

GEN-I GROUP

Global Optimization Approach in Cross Border Trading

July 2014



AGENDA

GEN-I at a Glance

Trading Strategy

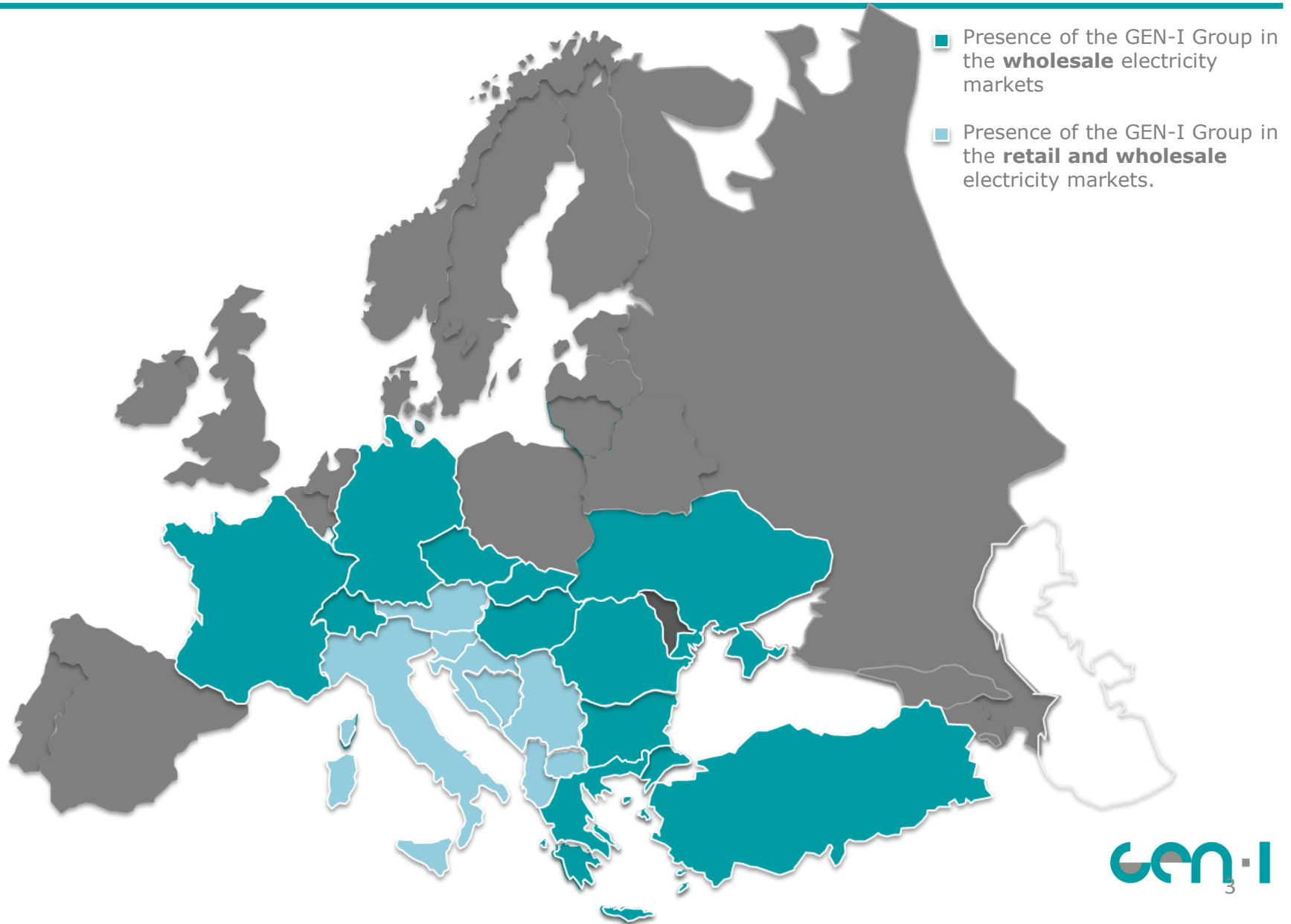
Georgian Electricity Market

Investment Challenges

Hedging Positions

Integration with Global Portfolio

