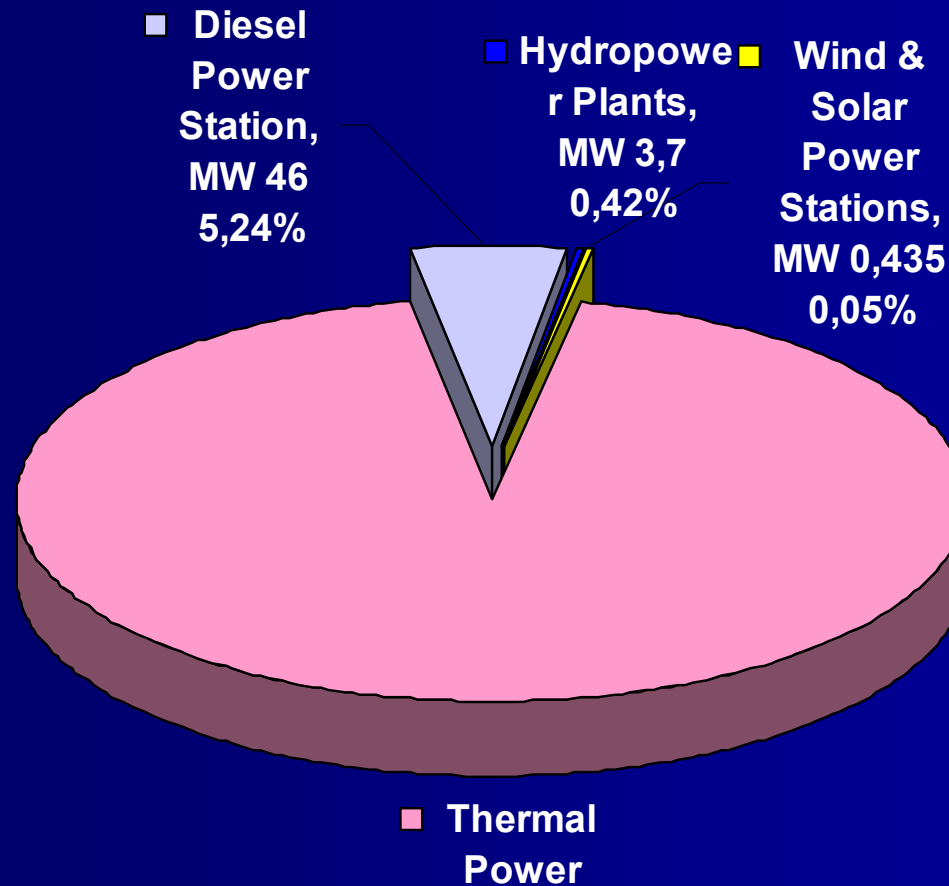


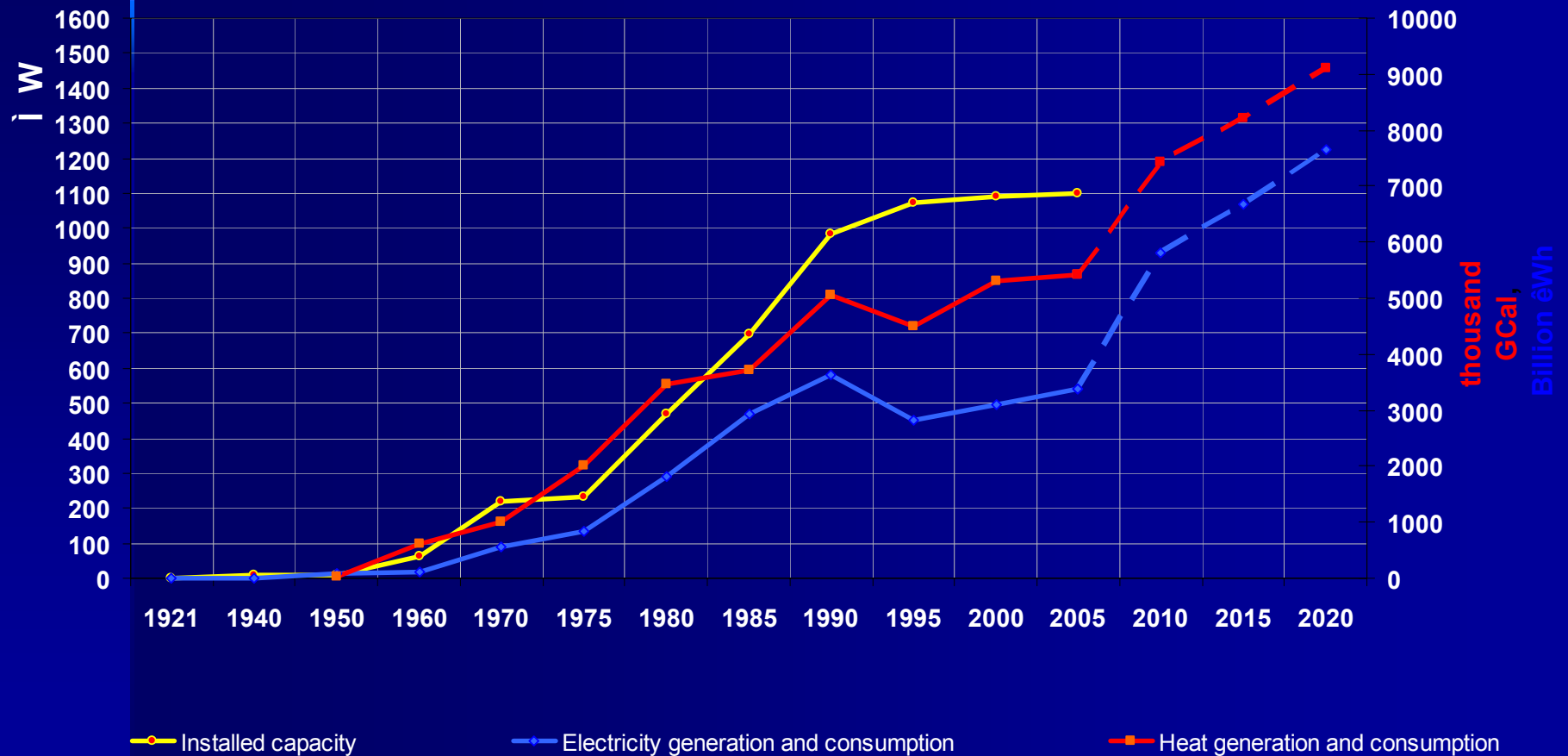
The projects /strategies/ for energy resources utilization in Mongolia

Speaker: M.Mendbayar
Head of Fuel Research Division,
Energy Research and Development Center,
Ministry of Fuel and Energy,
MONGOLIA

ENERGY RESOURCES BY TYPES



Installed capacity, generation and consumption of Energy sector of Mongolia between 1921-2005 and its prospective up to 2020



PROGRAMS TO DEVELOP THE ENERGY SECTOR

With an aim of developing fuel and energy sector the Government of Mongolia developed and approved wide-ranged programs such as:

- Integrated power system program
- National renewable energy program
- Coal program

Integrated power system program

Main goal:

- Establishment of integrated power system by connecting existing Eastern, Western and Central Energy Systems
- Increase the capacity of each Energy System to supply growing demand
- Install power distributing lines to remote Soums/county/

Integrated power system program/Ongoing projects/



- Approximately 50 Soums are being connected to Energy System
- Studies to create new power and heat sources in Gobi region and Ulaanbaatar city are being carried out
- Investigations on possibilities to export the electricity based on major coal deposits are being implemented

