



**American University in Kosovo**  
Master of Science Degree Program in Professional Studies



## Capstone Project

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# **Priorities for Privatization of Kosovo's Electricity Distribution Network and Supply**

Presented by:  
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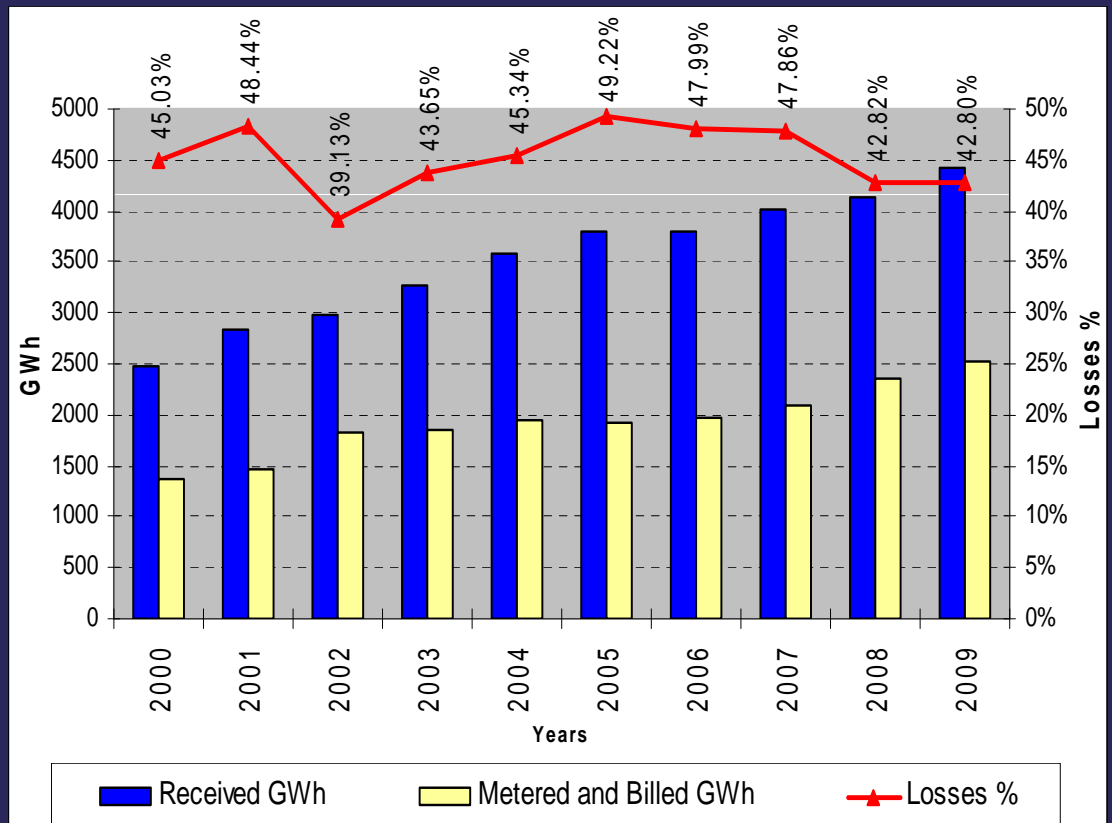
# Abstract

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- Historically nationalizes industries have had low performances
- Privatization increased dramatically efficiency and effectiveness'
- For these reason Government decided to privatize Electricity Distribution and Supply

# Problem background

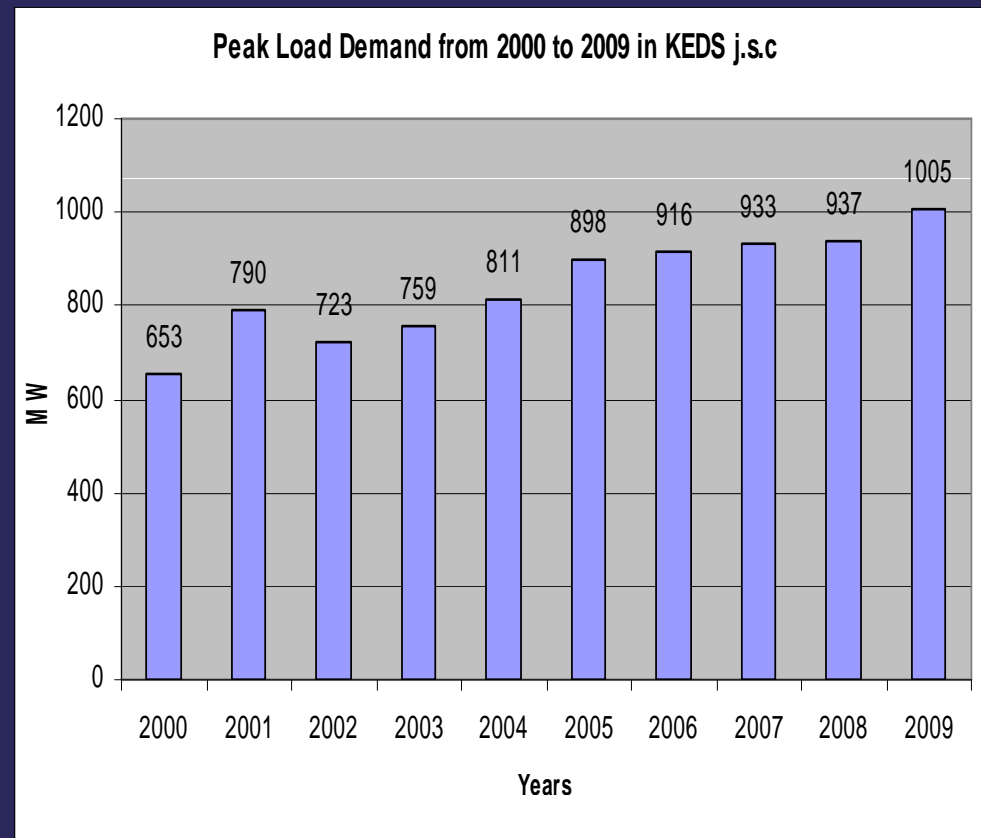
- High level of Losses for 10 years of operation
- That shows Continues Inefficiency and ineffectiveness
- Need for change and improvement



