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# **HIPP SPECIAL STUDIES, ANALYSIS AND DATA DEVELOPMENT**

**Ability of a Georgian Entity to act on Turkish Market**

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**ABILITY OF A GEORGIAN ENTITY TO ACT ON TURKISH MARKET**

USAID HYDROPOWER INVESTMENT PROMOTION PROJECT  
(HIPP)

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# HIPP SPECIAL STUDIES, ANALYSIS AND DATA DEVELOPMENT<sup>1</sup>

## ABILITY OF A GEORGIAN ENTITY TO ACT ON TURKISH MARKET<sup>1</sup>

We begin by asking whether a Georgian entity could have the right to act on the Turkish market. Analysis of the Turkish “Electricity Market Balancing and Settlement Regulation” (Balancing Regulation) and related documents, implies the answer is “yes”, a Georgian entity, acting as itself, can legally participate on the Turkish wholesale electricity market. But the acts required for such participation have practical implications. Almost certainly, if the operator of the Georgian HPP is not itself a Turkish entity, which already has its own capacities to act on the Turkish market, then the Georgian entity must create or join some entity which is so capable, or seek some other device to minimize its marketing costs. Some devices are suggested which might be used to mitigate these issues, and which if employed might improve the ability to find investors for the HIPP target projects.

### DISCUSSION OF THE TURKISH MARKET RULES:

Turkish rules frequently refer to a “market participant”, which is defined by enumeration at Balancing Regulations Article 10. In brief summary, the term means any entity acting on the market either as buyer or seller, including in the list a “Wholesale licensee”. Electricity Market Law defines a Wholesale Company as “Any legal entity engaged in the wholesale, import, export, trade of electrical energy and/or capacity and the sale of the same to the eligible consumers” while Wholesale is defined simply as “The sale of electricity for resale” and seems to include the business of effecting imports for sale in Turkey to market participants, or for export. The only entity defined by the Electricity Market Law which can engage in “imports” is a Wholesale Company, interpreted by the Balancing Regulations as a Wholesale licensee. Therefore, any action of a Georgian entity entering the Turkish market must be done in the form of a Wholesale licensee, and therefore, must meet both the requirements for market participation placed on such licensee, and also, be subject to the same constraints. Note, that the Electricity Market Law Article 2.2.f permits

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<sup>1</sup> HIPP Project Studies in support of Subtask 1-B: Carry out assessments, prefeasibility and other studies, and other research, to present as complete a picture as possible of the current legal/policy/regulatory structure, hydropower potential, investment opportunities, and the investment climate for small and medium hydropower development.

also that “retail companies and distributions companies” could conduct “import”. In event one of those entities became an investor and operator of a Georgian HPP, and imported only for its own supply, then such entity would be subject to the Turkish rules related to such companies.

Various “legal entities” are identified by the Law or the regulations, and those must be subject to “civil law”. None of these appear to require that a market participant be a Turkish-owned legal entity. But they must be registered, with the market operator, and provide whatever materials or meeting criteria as are required for registration; see the Balancing Regulation, Articles 17 through 34 inclusive.

As the only classification of licensee (market participant) that appears to be defined as able to conduct business in imports is a wholesale licensee, then apparently any Georgian entity seeking to participate on the Turkish market must obtain a Wholesale operation licensee, and would also be subject to compliance with all terms of the Electricity Market Import and Export Regulation (Import Regulation), in addition to the requirements of the Balancing Regulation. In doing so, then Balancing Regulation Article 27 (6) requires that a Wholesale licensee “shall be registered as balance responsible party.”

A market participant may elect to join a “Balance Responsible Group”, and if not, then they themselves are directly responsible for acts related to balancing, and specifically, for financial settlements related to balancing; see the Balancing Regulation, especially Articles 20(1), 28 and 29 . If a market participant joins such Balance Responsible Group, that Group must be financially responsible (and capable of doing it); see the Balancing Regulation Article 28(5) b).

Balancing Regulation Article 22(4)(a) seems to exempt run of river hydro from being a “balance responsible party”. The phrase “Canal or river type hydroelectric generation facilities” used in the Balancing Regulations at that clause is not defined in the documents. But since the Balancing Regulations apparently only permit a Wholesale licensee entity to import to Turkey, then the physical characteristics of the source of generation (from small or run of river hydro plants) would probably not be recognized as material; there is for example, no mention of source of supply to a wholesale licensee made in the Import Regulation. However, if the run of river source is recognized, it is not clear if such entity must still join a Balance Responsible Group. What that may mean as to their financial responsibilities is not clear, but some entity must bear those responsibilities. Since they are apparently required to be registered as a Wholesale licensee, then the financial responsibilities of such licensee would apparently apply.

As there appears to be no limitation in the Turkish market Law nor regulations on anything as to nationality, then Georgian (or any other) entities can act on that market provided they comply with registration requirements, and comply with any applicable requirements of Turkish civil law (which civil law requirements are not analyzed in this Report). However, the Market Rules do seek to assure that parties are clearly identified, who will assume material scheduling and financial obligations. The party assuming those might be a contracting party (market participant) itself, or

might be someone nominated by it as the person who acts as the balance responsible party, on behalf of some Balancing Group.

Participation in the Turkish market has other obligations. For example, Balancing Regulations Article 35(2)a) states that “All market participants shall participate in day ahead planning.” There are numerous detailed acts required for this participation. Those acts might be done by the market participant themselves, as their own “balance responsible party”, or on their behalf by their nominee Balancing Group which names a specific entity on behalf of the Group as “balance responsible party”. Articles 36 through 57 inclusive describe the processes that must be followed for such participation. These (and other Articles) require or imply a wide range of technical acts, decisions, evaluations and other interactions with the Market Operator, that each balance responsible party must thus undertake in order to effect such participation. Such actions must be effected in documents done in the Turkish language.

