

Methane to Markets
Subcommittee webinar meeting
16 May 2012



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Consortium**

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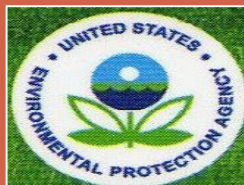
COAL RESOURCES AND RESERVES

MONGOLIA HAS VAST COAL RESOURCES, CONTAINED WITHIN 15 LARGE-SCALE COAL BEARING BASINS. THERE ARE AROUND 320 COAL DEPOSITS AND OCCURRENCES (80 DEPOSITS AND 240 OCCURRENCES),

TOTAL GEOLOGICAL COAL RESOURCES ARE ESTIMATED AT APPROX. 160 BILLION TONS. COAL RESERVES, NEWLY APPROVED BY MINERAL RESOURCES COUNCIL, MONGOLIA FOR LAST 3 YEARS (BY A+B+C CATEGORIES) IS 14,5 MILLION TONS.

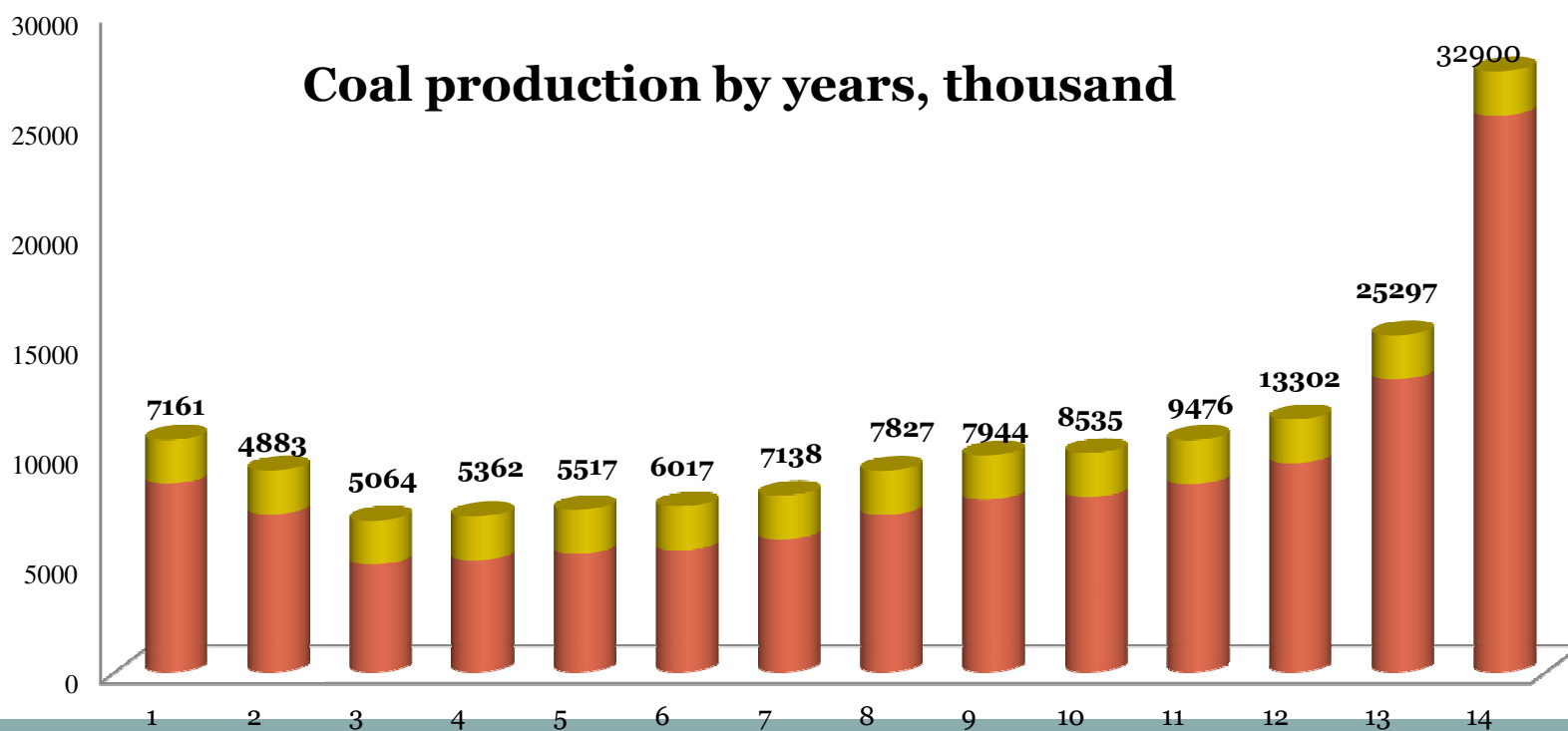
ALL THE COAL DEPOSITS AND OCCURRENCES ARE LOCATED RELATIVELY IN ALL AREAS OF THE COUNTRY, BUT MOST OF THEM – IN EAST, CENTRAL AND SOUTH AREAS.

