



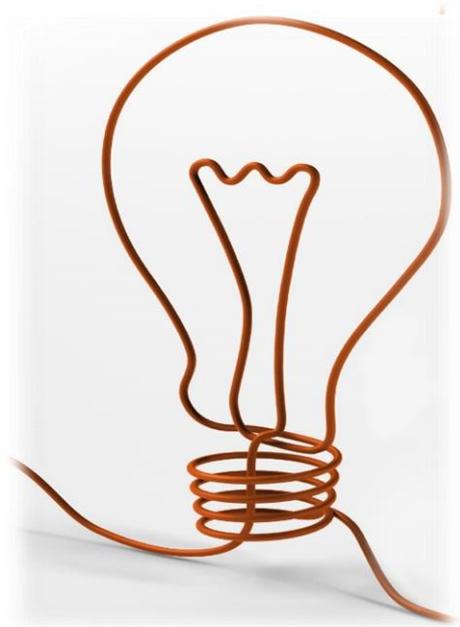
GALT & TAGGART
CREATING OPPORTUNITIES

G&T Industry Series

Electricity Market

February 2019



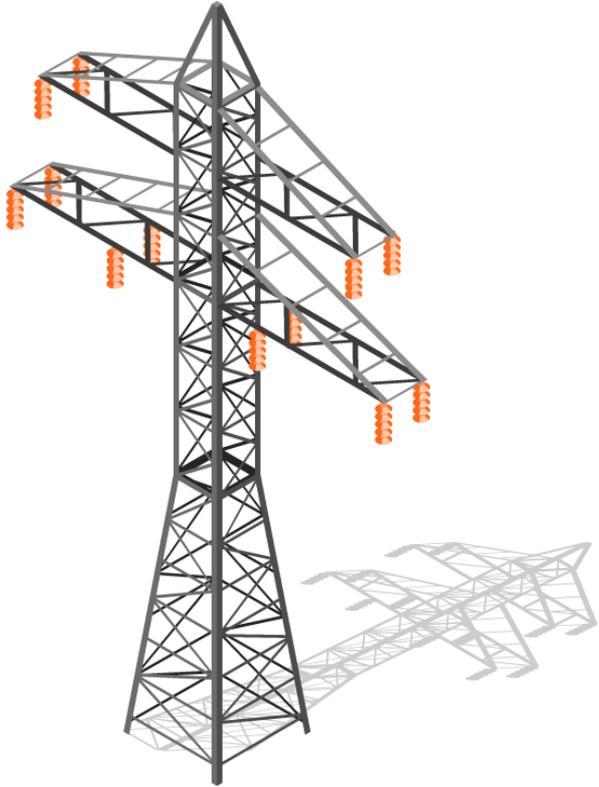


Georgia's Electricity Sector

- Funding and profitability
- Consumption trends
- Generation trends
- Price dynamics
- Export potential
- Challenges, changes, opportunities



