

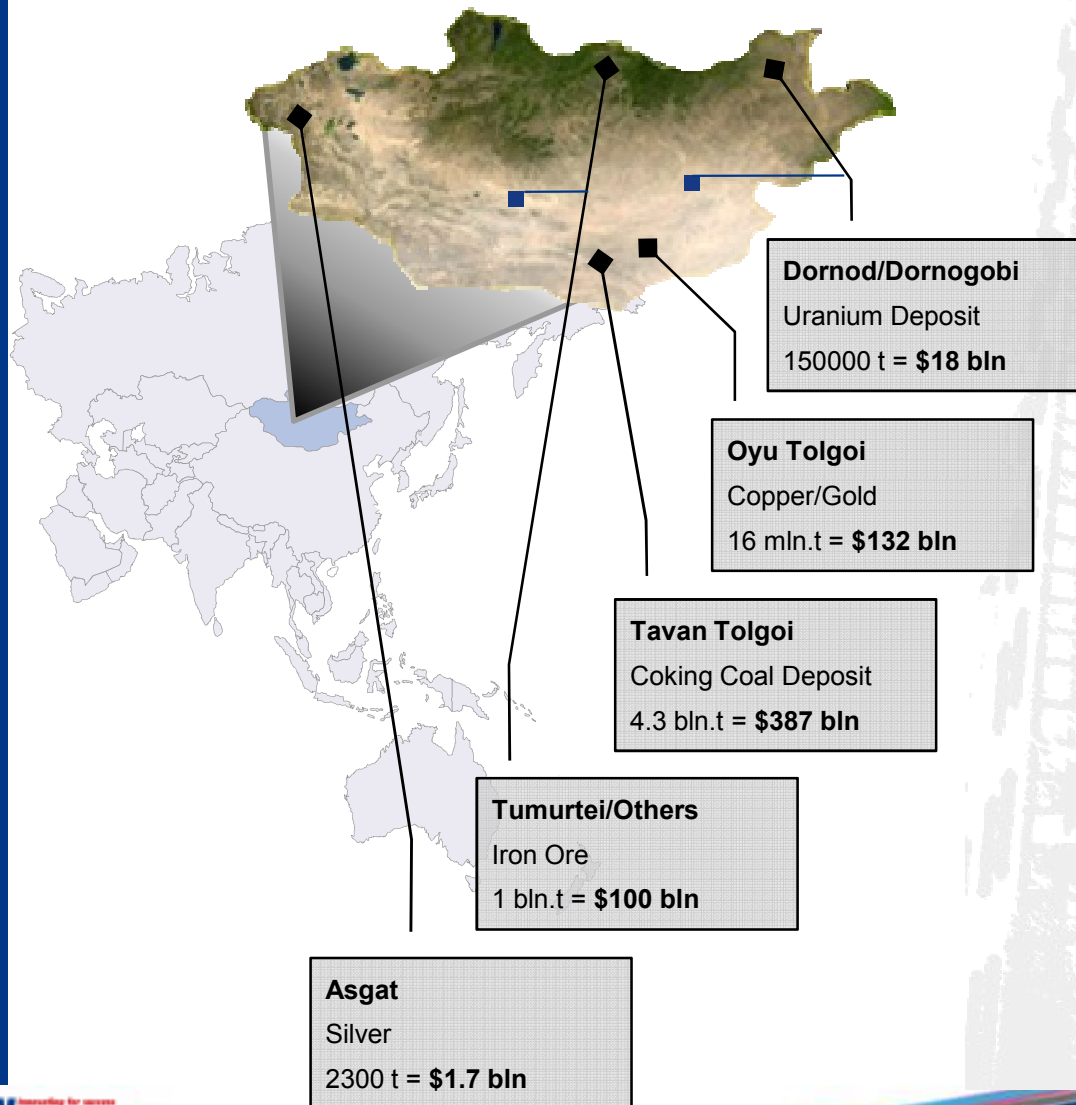


MONGOLIA

Bayanjargal Byambasaikhan, Ministry of Mineral Resources and Energy

The views expressed in this presentation are those of the presenter and do not necessarily represent those of the Asian Development Bank.