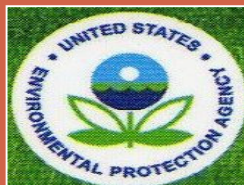
ABOUT 2/3 OF ALL COAL RESOURCES BELONG TO LIGNITE OF HIGH GRADE.



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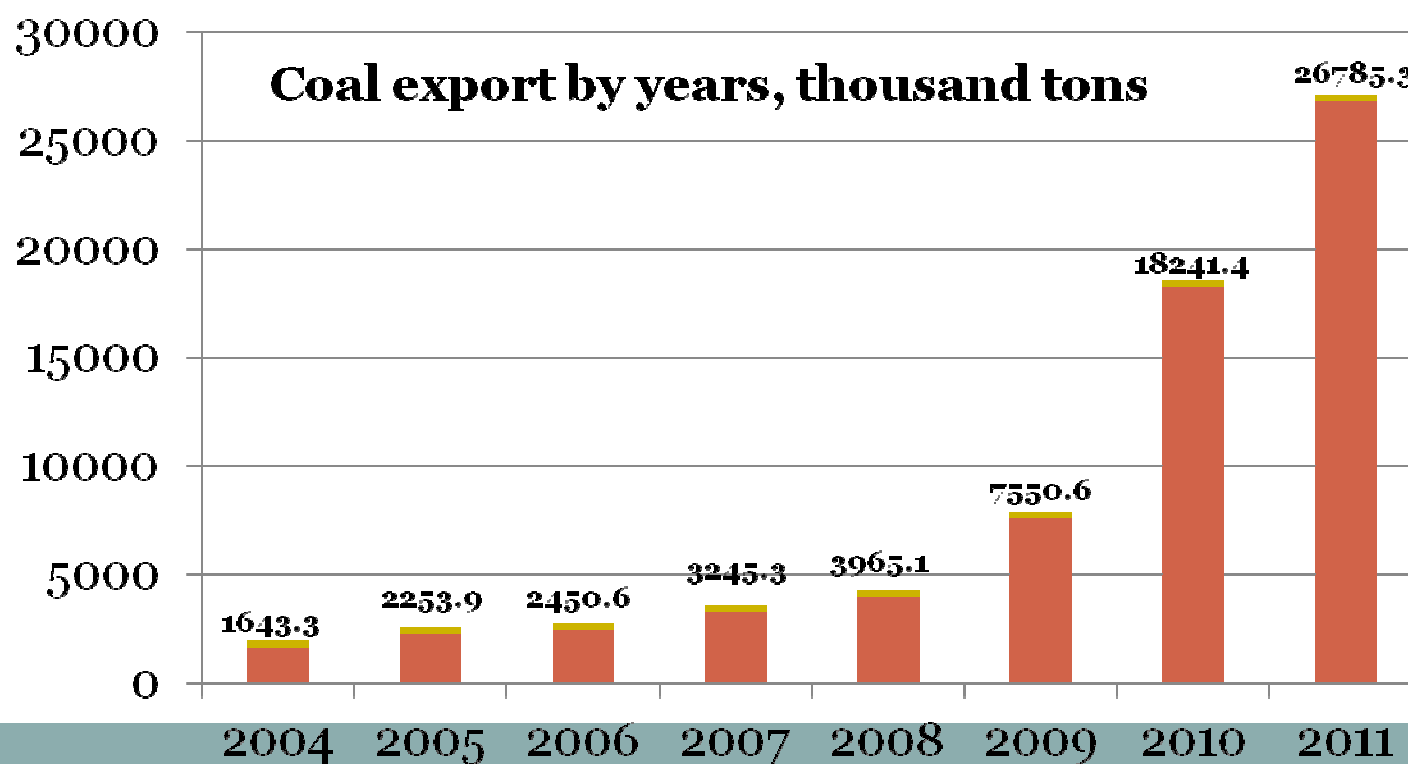
Coal production of Mongolia since 1990