Capital intensive sector with reasonable profits



- 2.4% of GDP
- 13,000 employed
- Above-average salaries



- Turnover GEL 2.6bn in 2017
- EBITDA margin 19%
- Operating profit margin 10%

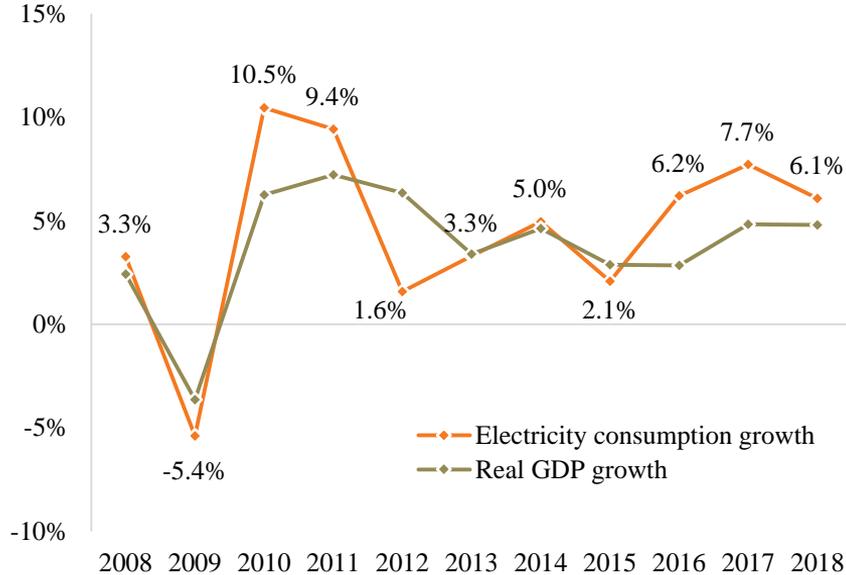


- FDI - 2nd largest recipient
- IFIs – c. US\$ 670mn
- Local banks - US\$ 350mn
- Investment pipeline – US\$ 10bn in 2019-30



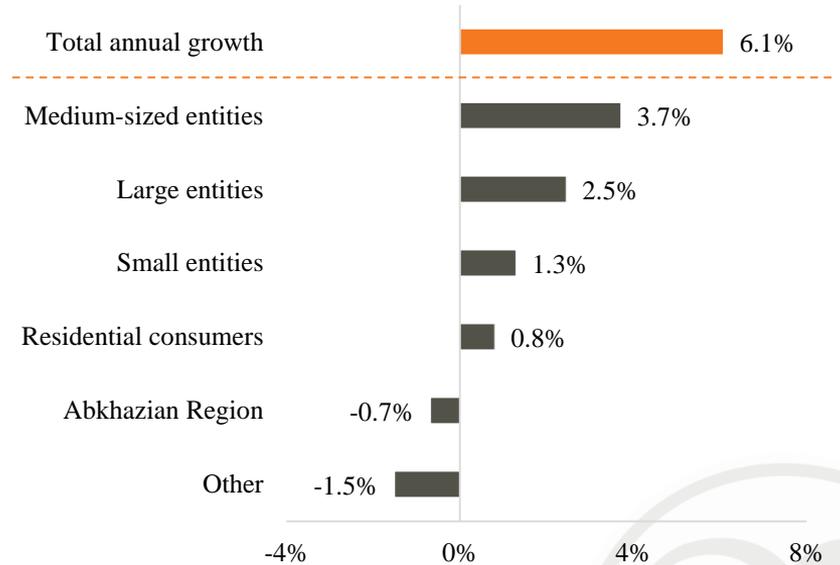
Business sector drives electricity consumption