Integrated power system program /Planned projects/



Central Region

1. Power plant #5 in Ulaanbaatar:
 - Capacity 500MW
2. Power plant at Bayanteeg coal mine:
 - Capacity 40MW

Integrated power system program /Planned projects/



Western Region

1. Power plant at Mogoingol coal mine:
 - Capacity 12MW
2. Power plant at Khartarvagatai coal mine:
 - Capacity 40MW

Integrated power system program /Planned projects/



Gobi Region

1. Power plant at Tavantolgoi coal mine:
 - Capacity 200MW
2. Power transmission line to Oyutolgoi deposit:
 - Voltage 220kV

National renewable energy program

Main goal:

- **to improve** Mongolia energy sector structure by increasing the percentage of renewable energy in the total national energy supply,
- **to increase** the economic effectiveness and reduce unemployment and poverty reduction, as well as
- **to provide** sustainable environmental conditions to create sustainable social growth

National renewable energy program/Ongoing projects/



- Hydro: Taishir, Durgun etc
- Solar: Umnugobi aimag Noyon soum
- Wind: Sukhbaatar aimag Erdenetsagaan soum, Dornogobi aimag Mandakh soum etc

National renewable energy program/Planned projects/



Hydro:

1. Kherlen HPP:
 - Capacity 8MW
 2. Chargait HPP:
 - Capacity 15MW
 3. Maikhantolgoi HPP:
 - Capacity 12MW
- etc

Coal program

Main goal:

