



GOVERNMENT OF MONGOLIA
MINISTRY OF ENERGY

ENERGY SECTOR OF MONGOLIA, POLICY AND CHALLENGES

MONGOLIA

**OYUN.D
2017**



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- Energy Sector of Mongolia
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- Area: 1.564 million square km
- Population: 3 million
- Capital city: Ulaanbaatar (1.3 million)
- GDP: 11,8 billion USD
- GDP per capita: 3,971 USD
- Unemployment rate: 7.5%
- Exports: 4.7 billion USD
- Imports: 3.8 billion USD
- Number of state households: 859106
- In capital city: 376 419 households



- Official language: Mongolian
- Official script: Mongolian Cyrillic, Mongolian Script
- Ethnic groups: 96% Mongols, 4% Khazakhs
- Religions: Buddhism 56%, Shamanism 4%, Islam 3%, non 37%
- Highest point: “Huiten Peak’ (4,653 m.a.s.l)
- Lowest point: “Khukh Nuur” depressions (532 m.a.s.l)
- Lowest annual average temperature: -33° C (-50° C)
- Highest annual average temperature: +23° C (+35.8° C)

About 40% of the population lives in the countryside, primarily nomadic live stock herders.



Mongolia has 4 seasons and there is an extreme continental climate with long, cold winters and short summers.

Precipitation is highest in the north (average 200-350 mm per year) and lowest in the south, which receives 100 - 200 mm annually.

The geography of Mongolia is varied, with the Gobi Desert to the cold and mountainous regions.

Economic activity in Mongolia has traditionally been based on herding and agriculture (16% of GDP), although development of mining sector (21.8% of GDP). (copper, coal, molybdenum, tin, tungsten and gold). Minerals represent more than 80% of Mongolia's exports.

Depending on boom of mining works the economy was developing since 2011. But because of external loan our economy is slowing in last years. The cash-strapped government has made efforts to improve its transparency and fiscal management, which has earned the country support from the IMF and other lenders, including Japan. Meanwhile, higher prices for coal and copper in the first quarter of this year saw the trade surplus up 45.5% from the same period last year, pointing to a gradually improving economic environment.

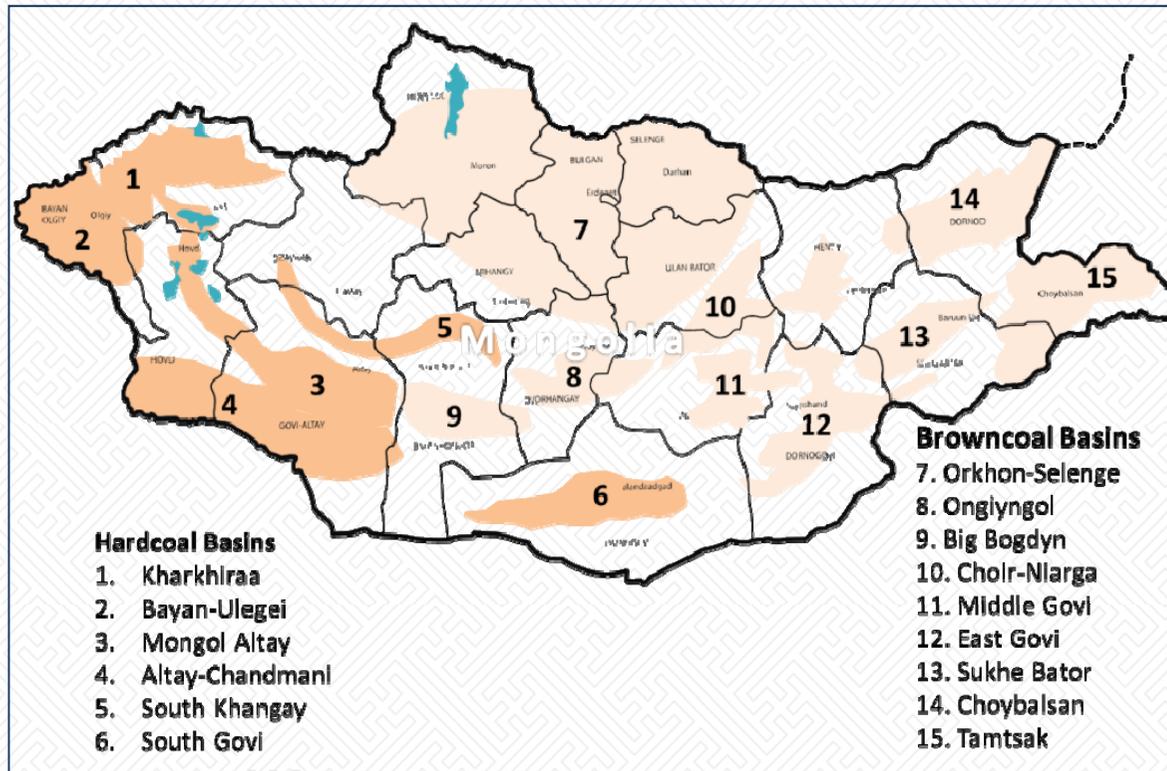
Mongolia Economy Data (www.focus-economics.com April 25, 2017)

	2012	2013	2014	2015
<u>GDP per capita (USD)</u>	4,377	4,598	4,165	3,971
<u>GDP (USD bn)</u>	12.4	13.3	12.2	11.8
<u>Economic Growth (GDP, annual variation in %)</u>	12.5	11.6	8.1	2.5
<u>Current Account (% of GDP)</u>	-43.3	-24.1	-15.9	-8.1
<u>Exports (annual variation in %)</u>	-9.1	-2.5	35.1	-19.1
<u>Imports (annual variation in %)</u>	2.1	-5.8	-17.5	-27.5
<u>International Reserves (USD)</u>	4.1	2.2	1.7	1.3
<u>External Debt (% of GDP)</u>	124	144	172	185

In 2016: GDP (nominal) total-\$36.6 billion, per capita -\$4.353 (2015 estimate)

ENERGY ENDOWMENTS IN MONGOLIA

COAL BASINS



- Estimated total resources ~ 173 billion ton in 15 coal basins
- Over 370 identified occurrence in 85 deposits
- Proven Reserves 12 billion ton, of which 2 billion is coking coal
- Around 1/3 in Gobi Region
- Around 1/3 in Eastern Region



UNCONVENTIONAL NATURAL GAS



※6,400 MM ton of coal in Tavan Tolgoi
 (6,150 MM ton, at the depth 300~1000 m)

Total CBM Reserve of 40 MM ton

- 1 MM ton/year of CBM supply to run a power plant of 250 MW capacity
- ※ 4 MM ton/year for 1 GW capacity
- For households as city gas

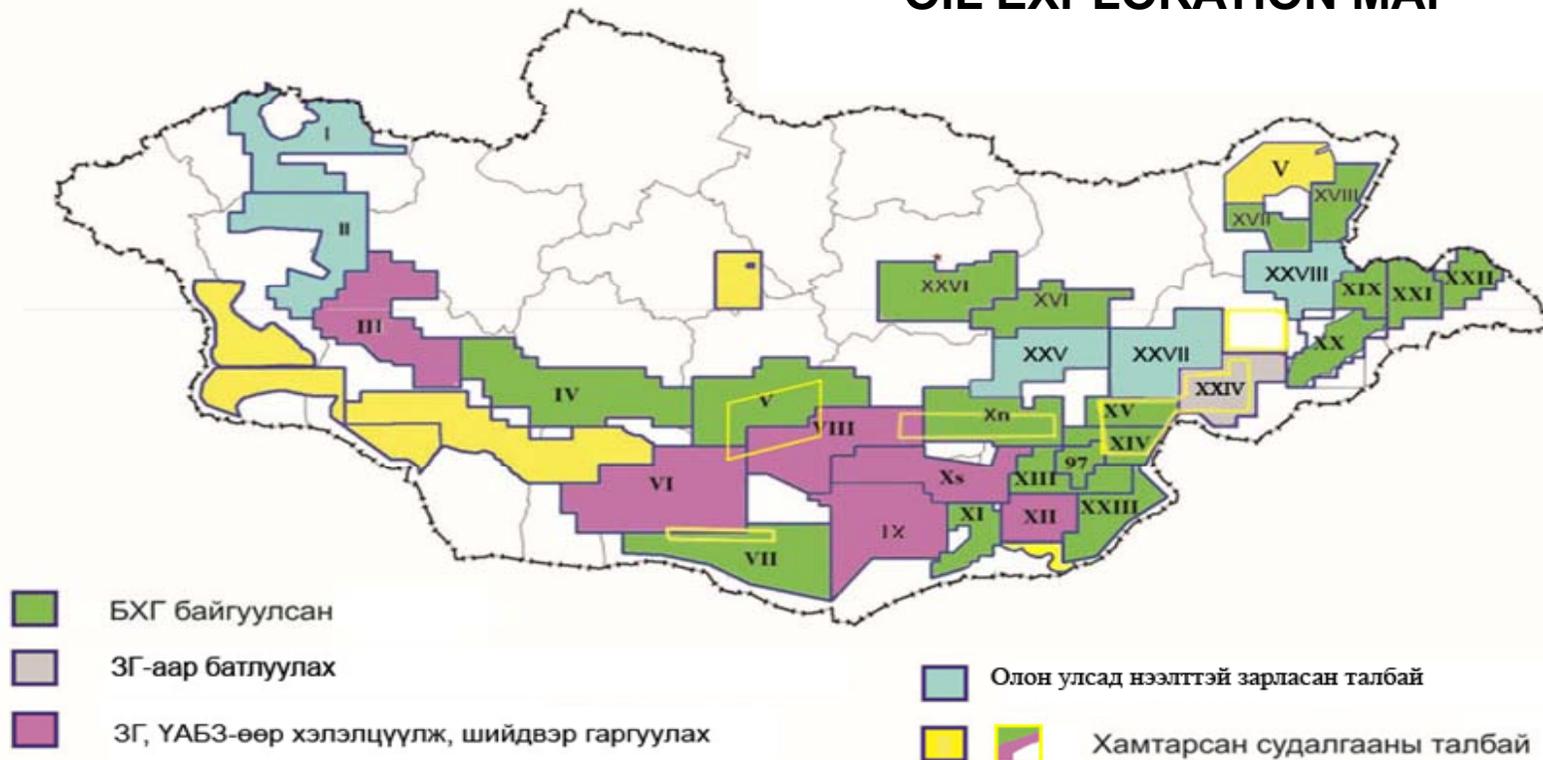
CAPEX estimation

- 634 million USD
 (ISBL+OSBL+Contingency)