Electricity consumption in Georgia



Source: ESCO, GeoStat

Contributions to annual consumption growth, 2018

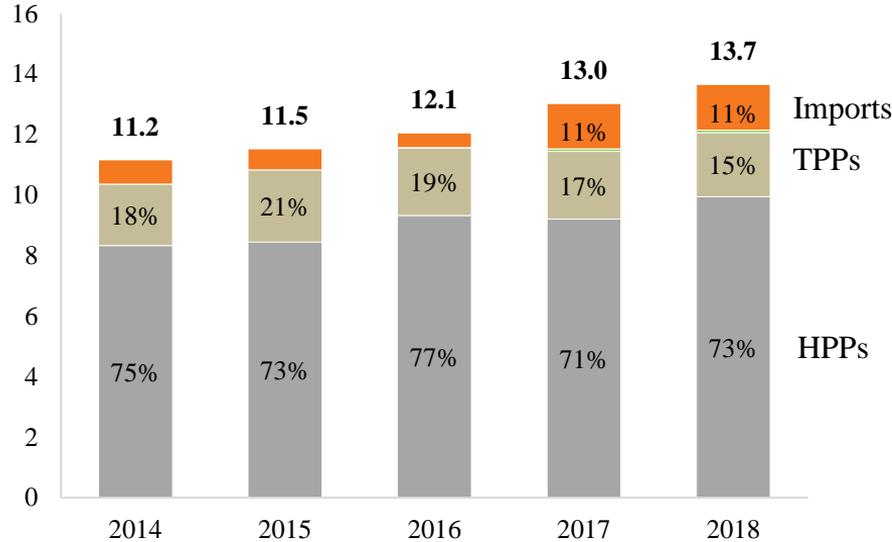


Source: GNERC



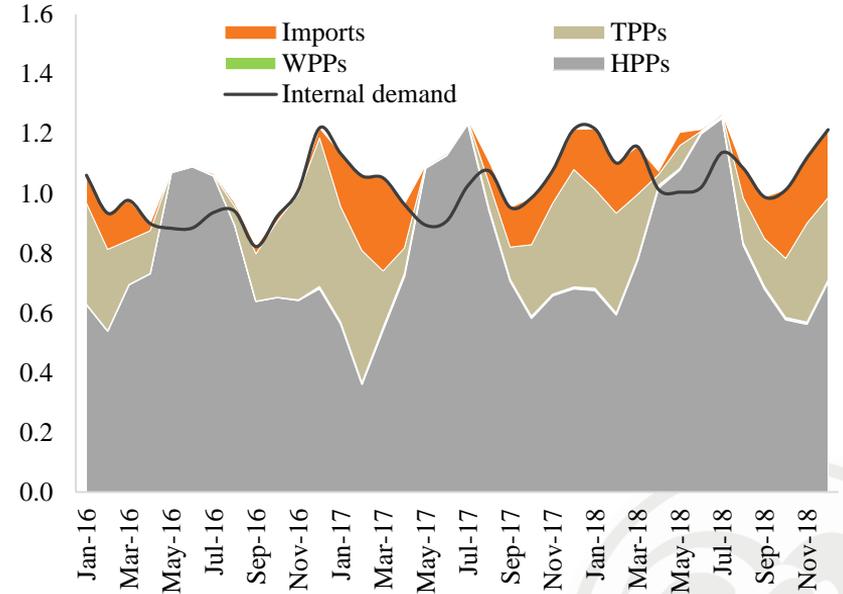
Stable growth in generation, imports still needed