- Increase the capacity of recent mining operations;
- Engage ecologically friendly equipment and technology into mining processes;
- Develop new and potential deposits and related infrastructure;
- Manufacture coal petroleum, chemical products and combustible gas for domestic demand, export these products along with high quality coal and coke to regions of north-east and south-east Asia

Coal program

Major technologies to be set up in Mongolia's Coal sector:

- Clean coal technology;
- Coal gasifying technology;
- Coal briquette technology;
- Coal liquefying technology; and
- Coking technology

Coal program /Ongoing projects/



- Contract Agreement with Axens /France/ to prepare the Feasibility Study to Build Up a Coal Liquefying Plant in Mongolia /20,000 bbl per day/
- A small 2x100kW Coal Gasifying Power Plant was tested in Ulaanbaatar and installed in Buhmurun soum, Uvs aimag (Western Mongolia)
- Bidding to select the Contractor to build the lignite semi-coke briquette plant at the TPP#2 was announced
- Coal chemical laboratory is being build and installed

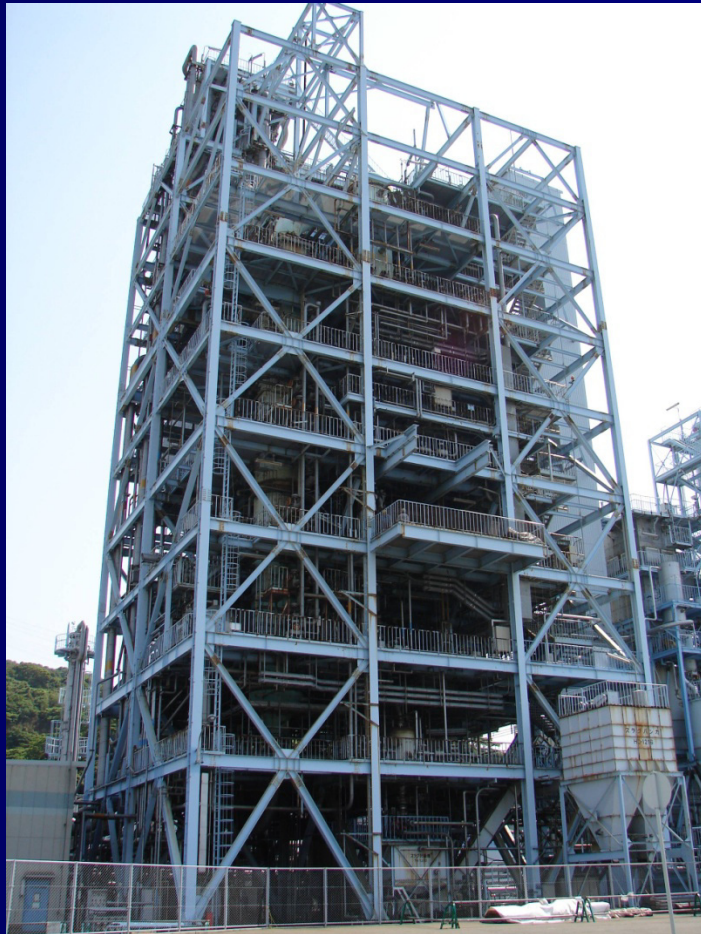
Coal program /Planned projects/



Clean coal technology:

1. Coal processing plant at Eldev coal mine
- Capacity 500t/tpa
2. Studies to introduce coal washing technology for low calorific/rank lignites at Baganuur coal mine

Coal program /Planned projects/



Coal gasifying:

Studies to introduce IGCC technology for planned new power plants allowing the steam and electricity generation by the gas produced via production line

Coal program /Planned projects/



Briquette technology:

To reduce the air pollution in Ulaanbaatar and other densely populated cities Briquette plants at Baganuur, Eldev, Tugrugnuur and etc will be installed

Coal program /Planned projects/



Coal liquefying:

Coal liquefying plants with total capacity of 20000-60000 bbl per day will be constructed in co-operation with The Axens (France), Headwaters (USA), ICM (Mongolia) and others (Mongolia's annual consumption of oil products is 1Mtpa)

Coal program /Planned projects/



Coking technology:
Installation of Coking
and Chemical
complex at the
Tavan Tolgoi deposit



Installation of Coal and
Chemical complexes
at the largest coal
basins and deposits

Thank you for you attention!
Gamsa hamni da!
Спасибо за внимание!