

Cross-border Trade Turkish Electricity Import and Export Rules

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Nov 2015 Tbilisi





- The principles and procedures pertaining to the activities of import and/or export of electricity and principles pertaining to allocation and use of interconnection capacity for cross border trade are carried out according to The Electricity Market Import and Export Regulation
- The first version of the Regulation 04.09.2002
- Replaced by a new version on 17.05.2014
- Final revision in 28.12.2014



Latest amendment

- Necessary changes has been done in the regulation regarding the CAO implementation
- The CAO documents is replacing «the procedures and principles» document for the synchronous parallel operation lines.
- The amendment is based on Article 8 of the Electricity Market Law which enables TEİAŞ become a party to international organizations like CAO.





The import and/or export of electricity from or to countries that meet the international interconnection requirements can be conducted by

- Private companies with supply licenses,
- State Electricity Trade Company (TETAŞ)
- Generation companies (only export)



Import-Export Methods

Method of operation	Direction
Synchronous Parellel	Import-Export
Asynchronous Parellel (DC)	Import-Export
Isolated Region	Import (*)-Export
Unit commitment	Import-Export

(*) Only in border regions and temporary, subject to approval of Ministry



Interconnection map of turkey







- September 18, 2010 non-commercial transactions.
- June 2, 2011 trials for synchronous operation of grids.
- September 4, 2013 ENTSO-E stated success of trial operations and approved further arrangements for permanent synchronous operation.
- April15, 2015 Turkey and ENTSO-E has signed the 10 year «Long Term Agreement»



Allocation methods

- Explict Auction for synchronous interconnection lines
 - SEE CAO Auction for Turkey- Greece interconnection seecao.com/
 - T-CAT Auction platform of TEİAŞ for Turkey-Bulgaria interconnection <u>tcat.teias.gov.tr/</u>
 - The supplier licenses do not need to be amended according to these allocations.
- For other non synchronous interconnection lines
 - Portion of capacity to be auctioned by TEİAŞ depends on the international agreement between TEİAŞ and other country TSO



Non synchronous lines allocation process

- Application of the company
- If all the necessary documents provided to Regulator, The Regulator gets the view of
 - Ministry (based on political or energy balance etc. consideratios)
 - System Operator (TEİAŞ) views on technical base
- If both views are positive,
- The application; announced on web page by the Regulatory body (EMRA) for 15 days,
- So, the other potential companies may apply to Regulatory body (EMRA) for the usage of the same interconnection lines.



Non synchronous lines allocation process

- If there are other acceptable applications within the defined period,
- All acceptable applications transfered to System Operator (TEİAŞ) for auction,
- Pursuant to the Regulation, System Operator must finalize the auction within 45 days
- System Operator reports to EMRA about the companies and amounts that are allocated
- Copmant has to sign Interconnection Usage Agreement with TEİAŞ
- EMRA revises their licences accordingly





- Between Turkey and Georgia, there are two interconnection lines. one is 220 kV Hopa Batum Energy Transmission Line. This line is operated for the energy import to Turkey from Georgia with the isolated region method.
- The other is 400 kV transmission line (Akhaltsikhe (Georgia) Borçka (Turkey)) together with a DC back-to-back station at Georgian side. This line is operated with asynchronous parellel method.
- •According to the provisions of the Cross Border Trade Agreement and the Interconnection Operation Agreement the exporter carry out capacity allocation.
- **■**Construction of a new 154 kV transmission line (Batumi (Georgia)–Muratlı (Turkey)) together with a DC back-to-back station at Georgian side are foreseen.



Georgian Line Capacity Allocation

- In accordance with the Electricity Trade Agreement within Turkey and Georgia, capacity allocation is determined by the exporter country (Mostly Georgia)
- The capacity allocations carried out by Georgian State Electrosystem (GSE),
- GSE informs TEİAŞ on the allocations,
- The supplier licenses amended according to these allocations.



- Non synchronous capacity allocation rules has to be revised in general.
 - The necessity to bring a Sales Agreement or Letter of Intent can be removed
 - A secondary market for the cross-border capacity can be created
- DC line btw Turkey and Georgia has to be further utilized
 - License amendment requirements has to be revoked
 - day ahead market optimization.



Options for the future

- Wide range of possibilities:

Coordinated auctions

PX node

Implicit model / Market Coupling





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