Economic analysis

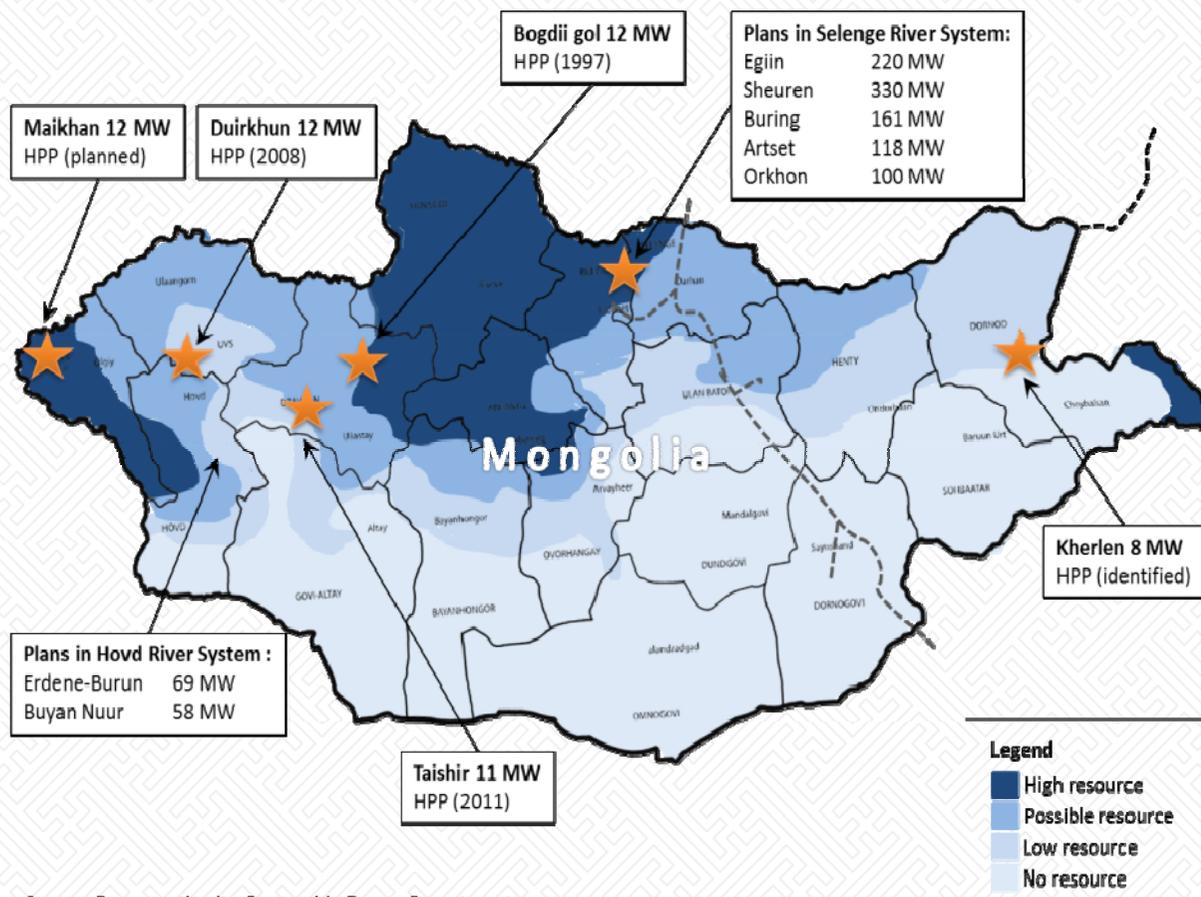
- Can be profitable with IRR up to max. 30% depending on CBM cost and price at the market
- For example,
 IRR 17% : \$2.0(c) → \$4.0(p)/MMBtu