Such actions are also highly data intensive, so that even if the Georgian HPP has joined a Balancing Group, the Georgian entity must be capable of generating the required information, passing that to the Balancing Group nominee, and acting in accord with whatever actions re required of it by their Nominee, and required of it by the Market Operator, acting in response through the Balancing Group nominee. Since the obligation to perform those acts is on each market participant, this implies that for a given transaction, when the transaction involves a specific contract, then both parties to a particular contract must each separately participate. That is, the Georgian HPP cannot pass off this responsibility to the buyer; they must perform their obligation separately from that of the counterparty. If the operator of a Georgian HPP is a Turkish distribution company or supply company, then such entity would presumably have such Turkish language capacity.

## **EFFECT OF MARKET IMBALANCES:**

The fact of differences in market organization, dispatcher responsibilities, and pricing of auxiliary services and short term flows, of Georgia compared to Turkey is one of the key issues that will need to be resolved in any practical agreements for closer cooperation with the Turkish market.

Daily markets such as the one existing now in Turkey, and more real time markets such as the one Turkey will soon create, pay very short term marginal prices for the actual volumes flowed in different very short term periods; “balancing” is done both physically and financially on those short intervals. Future evolution of the Turkish market will shorten the currently used time periods for pricing, and thus increase the diversity of shorter term, real time prices that will occur on those markets. Specifically for example, Balancing Regulation article 4(1)p states that “The organized wholesale electricity market, which is operated by the System Operator and where the reserve capacity, obtained by the change in output power within 15 minutes, is sold or purchased, to serve the purpose of real-time balancing of demand and supply.” That is, both the physical balance, and the financial implications, the actual transactions recorded, may be done on intervals as short as one minute. The

changes in production or demand levels, and the specific corresponding costs of a particular time interval are only attributed to those parties acting on the market in each such specific interval.

In contrast, as reflected in its Market Rules, Georgia does its financial “balancing” on a monthly basis, using contracts for services that are apparently priced at best, monthly, and may have fixed prices set even years before the time of the transaction. Georgian financial “balances” are actually physical barter, netting physical flows that occur under very different operating conditions with very different costs.

The practical result is that Georgia thereby forces Turkey to subsidize certain costs of Georgian peak consumption, and of any imbalance. Specifically, in each imbalance event, the Turkish system will record internally a change in purchase of generation, at a price (in many instances, a high price), for which there may be no offsetting sale at that period against which to attribute the costs. Alternatively, if a transaction has been scheduled such as on a direct contract between a producer (or import) and consumer (including a distribution company or for export), and the production or import volume does not appear, then the consumer will be forced to pay the actual market price for that interval (which may have been higher than their contract price), and may in addition be forced to pay their contracted costs.

Such acts might be tolerated for short periods at an intergovernmental level; this has apparently been the practice regionally for the last several decades. As transactions in the Turkish market become more completely private, the transacting parties in the Turkish market will not accept to pay those costs. This transformation will happen to a very high degree in the very near future, to the extent not already present. Almost certainly if and when Georgia seeks to negotiate for access to the Turkish market, the Turkish counterparty will require better practices in Georgia, including both better control on physical flows; and more accurate, real-time, pricing. In any such negotiations, the Turkish counterparty will require the Georgian side to arrange its operations to avoid inducing non-recoverable costs on Turkey.

And, the simple risk that such events can occur means that until the Georgian side is demonstrably able to comply, physically, in its rules, and in all operational senses, with the expectation of reliability and contracting on the Turkish side, that prices to Georgian supply (or of any transit volume traversing Georgia) will necessarily be lower than the prices otherwise on the Turkish market, by at least the expected cost of such imbalances. This will depress not only prices to Georgian HPP, it will depress the willingness of shippers to use the Georgian network at all, and thus, depress revenues to GSE from transmission.

## **INFERENCES FROM TURKEY ANALYSIS:**

There is no legal requirement for any market participant to be a Turkish national entity; but unless the Georgian operator of an HPP participating in the Turkish market is itself a Turkish entity capable of conducting all those acts, itself, and effecting their results in the Turkish language, there is an implied necessity that the

Georgian HPP join or create an entity in Turkey capable of effecting those acts. But even a Turkish entity such as a distribution or supply company operating a Georgian HPP for its own uses, must be capable of meeting the physical acts and information requirements of the Turkish rules, as related to the Georgian HPP.

Meeting the Turkish requirements means each market participant must have and use certain information about their own system and system operations, as well as risk preferences. Thus for example, it would appear to be difficult for a Georgian HPP producer to simply delegate the duties of nominations to their buyer, since that buyer could not itself know the operating conditions of the site in Georgia of the Georgian HPP, nor the issues involved with interactions between the Georgian HPP, the GSE and the ESCO in Georgia.

Therefore, the Turkish market rules also have implication for certain operational characteristics of the Georgian transmission system, internal market and system and market operations. For example, Balancing Regulations Articles 81 through 127 discuss means of computing loads, payments, and other critical details. This is all done using hourly data, and potentially shorter than hourly data, which implies the capacity of metering such data by any market participant. As the Turkish market evolves, these pricing devices will be computed on increasingly shorter time intervals.

Since the Georgian entity must meet those requirements within Turkey, then it must also be able to meet such detailed requirements within Georgia. That is, the Georgian system must be capable of allowing the Georgian HPP operator to effect acts that correspond to the acts required on the Turkish side.

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