MONGOLIA: RICHLY ENDOWED WITH NATURAL RESOURCES



Country Info

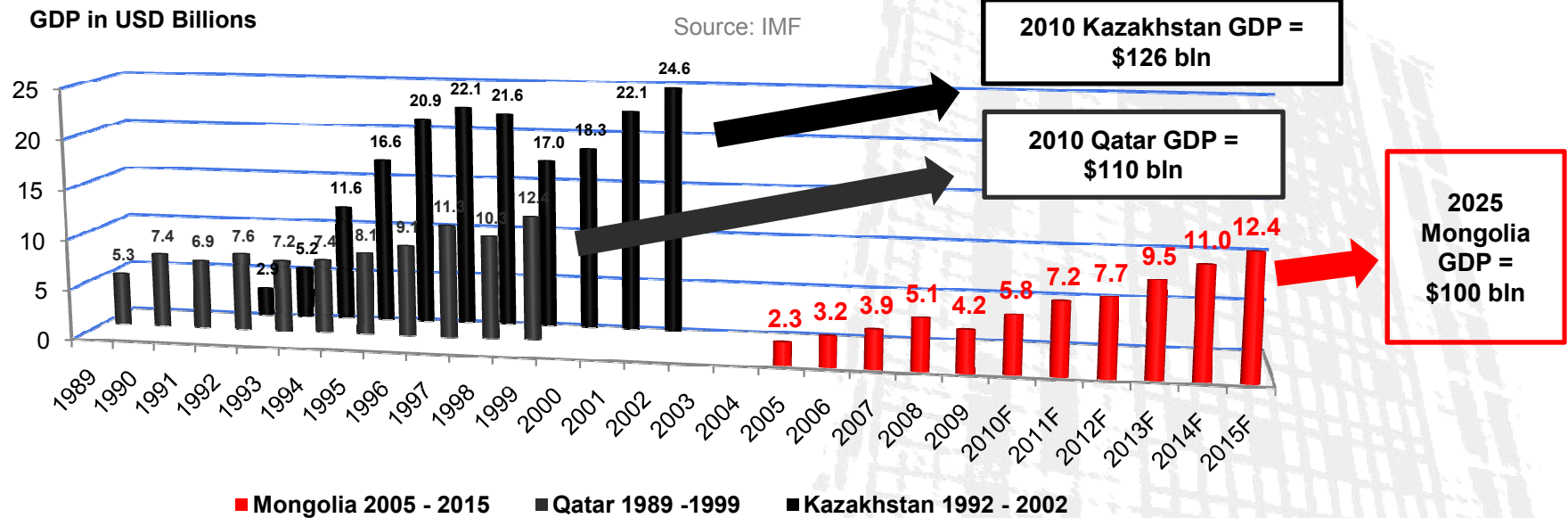
- AREA: 1.56 mln sq.km
- POPULATION: 2.7 mln
- LANGUAGE: Mongolian
- CURRENCY: Tugrug (MNT)
1 USD = 1200 MNT
- GDP: \$ 5.8 bln (2010)
- RATING: B1 (Moody's)
B (Fitch)
BB- (S&P)

Growth Story Unfolds

- Location advantage: next to the largest commodity consumer in the world
- Recent massive investment flow into Northern China
- 15 Strategic Deposits with estimated resources valued at over \$1.2 trn
- Primary growth driver will be the development of world-class mineral deposits
- Sustained double-digit GDP growth expected in coming years
- Mining sector CAGR over the last 5 years is 27.8%
- Oyu Tolgoi copper/gold mine is to generate \$51 bln over 27 years
- Tavan Tolgoi coal mine is to operate for +200 years with an annual turnover of \$1.6 bln for the first 29 years

MONGOLIA INVESTMENT STORY

GDP Growth: Mining will drive the economy – Is Mongolia the next Qatar?



Oyu Tolgoi: Copper & Gold

- Oyu Tolgoi alone will bring in \$5 bln in investments by 2013
- Over the next 27 years the mine will generate 51 bln

Tavan Tolgoi: Coking Coal

- Estimated to operate for 200+ years
- Over the next 29 years the mine will generate \$87 bln