Electricity supply, TWh



Source: ESCO

Seasonality of electricity supply, TWh

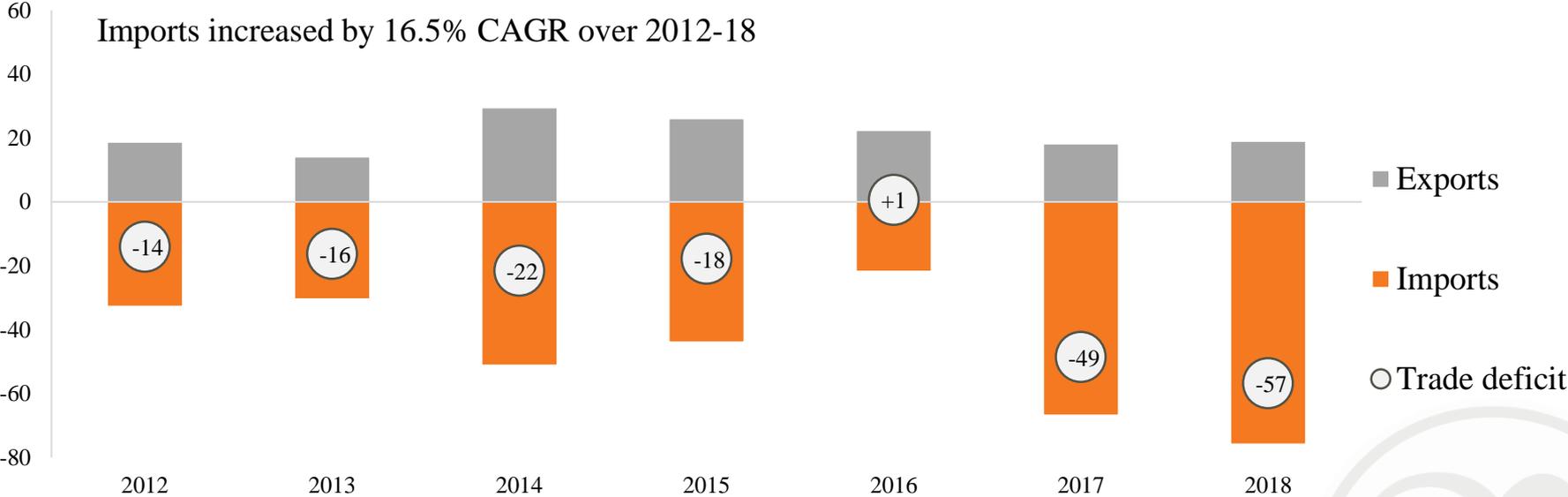


Source: ESCO



Trade deficit widened in recent years

Trade balance of electricity, US\$ mn

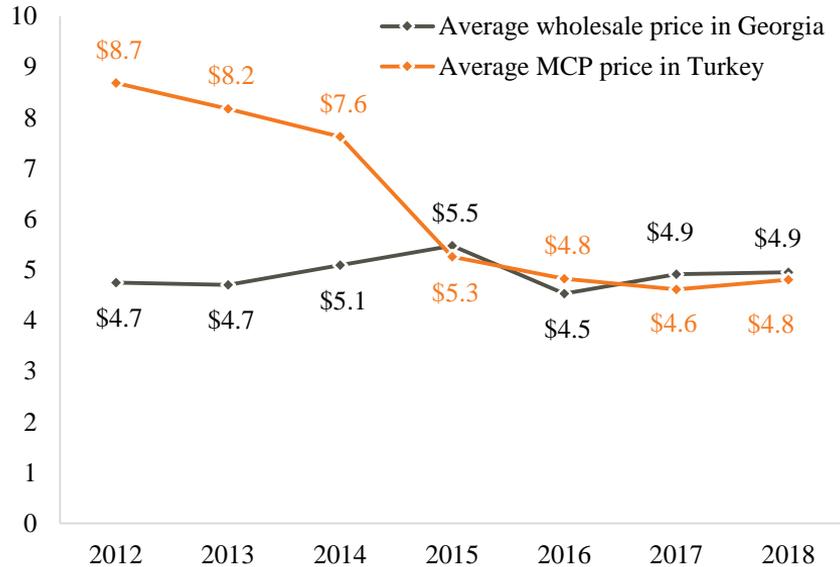


Source: GeoStat



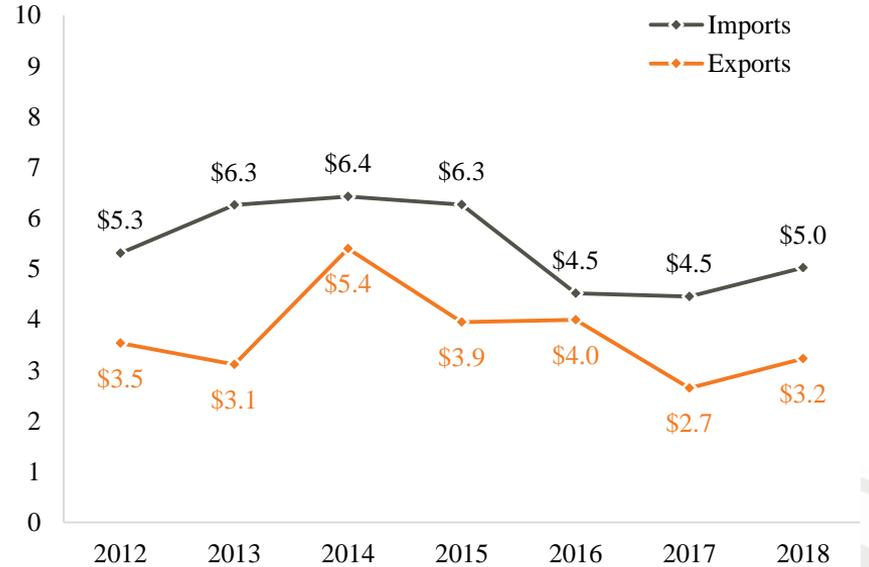
Prices stable in Georgia and down in Turkey

