Georgian Energy Exchange



2022 Report

Decemeber/2022

www.genex.ge

Address By Director-General

Dear readers,

2022 has been a very interesting and challenging year. As the year is coming to an end, in the name of our team, I would like to present the yearly activity report of 'Georgian Energy Exchange'.

As you already know, GENEX is the only licensed representative of the Day-ahead and Intraday Markets in Georgia. Consequently, our activities during 2022 were developing mostly in this direction.

Even though the moving to the new Market Model, approved by the Georgian government, and, hence, the launching of the Day-ahead Market has been postponed to March 31, 2023, we have not stopped working on developing the markets and we are meeting the new opening date fully prepared – the legal basis necessary for the functioning of the Day-ahead and Intraday Markets is already perfected and both – trading platform and Genex's internal operating processes are fully functional.

The postponement of the New Model implementation has allowed us to prolong the dry-run phase of the Day-ahead market, which made the market members' involvement more effective and of a higher quality. As a result, it has become possible to evaluate the seasonality of the New Market Model, especially during the winter period, and identify and respond to every risk, that might have been an important challenge in the real market environment.

The interest in the New Market Model has heightened during 2022. Particularly, taking into consideration the essential reforms implemented in the Energy Sector at the end of the year, the new Market Conception has gained more importance.

The development of the construction project of a high-voltage transmission line in the Black Sea will link Georgian and European Electric Energy Systems. Therefore, the compatibility of Energy Markets will become vital to fully exercise all trading opportunities.

In the same context, the new scheme of production and utilization of renewable energy sources is equally important. This scheme during the next 3 years should give the country an additional capacity of 1500 MW and its integration should be executed in the new market model.

I am certain that with the collective effort, from the year 2023 it will be possible for Georgian energy market members to trade correspondingly with the European electric energy market, which creates new opportunities.

Wish you a happy and successful New Year!



Georgian Energy Exchnage



About Us

Georgian Energy Exchange JSC was established on December 4, 2019, by JSC Georgian State Electosystem and JSC Electricity System Commercial Operator.

Main Functions:

- Σ Day-ahead market operation;
- ▷ Intraday market operation;
- >> Bilateral contracts (forward) market operation;
- Managing the financial clearing system for Day-ahead and Intraday markets.

Mission

To ensure transparent and competitive markets and to provide accurate price signals to existing and potential market participants through efficient operation of the electricity markets.

Vision

The Georgian Energy Exchange is a place of electricity trading not only for the purpose of supplying the Georgian Market but also represents the regional hub used by coupled market participants for cross-border trading purposes.

GENEX Team



Irakli Galdava

Deputy Director General



Tamar Barsonidze

Chief Lawyer



Eka Lolua

Foreign Secretary



Guga Kupradze

Market Analyst



Dato Jogiashvili

Trade Operations Officer



Lia Jokhadze





Teona Shakala

Market Analyst



Nino Chikhradze

Market Analyst



Nano Bliadze

Clearing Officer



Veriko kavtiashvili

Clearing Officer



Day-ahead Market Potential volume



On April 16, 2020, in accordance with the Concept of Electricity Market Model Design approved by the Government of Georgia, for the liquidity and competitive price formation, as well as for the effective and sustainable functioning of Organized Electricity Markets, the list of market players who are oblidge to trade on the exchange are defined:

Supply

- >> Public Service Obligation Power Plants;
- Wholesale Public Service Organization, in the sale of energy from producers with a Power Purchase Agreement (PPA).

Demand

- ∑ Universal Supplier;
- ∑ Supplier of Last Resort;
- > Wholesale Public Service Organization, in order to cover the demand for Abkhazia;
- System Operators to cover the losses in the system.



The Main Challenges of Market Opening

OO From the prospective of Power Exchange



1 Trading Platform

A technically sound trading platform that will run smoothly and at the same time has a high degree of reliability.