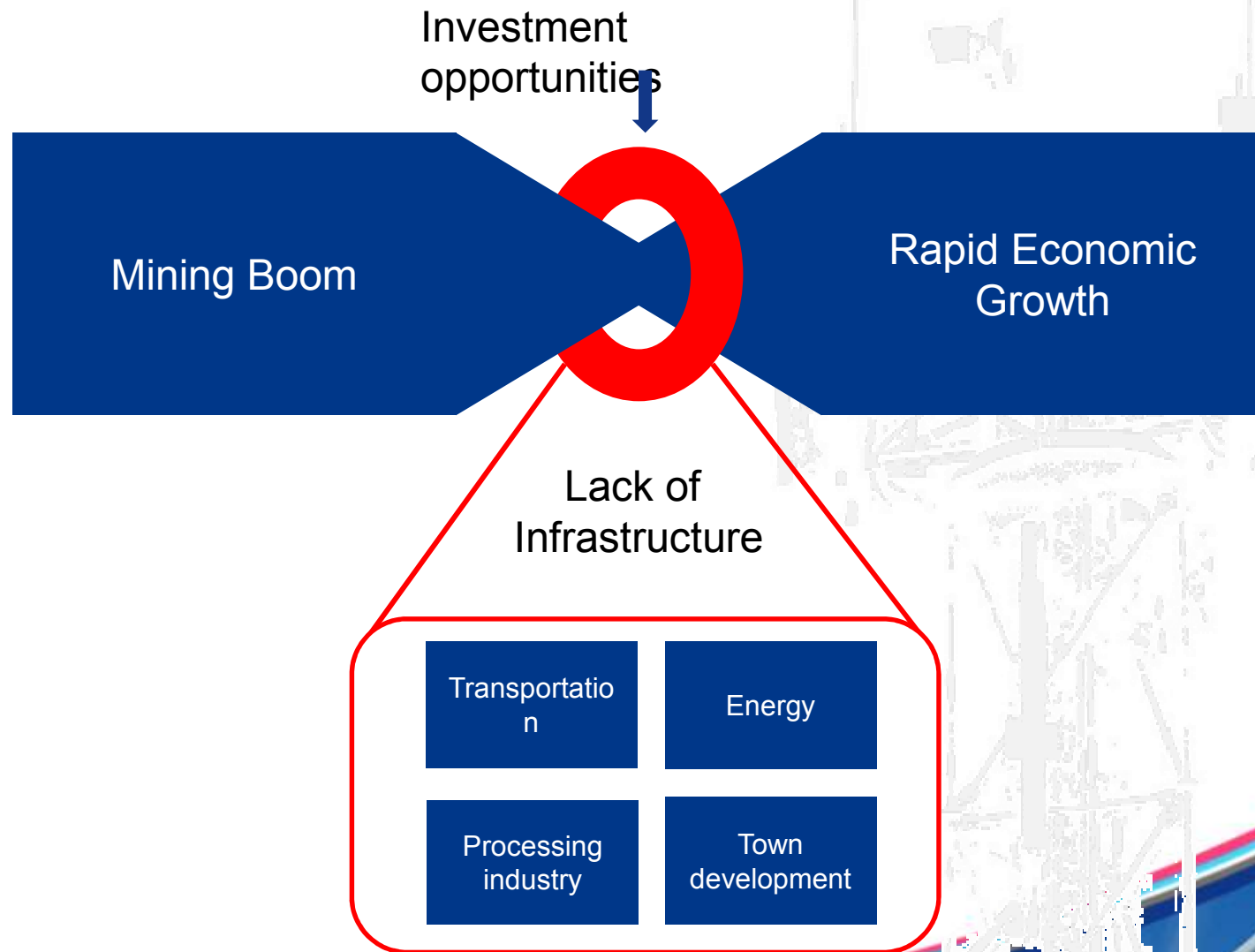
Other mineral resources:

- 15 Strategic Deposits with estimated resources valued at over \$1.2 trn
- Yet to be tapped resources include Silver, Uranium Gold, Phosphates, Iron ore and Zinc
- Only 30% of the country is prospected

Infrastructure:

- Infrastructure investments to further boost GDP
- Pipeline investments needed to build/update infrastructure through 2015: \$8.4 bln

AN INVESTMENT OPPORTUNITY: ELIMINATING BOTTLENECK



Energy Sector Overview

- Population: 2.7 mln
- Electrification Rate: 80%
- Population Connected to Grid: 1.8 mln
- Deficit in electrical energy:
 - Current deficit 0%
 - In two years 5%
 - In five years 20%
 - In ten years 50%



Power Generation

- Total Power Generation
4.3 bln kWh
- Power Generation Mix
 - Coal 91.5%, Oil 5.1%, RE 3.4%



Renewable Energy

- RE Policy/ies, highlights:
 - RE national program 2005-2020 (RE target)
 - RE Law 2007 (Tariff, PPA, Tariff period)
- RE Target:
 - 3-5% of total domestic production by 2010
 - 20-25% by 2020



