



# Georgian National Energy and Water Supply Regulatory Commission

[www.GNERC.org](http://www.GNERC.org)

## Net Metering in Georgia



REGULATION FOR DEVELOPMENT

# Basic Principles of Micro Generation Connection

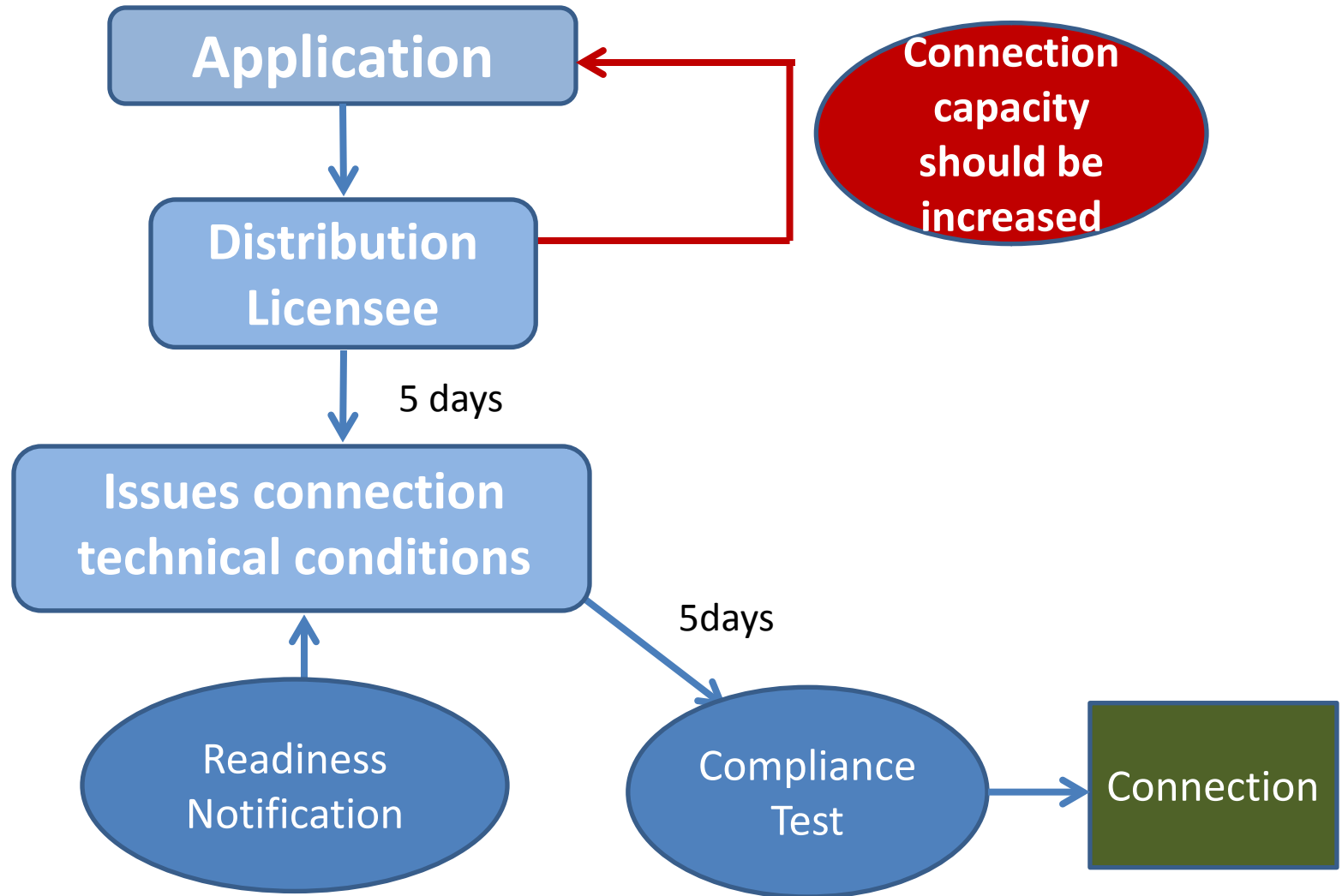
- Micro generators – Retail consumer's on-site generating facility up to 100 Kvt
- Distribution licensee is obliged to facilitate micro generation integration into the network
- Distribution Licensee to issue connection technical conditions freely upon relevant request from retail consumer
- Distribution Licensee is obliged to nominate contact person
- Distribution licensee is responsible for metering point reconstruction (installing bi-directional meter and data exchange equipment)
- Consumer is liable to prepare project and obtain all necessary permits
- Excess KWhs are carried over each month and after one year it should be settled financially. Compensation mechanism of excessive energy is based on avoided cost

