

Penetration of EE Technologies and Policies in Georgia

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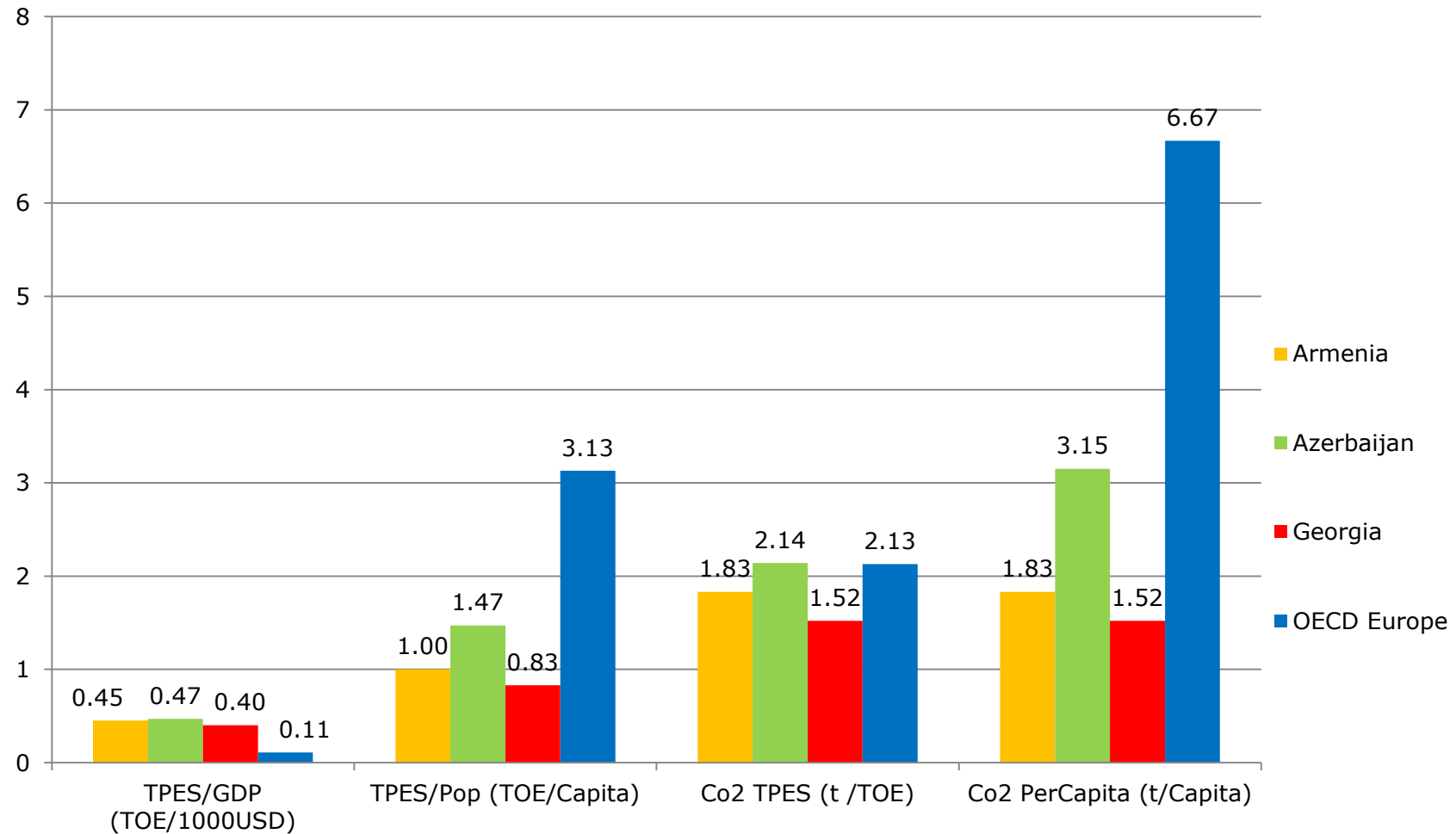
EE policy context in Georgia

- No energy law – e.g. fuel wood and coal not covered by energy legislation
- No state EE & RE agency – only 2 person department in Ministry of Energy
- Association Agreement with EU - mandates implementation of EU energy acquis, including directives on EE & RE
- EBRD projects – EEB started with MoEconomy &SD, NEEAP starting with MoEnergy,
- USAID - EC-LEDS with MoEnv.
- Covenant of Mayors–active development – voluntary
- EE policy analysis capacity at early development stage

Georgia might serve for benchmarking (policy vs no policy).