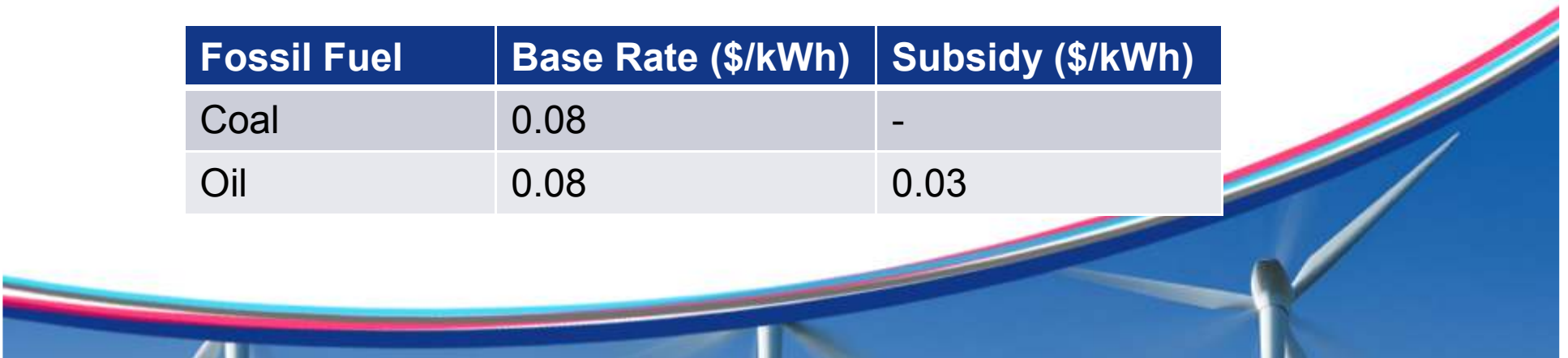
Electricity Cost: Subsidies and Incentives

- RE Subsidies

RE Source	Base Rate (\$/kWh)	Subsidy (\$/kWh)
Wind	0.08 – 0.095	0.0 – 0.015
Solar	0.15 – 0.18	0.07 – 0.1