2 Knowledge and awareness of participants

For the successful operation of the market, it is necessary to develop the capabilities of the participants and improve their trading skills.

3 Effective Market Monitoring

In order to avoid market manipulations, market monitoring and surveillance becomes critical.

4 Synchronization

For the proper functioning of the markets, it is especially important that all the involved parts in the wholesale trade function harmoniously.

Day-ahead Market Simulation



A means of insuring potentially arising risks during the actual operation of the market

From October 2021, Day-ahead and Balancing and Ancillary Services Markets are having the test trading in a scenario close to real trading.

Only persons registered by the Balancing Market Operator, in the Balancing Group, have the right to participate in test trades.

The Three Components of Day-ahead Market Simulation

Trainings

The purpose of the trainings is to give the participants both theoretical knowledge and practical experience to develop the skills necessary for trading on the Power Exchange. Highly qualified market partiipants are crucial, as the mistake of one participant can affect the formation of the Dayahead market price.

As of 2022, a total of 9 trainings were organized by the Exchange Operator.

Dry-run

Participants have access to the test trading platform. Through the trading accounts, thev can place bids and thus deepen their practical skills of working on the platform.

In addition, mostly every day participants are testing different trading strategies and observe Day-ahead market pricing and energy sales trends.

As of December 2022, a total of 59 participants are trading in the test mode.

Certification

According to the Electricity Market Rules, the participant's Trade representative must have passed the qualification test organized by GENEX in order to be allowed place bids in the trading platform.

As of December 2022, 3 certification exams was held, the exams have been participated by more than 40 interested party.

Totaly, more than 100 persons are cerified as Trade Representatives.



Trade Regulation on the Exchange



Rules and Instructions



Based on the requirements of the Day-ahead and Intraday Market Rules and Energy Market Monitoring Rules, on 2022 the Georgian Energy Exchange approved the following documents:

- Rules for filling in and submitting an application for registration as a participant in the Day-ahead and Intraday markets";
- > "Financial Settlement Rule for GENEX Market Participants";
- ▷ "Warranty Requirements";
- ▷ "Bank Guarantee Form";
- ▷ "Reserve Letter of Credit Form";
- Σ "Agreement on the performance of the obligation by a third party";
- > "Rules for using the internal information platform of the Georgian Energy Exchange";
- > "Registration Form on the Internal Information Platform of the Georgian Energy Exchange";
- 5 "Internal Information Platform Guide";
- Platform Auction User Guide";
- > "Platform for clearing and payment system of the platform";
- The Rule of Determining the Equilibrium Point of the Day-ahead Electricity Market Using an Alternative Mechanism, in agreement with the National Regulatory Commission of Energy and Water Supply of Georgia;
- Dilateral Markets Rules.

Surveillance the Behavior of the Participants

The market price on the exchange is determined by the demand and supply of electricity. In turn, demand and supply are determined by participants who place electricity purchase and sale orders in the market. Participants may have the motivation and ability to influence the market price by changing offers to buy or sell electricity, spreading misleading signals, etc.

In order for the market to perform one of its most important functions, to send correct and reliable market signals, the market and the formed prices should have high reliability.

In order to detect non-market actions or attempts by participants, GENEX has a market surveillance team that will monitor the behavior of participants on a daily basis, and if necessary, take measures, which are defined by the market monitoring policy jointly developed by GENEX and Nord Pool Consulting.

In order to observe the behavior of the participants in the market, the best international practices have been shared, considering the specifics of the Georgian market, and the technical capabilities have been used that allow for the effective implementation of the monitoring function. To perform the monitoring function, we have already defined the relevant indicators and created software packages that are tailored to the needs of GENEX.



Platform for Publishing Insider Information

The participants of the Wholesale Electricity Market are obliged to follow the principles of integrity and transparency of the Wholesale Electricity Markets, as well as the principles of competition, which obligations are stipulated by the legislation, including the Energy Market Monitoring and Reporting Rule (Monitoring Rule).

