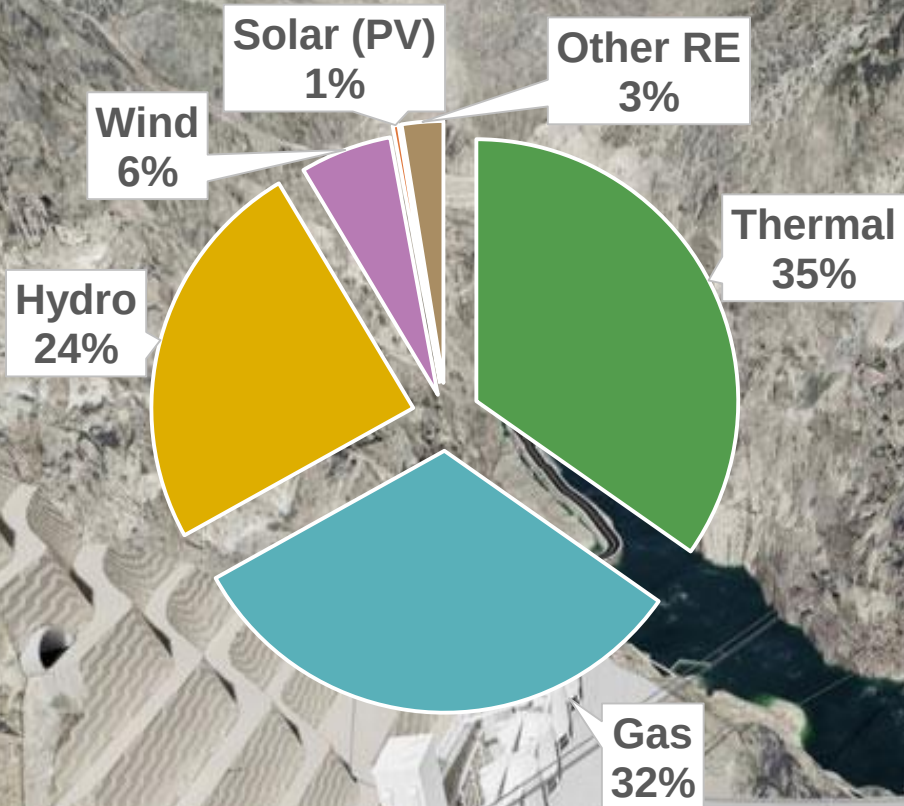
Underground Cable : 356,93 km
(400&154 kV)



Generation : 273.387 GWh



Consumption : 278.346 GWh



Artvin, Turkey

Interconnections (2016)



Mevcut 400kV EİH



Tesis Aşamasında 400kV EİH



Mevcut 220kV EİH



Mevcut 154kV EİH

Electric System Disturbances in Last Winter

Starting from 29 December 2016, adverse weather conditions in North-western part of Turkey affected European and northwest part of TEIAS network. Due to strong wind and ice accumulation on the lines, seven 400 kV lines, fourteen 400 kV and twenty-five 154 kV towers were permanently damaged. More than 200 earth towers and earthling lines on many towers were broken-down.



Electric System Disturbances in Last Winter

During the disturbances, almost 25 million people in Marmara region were affected directly or indirectly. Due to generation deficit in Thrace Region, as a last resort, rotating load shedding was applied in the Thrace Region and northwest part of the system. During the storm, connection to Europe was not affected, import from ENTSO-E countries were increased due to emergency conditions.



Electric System Disturbances in Last Winter

Due to extraordinary winter conditions in the region, working team could be mobilized with snow mobiles. The crew worked day and night to restore the damaged parts of the system.

Five 400 kV lines put in service on 30 December 2016 (2nd day), one line next day (3rd day) and another one in 1 January 2017 (4th day). At the end of January 2017 all lines (400 kV and 154 kV) and towers were put in service.

CIGRE TR Activities



The CIGRE National Committee of Turkey, launched at the end of 2014, has been playing an active role at the national and international level.

Membership

Collective Member I: 13

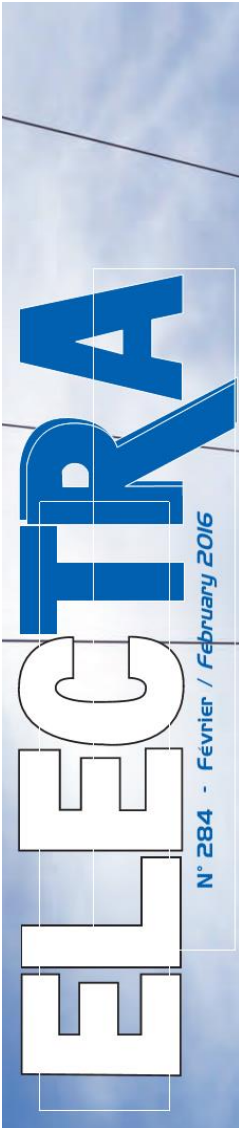
Collective Member II: None

Individual Member I: 20

Individual Member II: None

Student Member: 80

The first conference was organized on 16 November 2015 in Istanbul under the title of **“The Future of the Power Systems and Electromechanics Industry’s Role”**, hosted by Istanbul Technical University. The Chairs of CIGRE Study Committee, CIGRE members from Turkey and Turkish academicians gave presentations. The CIGRE Technical Committee members were hosted for four days to include the Technical Committee meetings (17-18 November 2015).