OIL EXPLORATION MAP



- Total 31 exploration blocks
- Current Proven reserve is 332 million ton

HYDRO

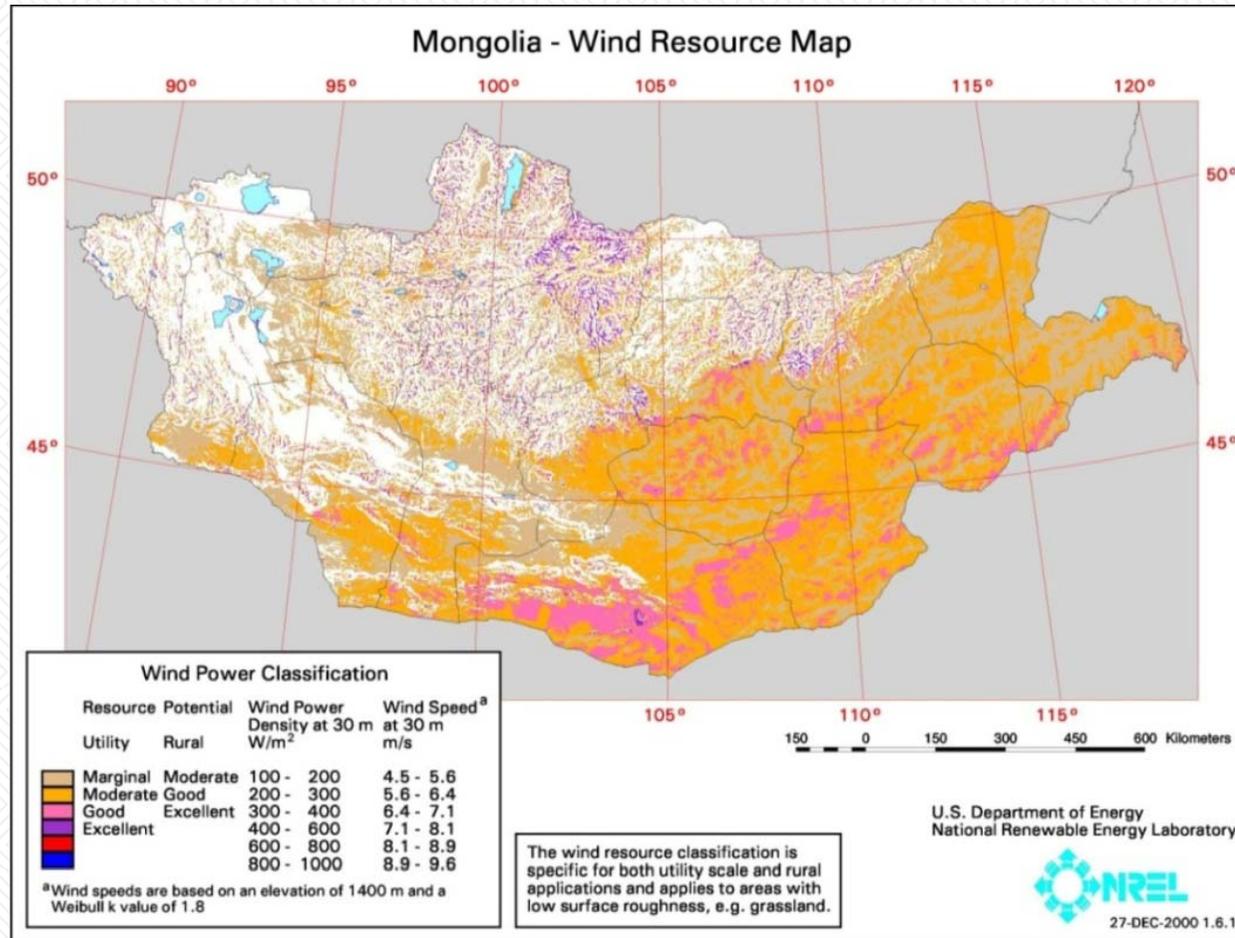


Theoretical potential 6.2 GW, more than 1 GW of these has been identified

Source: Energy authority, Renewable Energy Department



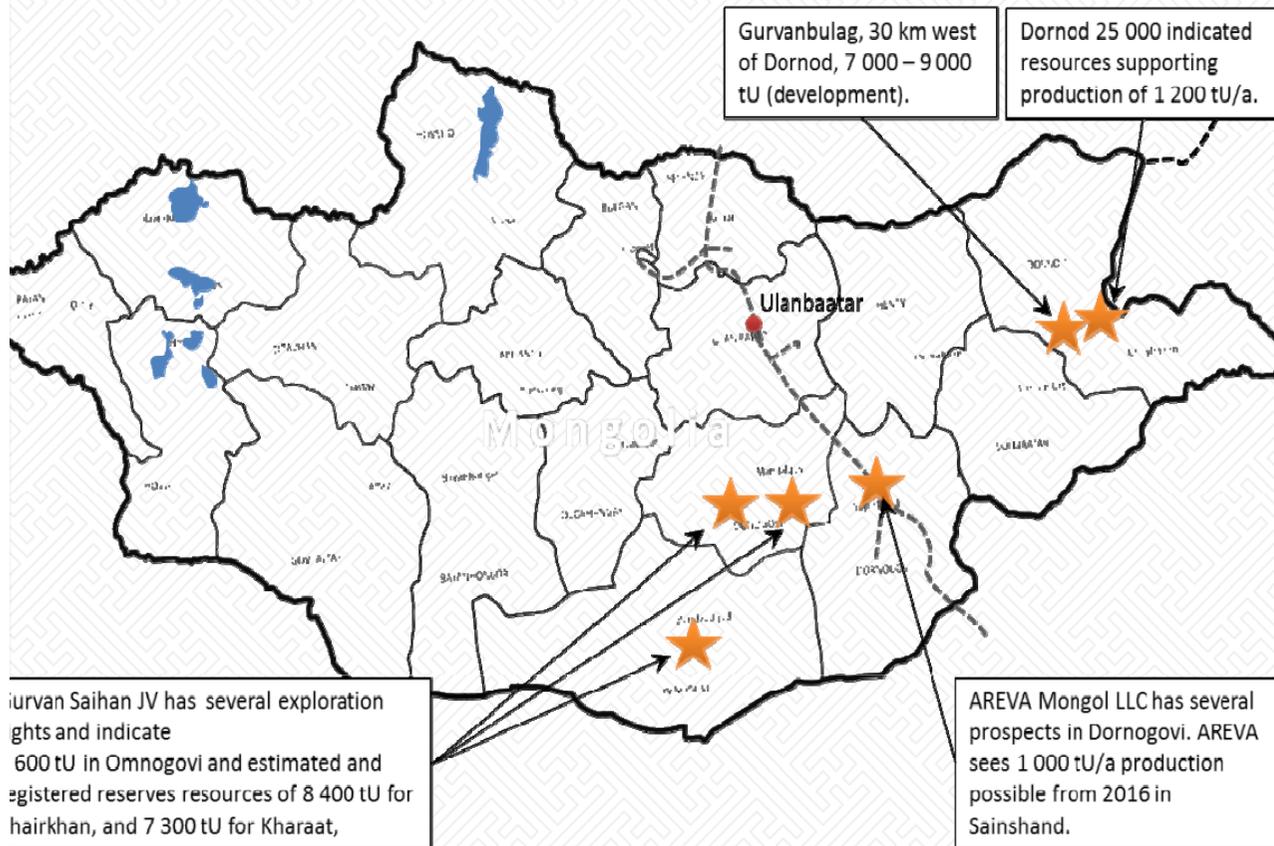
WIND



Wind resources assessment made by NREL (USA) 2001. Good-to-excellent wind resources equivalent to **1,100 GW** of wind electric potential. Potentially deliver over **2.5 trillion kWh** per year



URANIUM



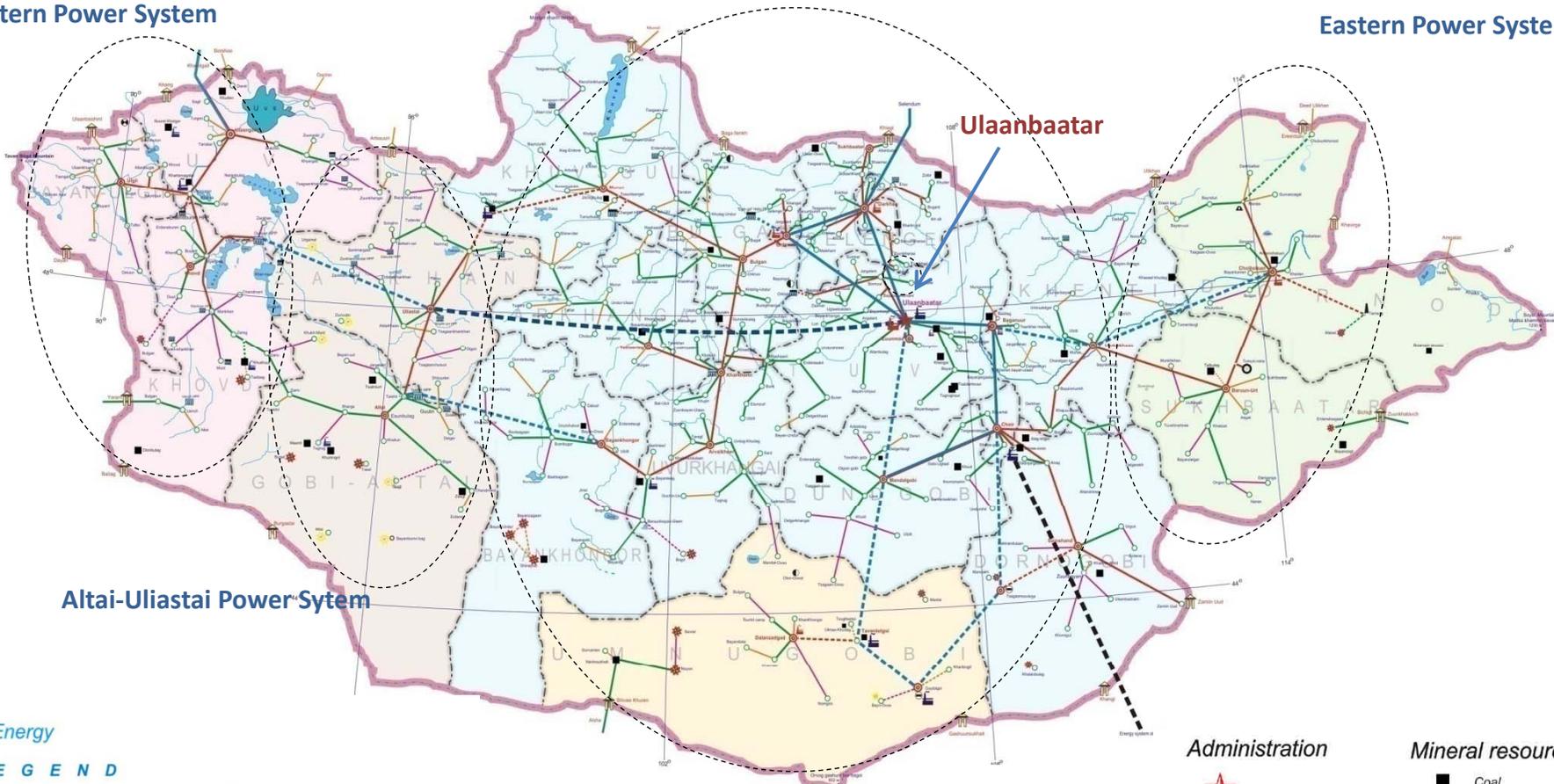
- Mongolia contains six uranium strata and more than 100 uranium deposits.
- Mongolian geologists now believe that Mongolia has 60,000 metric tons of uranium reserves, while Russian experts have much higher estimates, ranging from 120,000 to 150,000 metric tons.



Current state Power Systems of Mongolia

Western Power System

Eastern Power System



Altai-Uliastai Power System



LEGEND

- | | | | |
|--|-----------------------------------|--|--|
| | 400 kV Transmission Line, planned | | Thermal Electrical Power station in operation |
| | 220 kV Transmission Line, used | | Thermal Power Station in operation |
| | 220 kV Transmission Line, planned | | Thermal electrical Power Station, planned |
| | 110 kV Transmission Line, used | | Hydro Power Plant, to built |
| | 110 kV Transmission Line, planned | | Hydro Power Plant, used |
| | 35 kV Grid, used | | PV-Wind-Sun-Diesel-Hybrid-System, used |
| | 35 kV Grid, planned | | PV-Wind-Sun-Diesel-Hybrid-System, planned |
| | 15 kV Grid, used | | PV-Wind-Sun-Diesel-Hybrid-System, in operation |
| | 15 kV Grid, planned | | 220 kV Transmission Line, used / 110 kV transmission line/ |
| | 10, 6 kV Grid, used | | 600 kV Transmission Line, planned |

- | | |
|--|------------------------------|
| | Central Energy System |
| | Eastern Energy System |
| | Western Energy System |
| | Altai-Uliastai Energy System |
| | Southern Energy System |

Administration

- | | |
|--|--------------------|
| | Capital |
| | Center of Province |
| | Small city |
| | Soum center |
| | Village |
| | Borderport |