For this purpose, it should be possible to publish certain kinds of information on the website of GENEX. This obligation of the exchange operator is provided for by the "Electricity Day-Ahead and Intraday Market Rules" approved by Commission Resolution No. 46 of August 11, 2020.

On the other hand, the Monitoring Rule obliges the wholesale market participants to make public insider information related to the electricity energy sector through the website of the Exchange Operator.

In order to fulfill the above-mentioned obligations, GENEX has developed an "Insider Information Publication Platform" - https://umm.genex.ge/, which is available to any market participant registered on this platform.

25368300133@(ი მიდა ე ბირშა არ არ	നടയനക്കാദവവം സാരയനക്കാ CET	14:43 GEO 16:43					
13036N	80%@000	306 0030	am636nლ0					
მოქმედი	¥ 830@*		¥ 830回ッ		ძებნე			
n600 Un603n6000	อวอตหลววลกษ อกลก อ	มงธรรงรากม _. อกงก	აძიივის დასახელება ი	പറഞ്ഞാടായനുമായന പറഞ്ഞോടായനുമായന ം	ര്യത്ഷോണ പറഞ്ഞോട് (8830)	მემთავევის დაფიება ¢	გეგთხვევის დასრულება	839W030
	ძებნა -	ძებნა -		T	T	a	0	
	ნარმოების ხელმიუწეფომლობა	ჰიდროენერგია (გამდინარე წყალზე)	სს ოლდ ენერგი (სატესტო)	20.7	21	11/07/2022 15:00	12/07/2022 23:00	12/07/202

Registration



Portal

Registration as a Day-ahead and Intraday market participant is carried out in accordance with the "Electricity Day-Ahead and Intraday Market Rules" approved by Resolution No. 46 of the National Energy and Water Supply Regulatory Commission of Georgia on August 11, 2020.

Through the GENEXs' participant registration portal, Dayahead and Intraday market participants have the opportunity to fill out the application form for registration directly from the GENEXs' website.

Due to the fact that registration in GENEX's test trading environment did not automatically mean being a participant in the exchange, GENEX started registering market participants on the real trading platform from August 2022.



	<u>ენერგეტიკული ბირუ</u> ა					
ᲔᲚᲔᲥᲢᲠᲝᲔᲜᲔᲠᲒᲘᲘᲡ ᲓᲦᲘᲗ ᲐᲓᲠᲔ ᲓᲐ Დ	ᲚᲘᲣᲠ ᲑᲐᲖᲠᲔᲑᲖᲔ ᲛᲝᲜᲐᲬᲘᲚᲔᲓ ᲠᲔᲒᲘᲡᲢᲠᲐᲪᲘᲘᲡ ᲨᲔᲡᲐᲮᲔᲑ ᲒᲐᲜᲪᲮᲐᲓᲔᲑᲐ 					
ᲜᲤᲝᲠᲛᲐᲪᲘᲐ ᲒᲐᲜᲛᲪᲮᲐᲓᲔᲑᲚᲘᲡ ᲨᲔ	სახებ					
ᲡᲐᲮᲔᲚᲬᲝᲓᲔᲑᲐ (ᲥᲐᲠᲗᲣᲚᲐᲓ)	ᲡᲐᲮᲔᲚᲬᲝᲓᲔᲑᲐ (ᲚᲐᲗᲘᲜᲣᲠᲘ ᲐᲡᲝᲔᲑᲘᲗ)					
სახელწოდება (ქართულად)	სახელნოდება (ლათინური ასოებით)					
ᲡᲐᲘᲓᲔᲜᲢᲘᲤᲘᲙᲐᲪᲘᲝ ᲙᲝᲓᲘ	ᲔᲚᲔᲥᲢᲠᲝᲜᲣᲚᲘ ᲤᲝᲡᲢᲘᲡ ᲛᲘᲡᲐᲛᲐᲠᲗᲘ					
საიდენტიფიკაციო კოდი	ელექტრონული ფოსტის მისამართი					
ᲘᲣᲠᲘᲓᲘᲣᲚᲘ ᲛᲘᲡᲐᲛᲐᲠᲗᲘ						
a30A9e9:	ᲓᲐᲡᲐᲮᲚᲔᲑᲣᲚᲘ ᲞᲣᲜᲥᲢᲘ:					
აირჩიეთ ქვეყანა	🔹 მაგ: ქ.თბილისი					
ᲛᲘᲡᲐᲛᲐᲠᲗᲘ:	ԱՆՑ ᲝᲡᲢᲝ ᲘᲜᲓᲔᲥᲡᲘ:					
მისამართი	საფოსტო ინდექსი					

