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Expansion of transmission and distribution networks in Moldova

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ANRE
Agenția Națională pentru Reglementare în Energetică

- ***Expansion of transmission or distribution networks*** – increase of transfer capacity of the existing transmission or distribution networks, or construction of new power networks or segments of transmission or distribution network carried out by the transmission network and system operator or by the distribution network and system operator for the purpose of satisfying needs related to electricity of physical persons and legal entities that wish to get connected to the power network

- The parties involved in the process of expansion of power networks:
  - the Government
  - Local public governing bodies
  - ANRE
  - Operators of transmission and distribution power networks

- The Law of the Republic of Moldova on Electricity sets obligations for each of the parties involved in the process of expansion of networks.
  The **Government** approves the strategy of development of the electric grid and of interconnection lines that connect with electric grids of other countries for the period of at least 15 years developed by the central energy sector public governing body together with the National Energy Regulatory Authority

- **Local public governing bodies -**
  (1) upon request issue permits for construction of electric grid related facilities, including power plants.
  (2) are responsible for elaboration of projects related to construction of distribution electric networks of local significance, which is carried out on the basis of permits for connection issued by distribution network operators and in accordance with the city development plans and land development plans, present corresponding projects to distribution network operators.
  (3) Lands that are in public ownership of administrative – territorial units are transferred on a free of charge basis for utilization to the transmission network and system operator or to distribution network operators so that they could carry out necessary works needed for construction or operation of electric networks.

- **National Energy Regulatory Agency:**
  - elaborates and approves the Regulation on expansion of transmission and distribution networks that envisions such procedures;
  - examines inclusion in the tariff of costs associated with expansions if they had been carried out in accordance with license conditions and requirements of the Regulation on expansion of networks.

- **Operators of transmission and distribution networks:**
  - carry out expansion of their electric networks in accordance with growth of the need in electricity so that to ensure reliability and continuity of supplying electricity to consumers, pursuant to the Regulation approved by the Agency.

  - Costs associated with expansion of transmission and distribution electric networks are incurred by network operators. These costs are taken into consideration when setting tariffs for transmission and distribution of electricity if those are carried out in accordance with conditions specified in the license, in accordance with the tariff methodology and regulations approved by the Agency.

- **The procedure for expansion of transmission networks**
  As of now we do not have any established procedure for expansion of the electricity transmission networks. The electricity transmission system was built during the time of the Soviet Union and is designed for much higher load than the one we have now in Moldova. Therefore, the issue of expansion of transmission networks is rather of a theoretical nature, at the present stage there is no practical need to expand the system.

The procedure for expansion of electricity distribution networks

In accordance with requirements of the Law, in 2011, the Agency approved the Regulation on expansion of electricity distribution networks. In particular, this Regulation envisions the following obligatory steps in the process of expansion of distribution networks:

1. In case the city development plan of a locality envisions appearance of new residential quarters, local public governing bodies request the distribution network operator to issue a permit for connection.
2. In accordance with the obtained permit a project of the new network is ordered. The order and payment for work of designers is in the competence of the local public administration.
3. The final project is coordinated with other services (Municipal Enterprise of Water Supply and Waste Water Treatment, Telecom, Gas Supply Facility, etc.), and after that is it transferred for final execution to the distribution network operator.

The procedure for expansion of electricity distribution networks (continued)