Mineral resources

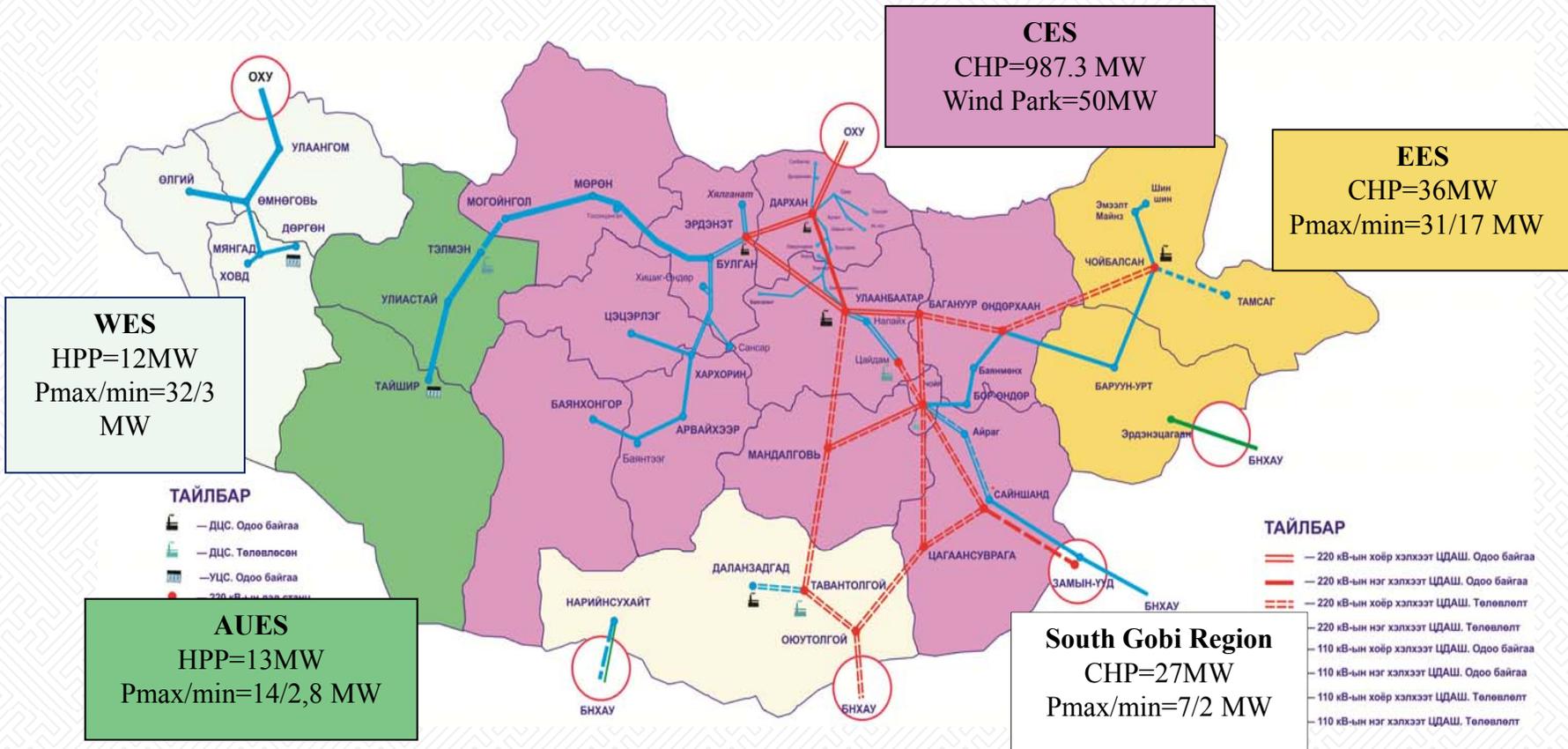
- | | |
|--|---------|
| | Coal |
| | Silver |
| | Gold |
| | Copper |
| | Zinc |
| | Oil |
| | Uranium |



Mongolian power system consists of five detached segments,

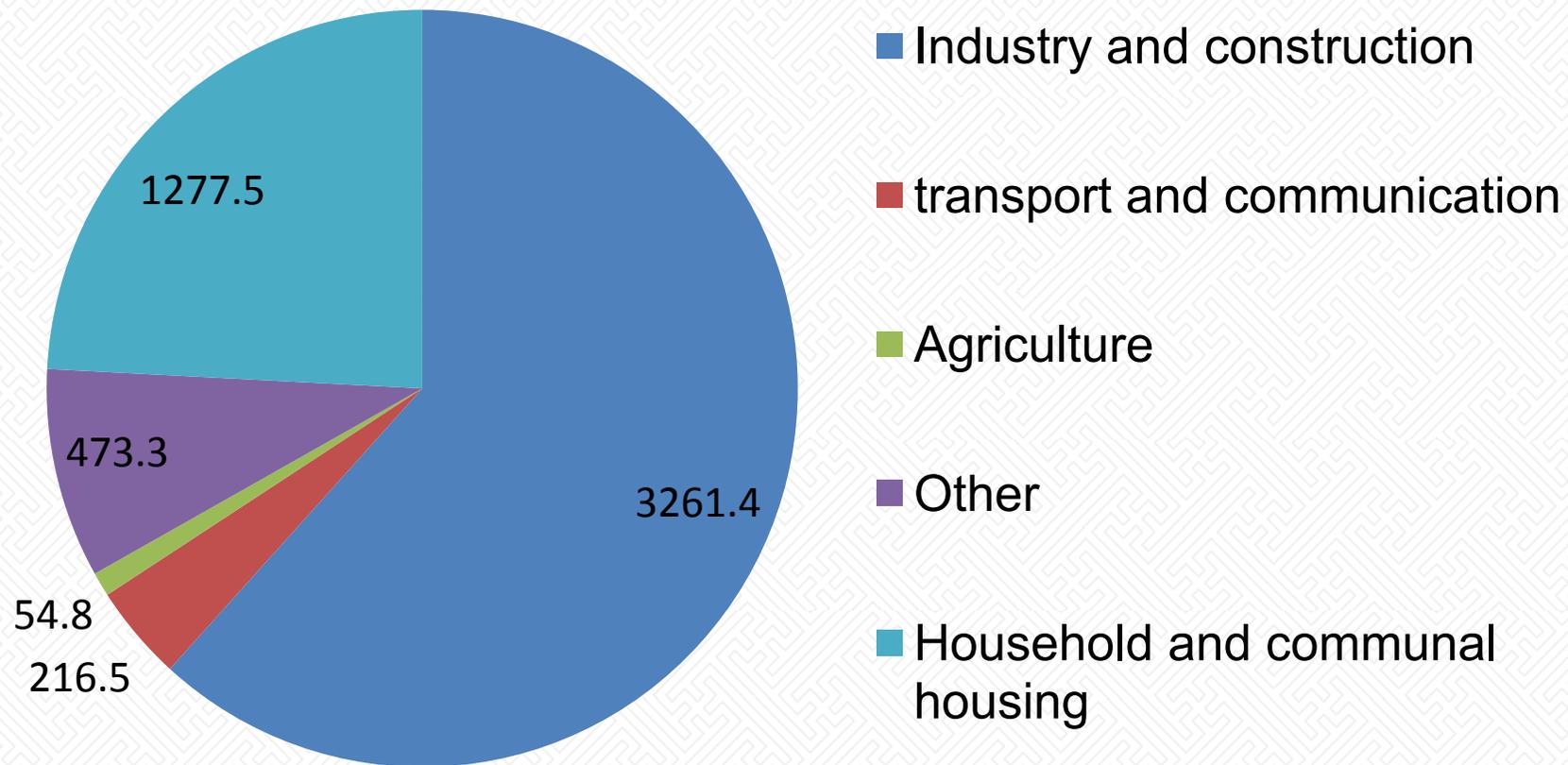
- Central Energy System (CES),
- Western Energy System (WES),
- Altai- Uliastai Energy System (AUES),
- Eastern Energy System (EES),
- South Gobi Region