Source of Data KEK J.S.C

# Problem background -continue

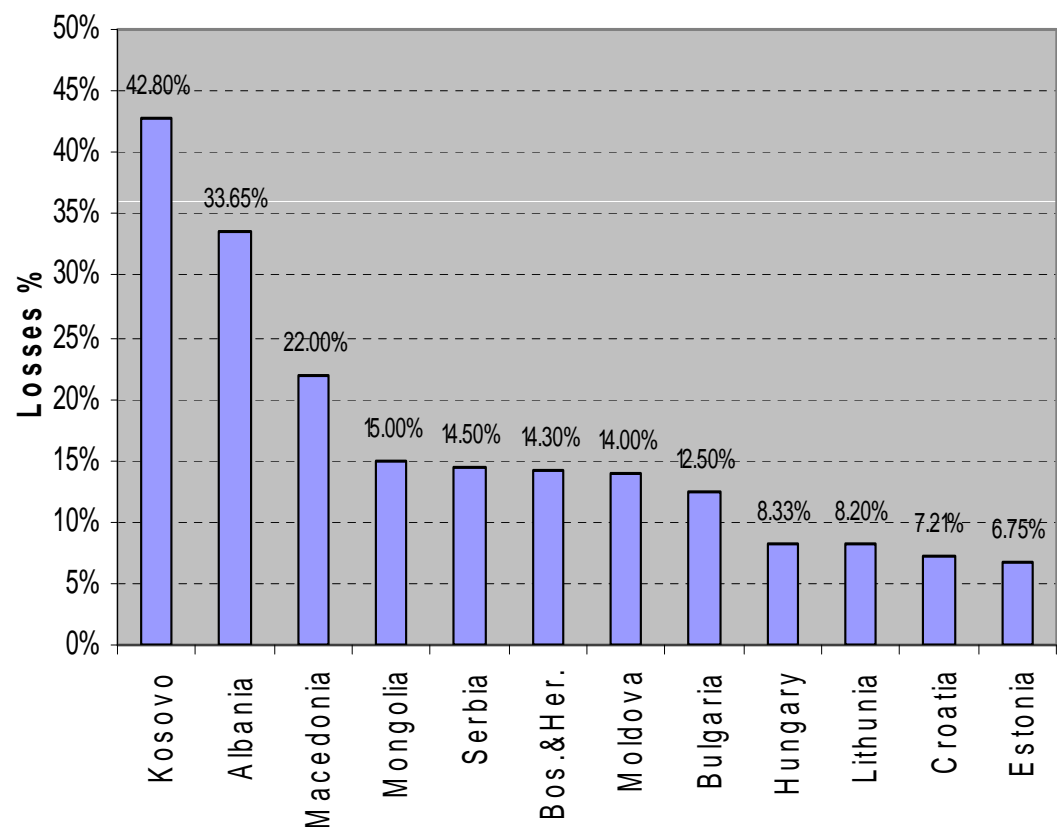
- Incremental increase of peak load demand 42 MW per year
- In Previous years ,increase in peak demand is not followed by investments



Source of Data KEK J.S.C

# Regional Experience

- Kosovo has highest losses, followed by Albania and Macedonia
- This level of losses will have negative impact in final selling price of KEDS J.S.C



Source of data: [www.erranet.org](http://www.erranet.org)

# Overall energy structure in Kosovo

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- There are many players in Energy/Electricity Sector in Kosovo
  - Based in Law of Regulatory( July 2004)
  - Ministry of energy and Mines Dec.2004
  - Establishment of KOSTT.j.s.c  
Independent Transmission System and  
Market Operator (July 2006)



# Governments Policy in Energy Sector

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- Implementing its policy based in Law of Energy and Law of Electricity through Ministry of Energy and Mines
- LPoE (law on publicly owned enterprises) through Ministry of Economy and finances
- Implementing politics and strategies for sustainable development of energy sector in Kosovo, to ensure continues supply with electricity for household customers and businesses.



# Role of Energy Regulatory Office

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- Role of Regulatory in process of privatization is:
  - Providing advice to the Government on its privatization strategy and energy policy
  - Participating in preparation of the tendering documents
  - Meeting with potential bidders
  - Demonstrating its skills as regulatory