Future of the power systems and the electromechanics industry's role", Conference, 16 November 2015, Istanbul, Turkey

The CIGRE National Committee of Turkey, launched at the end of 2014, organized its first event on 16 November 2015 in Istanbul with an international conference. In the conference on "the Future of the Power System and Electromechanics Industry's Role", hosted by Istanbul Technical University, the Chairs of CIGRE Study Committee, CIGRE members from our country and Turkish academicians gave presentations. The CIGRE Technical Committee members were hosted for four days to include the Technical Committee meetings (17-18 November 2015) and TUBITAK UME visits (19 November 2015). Good memories of the success of the first Turkish National meeting will remain with us.

The inauguration speeches of the conference were made by the Executive Board Chairman of TESAB-CIGRE Turkey National Committee, Mr. Halil ALI and the Secretary General of the CIGRE, Mr. Philippe ADAM. There were four sessions: "Turkish Power System Overview", "HVDC and Renewable Energy Systems", "Developments in Transformer Industry", "Components of Cable and Power Systems".

In his speech, Mr. ALI stated that considering the installed capacity in Turkey, the number of consumers, the transmission and distribution lines and transformers, and its experienced labour force, the Turkish power system was one of the most important systems in Europe. He emphasized that the CIGRE is one of the most appropriate platforms to share these experiences and to benefit from the advancements in other countries. Mr. ADAM gave an informative speech on what CIGRE is, what it does and how its organization works. All of the audience expressed great interest when Mr. ADAM informed them of the history of CIGRE - Turkey's relations with CIGRE started in 1923 when its representatives attended the first CIGRE Session.

In addition to the four sessions, the conference had tutorials in parallel with the afternoon session. In one of the workshops, the Chair of the CIGRE Study Committee R2 'Overhead Lines' gave details on the design of overhead lines and on the materials, design and testing of the insulator components.

The closing assessment of the conference was given by the Chairman of the CIGRE Technical Committee, Mr. Mark WALDRON. In his conclusion, in which he summed up the presentation of the morning session of the conference, Mr. WALDRON emphasized that the network connection of the renewable energy sources is still important at both national and international levels. In the power system, the network connects together the different energy sources, including nuclear energy and renewable energy, and the network is an important factor to find the optimum solution to integrate these resources into the system. During the assessment of the afternoon session, Mark WALDRON underlined the importance of the requirements of technologies regarding sustainability and efficiency. He stated that discussions on these issues could enable the achievement of optimal solutions.

In his closing remarks, the ITU Dean of the Electric Electronic Faculty, Prof. Dr. Serhat EKER said that it had been a pleasure for him to host such an event and thanked all the participants who contributed with their presentations.

After the conference, CIGRE activities continued with the CIGRE Technical Committee meeting at the ITU Süleyman Demirel Culture Centre on 17-18 November 2015. On 19 November 2015, the EMC, Optic, Acoustic, Power & Energy and High Voltage laboratories of TUBITAK National Metrology Institute (UME) were visited and the information on the activities and abilities of the Institute were given.

These successful activities contributed to the national and international recognition of the CIGRE National Committee of Turkey while also providing the experience and possibility for future activities under the CIGRE umbrella.



Technical Committee meeting at Istanbul Technical University



Conference room at Istanbul Technical University

Power systems conference 2016

Organised by the CIGRE National Committee of Turkey



The second "Power Systems Conference" organised by the CIGRE National Committee of Turkey was held on 15-16 November 2016 in Istanbul.

In order to gather up all of the components of the energy sector, "The Power Systems Conference 2016" which was organised by the CIGRE National Committee of Turkey was held with the support of TEIAS, EUAS, Istanbul Technical University (ITU), TÜBİTAK ÜME, EMSAD and TESAB with the sponsorship of OMCRON and Kesir Engineering.

The conference opened with speeches from Prof. Dr. Beldin EMRE TURKAY, the Chief of ITU Electric Engineering Department and the Chairwomen of the Conference Science Council and Dr. Ahmet MEREV, member of the Conference Executive Council and continued with discussion from Prof. Dr. Atilla BİR the lecturer of ITU Electric Faculty under the title "Our Engineering History". Followed by, "The Future of Electric Power Systems" the panel was arranged with the participation of İlhami OZSAHN (the session moderator, former General Manager of TEIAS), Erçiment OZDEMIRCI (TEIAS), Abdullah NADAR (TUBITAK MAM) and Özgür YILMAZ (SIEMENS).

During the conference in which the topics Smart Grids, Storage Systems, Electrical Materials, Power Quality and System Connection of Renewable Energy Sources were discussed, totally 8 sessions were held in two days and 32 papers were submitted by the partners of the sector ranging from the government and private sectors and universities to the non-governmental organisations.

In traditionalising the Power System Conference, the recently founded CIGRE National Committee of Turkey, gathered experts of the sector while enhancing the recognition of CIGRE in Turkey.



6th Nov. 2016 - February 2017 ELECTRA

The second **"Power System Conference 2016"** was held in 15-16 November 2016 in Istanbul with the support of CIGRE members. Totally 8 sessions were organized in two days at the conference in the areas of Smart Grid, Storage Systems, Electrical Materials, Power Quality, Connection of Renewable Energy Sources and High Voltage Technology and 32 papers were presented by all stakeholders of the sector, from the private sector to the public sector, from universities to civil society organizations.

Targets for 2017

- To increase the number of ***effective*** member
- To increase the ***cooperation*** with universities
- To establish the ***National WGs***



Turkish National Committee will continue the activities which are aiming to gather all stakeholders of power sector. On 12 May 2017 Turkish National Committee will participate the events within the 50th Anniversary of Fırat University. Panel discussion “**CIGRE Turkey Meets Universities**” will be organized with the participants of CIGRE members.



We hope that Turkish National Committee will be ready for the chairmanship of SEERC in 2018.

Thank you for your attention !!!