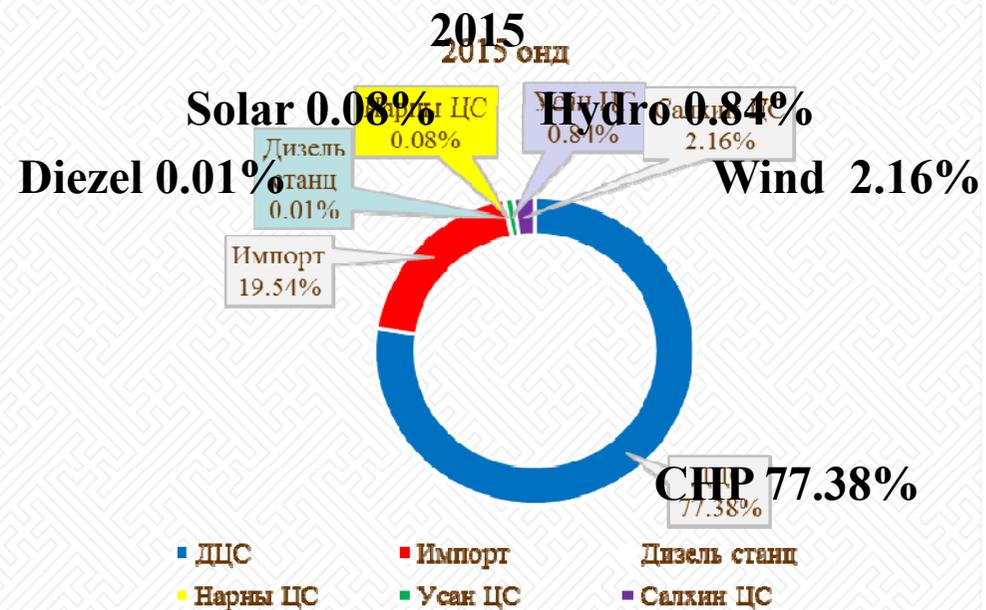
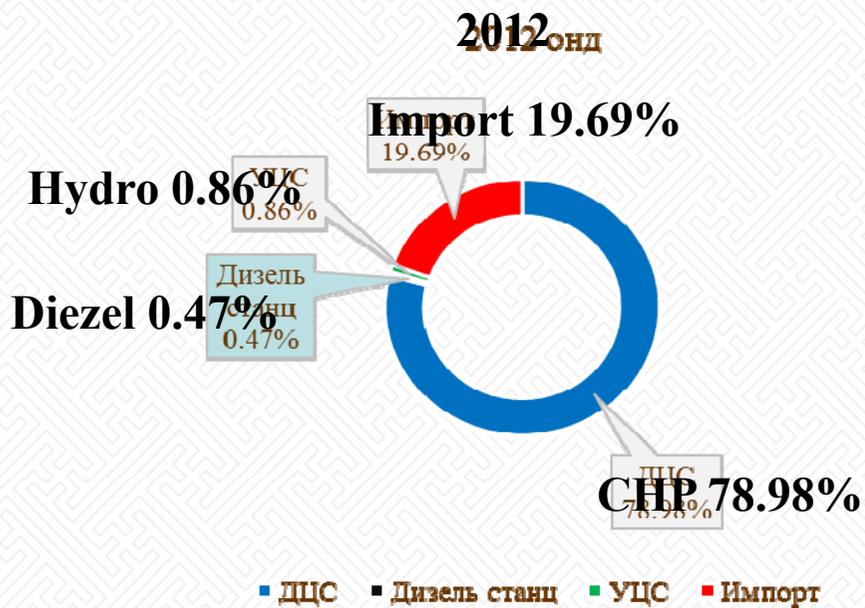
comprising 7 combined heat and power plants, 2 hydropower plants, coal-fired power plant, wind park, off-grid renewable energy systems, regional diesel generators and nine distribution systems.



Mongolia has 331 administrative units (soum) of which 304 soums had connected to domestic electricity system and 12 soums out of remaining 27 are provided by renewable energy resources and 13 border soums of 7 aimags connected to electricity systems of neighboring countries China and Russia.

BALANCE OF ELECTRICITY, mln.kW.h /2015/

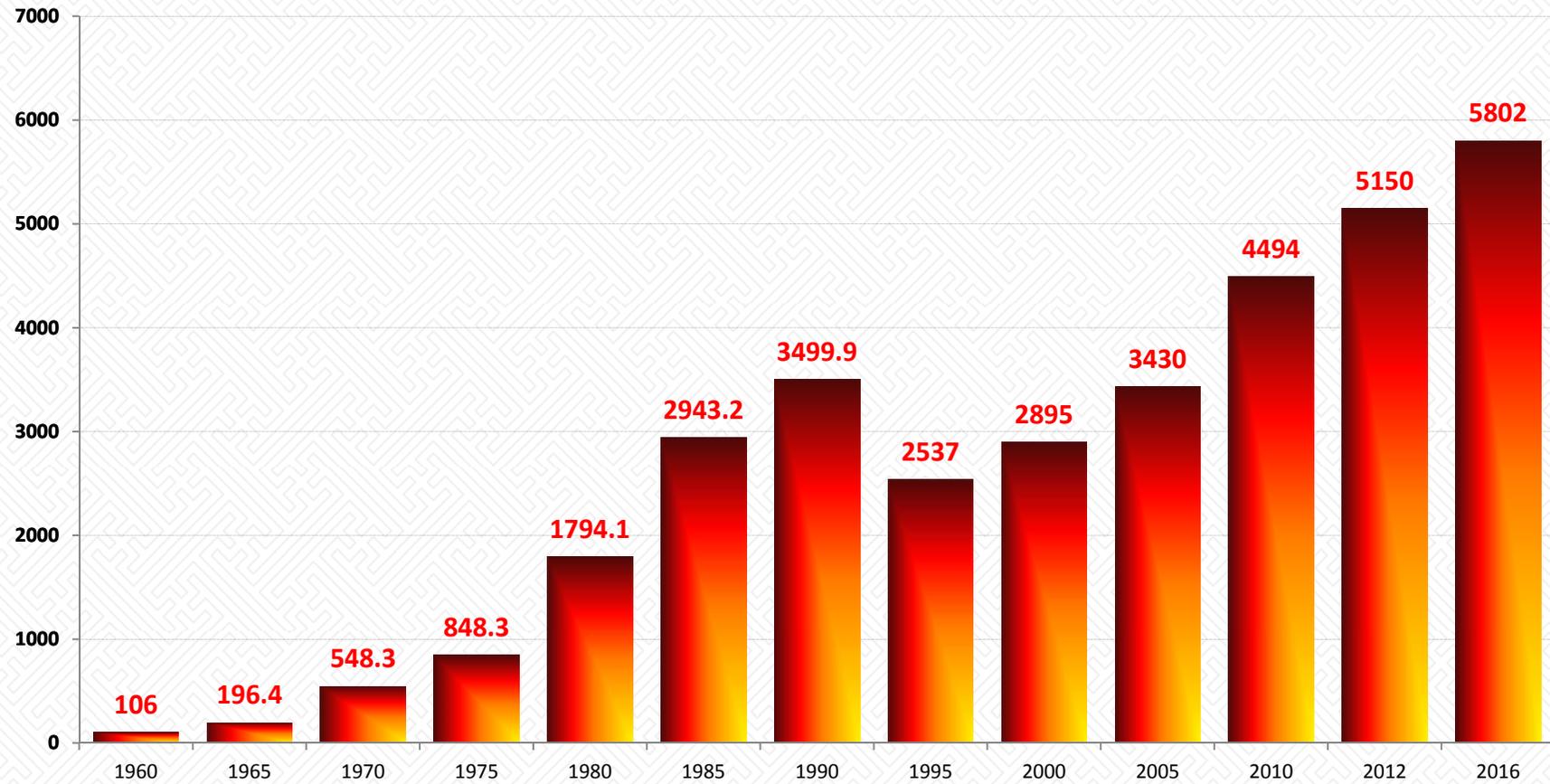




Electricity:		470.0 Thousand	26 %	↗	592.4 Thousand
		876 MW	30 %	↗	1140 MW
Thermal:		189.6 Thousand	54 %	↗	291.7 Thousand
		2120 Gcal/h	37 %	↗	2921 Gcal/h



ELECTRICITY GENERATION mln.kw.h





Electricity Generation

Type of sources	MW	%
Combined heat and power plants	1050.3	89%
Hydropower plant	28.2	2%
Wind and solar power plants	53.7	5%
Diesel stations	46.1	4%
Total	1178	100%
Imported electricity (Russia & China)	350	-

Heat Generation

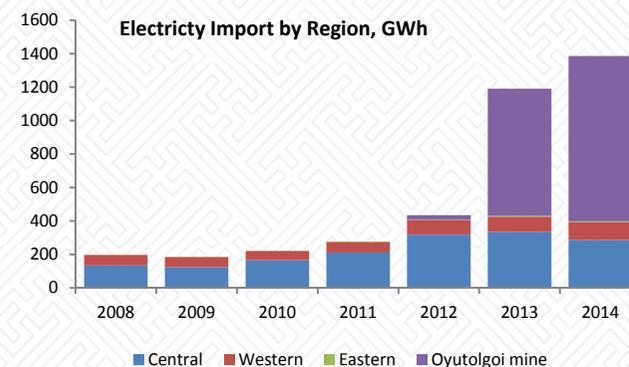
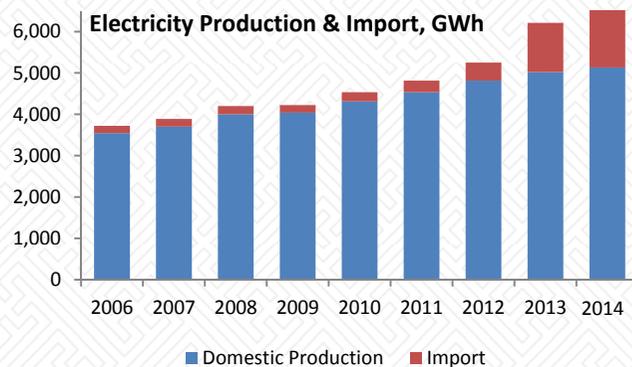
Type of sources	Gcal/h	%
Combined heat and power plants	2235.5	77.62%
Heat only power plants	392.5	13.63%
Boiler Houses	252	8.75%
Total	2880	100%

Recent challenges

Power sector

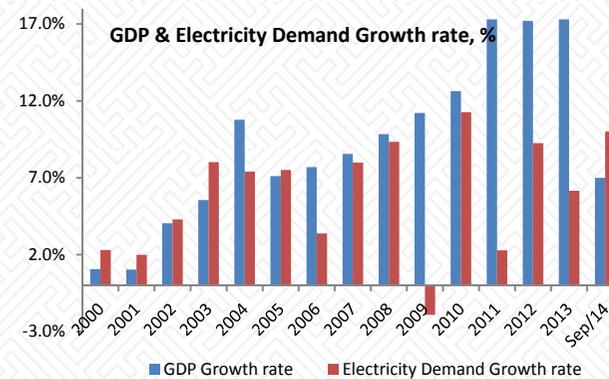
1) Capacity shortage on Domestic Power Generation due to:

- Rapid GDP Growth & Intensively Growing demand of Electricity and Heat



• Time Lags of the Power Plant Projects

- Lack of Investment
 - Low capacity of State Budget
 - Precaution of Investors
 - Low tariff of Domestic Power System
 - Uncertainty of Investment Environment



Recent challenges

Power sector

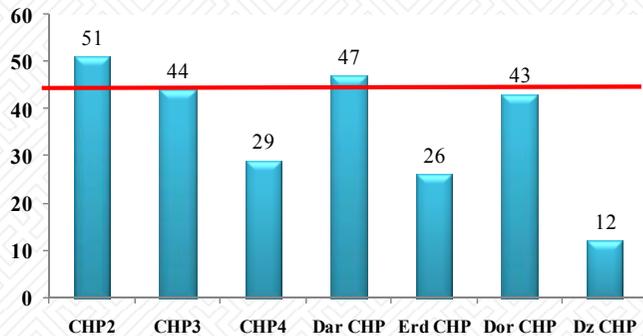
2) Lower Efficiency of Existing Power Plants due to:

- Aging of main equipments
- Insufficient financial capacity for Rehabilitations
 - Tariff
 - Low Capacity of State Budget

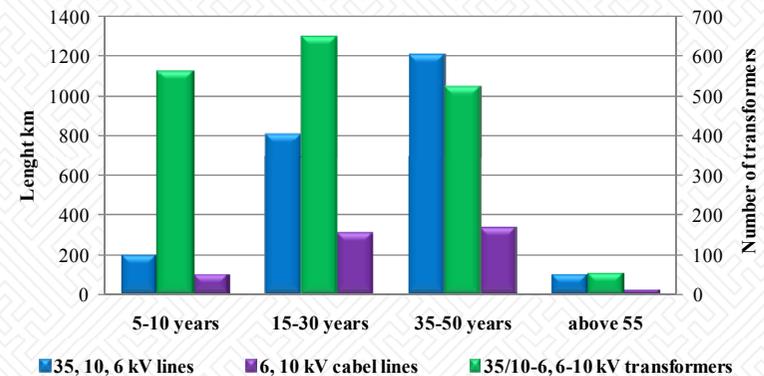
3) Higher Loss of Transmission & Distribution Network due to:

- Long transmission & distribution lines to lower demand – lowest population density in the world
 - Social issues for people in remote area
- Overload in distribution network in the cities
 - Time lag on capacity extension on rehabilitation
 - Lack of investment
- Aging of distribution network
 - Time lag on rehabilitation
 - Lack of Investment

Aging of Existing Power Plants

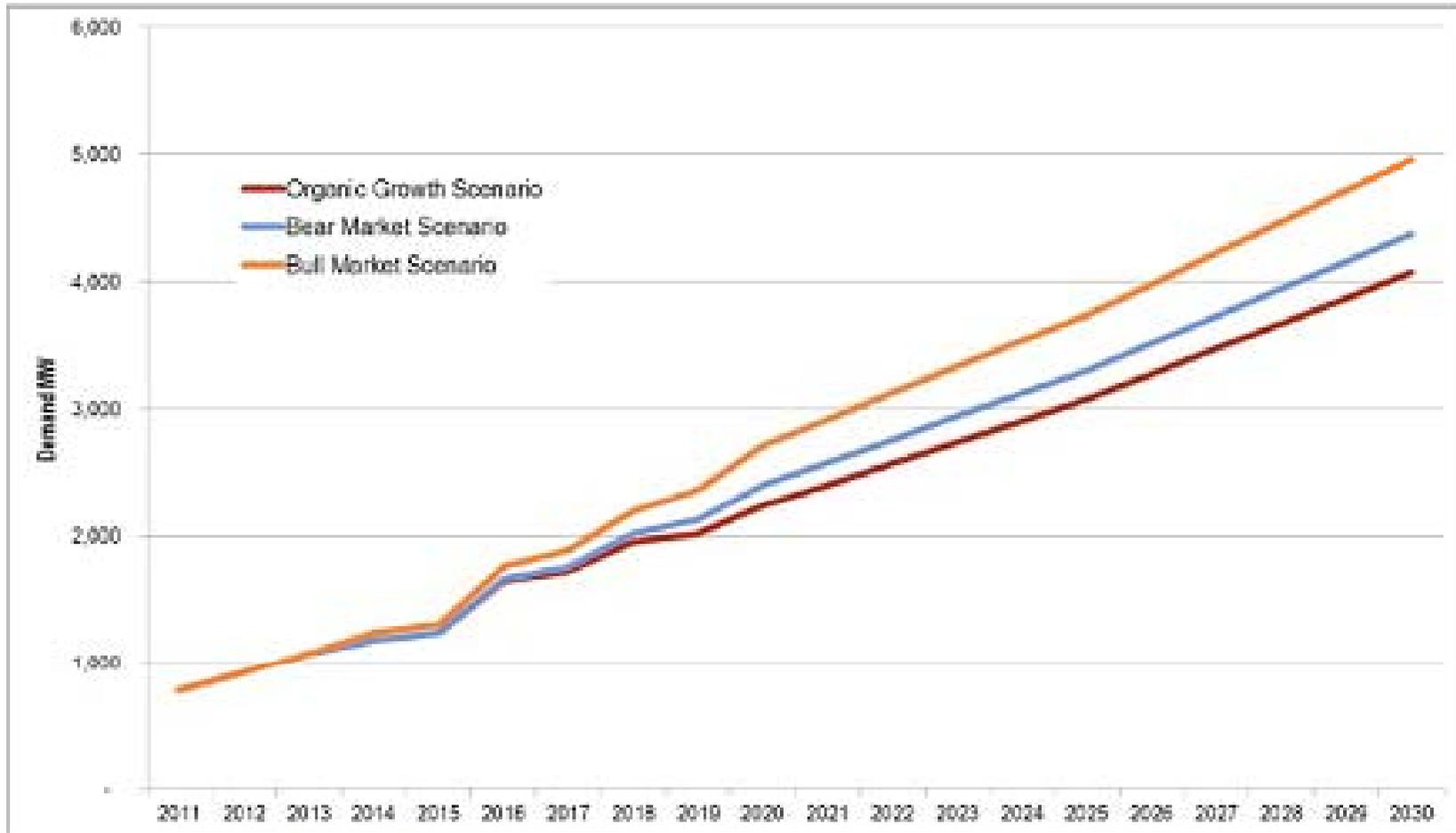


Aging Situation of Distribution Network in Ulaanbaatar





Electricity Demand Forecast (MW)



Source: Master Plan by ADB

Electricity tariff for residential

No	Classification	Unit	Tariff
1	<i>Simple meter</i>		
a	Monthly consumption under 150 kWh	USA \$/ kWh	0.041
b	Monthly consumption over 150 kWh	USA \$/ kWh	0.049
2	<i>Time use of meter /2 parts/</i>		
a	Daytime consumption /06.00 am~21.00 pm/	USA \$/ kWh	0.043
b	Evening and nighttime consumption / 21.00 pm~ 06.00 am /	USA \$/ kWh	0.032
3	<i>Monthly base tariff</i>	USA \$/ kWh	0.828

Remark: Daytime, evening and nighttime tariff will apply duration of the meter hours.



TARIFF FOR INDUSTRIAL ELECTRICITY CONSUMPTION

The tariff (VAT excluded) for industrial electricity shall be determined depending on the its classification of units of indicators as follows:

No	Classification	Unit	Tariff
1	<i>Mining industries</i>		
	<i>These : Coal mining exploration and cultivation</i>		
	<i>Oil and gas mining exploration and cultivation</i>		
	<i>Iron Mining exploration and cultivation</i>		
	<i>Other mining exploration and cultivation</i>		
1.1	Simple meter	USA \$/ kWh	0.065
1.2	Time use of meter /3 parts/		
a	Daytime consumption (06.00 am ~17.00 pm)	USA \$/ kWh	0.065
b	Evining consumption (17.00 pm ~ 22.00 pm)	USA \$/ kWh	0.011
c	Nighttime consumption (22.00 pm~06.00 am)	USA \$/ kWh	0.032



2 *Other sectors*

2.1	Simple meter	USA \$/ kWh	0.053
2.2	Time use of meters /3 parts/		
a	Daytime consumption /06:00 am ~17:00 pm/	USA \$/ kWh	0.053
b	Evening consumption /17:00 pm ~ 22:00 pm /	USA \$/ kWh	0.087
c	Nighttime consumption /22:00 pm ~ 06:00 am /	USA \$/ kWh	0.032
2.3	"Electrical Transport" company /Trolley company/	USA \$/ kWh	0.032



3 Lighting of public streets and squares in cities and center of province

3.1 Heating season /Oct, Nov, Dec, Jan, Feb, Mar, Apr /

a	Daytime consumption (06.00 am~ 19.00 pm)	USA \$/ kWh	0.053
b	Evening and Nighttime consumption (22.00 pm~06.00 am)	USA \$/ kWh	0.032

3.2 Non heating season /Apr ~Sep /

a	Daytime consumption (06.00 am~ 19.00 pm)	USA \$/ kWh	0.053
b	Evening and Nighttime consumption (22.00 pm~06.00 am)	USA \$/ kWh	0.032

Remark: Daytime, evening and nighttime tariff will apply duration of the meter hours.