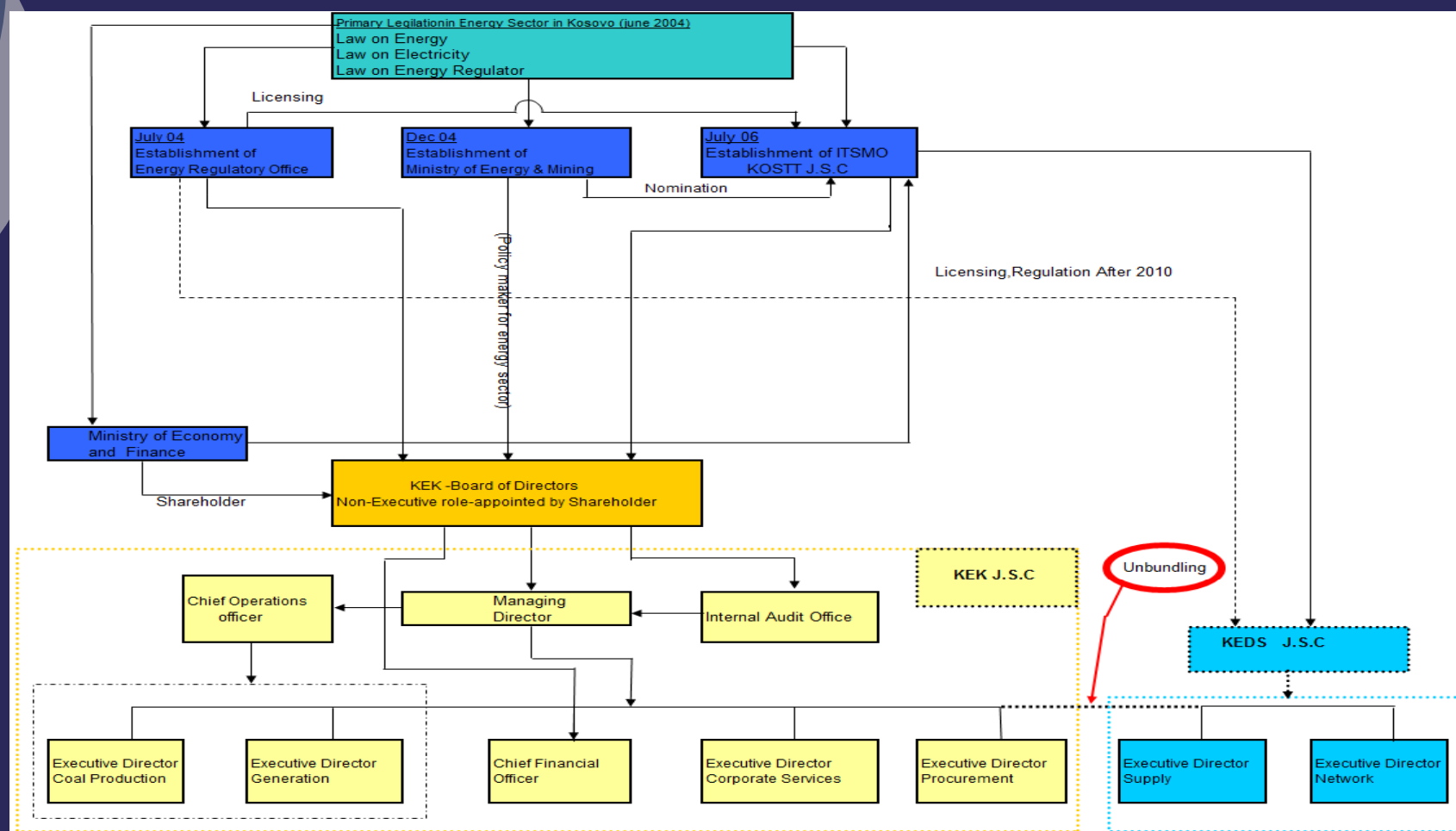


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- The Regulator's most important role in a privatization is to provide potential strategic investors with regulatory reassurance in three areas:
  - Tariff
  - Process
  - Licenses

# Hierarchy of actors in Kosovo's Electricity Market



Source of Data: KEK J.S.C

## Type of Privatization KEDS J.S.C Asset

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o There are three types of privatizations, [17]

- Share issue privatization (SIP) - selling shares on the stock market
- Asset sale privatization - selling the entire firm or part of it to a strategic investor,
- Voucher privatization - shares of ownership are distributed to all citizens, usually for free or at a very low price.

# Priorities for privatization

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- The top three priorities in this project are considered to be:
  - 1. Legislation and regulation for distribution
  - 2. Economic and electricity demand growth
  - 3. Technical and commercial losses in distribution network
- Furthermore, the following priorities will also need to be considered:
  - 4. Global finance for electricity investments
  - 5. Distribution technologies and infrastructure
  - 6. Distribution area, customers and population density

## Priority 1: Privatization and regulation for Distribution network, Cases of Privatization

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- Regulation by contract, a new approach, to privatize Electricity Distribution Network.
- To be sustainable, regulation by contract must achieve three goals:
  - to protect customers from monopoly prices
  - prevent inferior quality of service
  - attract investors who will make the investments to provide better service and affordable prices.

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- Georgia Case, India Case
- Sharing of the Risk
- Regulatory contract will ultimately affect one of three things:
  - a) the price that it can charge,
  - b) the cost that it can cover, and
  - c) the quality of electricity that it can sell

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- Pass-through of power-purchase costs
- Loss reduction targets.
- Obligation to supply.
- Dealing with Disputes
  - The local court system.
  - International arbitration.
  - Mediation. Alternative Dispute Resolution
  - Expert Panel.
  - A specialized appeals tribunal

# Athens Treaty Establishing the Energy Community on 2005

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- The European Union on the one hand and SEE in another hand
- This treaty and the Athens process that preceded it are “text book” examples of an initiative that:
- European Community Directives 2003/54/EC and 2003/55/EC are:
  - (i) From 1 January 2008, all non-household customers; and
  - (ii) From 1 January 2015, all customers.