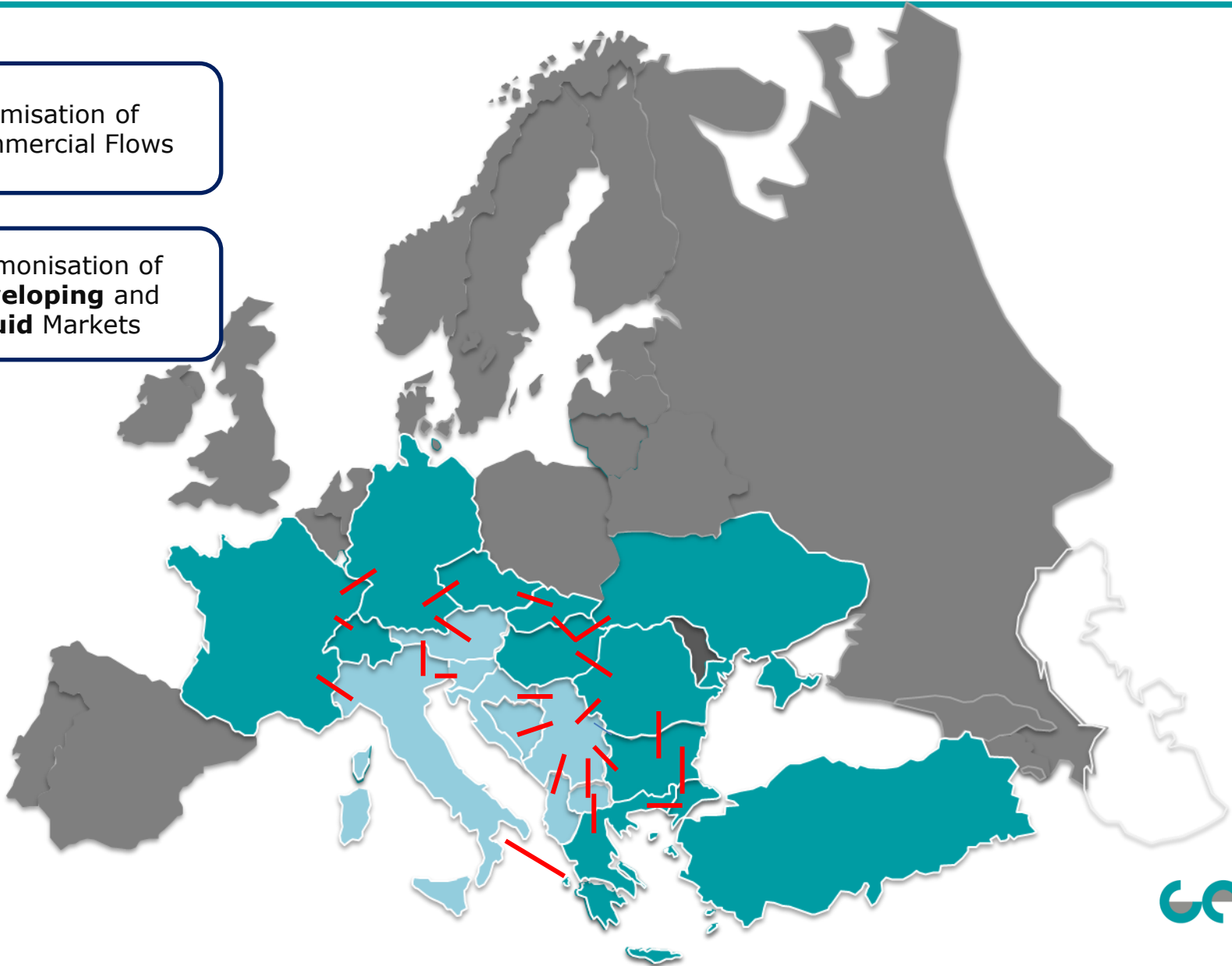
GEN-I Group at a glance



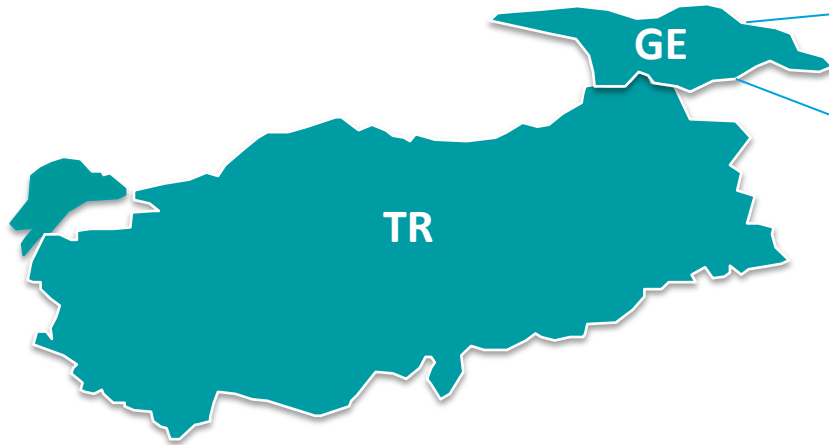
Global Optimisation- Crossborder Trading

Optimisation of
Commercial Flows

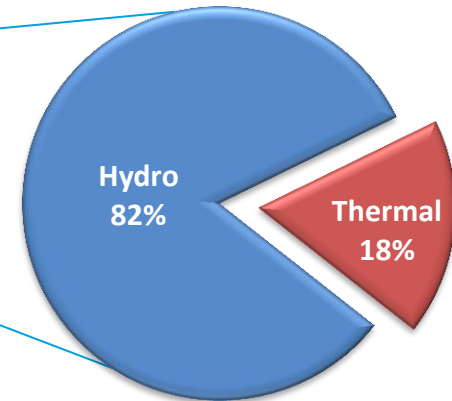
Harmonisation of
Developing and
Liquid Markets