Energy and Climate Indicators of SC Countries



Source: EEC Georgia

Energy data collection and Use

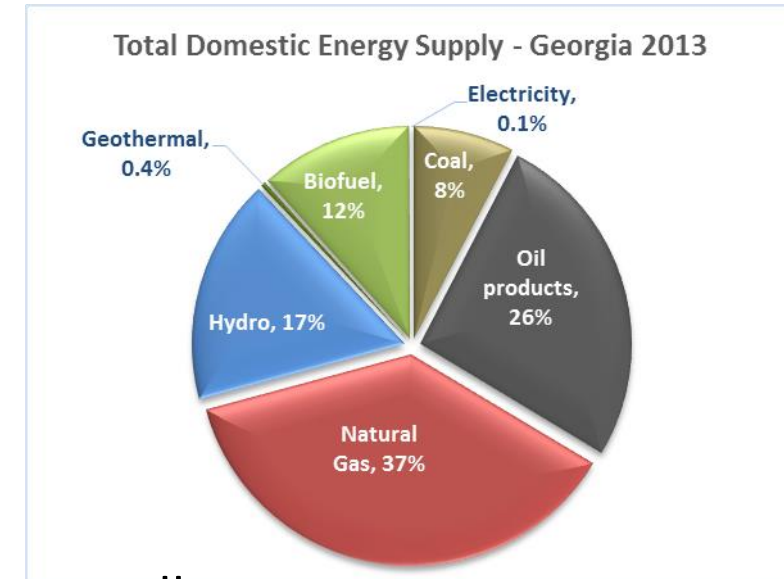
Supply data – more transparent on electricity and gas

- **Electricity**– system operator - openly available on ESCO (balancing market) and ministry site
- Gas - supply GOGC/Gas transportation company can be available on demand
- Biomass second indigenous energy resource - official data on cuttings largely misleading
- Oil Products - all imported data hard to find – customs and financial controllers
- No common energy law in Georgia - Ministry of Energy – is the ministry of electricity and gas – oil product and wood fuel data not covered

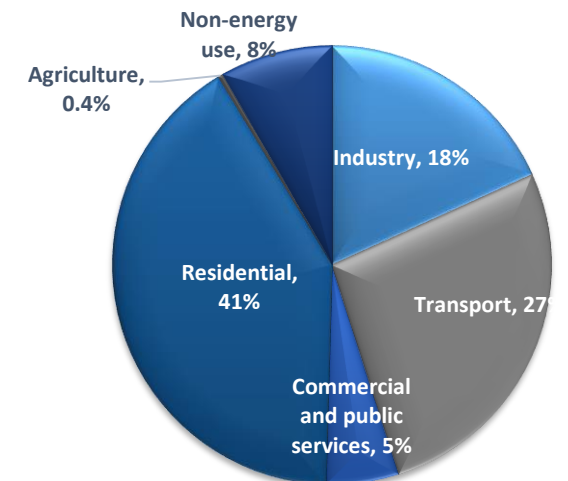
Consumption data - hard to collect

- Electricity and gas distribution companies (different classification and level of openness) – no legal requirement for data supply
- GEOSTAT – first in 13 years energy balance of 2014 after (INOGATE)
- Donor projects – household surveys, commercial and industrial survey to start (USAID)

Users – Ministry of Energy, GNERC, NGOs, think-tanks and donor projects



Final Energy Consumption by Sector - Georgia 2013



Assessment of Market status and **potential** of EE technologies. Buildings, industry and transport.

Comparison to the IEA methods

- The assessment is fragmented between separate donor projects. methodology not unified or agreed upon
- Technology Needs Assessment (UNEP/RISO/WEG) – stakeholder consultations
- EBRD project on EE in buildings (VTT/WEG) uses building stock model,
- MARKAL Georgia, (USAID/Winrock/ Deloitte/WEG/Remissia).
- Transport – SEAPs, LEDS - (Winrock/Remissia) – penetration of the types of vehicles assessed. Fuel switching and public procurement – recommended measures
- Industry is most difficult - no access, no energy audit obligations

Prioritization of EE Technologies

Donor projects:

- MARKAL Georgia (USAID, IRG, WEG)
- Technology needs assessment TNA methodology (UNEP,RISO,WEG)
- EC LEDS (Based on MARKAL Georgia, USAID)

Technologies identified – Efficiency in buildings, Solar water heaters (NAMA), efficient wood stoves,

Winter deficit urges for EE in electricity sector – MoE – energy strategy

Technologies – Thermal PPs –switch to Combined Cycle – can save 0.2 bcm/a
efficient lighting – can save .5 TWH/a

Do the proposed technologies, and end uses of energy within the methodology align well with your priorities and are they realistic for your country?

EE policies, targets, measures, responsibilities

- Up to now there has been no special state policy in support of EE, therefore no special measures have been implemented
 - Draft laws on EE & RE as well as attempts to introduce the EE in construction code were unsuccessful
 - Minor EE policies can be found at municipal level – e.g. Batumi and Tbilisi municipalities
- Country does not have EE targets yet - 1st NEEAP just starting
- Responsibilities scattered – MoEnergy - (energy strategy); MoEconomy & SD (Building code); MoEnvironment&R (LEDS, INDC, NAMAs)
- No direct responsibility assigned to central or local government – except a statement that MoEnergy should promote efficiency in energy supply
- Block tariff in electricity can be partly considered as a no-cost EE measure
- Tariff Subsidies - major impediment for EE development (both gas and electricity)

Comment on methodology use for Georgia conditions

- A very good logical model designed for high level of development
 - Assumes high maturation of data collection, analysis and policy making system
 - Assumes long term vision and high motivation of policymakers for EE improvements and detailed information available
 - Enabling environment analysis part of technology selection(?)
- Comparison to TNA methodology:
 - Sector, subsector and technology selection-> market and barrier analysis-> technology action plan
 - Selection criteria – GHG reduction potential and national development priorities
 - Stakeholder consultation, compensates for imperfections and helps to build the data collection and analysis system
- Recommendation: try to compensate with stakeholder involvement wherever data cannot support the methodology

Thank You