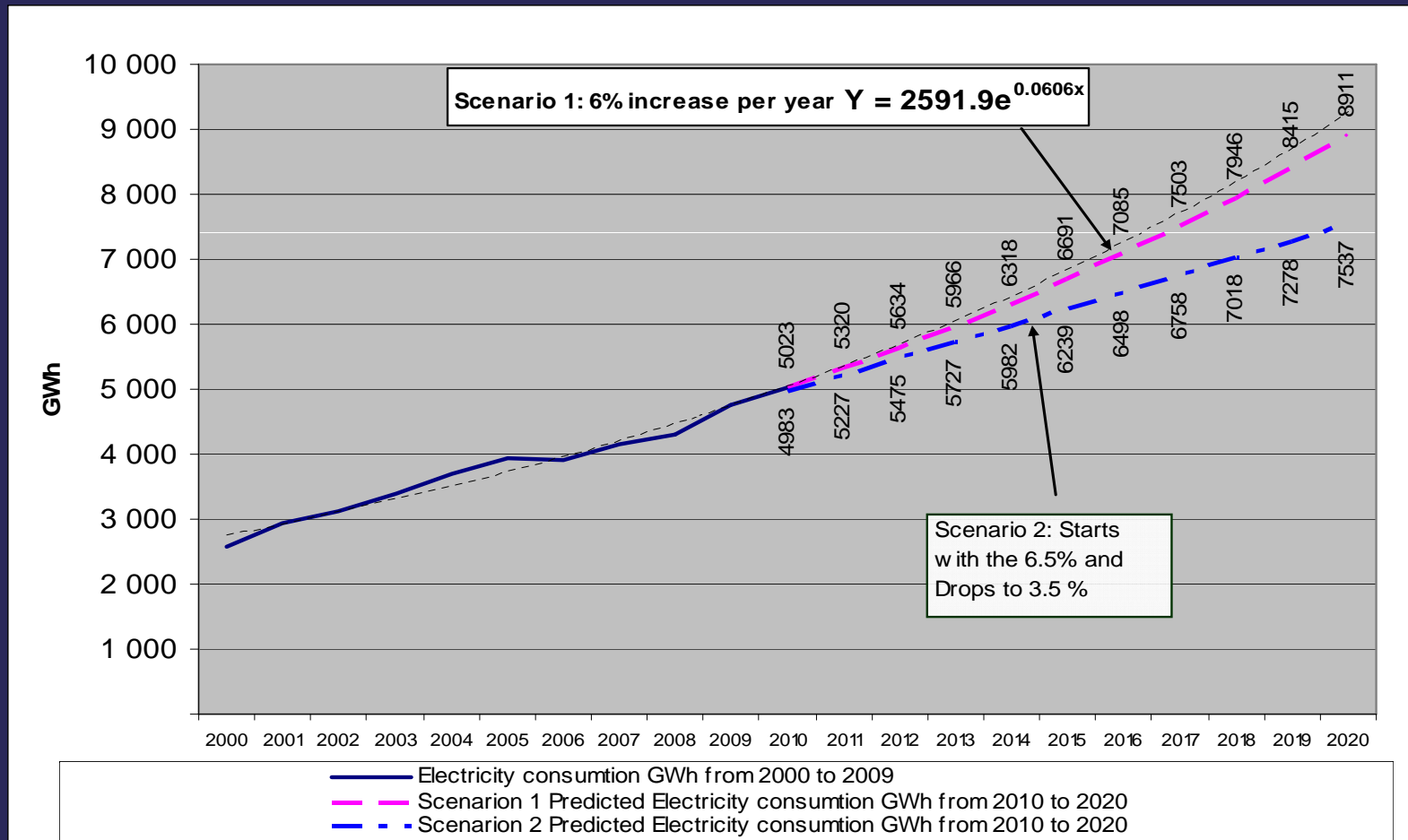


## Priority 2: Electricity and Peak load demand growth

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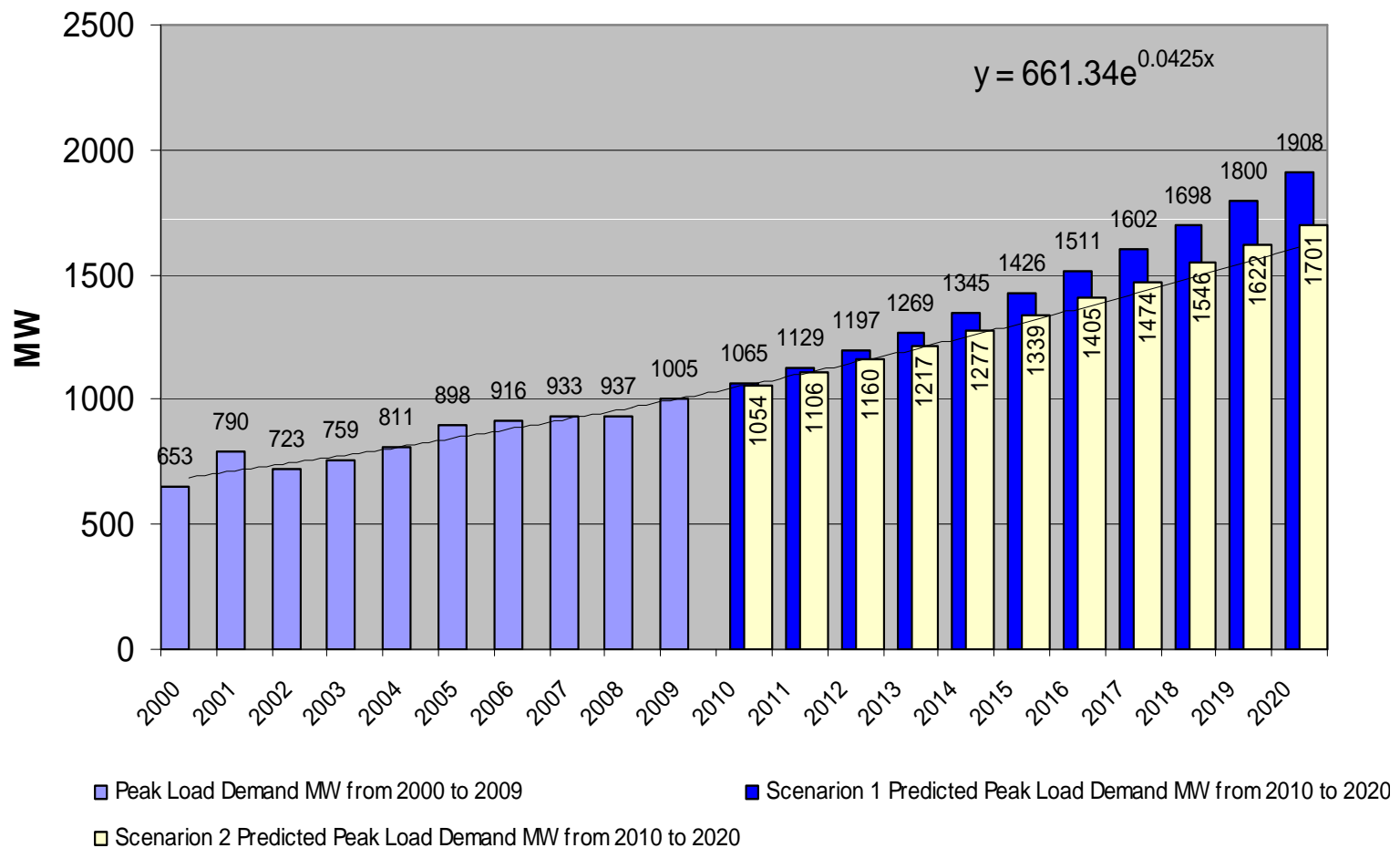
- Two scenarios of electricity demand growth
  - First scenario : 6% per year by 2020
  - Second scenario: Starting from 6.5% and slight decrease in 3.5% by 2020
- Two scenarios for Peak load demand Growth
  - First scenario: 6% increase per year
  - Second scenario: 4.9% increase per year

