Heat supply in the Republic of Uzbekistan
Current situation with heat supply system

33 enterprises of heat supply function in the country:
10 of them are combined companies producing heat and electricity

Heat sources

- There are 973 boilers in the Republic, including:
  - 71 large regional plants and boilers of district heating system (main and distribution pipelines), connected to the consumer network
  - 902 local boilers, providing heat to households and wholesale consumers
  - Most of the boilers are low efficient and outdated (average gas consumption is 135-140 m3/Gcal)

Heat network

- The total length of heat network is 4,992 km, 1,770 km of these (35%) are in non-satisfactory condition and require overhaul.
- The level of heat network renewal is 10-12%
- 70-75% of households are supplied with meters for hot water

Regulation

- According to the law on natural monopolies, heat and distribution are on the list of natural monopolies. That is why the activity of these companies should be state regulated by way of setting limited tariffs, quality standards and so on.
The existing System of Heat Supply

Association of householders is responsible for the upkeep inside the system

The main valve in the basement in the limits of ownership and responsibility
Types of property of heat supply enterprises

- The owner of three cogeneration CHP is state stock holding company “Uzbekenergo”

- The owner of CHP, heat network and heating controllers is the enterprise of heat network (51% of these enterprises is a state share)

- Inside the house network is serviced by Condominium partnership
Heat supply system regulation

- **Minister of economy**: strategic planning of heat supply system, development and approval of investment projects;

- **Minister of finance**
  1) development of state tariff regulatory policy
  2) development of price formation methodology
  3) setting tariffs for unit heat energy

- **State antimonopoly committee**
  1) control over complying with the antimonopoly law
  2) control over use of tariffs and quality standard
  3) protection of consumers rights
  4) disputes settlements and so on.

- **State inspection «Uzgosenergonadzor»**
  control over safety performance and sector standards and norms efficiency

- **Municipality (Hokimiya)**
  1) administrative control over heat supply system
  2) permission for construction
  3) primary control over heat supply efficiency
  4) local solutions connected to heat supply system
  5) local infrastructure planning

Capacity Building for Sustainable Energy Regulation in Eastern Europe and Central Asia
The main principles of heat pricing

- Tariff consists of economically grounded costs and net profit.
- Only recommended standards of the main cost components (fuel, electricity, water, depreciation, labour, heat losses) can be included in tariff.
- Net profit is limited to 10% of product cost.
- Additional profit is provided as bonus if the company can reduce material and energy costs to the standard level.
- Tariff can be revised not more than twice a year.
- The level of tariff for all the consumers (households and business).
Tariff Structure (average)

- 44% - heat
- 12% - electricity
- 13% - labour
- 11% - repair and maintenance
- 4% - depreciation
- 4% - chemical and other materials
- 1% - other productive expenditures
- 9% - administrative and operational costs
- 2% - net profit
Reforms are conducted

- Complex heat development programme process is being developed in 30 large cities, including:
  - Retrofitting and overhaul of boilers, heat pipelines and distribution network
  - Reconstruction of heat network in houses
  - Transfer to local heating systems where it is economically and technically feasible
  - Transfer to closed circulation of heating system (installing heat exchangers in the houses)
  - Installation of modern metering devices at the point of entry in the houses
  - Implementation of projects with cogeneration of heat and electricity technologies (gas turbine installations) in four cities (Tashkent, Bukhara, Samarkand and Nukus). Supposed energy resources saving is by 30%
Existing Regulatory and Legal Basis

- The rules of arrangement and safe operation of steam and water heating boilers (1997)
- The rules of providing communal services to the households of the Republic of Uzbekistan (1999)
- The statement on the order of defining heat load and fuel, electricity, heat, water consumption standards per heat energy production and also heat losses standards (2007)
- The rules of heat use (2009)