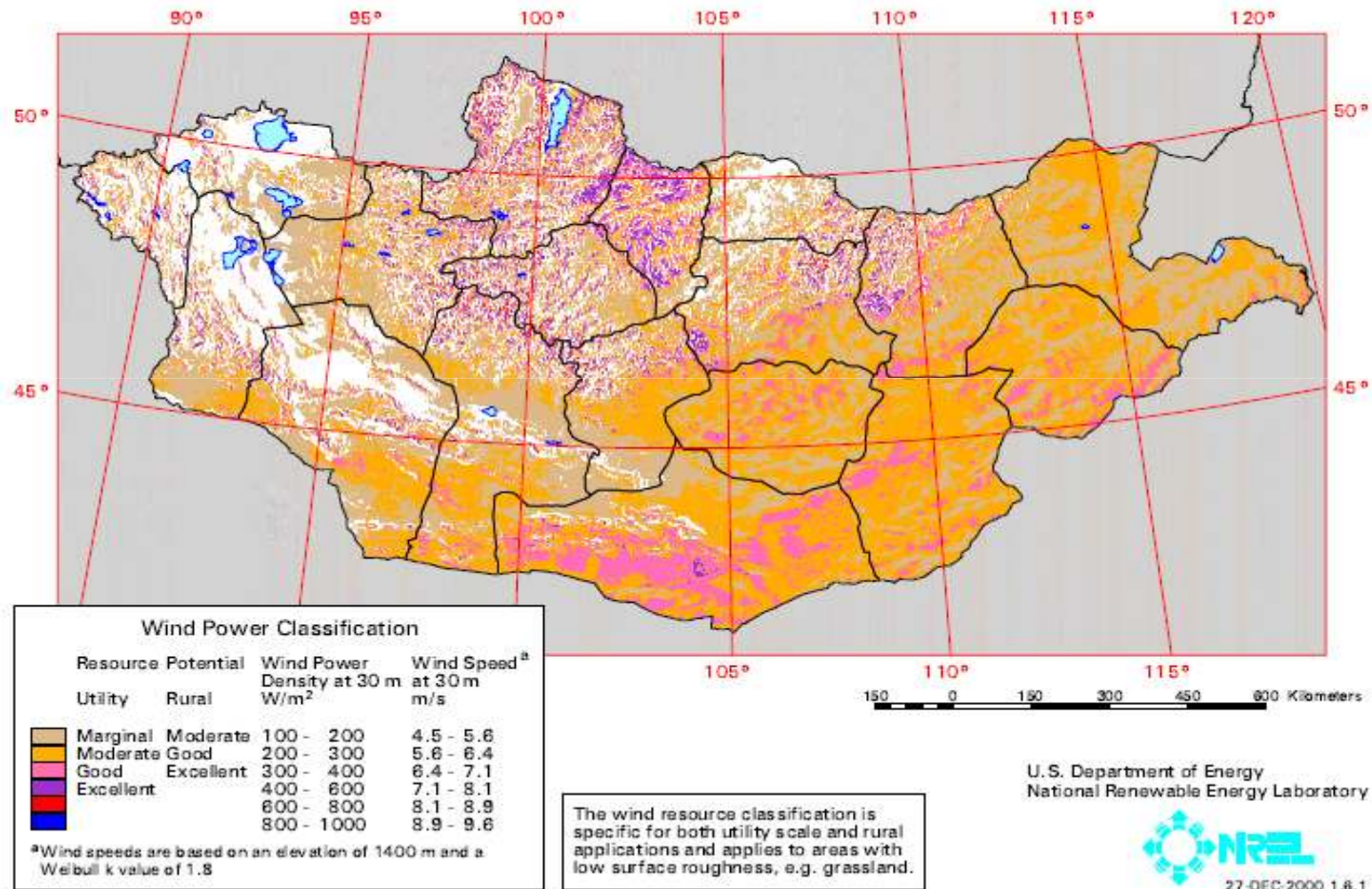
- Fossil Fuel Subsidies

Fossil Fuel	Base Rate (\$/kWh)	Subsidy (\$/kWh)
Coal	0.08	-
Oil	0.08	0.03



Wind Resource Potential

Mongolia - Wind Resource Map



Total Installed Wind Capacity

as of June 2011

Operational Wind Projects	MW	Year
1. Erdenetsagaan	0.1	2004
2. Mandakh, Sevrei, Bogd, Khatanbulag, Tseel, Manlai	0.7	2007
3. Bayantsagaan, Bayan-Undur, Shinejinst, Matad	0.6	2008
TOTAL	1.4	

* Above mentioned are small scale not grid connected, installed in the soum center

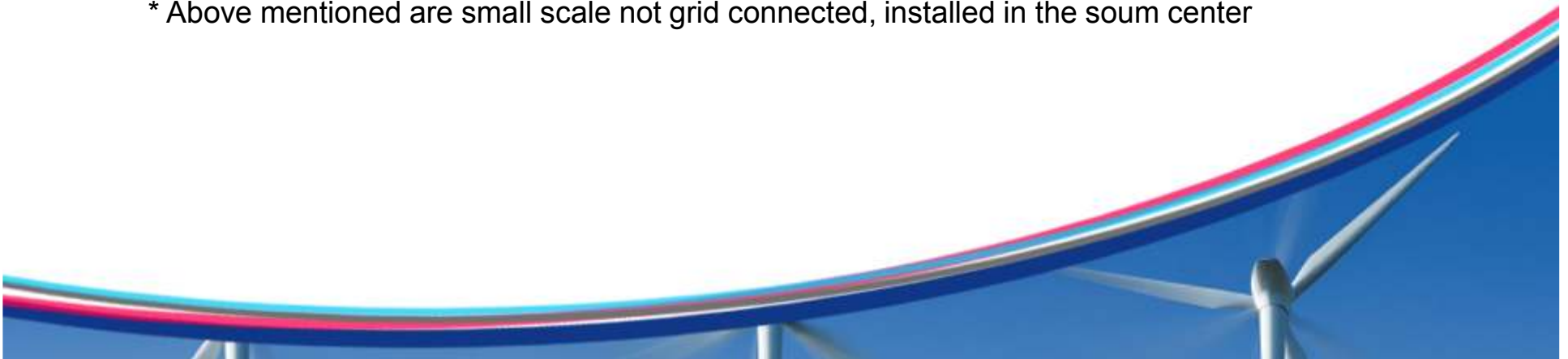




Photo of Wind Farm

Salkhit wind farm



Additional Wind Capacity

Pipeline of Wind Projects	MW	Estimated Year	Estimated Cost
1.Salkhit wind farm (Clean Energy LLC, Newcom Group)	50	2012	80 mln USD
2. Khanbogd wind farm (Qleantech LLC)	250	2014	-
3.Sainshand wind farm (Sainshand)	52	2013	80 mln USD
4. Tsetsii wind farm (Clean Energy LLC, Newcom Group)	200	2015	-
TOTAL	552		



Next Steps

- Wind power needed for
 - Grid
 - Mining power supply
 - Export