Companies Registered on Dayahead Market

Enguri HPP Ltd Cascade of Vardnil HPPs Ltd Khramhes I JSC Khramhes II JSC Mtkvari Energy Ltd Telasi JSC Tbilisi Electricity Supply Company Ltd Power Trading Company Ltd Georgian Water and Power Ltd Rustavi Water Ltd Georgian International Energy Corporation Ltd Energo-pro Georgia JSC **Energy Pro Generation JSC** EP Georgia Supply JSC G Power Ltd Thermal Power Plant of Gardabani 2 Ltd Georgian State Electrosystem JSC Svaneti Hydro JSC Geoenergy Ltd **GRPC** Trade Ltd Vartsikhe 2005 Ltd Heidelberg Cement Georgia Ltd Old Energy Ltd Parvus Group Ltd Eastern Energy Corporation of JSC Zestafoni ferroalloy factory JSC Georgian Manganese Ltd

Tbilisi Investment Group LLC Georgian Railways JSC Bakhvi Hydro Power Ltd CCH Hydro VIII Ltd Electricity Market Commercial Operator JSC Lilo-Mall Ltd Marjani-5 Ltd **BFDC Georgia Ltd** Electricity Trader Ltd I-T Synergia Ltd Georgian Amelioration Ltd Rustavi Azot JSC Trading Solution Ltd Georgian United Water Supply Company Ltd Metalline LLC Keystone Consulting Ltd **RMG Copper JSC** Kisco Ltd Anna Yoseliani Private Entrepreneur Orbi Group Ltd. Batumi Weekend Ltd Black Sea Terminal Ltd Poti seaport Corporation JSC Gardabani Thermal Power Plant Ltd GTM Group Ltd Rustavi Steel Ltd Energy Trading Group Ltd

Day-ahead and Intraday Market Participation Fee

At the session of the National Energy and Water Supply Regulatory Commission of Georgia on December 23, 2022, the Day-ahead and Intraday electricity market operator service fees were approved by the commission's decree:

- ▷ Day-ahead Market admission-6000 GEL/year;
- Intraday market admission-2000 GEL/year;
- Additional portfolio on Day-ahead Market-500 GEL/year;
- > Additional portfolio on Intraday Market-500 GEL/year;
- ² Electricity traded on Day-ahead Market-0.161 GEL/MWh;
- Σ Electricity traded on Intraday Market-0.155 GEL/MWh.





Day-ahead Market Opening



The First Trading Day

In accordance with the concept of the Electricity Market Model Design, from March 31, 2022, GENEX should ensure the operation of Day-ahead Market.

🗹 🛛 Market Participants Registration

The exchange operator has 56 real market participants registered as Day-ahead Market Participants.

NORD POOL



🗹 Collateral Management

Participants will not be able to place a bid on the trading platform without submitting a guarantee of the appropriate amount. The process is automatic and controlled by the "limit check" functionality - installed in the trading platform.

🗹 Trading Platform

The trading platform is provided by Nord Pool, the world's first energy exchange. Nord Pool operates in 16 European countries.

🗹 GENEX Team

During the summer of 2022, GENEX established a market monitoring team, among them are the market analysts and a clearing and settlement team.