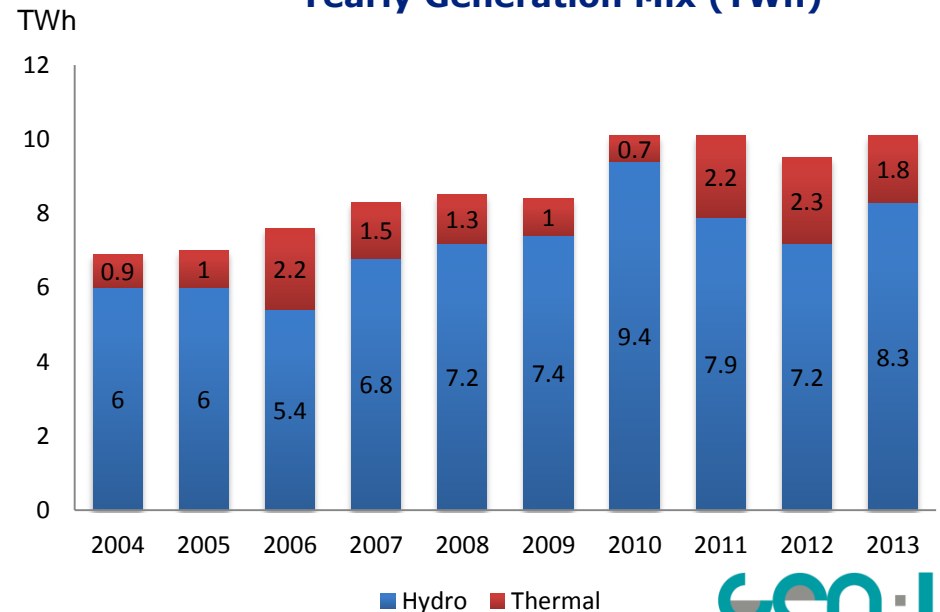
Georgian Electricity Market



Yearly Generation Mix (%)



Yearly Generation Mix (TWh)



- Majority of electricity generation in Georgia 8.3 TWh consist of hydro powerplants
- Hedging is a significant tool for return of investments.