LEGAL ENVIRONMENT OF THE ENERGY SECTOR

Key Documents

No	Document	Approved/ Last Update	Contents
Legal Framework			
1	Energy Law of Mongolia	2001/2015	Regulate matters relating to energy generation, transmission, distribution, dispatching and supply activities, construction of energy facilities and energy consumption that involve utilization of energy resources & Tariff, License
2	Renewable Energy Law of Mongolia	2007/2015	Regulate generation and supply of energy utilizing renewable energy sources & Tariff, License
3	Concession Law	2010	Establish the framework for granting concessions to private investors to use existing infrastructure facilities owned by the state, and to construct new infrastructure facilities for the purpose of providing services to the general public
4	Investment Law	2013	Protect the legal rights and interests of investors in the territory of Mongolia, to establish a common legislative guarantee for investment, to stabilize the tax environment.
Policy Documents			
5	Infrastructure Development Program of Southern Gobi	2010	Plans and actions to develop infrastructure for strategic mineral deposits in Gobi area
6	State Policy on Energy	2015	Government Policy for energy sector development for 2015-2030

Amendments of “Law on Energy”

Purpose:

- Enhance legal environment for investors in energy sector of Mongolia

Amendments:

- Utilization of Natural gas /coal bed methane/
 - Definitions
 - Regulation to relating matters for gas supply infrastructure
- Interagency Relationship
 - Obligation of National Dispatching Center
- Independent Power Producer and its regulations
- Power Purchase Agreement and its regulations
- Interrelationship between supplier and consumer
 - Obligation

Amendments of “Law on Renewable Energy”

Purpose:

- Enhance financial situation of single buyer model of Power sector and ensure feeding tariffs in the Law on Renewable Energy

Amendments:

- New term – “Encouraging tariff” /gap between feeding tariff and consumer’s tariff /
 - Definitions
 - Regulation to relating matters in tariff system
- Power Purchase Agreement and its regulations
 - Regulation to relating matters



“State Policy on Energy” 2015-2030

Expected Results

In the 1st stage 2015-2023: The stage to develop energy safety resources and backup capacity, establish a foundation for the development of renewable, enhance normal documents and improve legal environment.

- The installed power capacity will be doubled, and start using critical technology with high parameters. Hydro will be taken place at least 10% of the total installed power capacity and it will increase packup capacity to 10%, and create fundament for renewable sector to development intensively, enhance tariff system.

In the 2nd stage 2024-2030: The stage to export secondary energy and develop sustainably the renewable sector.

- The backup capacity of power system will be reach at 20% and share of renewables will be reach at 30%. Integrated smart energy system will be created by connecting regions with high capacity transmission lines. State owned Power companies will be become a public company. Distribution and supply service will be privatized and energy sector will be worked as a competitive marked with regulation. Secondary energy will be exported by connecting with North east Asian countries with high capacity DC lines.

NEAR-TERM OBJECTIVES

- **In the framework for ensuring safety and reliability of power sector**

Commence the power generation projects:

- CHP 5 of Ulaanbaatar Project,
- Tavan Tolgoi Power Plant Project,
- Eg Hydro Power Plant Project

- **In the framework for improving efficiency:**

- Reduce loss in transmission and distribution network
- Develop demand side management

- **Improve financial capacity of power sector**

- Enhance tariff system
- Increase private sector share in power sector

INTERNATIONAL COOPERATION POSSIBILITIES

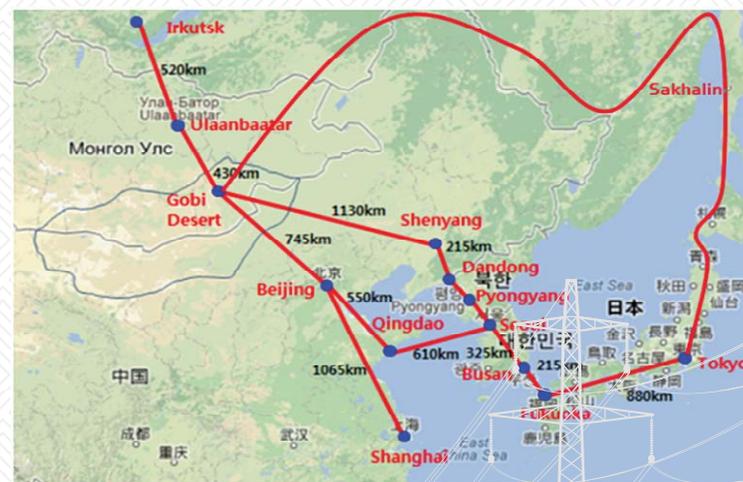
RESOURCE BASED REGIONAL ENERGY TRADE

Coal Based

- On-Site Electricity Production for Purpose of Export.
 - Abundant thermal coal resources
 - Shivee-Ovoo brown coal deposit
 - Aduunchuluun brown coal deposit
 - Tavantolgoi and Gashuun Sukhait hard coal deposits
 - China, Korea, Japan lead its Electricity demand growth in the region

Renewable based

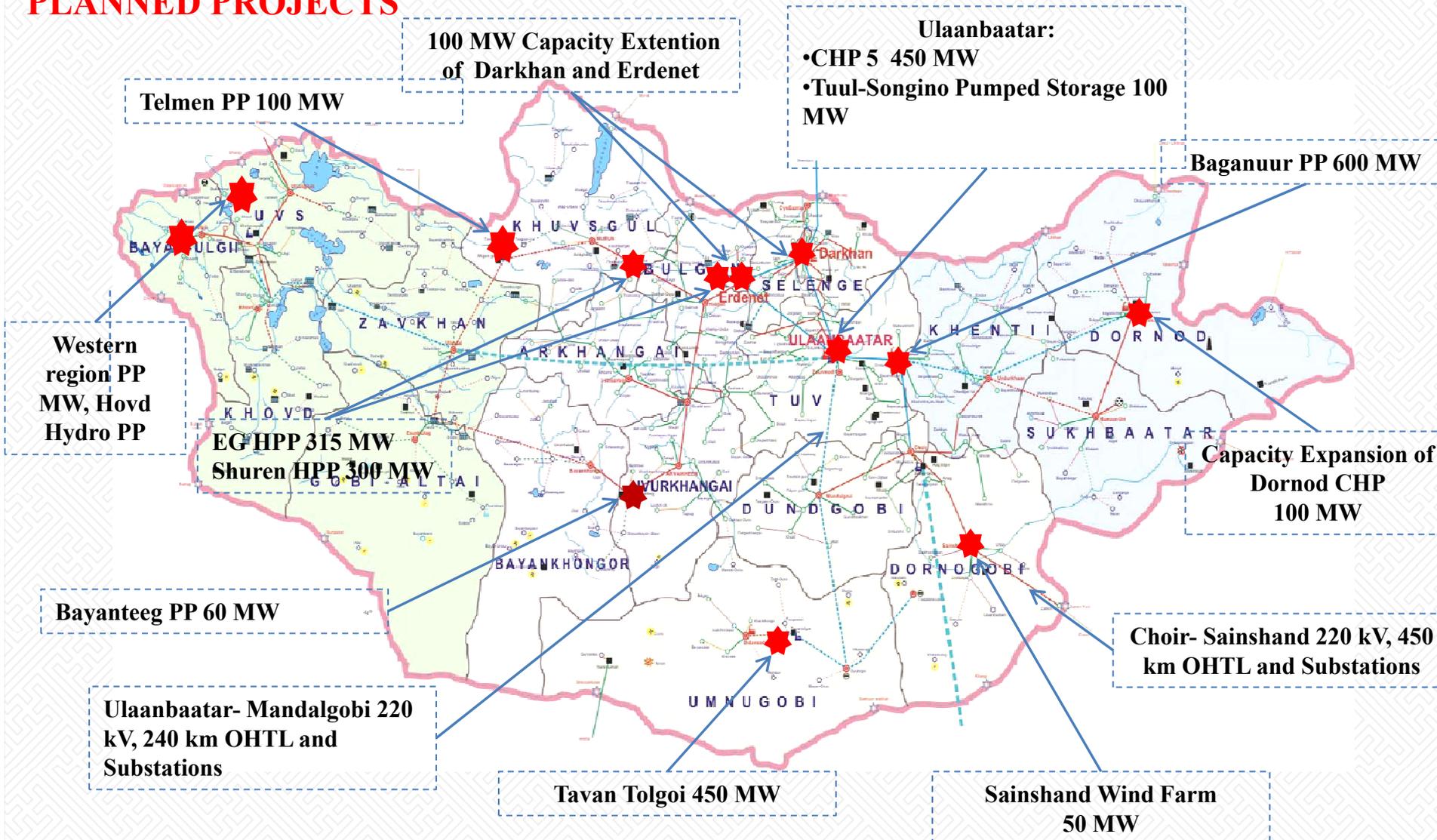
- Solar and Wind Rich Resources Gobi Area
- Gobi Tec and Asia Super Grid Initiative



INTERNATIONAL COOPERATION POSSIBILITIES

- **For planned and potential projects of power plant and transmission lines:**
 - As a financier, Contractor, Equipment supplier, Consulting service
 - Concession agreement: Built-Operate-Transfer, Built-Transfer,
 - Independent Power Producer
 - PPP
- **For existing power projects:**
 - In the Projects of Operational enhancement and Restructuring:
 - Operator company
 - Consultant
 - In the Projects of Rehabilitation and Capacity Extension:
 - Investor, Contractor, Equipment supplier, Consulting service
- Until of 8 May 2015, Energy licenses issued by 642.4 MW for renewable energy and 5695 MW for coal-fired sources. Hereof renewable energy license has issued for 8 and coal-fired license for 19, total of 27 licenses.