Each employee of the Georgian Energy Exchange, within the scope of their competencies, is involved in the process of analyzing the dry-run results.

Intraday Market Opening



The First Trading Day

Despite the fact that Intraday Market should be launched no later than June 30th, 2022, based on Georgian Legislation, GENEX plans to launch Day-ahead and Intraday Markets together.

Why to trade on Intraday Market?

Trading on the Intraday Market is possible one hour before physical delivery. Consequently, participants have the opportunity to trade in accordance with the adjusted forecasts, to balance their position and thus reduce the expected imbalance.

The Intraday Market is especially important for participants who cannot plan consumption/production one day early with such precision as one hour before the supply/consumption period. Also, this market is important for responding to unforeseen events - can't use the purchased energy due to an unexpected breakdown? It can be sold on the Intraday Market.

The purpose of opening the Intraday Market earlier than the established deadline is to give participants the flexibility to more accurately match their traded energy to their revised forecasts and thereby reduce the cost of imbalance.



🗹 Trading Platform

As with the Day-ahead market, the Intraday Market will be serviced by the Nord Pool platform, which will be fully operational at the date of market launch.

Preparing for the Intraday Market

The legal framework is almost completely adopted. The platform's Technical instructions will be published before dry-run. In 2022, IDM technical training was already held, which is planned to be repeated followind by the IDM dry-run on January 2023.

Bilateral Agreements Market



Trading PLatform

JSAID

The trading platform is provided by MTX COMMODITIES, a well-known service provider of the OTC Market from Turkey. Registration of those wishing to trade on the platform of bilateral agreements has been carried out since August 2022, and 12 participants have already been registered.

> In the implementation and management of the Bilateral Contracts Market, GENEX is supported by the USAID "Securing Georgia's Energy Future Program".

> The Memorandum of Understanding between Georgian Energy Exchange and USAID was signed on January 2022.





GENEX organized theoretical and practical trading sessions for participants registered on the Bilateral Agreements (OTC) Platform.

imulation 🏹

The electronic - simulation space for trading bilateral agreements has been open to interested parties for one year.

The First Trading Day

In accordance with the concept of the Electricity Market Model, until March 31, 2023, GENEX should establish and implement a platform for bilateral agreements, test, run in a simulation mode with potential participants.

Genex and Nord Pool Cooperation



On March 31st, 2022, Cooperation and Operation Agreements were signed between the Georgian Energy Exchange and Nord Pool. Georgian Day-ahead and Intraday markets have become Nord Pool serviced markets.

The Parties agree to cooperate in the setting up and operation of the Georgian Dayahead and Intraday Market. The Georgian Market shall be operated pursuant to the same basic principles as the Nordic/Baltic market operated by Nord Pool and thereby in compliance with the EU Target model.

Besides above mentioned, in July 2022 the representatives of the Georgian Energy Exchange, the Georgian National Energy, and Water Supply Regulatory Commission, and the Georgian State Electrosystem visited the Nord Pool in order to be introduced the onsite functioning of Day-ahead and Intraday Markets, as well as to discuss the final details necessary for the launching of the Day-ahead market.

From the Nord Pool's side, the CEO Tom Darrell, also the technical, financial, and legal team were attending the meetings.



Association of Power Exchanges



on August, 2022 Georgian Energy Exchange became a member of the Association of Power Exchanges (APEx).

APEx is an international association formed to facilitate the development and communication of ideas and practices in the operation of global competitive electricity markets. One of APEx primary intentions is to provide a platform for members to share their knowledge and experiences and contribute to the development of Power Exchanges worldwide.

The association unites about 50 energy market representatives from different countries.





Creating New Opportunities!

Share your opinion and vision



Address #36 K.Khetagurovi str., 0102, Tbilisi, Georgia

Telephone +995 32 205 45 88

Web Page www.genex.ge

1