Electricity prices in Georgia and Turkey



Source: ESCO, GeoStat, Epias

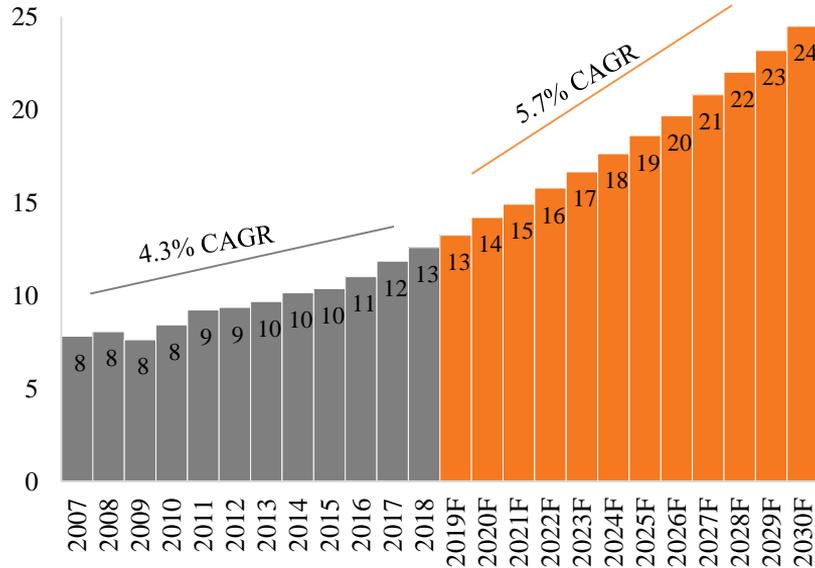
Average prices for electricity imports and exports



Source: ESCO, GeoStat

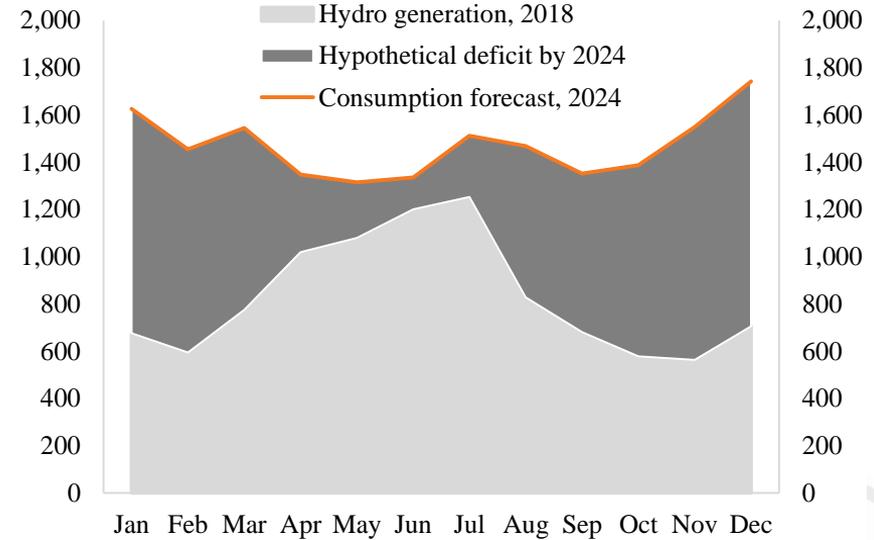
Electricity consumption expected to double by 2030