PLANNED PROJECTS



Transmission line

No	PROJECT	DEFINITION	CONCESSION TYPE	PROJECT COST ESTIMATION /Million US.D/	BIDDING PROCESS	BRIEF INTRODUCTION
1	Baganuur-Choir transmission line, substatio projects	DEVELOP ELECTRIC POWER LINE AND SUBSTATION	Finance-build-trasfer	39.1	BIDDING	178 km high voltage transmission line project
2	Ulaanbaatar-Mandalgovi 330 kV 2 circuit transmission line, 220kV 2 substation project	DEVELOP ELECTRIC POWER LINE AND SUBSTATION	Develop drawing-Finance-build-transfer	87.7	BIDDING	330 kV 2 circuit 260 km high voltage transmission line project, Mandalgovi, Tavantolgoi 220 kV substation project
3	Baganuur-Undurkhaan 220kV transmission line, substation	DEVELOP ELECTRIC POWER LINE AND SUBSTATION	Develop drawing-Finance-build-transfer	53.3	BIDDING	220 kV 2 circuit 202.4 km high voltage transmission line, substation project
4	Undurkhaan-Choibalsan 220kV transmission line, substation project	DEVELOP ELECTRIC POWER LINE AND SUBSTATION	Develop drawing-Finance-build-transfer	72.1	BIDDING	220 kV 2 circuit 317 km high voltage transmission line, substation project
5	Baganuur-Ulaanbaatar transmission line, substation project	DEVELOP ELECTRIC POWER LINE AND SUBSTATION	Develop drawing and Feasubility study-Finance-build-transfer	43.1	BIDDING	157 km high voltage transmission line, substation project
6	Choir-Sainshand transmission line, substation project	DEVELOP ELECTRIC POWER LINE AND SUBSTATION	Develop drawing-Finance-build-transfer	54.5	BIDDING	220 kV 2 circuit 216 km high voltage transmission line, substation project
7	Oyutolgoi-Tsagaan suvruga transmission line, substation project	DEVELOP ELECTRIC POWER LINE AND SUBSTATION	Build-transfer	45.9	BIDDING	Oyutolgoi-Tsagaansuvraga 220 kV 2 circuit 160 km transmission line, Oyutolgoi substation expansion, 220/22 kV Tsagaan suvruga substation project
8	Mandalgovi-Arvaikheer 220kV transmission line, substation project	DEVELOP ELECTRIC POWER LINE AND SUBSTATION	Build-transfer	66.3	BIDDING	280 km transmission line, substation project
9	Nariin sukhait-Tavantolgoi 220kV transmission line, substation project	DEVELOP ELECTRIC POWER LINE AND SUBSTATION	Build-transfer	82.9	BIDDING	220 kV 2 circuit 360 km transmission line, substation expansion project

Power plant

No	PROJECT NAME	DEFINITION	CONCESSION TYPE	CAPACITY	PROJECT COST /USD	BIDDING PROCESS	PROJECT STATUS
AWARDED PROJECTS							
1	ULAANBAATAR FITH COMBINED HEAT POWER PLANT	DEVELOP COMBINED HEAT POWER PLANT FOR ULAANBAATAR CITY	BUILD-OPERATE-TRANSFER	450 MW CAPACITY POWER PLANT	1.5 Billion USD	PPA NEGOTIATION	CONCESSION AGREEMENT SIGNED ON JUNE, 2014 PPA & OTHER REGUERED AGREEMENTS ARE UNDER NEGOTIATION
2	TELMEN POWER PLANT PROJECT	DEVELOP 100 MWT CHP PLANT	BUILD-OPERATE-TRANSFER	100 MW CHP PLANT	285.0 Million USD	ABOUT FINANCIAL CLOSE	CONCESSION AGREEMENT SIGNED ON JUNE 2013 CONCESSIONAIRE IS WORKING FOR REACHING FINANCIAL CLOSE
3	TUUL-SONGINO WATER RESOURCE PROJET	DEVELOP WATER PURIFY PLANT & 100 MWT WATER LOAD POWER PLANT	BUILD-OWN-OPERATE	100 MW POWER PLANT	183.0 Million USD	ABOUT FINANCIAL CLOSE	CONCESSION AGREEMENT SIGNED ON APRIL, 2014 CONCESSIONAIRE IS WORKING FOR REACHING FINANCIAL CLOSE
4	BAGANUUR COMBINED HEAT POWER PLANT	DEVELOP POWER PLANT BASED ON BAGANUUR DISTRICT AND COAL ORE	BUILD-OPERATE-TRANSFER	700 MW CAPACITY POWER PLANT	950.0 Million USD	PPA NEGOTIATION	CONCESSION AGREEMENT SIGNED ON APRIL, 2015 PPA & OTHER REGUERED AGREEMENTS ARE UNDER NEGOTIATION

Power plant

BIDDING PROJECTS

No	PROJECT NAME	DEFINITION	CONCESSION TYPE	CAPACITY		BIDDING PROCESS	PROJECT STATUS
1	DORNOD COMBINED HEAT POWER PLANT	DEVELOP CHP POWER PLANT FOR DORNOD PROVINCE	BUILD-OPERATE-TRANSFER	100 MW CAPACITY POWER PLANT	160.0 Million USD	CONTRACT NEGOTIATION	CONCESSION AGREEMENT IS UNDER NEGOTIATION
2	CHANDGANA POWER PLANT, POWER LINE FROM BAGANUUR TO UNDURKHAAN AND UNDURKHAAN TO CHOIBALSAN & SUBSTATION	DEVELOP POWER PLANT BASED ON CHANDGANA COAL ORE AND POWER LINE FROM BAGANUUR PROVINCE TO UNDURKHAAN & UNDURKHAAN TO CHOIBALSAN	BUILD-OWN-OPERATE FOR POWER PLANT, BUILD TRANSFER FOR POWER LINE	600 MW CAPACITY POWER PLANT AND POWER LINE FROM BAGANUUR TO UNDURKHAAN AND SUBSTATION	1.6 Billion USD	BIDDING IN PROGRESS	CONCESSION AGREEMENT NEGOTIATION IS UNDER PREPARATON
3	TEVSHIIN GOVI POWER PLANT	DEVELOP POWER PLANT BASED ON TEVSHIIN GOBI COAL ORE	BUILD-OWN-OPERATE	600 MW CAPACITY POWER PLANT	900.0 Million USD	BIDDING IN PROGRESS	CONCESSION AGREEMENT NEGOTIATION IS UNDER PREPARATON
4	"CHOIR" SUBSTATION EXPANSION	EXPANSION ON "CHOIR" SUBSTATION AND DIFFERENTIATION STATION	BUILD-TRANSFER	EXPANSION ON "CHOIR" SUBSTATION EXISTING CAPACITY OF '220/110/35/6 kV TO 200 MW, EXPANSION ON EXISTING CAPACITY OF 220/110/35/6 kV DIFFERENTIATION STATION	19.0 Million USD	BIDDING IN PROGRESS	CONCESSION AGREEMENT NEGOTIATION IS UNDER PREPARATON.

Power plant

No	PROJECT NAME	DEFINITION	CONCESSION TYPE	CAPACITY		BIDDING PROCESS	PROJECT STATUS
PROJECTS NO BIDDING YET							
1	TAVALTAIN HAVTSAL HYDRO POWER PLANT PROJECT	DEVELOP HYDRO POWER PLANT ON KHOVD RIVER, BAYAN-ULGII AIMAG	BUILD-OPERATE-TRANSFER	88.7 MWT HYDRO POWER PLANT		NO BIDDING	NO BIDDING IN PROGRESS YET
2	KHOVD IRVER HYDRO POWER PLANT PROJECT	DEVELOP HYDRO POWER PLANT ON KHOVD RIVER, KHOVD AIMAG	BUILD-OPERATE-TRANSFER	64 MWT HYDRO POWER PLANT		NO BIDDING	NO BIDDING IN PROGRESS YET

TOTAL REQUIRED INVESTMENT IN ENERGY SECTOR /Including: Transmission line and power plants/

Total transmission line estimated costs:	544.9 Million US.D
Total power plant estimated costs:	5.5 Billion US.D
-Awarded projects:	2.9 Billion US.D
-Bidding projects:	2.6 Billion US.D
Total investments required in the Energy sector:	6.1 Billion US.D

Renewable energy lincense holders

No	Lincese Holders	Location	Capacity, MW
1	Sainshand wind park	Dornogobi province, Sainshand sum	52 MW
2	AB Solar Wind	Gobisumber province, Dalanjargalan sum	100 MW
3	Aidiner Global	Gobisumber province, Sumber sum	50.4 MW
4	Cleantech	Umnugobi province, Khanbogd sum	250 MW
5	Clean Energy Asia	Umnugobi province, Tsogttsetsii sum	50 MW
6	Desert Solar Power Wind	Dornogobi province, Sainshand sum	30 MW
7	Huduugiin tsahilgaan	Gobi-Altai province, Taishir sum	10 MW
8	Ulaanbaatar Usan tseneg power plant	Ulaanbaatar city	100 MW
Total			642.4 MW



THANK YOU FOR YOUR ATTENTION

Website: <http://www.energy.gov.mn/>