# Electricity demand Growth



Source of data: KEDS j..s.c, forecast has been done by author of capstone

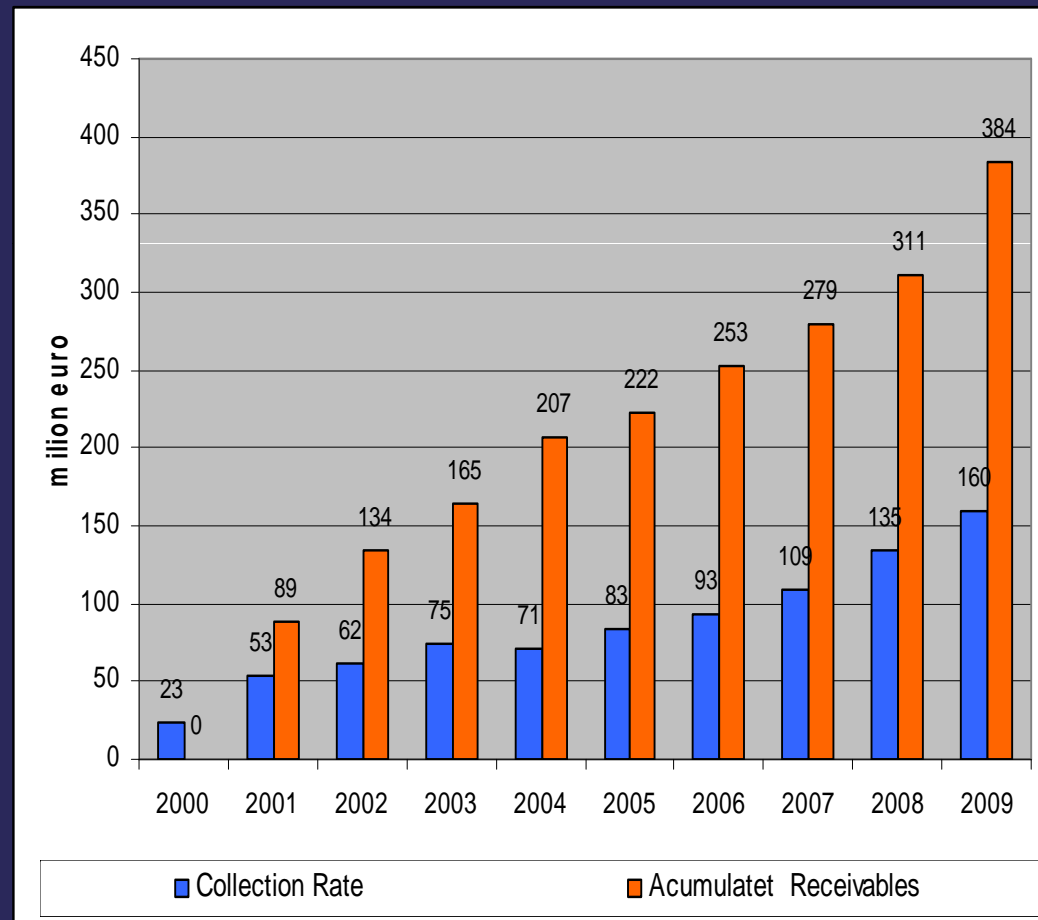
# Peak Load demand Growth



Source of data: KOSTT j..s.c, forecast has been done by author of capstone

# Collection rate and Accumulated receivables

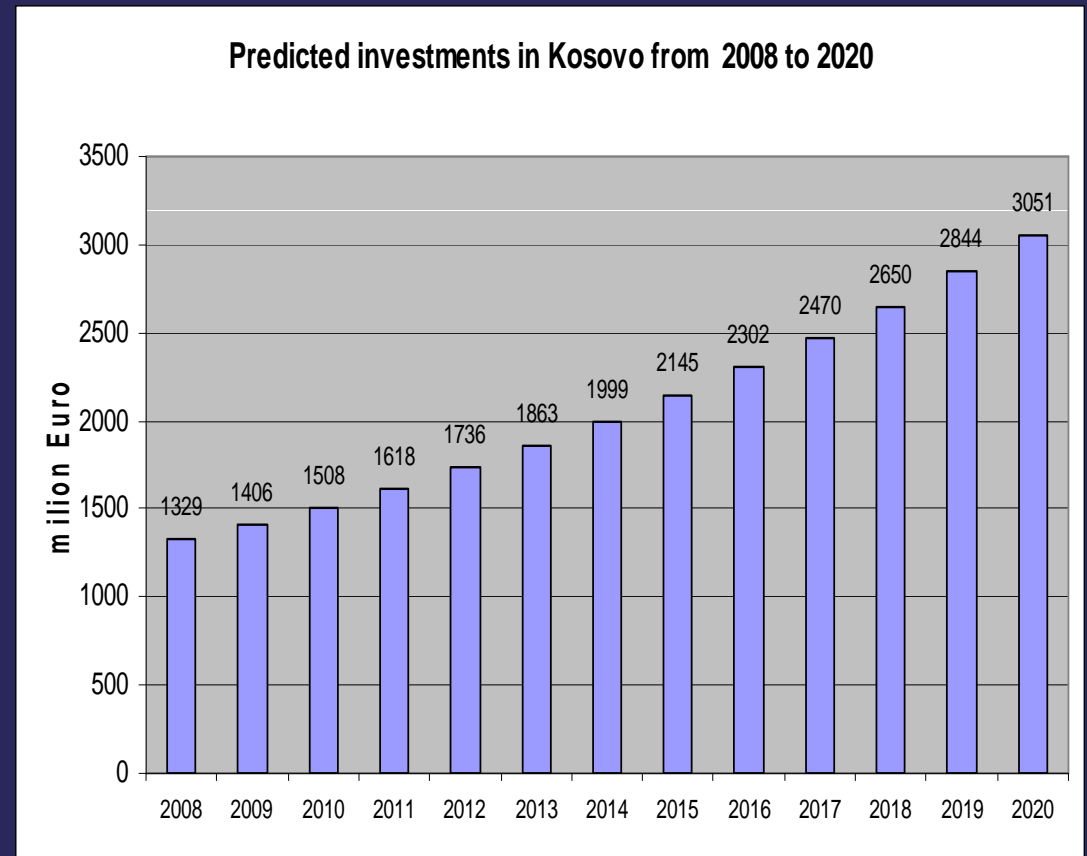
- Significant improvement in collection rate
- Improvement of financial conditions in the company
- Also increase in accumulated receivables



Source of data: KEDS j.s.c

# Economic Growth

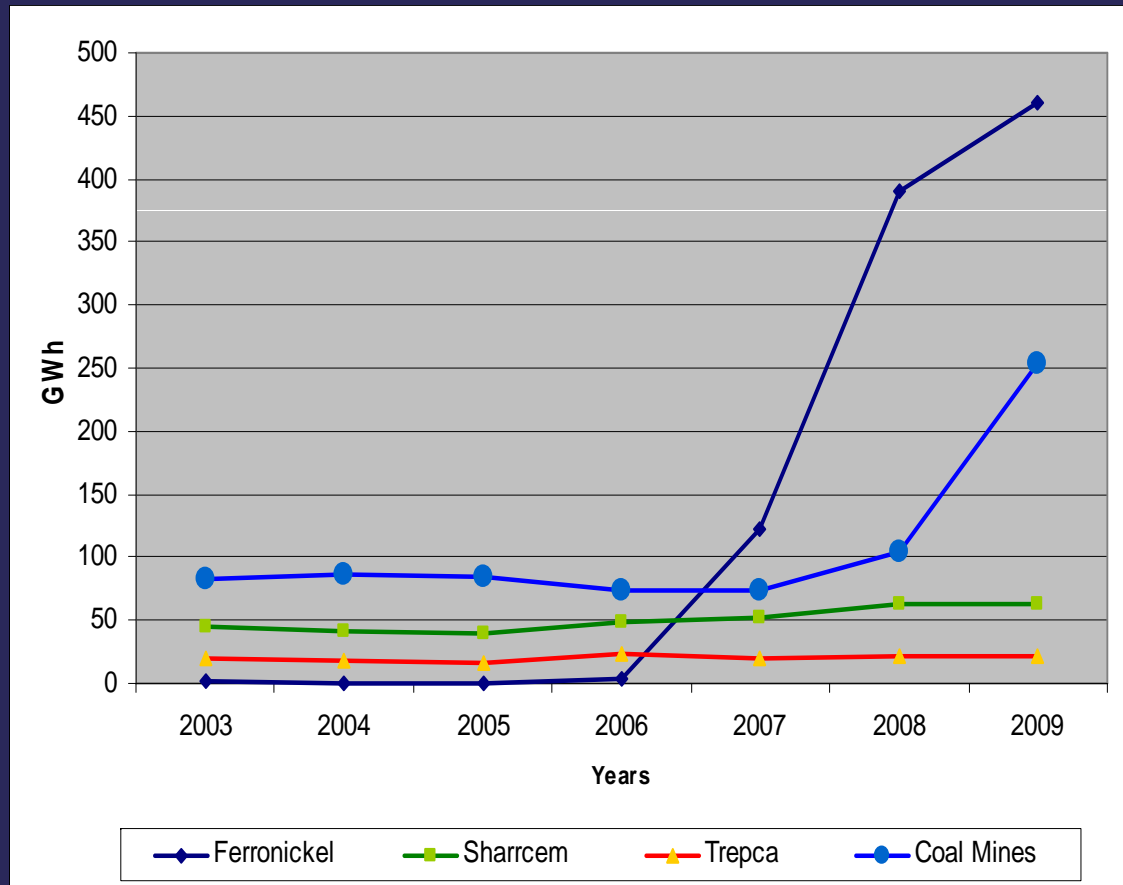
- Predicted rate of economic growth of 7.3% in real terms requires investments shown in Figure
- The investment numbers given should be interpreted as year 2008 euros