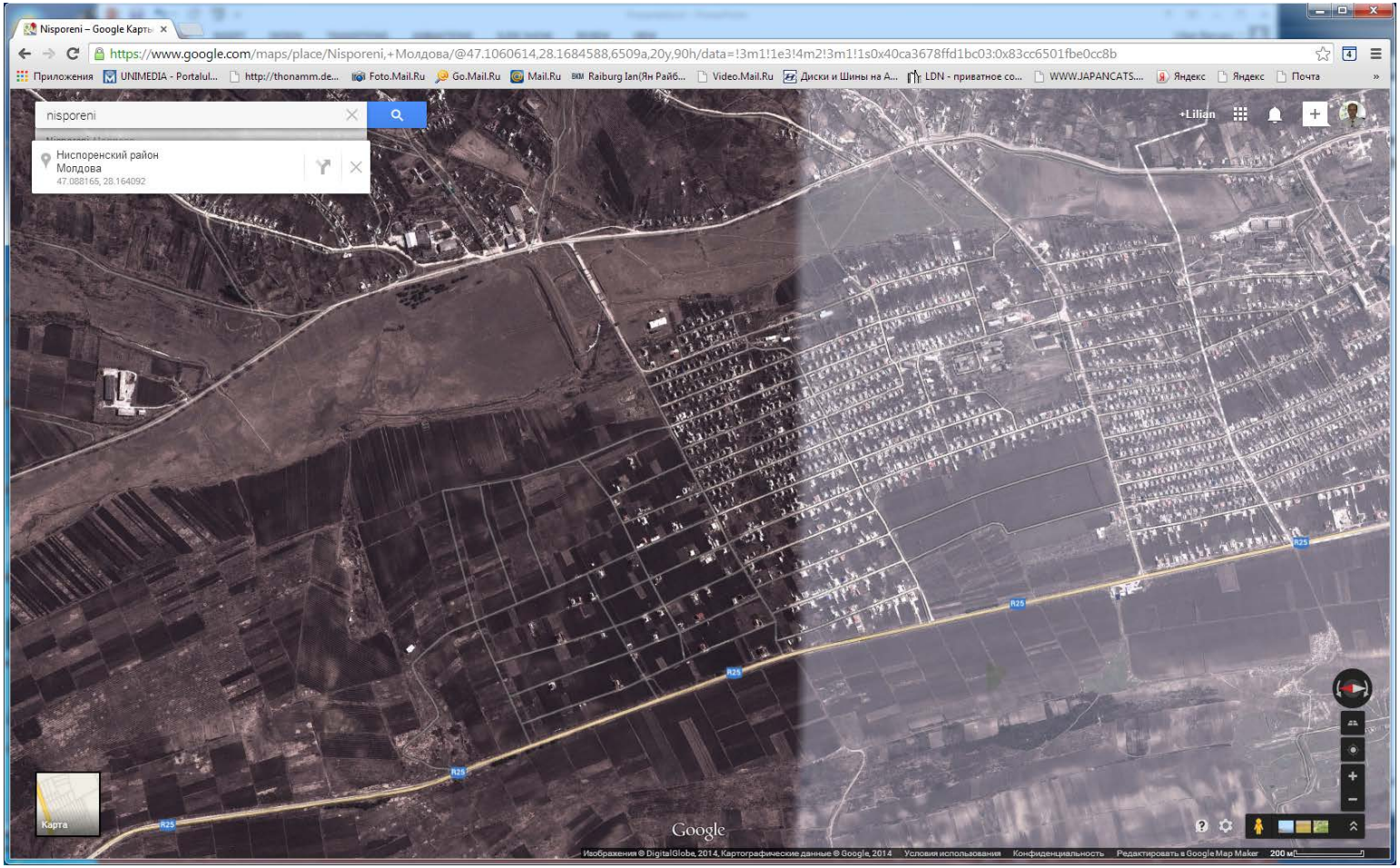
4. If the local public governing body, an association or an investor submitted by September 30 of the current year an application on inclusion of the project of construction of the new electricity distribution network or a segment of the electricity distribution network in the action plan, the distribution network operator examines the application and, if appropriate, includes the relevant project in the investment plan for the next calendar year.
5. The annual investment plan is submitted to the Agency for approval, and after that the operator carries out works related to construction of the new network or a segment of the network.

Problems related to application of the procedure for expansion of power networks

- 1. The existing procedure is applied irrespective of the type of a locality (rural area or urban area);
  2. The applied principles of economic efficiency (provided costs are included in the tariff and are paid by all consumers) leads to the situation when networks are developing in the urban environment, while in rural areas projects remain non-realized over the period of many years.
  3. Usually development of networks in cities is related to construction of blocks of flats. The Agency is not able to control developers and cannot guarantee that funds for construction of new networks are not included in the cost of apartments.

Problems related to application of the procedure for expansion of power networks (continued)

4. In rural areas development assumes construction of networks for supplying electricity to private houses. Of course, the cost of networks per one consumer is much higher than in cities.
5. Another problem in rural areas is non-homogeneous development of plots allocated for construction of private housing. (Photo Google maps)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