Electricity consumption forecast, TWh



Source: ESCO, Galt & Taggart Research

Hypothetical deficit by 2024, GWh



Source: ESCO, Galt & Taggart Research



Potential installed capacity enhanced by government promotion policy

Promotion policy before 2017

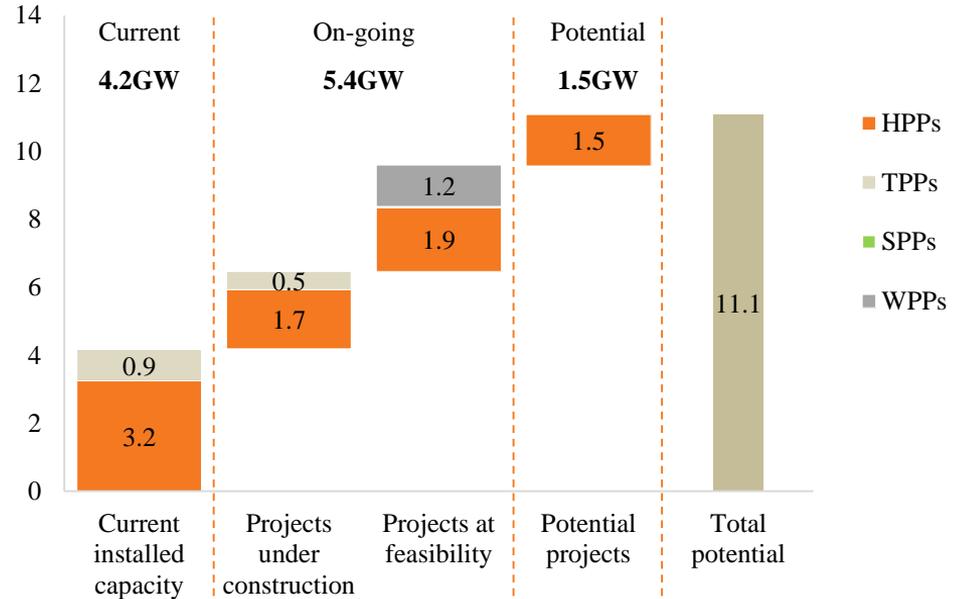
- Power Purchase Agreement
- Memorandum of Understanding
- Renewable Energy 2008

- Promotion of exports
- New transmission lines
- TDAs to Turkey

- Identification of sites
- Pre-feasibility studies
- Pilot projects



Potential installed capacity, GW

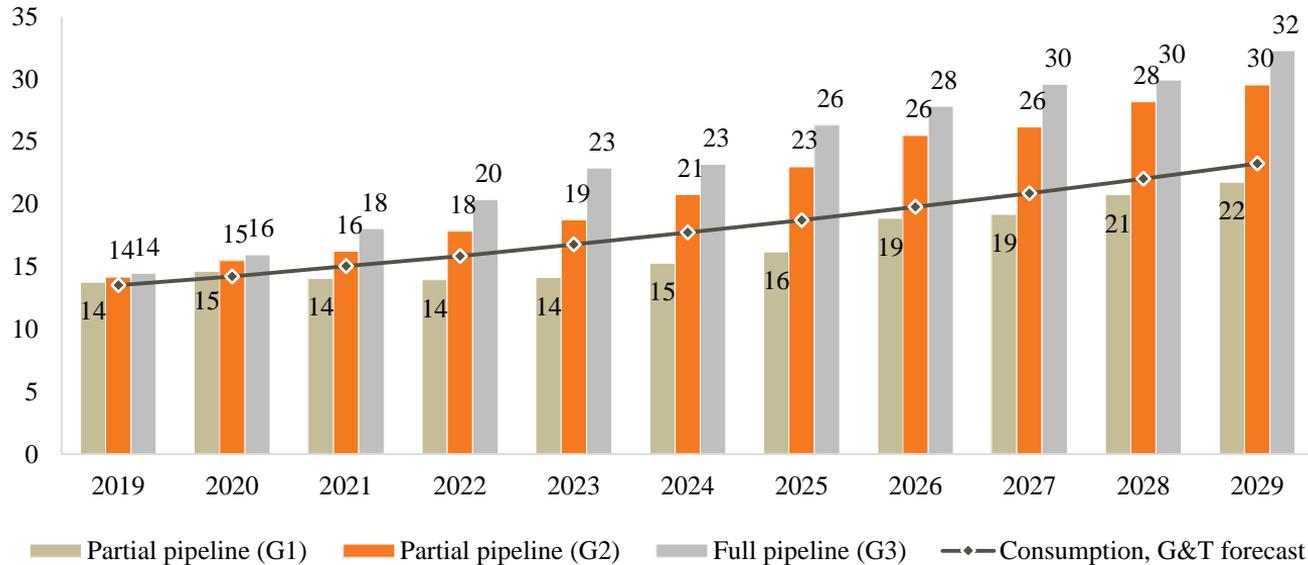


Source: MoESD, Galt & Taggart Research



Local demand can be met by increased generation...