Source of data: Macroeconomic department-MEF

# Big customers of electricity

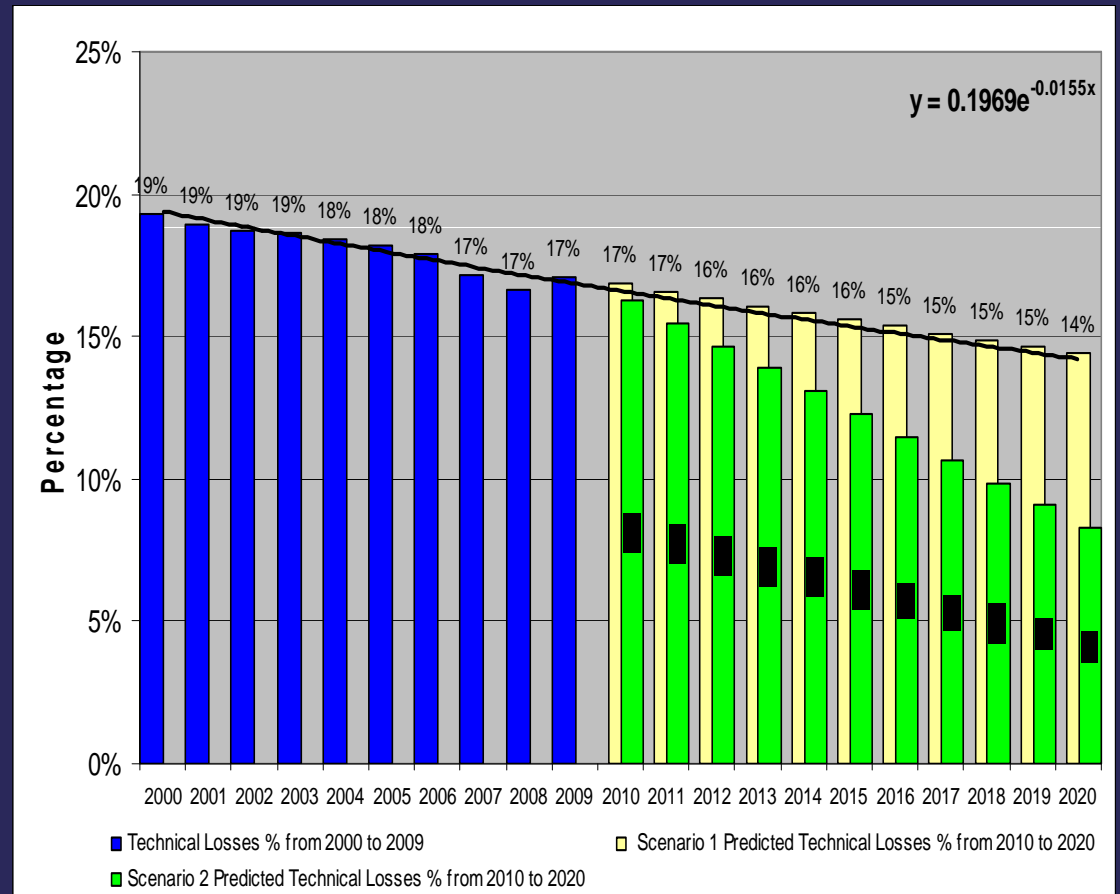
- There are four big customers of electricity; NEW.co Ferronickel.L.LC , Sharrcem Gmbh,Trepça, and Coal Mines



Sours of data :KEK j.s.c and KEDS j.s.c

# Priority 3: Technical losses

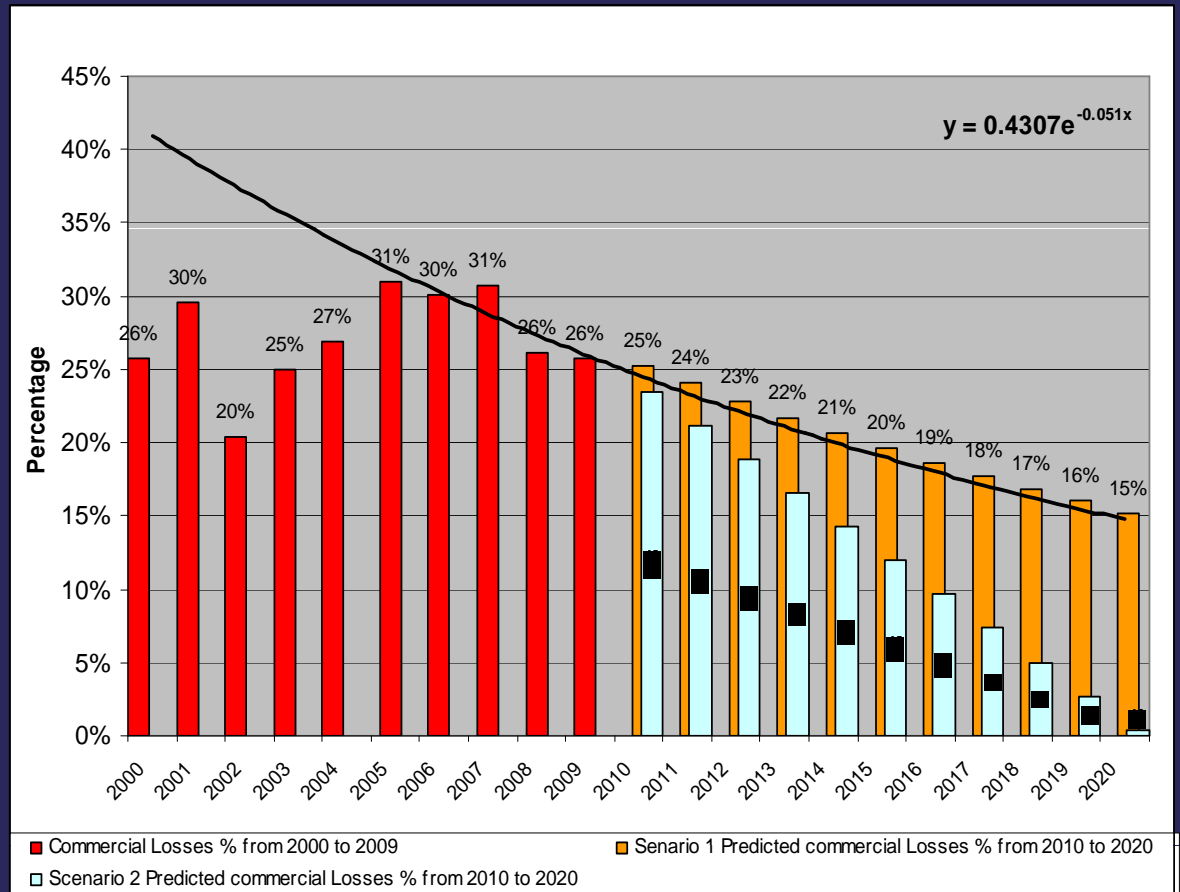
- Scenario 1: forecast level of losses will be 14% by 2020, with incremental yearly decrease by 0.24%.
- Scenario 2: incremental decrease is predicted to be 0.8% per year, in 2020 level of technical losses will fall in reasonable level of 8%.