# Technical requirements

The customer that owns the Micro Power Plant, shall not cause the worsening of electricity quality at the distribution network connection point above the set limits; in addition, by this period:

- voltage increase shall not exceed +6%
- connection of Micro Power Plant Shall not cause worsening of capacity factor out of the  $\pm 0.8$  limits
- Micro Power Plant shall not cause interphase imbalance (asymmetry) for more than 2 % in three phase system
- short circuits caused by the Micro Power Plant shall not exceed established norms for given voltage levels of distribution network

# Micro Generation Connection Procedures



# Consultant Recommendations regarding Net-metering (1)

- Eligibility:
  - limited to renewable generation sources only with capacity less than 100 kW
  - limited to homeowners and small businesses
- Size limits: individual installations limited to 100% of the capacity of the customer's service entrance
- Subscription limit: suggest no limit initially, but reviewed after 3 years to determine if a subscription limit is desirable
- Alternatively, could establish a subscription limit of 2% of system capacity, with review after 3 years

# Consultant Recommendations regarding Net-metering (2)

- Connection requirements:
  - transparent and streamlined connection process defined in distribution grid code with technical review and safety inspection required, and undertaken by distribution licensee to which customer is connected
  - Depending on the Government's net metering policy, a customer might be charged incremental metering costs (i.e., cost of bidirectional metering installation less cost of typical metering installation) and charged for any necessary permitting
  - There would be no additional charges to customer for technical review and safety inspection
  - If installation requires distribution system upgrades (unlikely), distribution company, at its discretion, would be allowed to apply to GNERC for direct recovery of the costs from the net metering applicant.

# Consultant Recommendations regarding Net-metering (3)

- Aggregation of metering data for multiple net metering applicants not be allowed except under unusual circumstances as determined on a case-by-case basis by GNERC
- Treatment of credits: Depends of the Government's net metering policy, but recommend that customer retain any renewable energy or carbon credits associated with its generation

# Consultant Recommendations regarding Net-metering (4)

- Billing and settlement:
  - Recommend that customer's net consumption be billed at approved tariff for the relevant customer class;
  - If customer delivers more energy to distribution system than consumed in a month (i.e., excess generation), recommend:
    - excess generation be carried over to next month as a credit to the customer's bill
    - Credits tracked over the year, and if at the end of a year there remains a credit balance, it should be settled as follows:
      - 1) re-set credit balance to zero with payment to customer for credit balance according to approved tariff for the relevant customer class, or
      - 2) re-set credit balance to zero with payment to customer for credit balance according to avoided cost



# Net-metering Example

Month	Consumption Kwh	Production Kwh	Net Kwh	Kwh credit	Net billing
Jan-Feb	246	226	20	0	20
Mar-Apr	291	280	11	0	11
May-Jun	264	420	-156	0	0
Jul-Aug	235	460	-225	-156	0
Sect-Oct	260	240	20	-361	0
Nov-Dec	295	200	95	-255	0
<u>Total</u>	<u>1591</u>	<u>1826</u>		<u>-255</u>	<u>31</u>

# Issues to be discusses

- Subscription and other limits
- Possible impacts on Disco expenses
- Excess energy compensation price
- Taxation (VAT) and other surcharges issues
- Net meter aggregation issues
- Net metering after distribution-supply activity unbundling



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## Thank You!