Generation forecast scenarios for 2019-29, TWh



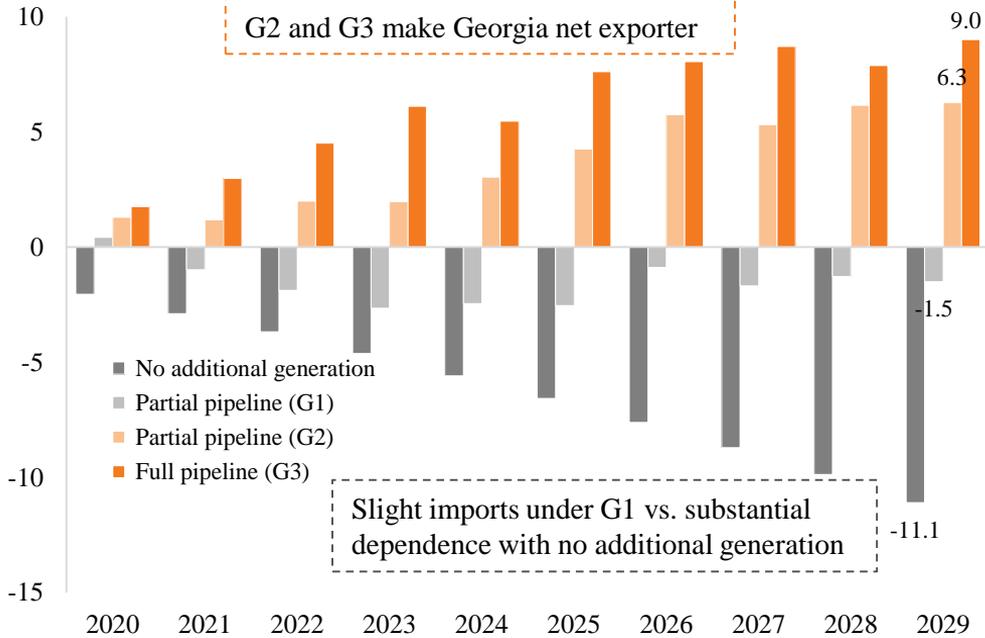
- ✓ Scenario G1:
 - Full commissioning of the HPPs under construction
 - Half of HPPs at licensing stage
 - None at feasibility stage
- ✓ Scenario G2:
 - 25% of projects at feasibility stage are added to the G1
- ✓ Scenario G3:
 - All projects are commissioned on time

Source: GSE, Galt & Taggart Research



Georgia can become net exporter of electricity

Scenarios of net export, TWh



Source: GSE, Galt & Taggart Research

Electricity consumption and generation in neighbouring markets, 2017



Source: EPIAS, Electric Networks of Armenia, State Statistical Committee of Azerbaijan, Global Energy Statistic Yearbook, Galt & Taggart Research

Changes create opportunities

Expected reforms & timeline

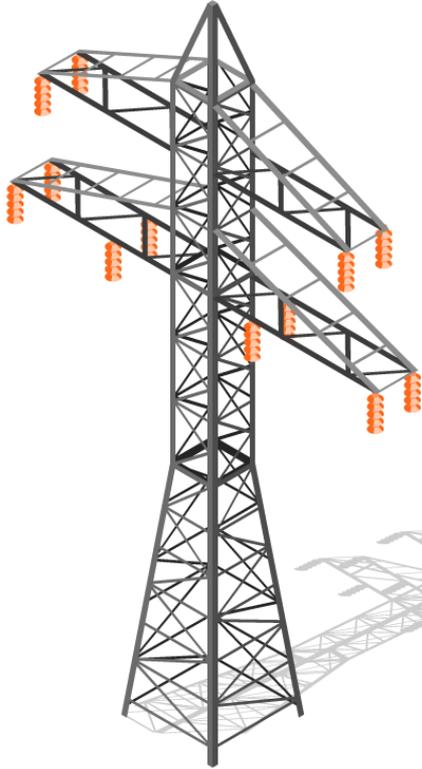


Source: Galt & Taggart Research

- Energy community membership brings transparency and competition on the market
- Reforms will open up path to the new type of investors and bring assistance of donor organizations
- New markets need time to gain credibility



Key findings



- Growing economy needs increased electricity consumption
- Without new generation capacities electricity imports/deficit will grow dramatically
- Impressive pipeline due to government promotion policy but many projects uncertain
- Investment environment changed, but upcoming reforms bring positive expectation
- Despite current uncertainties, exporting to neighboring markets is promising





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Thank you



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