Source of data: KEDS j.s.c –forecast has been done by author of capstone

# Commercial losses

- Scenario1: Predicts average incremental decrease will be 0.96 % per year .hence in 2020 level of these losses will reach level 15%
- Scenario2: Predicts level of average incremental decrease of losses is forecasted to be 2.3 %,to reach level of (zero) 0 % in 2020



Source of data: KEDS j.s.c –forecast has been done by author of capstone



## Priority 4: Global Finance for investments in Electricity Distribution

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- Like other private sector investors and commercial lenders, IFC:
  - Seeks profitable returns
  - Prices its finance and services in line with the market; and
  - Fully shares risks with its partners

# Future CAPEX and OPEX

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- Are needed huge amount of CAPEX
  - To increase capacities of the network
  - To meet Peak Load and electricity demand of customers
- Are needed huge amount of OPEX
  - Improvement in maintenance if the equipments (active and continues improvement)
  - Improvement in operation of the equipments

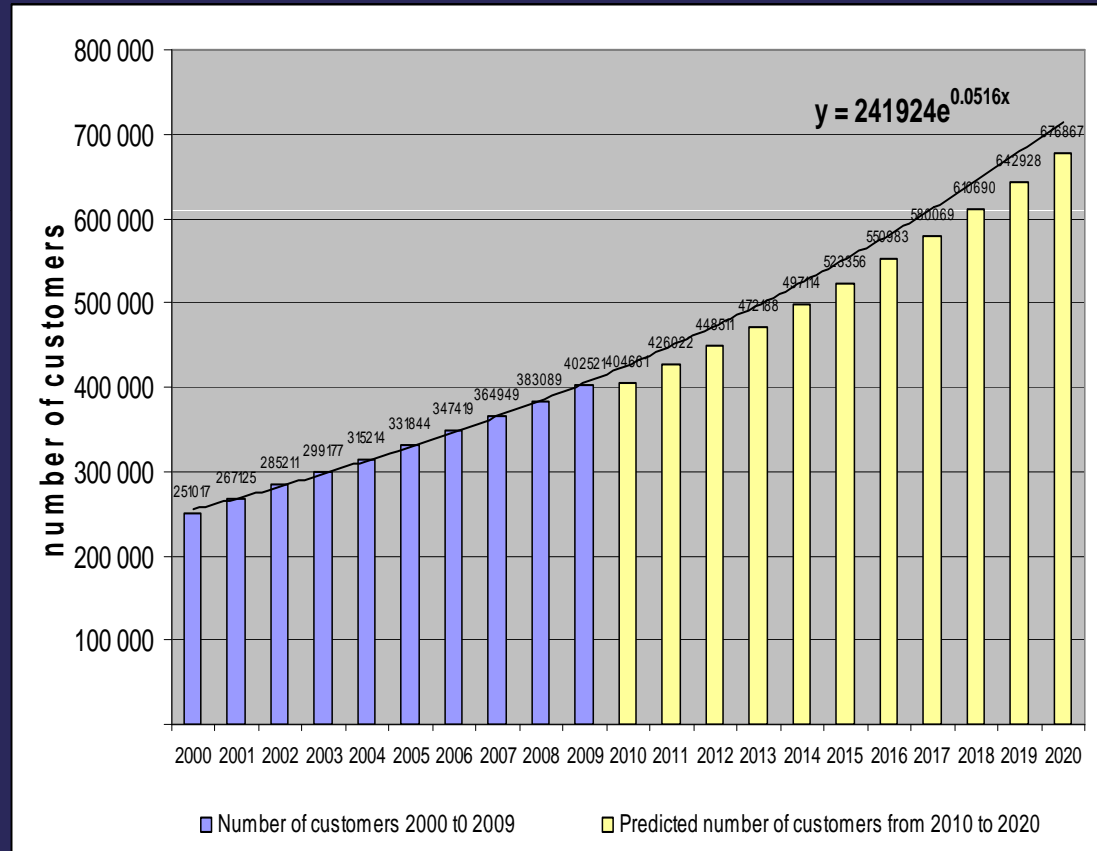
# Priority 5: Distribution Technologies and Infrastructure

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- SCADA system
  - SCADA –MTU control centre
  - Communication network
  - Remote controlled stations
  - Terrain equipments
- Importance of implementation of SCADA in KEDS j.s.c