*Generation percentage values represent 2013 year total.

Investment Challenges

Regulatory Risk

eventual changes in the legislation that affect the position of the generator in the market or the attraction of the market

Availability Risk

contingencies that hinder the availability of the generator to be dispatched

Price Risk

variations in time in the price of energy

Quantity Risk

uncertainty of energy that will be generated

Investment Challenges

Regulatory Risk

eventual changes in the legislation that affect the position of the generator in the market or the attraction of the market

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Price Risk

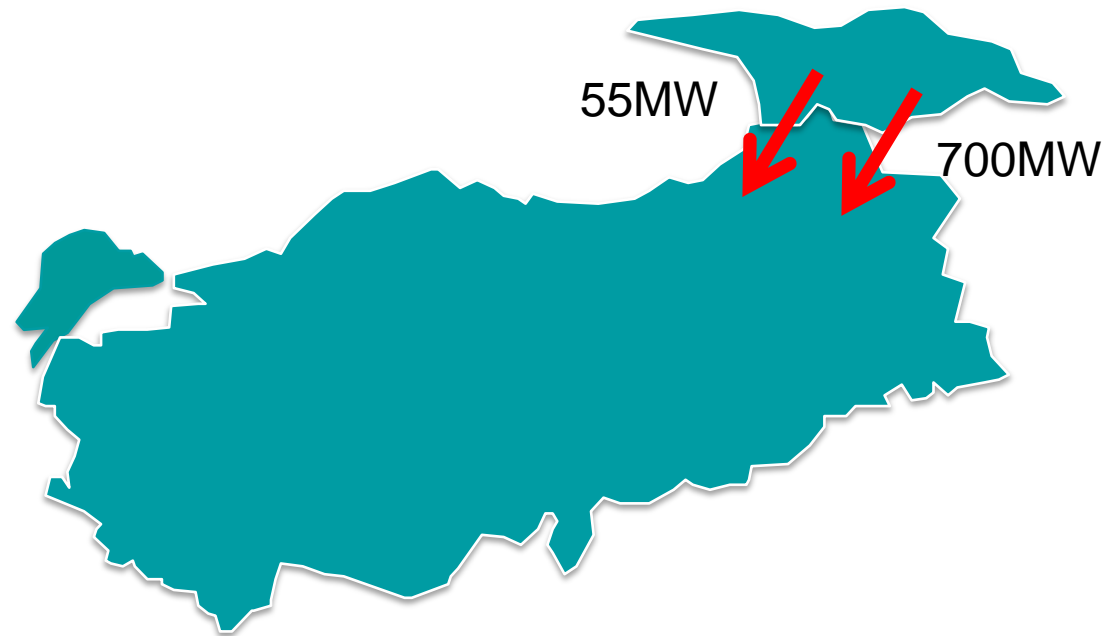
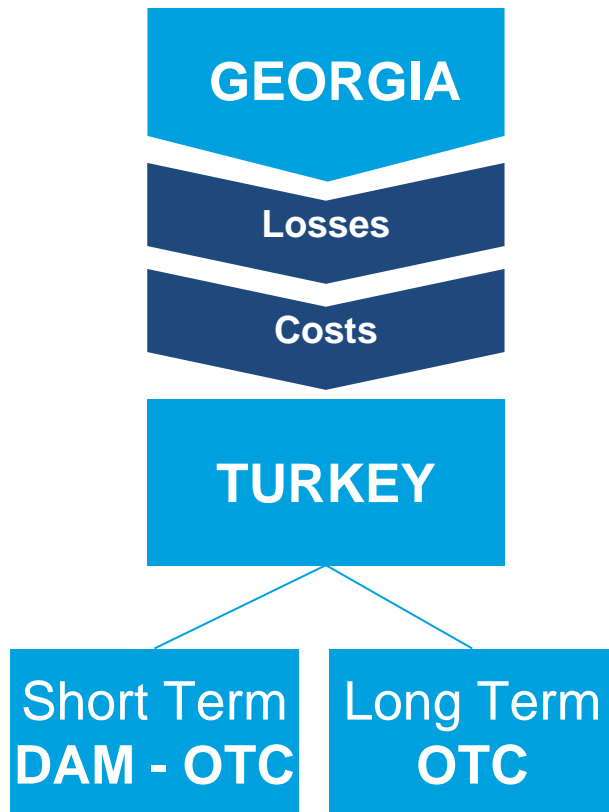
variations in time in the price of energy