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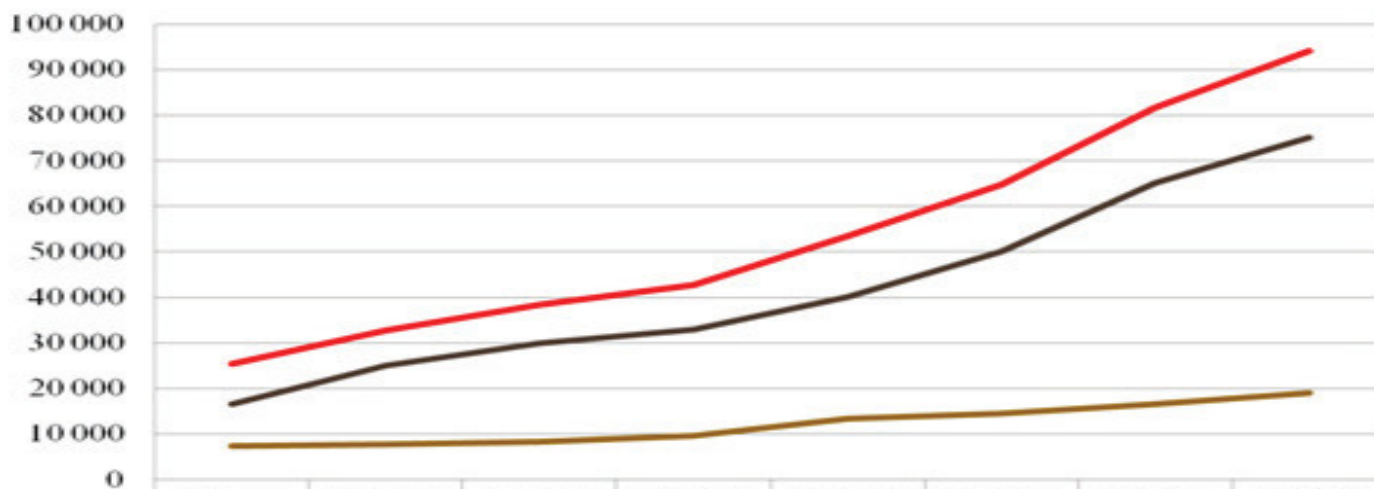
Coal export of Mongolia since 2004



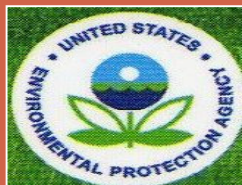


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Coal production, consumption and export forecast of Mongolia for the period 2010-2025 by MRA, (million tons)



	2010 он	2011 он	2012 он	2013 он	2014 он	2015 он	2020 он	2025 он
— Нийт олборлолт	25 344	32 634	38 340	42 635	53 355	64 580	81 587	94 010
— Экспорт	16 635	25 000	30 000	33 000	40 000	50 000	65 000	75 000
— Дотоод хэрэглээ	7 344	7 634	8 340	9 635	13 355	14 580	16 587	19 010



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Coal production growth in Mongolia

No		2010	2011	2012	2013	2014	2015	2020	2025
1	Production, mln tonnes	25344	32634	38340	42635	53355	64580	81587	94010
2	Consumption of country, mln tonnes	16635	25000	30000	33000	40000	50000	65000	75000
3	Export, mln tonnes	7344	7634	8340	9635	13355	14580	16587	19010

Potential Methane Emissions from coal mining

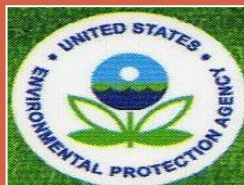
No		2010	2011	2012	2013	2014	2015	2020	2025
1	Methane Leakage, million m ³	253440	326340	383400	426350	533550	645800	815870	940100



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Main coal areas and active mines

- ▶ **Tolgoi coal area and mines , Tsogttsetsii soum, Umnugovi province**
 - Erdenes Tavan Tolgoi company, Tavan tolgoi coal mine
 - Tavan Tolgoi joint stock company, Tavan tolgoi coal mine
 - Energy Resource LLC, Ukhaa hudag coal mine
- ▶ **Nariin Suhait coal area and mines, Gurvan tes soum, Umnugovi province**
 - Mongolyn Alt Corporation (MAK) LLC, Nariin Suhait coal mine
 - Chinhua- MAK JSC, Nariin Suhait coal mine
 - South Gobi Sands LLC, Ovoot tolgoi coal mine
- ▶ **Khushuut coal deposit, Darvi soum, Khovd province**
 - Mongolia Energy Corporation Limited, Khushuut coal mine
- ▶ **Baga nuur coal deposit, Bayandelger soum, Tuv province**
 - Baga nuur JSC, Baga nuur coal mine
- ▶ **Shivee-Ovoo coal deposit, Govi sumber province**
 - Shivee-Ovoo JSC, Shivee –Ovoo coal mine
- ▶ **Sharyn gol coal deposit, Darkhan soum, Selenge province**
 - Sharyn gol JSC, Sharyn gol coal mine
- ▶ **Tsaidam nuur and Tugrug nuur coal deposits, Bayan delger and Bayan jargalan soums, Tuv province**



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ENERGY RESOURCE LLC

Tsetsii town



18 MW Power plant



UHG-GS 240 km paved road

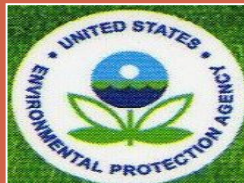


CHPP, 5 million tons capacity



Water supply system





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OPTIONS FOR MITIGATION OF METHANE GAS EMISSIONS

Introduction of effective coal processing and beneficiation technologies is primary option for reducing methane gas emissions.

- Coal handling and preparation plant with total capacity of 15 million tons firstly has been constructed at Ukhaa hudag mine.
- Other options for CTL, Coke plant, DME plant etc. are under investigation.



Thank you for your attention



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