# Priority 6: Number of Customers

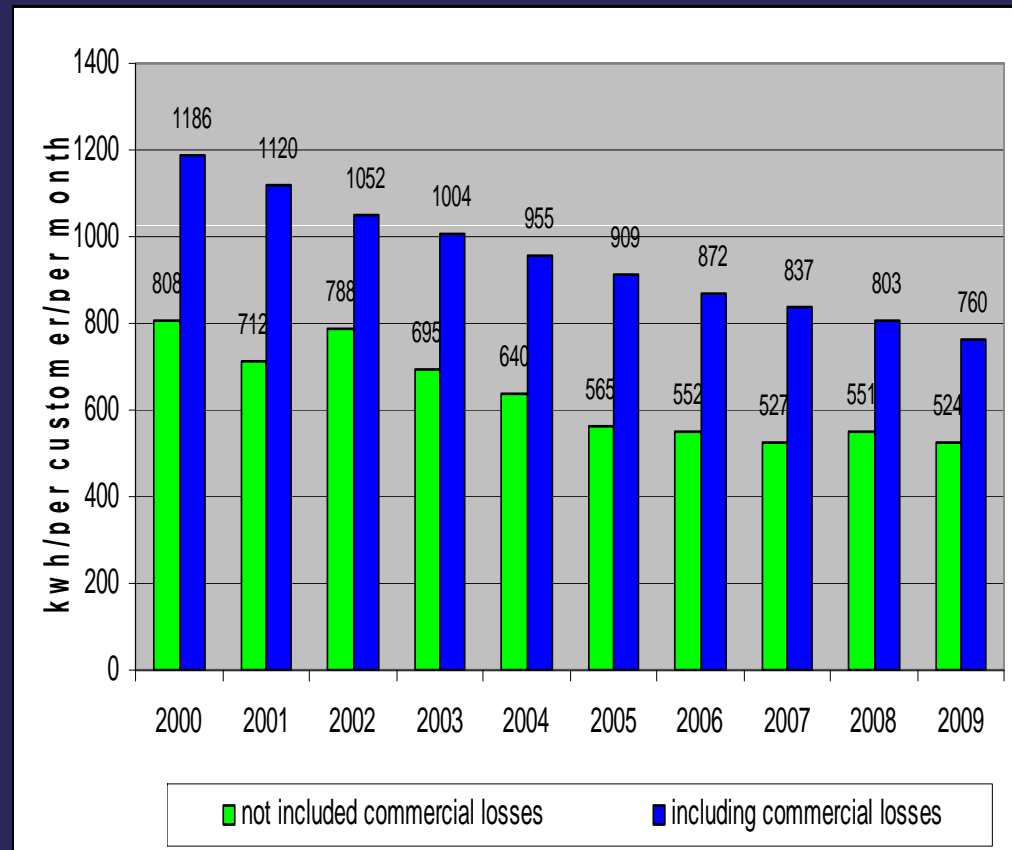
- KEDS j.s.c has 402,541 customers through out Kosovo, in this number are not included number of customers in northern part of the country
- Average incremental increase of customers per year was 16833
- In 2020 this number is expected to be 676,867, following increase trend of this number in past 10 years



Source of data: KEDS j.s.c –forecast has been done by author of capstone

# Average electricity consumption per customer in distribution from 2000 to 2009

- average consumption in 2003 per consumer per month, before commercial losses was 1004 kwh and after commercial losses was 695 kwh
- average consumption in 2009 evaluated and it was 760 kwh before commercial losses and 524 kwh per month after commercial losses

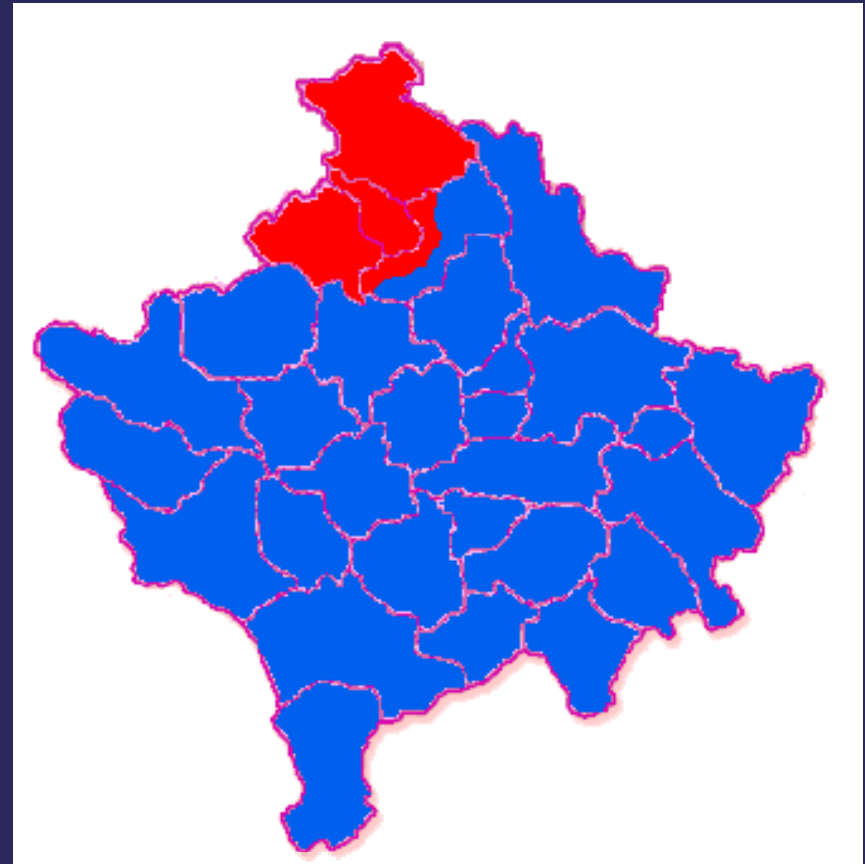


Source of data: KEDS j.s.c

# Northern Part of Kosovo-Unsolved Issue

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- In Figure part of network in which KEDS .j.s.c can not operate since 1999 is colored in red
- The part of network where is operating KEDS j.s.c is colored in blue



Source of Map: [http://en.wikipedia.org/wiki/File:Kosovo\\_Municipalities.PNG](http://en.wikipedia.org/wiki/File:Kosovo_Municipalities.PNG) Modified by author of capstone project

# Conclusions

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- Years of inefficiency were the main reasons that “pushed” the government to launch the process of privatization
- Improvements in quality of services, and supply
  - important impact in the development of the entire economy
- Technical & commercial losses are expected to decrease faster after privatization
  - impact in evaluation of assets of the company
- Impact of Global finance is very high

# Recommendations

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- Government should privatize KEDS j.s.c to the company that has more than 30 years experience in electricity distribution and supply, in a competitive market.
- Increased investments to meet peak load demand and demand for electricity ,to increase value of distribution asset sale
- Before privatization government as owner should upgrade infrastructure of the distribution company as much as possible with intention to decrease losses
- Regulator should up-date the tariff methodology and other rules, to create an attractive long-term stabile market environment
- Covering of Purchase cost ,due to fluctuation of the electricity price in spot market



# Special thanks to!

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- Brian H Bowen PhD.
- my consultants and colleges
- and my Family



# Thank You for your Attention!

Questions?  
Comments!  
Observations!