Quantity Risk

uncertainty of energy that will be generated

These risks can be mitigated within **a well-functioning market.**

Hedging Generation Through Cross Border Trading

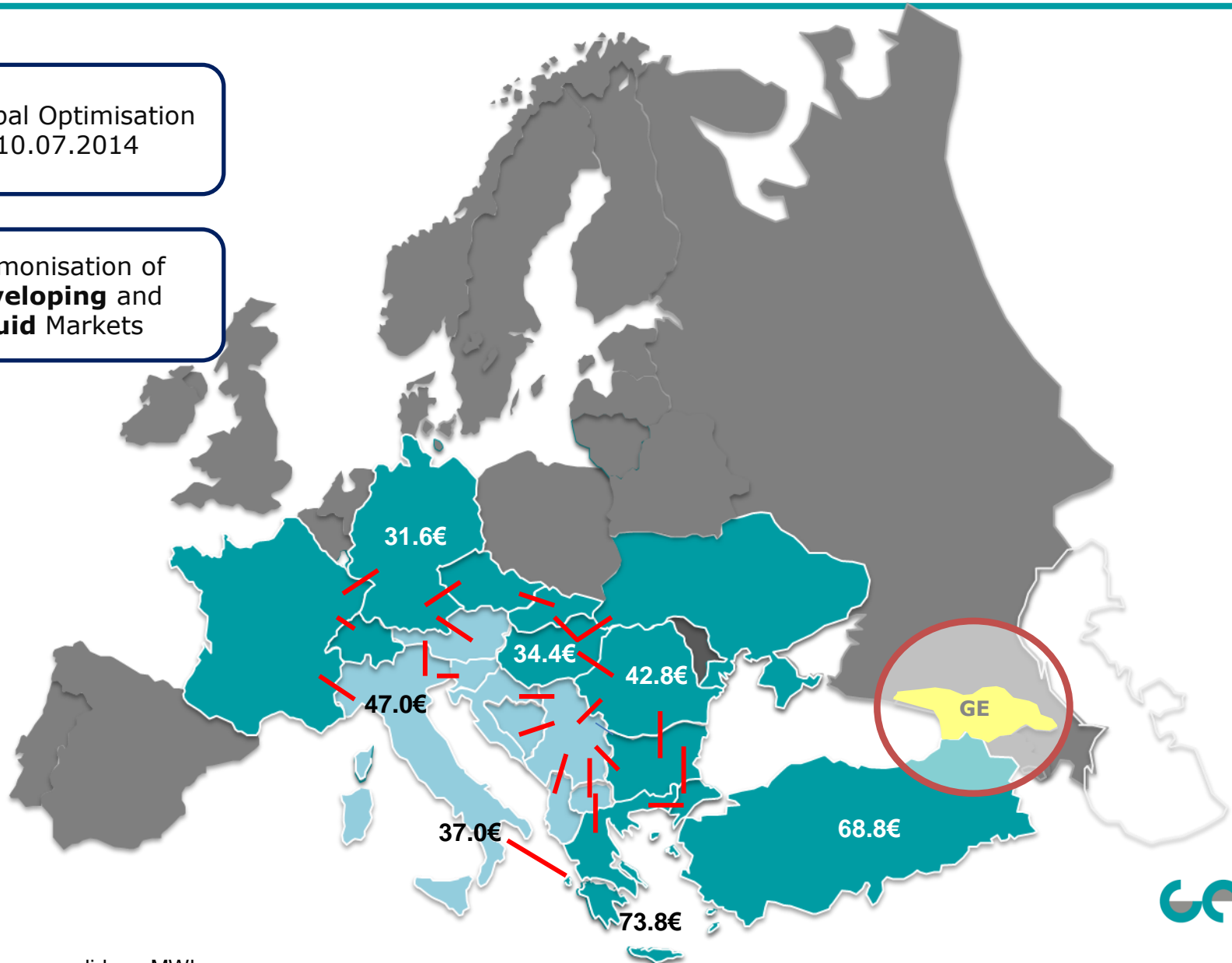


- Energy from Georgia can be traded in Day Ahead Market or Over-the-Counter market.
- Technical losses, administrative and legislative costs should be reduced.

