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**HYDRO POWER AND ENERGY
PLANNING PROJECT (HPEP)**

Creditworthiness and Clearing



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Markets must be sustainable

- Blind markets (DAP, DAM, intra-day) must operate without interruptions
- Buyers and sellers are not aware of other market players in the blind market
- If a MP defaults without collateral protection, then who is responsible to the resulting liabilities?





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Counterparty Risks for Buyers and Sellers

- **Buyer** – if the seller does not deliver the energy, then the buyer must replace the energy, normally with higher priced energy.
- **Seller** – if the buyer fails to pay for energy delivered, then the buyer will lose revenues for the project.



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Clearing Definitions

Counterparty is a legal entity or collection of entities to which an exposure to financial risk might exist.

Clearing mechanism guarantees the financial regularity of the market players and reduce the counter party risk

Margin is collateral that the holder of a financial instrument has to deposit to cover some or all of the credit risk of their counterparty.

Collateral is a MP's pledge of specific property to the market, to secure future payment of a transaction.



What is a Clearing House (CH)?

- ✓ When stocks, bonds, commodities, futures and electricity are traded, the buyer must pay the seller the market price.
- ✓ A CH enables this transaction to take place in a safe, secure and reliable manner i.e. it enables buyers and sellers to trade.
- ✓ The CH guarantees that the buyer will receive value of the power not delivered and the seller will receive payment – it assumes counterparty risk.
- ✓ The CH provides this service for fees (subscriber + per trade + per delivery), and can therefore itself operate as a money making business.
- ✓ In a competitive electricity market, this service (i.e. financial settlement) is often the responsibility of the Market Operator.



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Clearing Mechanism

ESCO currently performs clearing function but a non-government entity needs to be established as clearing house for the balancing market

- Joint stock company with shareholders that might include banks, electricity companies, market operators, others

Risk mitigation rules need to be developed to cover participant default including clearing house membership requirements, collateral requirements, financial strength of clearing house operator, market participant obligations in event of another participant default



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Clearing Members versus Trading Member

- Trading member is a party that sells or buys in the competitive electricity market
- Clearing member is a party that takes responsibility for providing the margins for a trading member
- A trading member can be a clearing member if it can provide proof of its capitalization and creditworthiness
- Slovenia requires cash in the bank to cover margins, therefore all trading members can be clearing members



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Setting Margins

- Market must be cleared
- Market payments must be settled
- MCH determines amount of required margins for each member
 - Sum of 24 hours (Hourly Volume * Forecasted Market Price)
 - Plus any outstanding Prior Period Settlement
- Amount of margins depends on invoice period and disbursement period
- MCH must work closely with MO, TSO and Trading Members



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Can an MO be a MCH?

- Capitalization for a MCH must be higher than the largest potential default on the market
- Collected fees for clearing are offset by losses due to MP defaults
- EPIAS/PMUM have decided to take on the role
 - are being capitalized at Lira 60 million



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EPIAS/PMUM Georgian Price Zone

- Hourly sales of Georgian power on the Turkish DAM
- Initial questions:
 - Will there reservation of interconnection capacity for the price zone?
 - Is there an entity in Georgia to support a clearing mechanism for the price zone



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Over the Counter Trading

- Often Market Clearinghouses offer clearing to MPs for covering risks in their OTC trades.
- OTCs must have standard terms and conditions to allow for providing services
- Normally energy regulator or MP association adopts the standard contract which must be used for clearing



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Who will play the CH Role in Georgia?

ESCO / MO

or

Georgian Securities Central Depository?

Existing private bank

A new Govt. owned special purpose bank

A new entity with a Payments Systems license?



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Contacts:

Sukru Bogut, COR, Senior Energy
Advisor, USAID

sbogut@usaid.gov

Michael Jake Delphia, Chief of Party,
USAID/HPEP

jdelfhia@deloitte.com

www.hydropower.ge