Integration with Global Portfolio- I

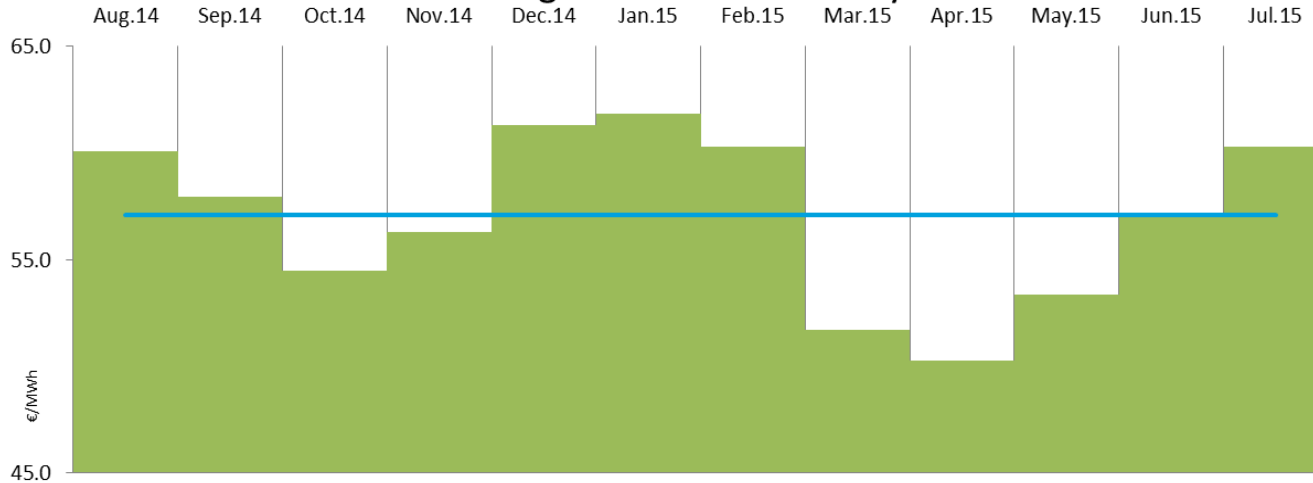
Global Optimisation
for 10.07.2014

Harmonisation of
Developing and
Liquid Markets



Integration with Global Portfolio - II

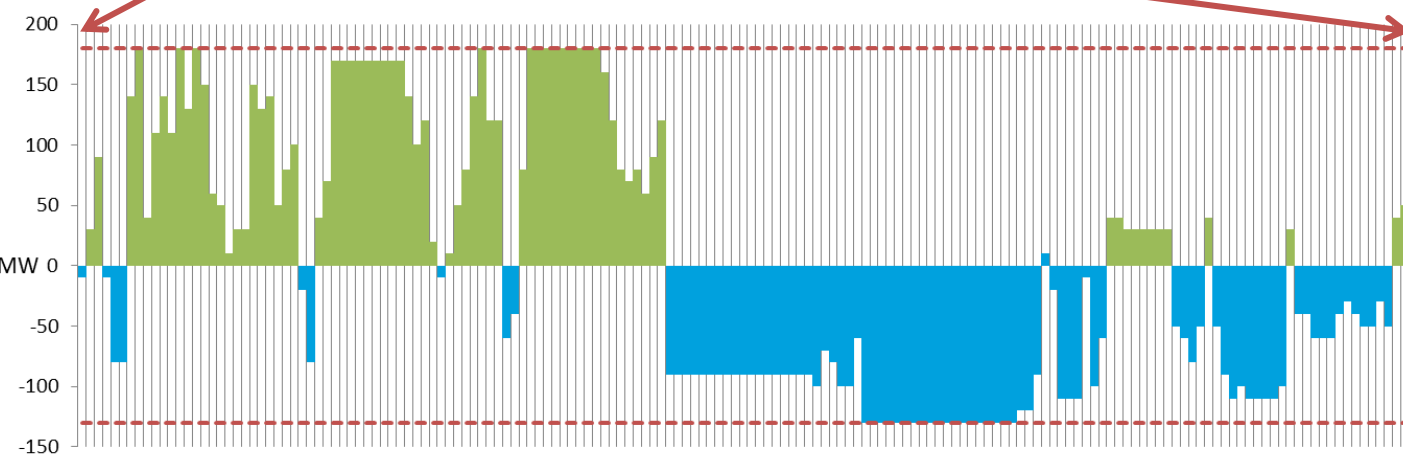
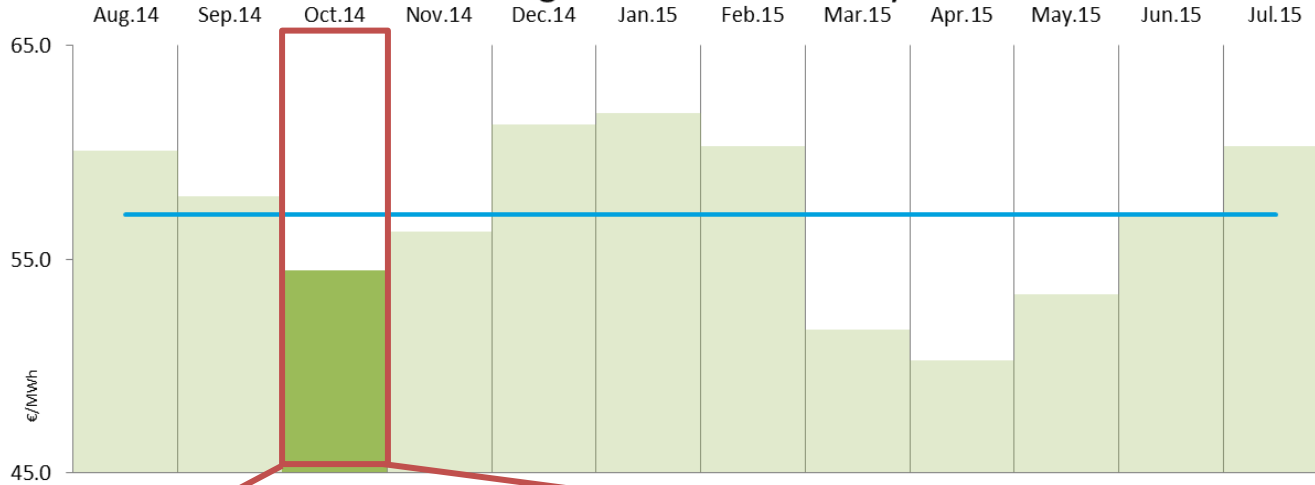
Electricity Forward Prices in TR Rolling Year 2014 - Monthly



- Exports from Georgia can be long term hedged as one year products, with two years of trading horizon depending on the liquidity in Turkish OTC market.
- Long term products can be decomposed to months, in order to maximize the average value

Integration with Global Portfolio - II

Electricity Forward Prices in TR Rolling Year 2014 - Monthly



Summary

- **Risks** can be mitigated effectively within **well functioning markets**.
- **Turkish** Electricity Market provides **good opportunities** for hedging.
- Further **value addition** can be achieved via **Global Trading Optimization** approach.