MONGOLIA Mining Sector Overview

Webinar – 31 January 2019
Welcome

**Mongolia METS Opportunities:** Daniela Assis, Trade Commissioner – Korea & Mongolia

**Guest Speaker:** Bilguun Ankhbayar, Chairman of Board of the Mongolian National Mining Association

**Guest Speaker:** Baataatar Galsandorj, Manager Strategic Sourcing, Oyu Tolgoi LLC

**Question and Answer Session**

**Q&A Participant:** Odonchimeg Lundaa, Business Development Manager, Austrade Ulaanbaatar
Mongolia

METS Opportunities
COUNTRY PROFILE

Mongolia
Parliament has 76 seats and serves four year term.

Capital is Ulaanbaatar.

Head of the State is directly elected.

Prime Minister is appointed by the Parliament.
ECONOMIC PROFILE: MONGOLIA

- **Population**: 3.1 million (2017)
- **GDP**: US$ 11.6 billion
- **GDP per capita**: US$4,177
- **Sector strengths**: Mining and agriculture
- **Literacy**: 98%

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**Import partners (2017)**

- **China**: 41.8%
- **Russia**: 35.7%

**Main Export partner (2017)**

- **China**: 88%

Source: World Bank 2017
ECONOMIC DEVELOPMENT SINCE DEMOCRATIZATION

- Lower middle income country in terms of economic and social indicators of development
- Following end of socialism, economy shrunk for over 5 years till 1995
- Economy turned around in 1995 and improved significantly till 2008
- Growth dipped in 2009 due to the world economic crisis, but rapidly increased to 17.3 percent in 2011, driven by a surge in mining investment
- The economy has had a roller coaster ride since, due in particular to political uncertainty over foreign investment in major mining projects such as Oyu Tolgoi
MINING SECTOR IN MONGOLIA

• 21 per cent of GDP
• 70 per cent of FDI
• 35 per cent of National Budget Income
• 71 per cent of Industrial Output
• 85 per cent of export earnings
OPPORTUNITY: METS

Core engineering design (engineering services, process and mechanical design, mine planning, mineral analytical and processing services)

Environmental management, consultancy (copper refinery, coal projects including IPCC technology)

Consulting services (mining consulting)

Information technology, IT equipment and related services, automation

General equipment and components supplies and servicing (logistics and warehousing)

Consumables
MARKET CHALLENGES

Policy instability, inconsistency
 trade barriers
Governance and corruption

Technical skills shortages
Financial capability
Environmental concerns
DOING BUSINESS IN MONGOLIA
**Mongolian way:**
Typically use only first name
Independent, self-confident
Loyal in disposition

**Gift exchange:**
Exchange of small inexpensive gifts is customary after a conclusion of an agreement

**Summer holiday:**
July and August are difficult to arrange meetings

**Business culture:**
Greet with a handshake and direct eye contact
Start with informal conversation before agenda

**English capabilities:**
Most businesses have English capabilities
Pursue relationships with patience. Decisions can take time.

- Building relationships; developed through informal social gatherings
- Identify the right contact; decision making is hierarchical
- Find right partners, undertake due diligence
- Any response is appreciated
- Revise your price and offering to be competitive and suit the market
- Leverage Austrade’s networks and expertise

KEY SUCCESS FACTORS/TIPS ON DOING BUSINESS
AUSTRADE
ULAANBAATAR TEAM

Daniela Assis
Trade Commissioner

Sолько Dashdendev
Business Development Manager

Odnochimeg Lundaa
Business Development Manager

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To contact the Australian Trade and Investment Commission (Austrade) in Australia, please call 13 28 78 (Australia only)
Why mining sector is crucial for Mongolia’s economic development

Bilguun Ankhbayar, CFA
Household income in Mongolia

Mongolia has 3.1 million citizens

- 912,000 children receive child money
- 409,000 retirees receive state pension
- 155,000 are on various welfare support
- 8,000 workplace accident insurance beneficiaries
- 16,000 on unemployment benefit
- 190,000 state employees

In total 1.69 million Mongolians are dependent on state budget
Oversimplified history of Mongolia’s economy

1921-1990

1990-2019
Diversification “dream”

GDP composition by leading sectors (2000-2017)

Concentration among leading 6 sectors within the economy (HHI)
Key indicators

Real GDP and growth

Monthly unemployment benefits paid by the Social Insurance Agency (2010-2018/9)

Avg MNT/USD

2010-2017* Budget deficit as % of GDP

Trillion MNT

Revenue
Expenditure
Balance
Deficit % of GDP
Licensing in Mongolia

Valid licenses in Mongolia

License area as % of total land
Mineral and petroleum licenses in Mongolia
What drives Mongolia's economy?
Key driver for FDI

Copper & coal price vs FDI into Mongolia (15 years)
How the world views Mongolia?

World Bank: Doing Business Survey

1. Starting a business
2. Dealing with construction permits
3. Getting electricity
4. Registering property
5. Getting credit
6. Protecting minority investors
7. Paying taxes
8. Trading across border
9. Enforcing contracts
10. Resolving insolvency
How the mining investors view Mongolia?

1. Best practices mineral potential index
2. Policy perception index
Cause for lack of investors trust

27 years & 15 governments later..
Average age of a Government was **1.3 years**
The fundamental reason

How would you rate the current state of the economy?

<table>
<thead>
<tr>
<th>Year</th>
<th>Improving</th>
<th>Stagnating</th>
<th>Worsening</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>19.6%</td>
<td>29.6%</td>
<td>45.70%</td>
</tr>
<tr>
<td>2011</td>
<td>20.4%</td>
<td>23.3%</td>
<td>28.6%</td>
</tr>
<tr>
<td>2012</td>
<td>21.4%</td>
<td>26.1%</td>
<td>25.7%</td>
</tr>
<tr>
<td>2013</td>
<td>22.6%</td>
<td>23.3%</td>
<td>24.60%</td>
</tr>
<tr>
<td>2014</td>
<td>26.0%</td>
<td>28.6%</td>
<td>23.3%</td>
</tr>
<tr>
<td>2015</td>
<td>6.70%</td>
<td>15.4%</td>
<td>48.30%</td>
</tr>
</tbody>
</table>

What is your outlook on the economy in the next 5 years?

<table>
<thead>
<tr>
<th>Year</th>
<th>Slightly better</th>
<th>Same</th>
<th>Slightly worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>23.3%</td>
<td>22.6%</td>
<td>28.6%</td>
</tr>
<tr>
<td>2011</td>
<td>13.5%</td>
<td>15.8%</td>
<td>15.4%</td>
</tr>
<tr>
<td>2012</td>
<td>13.7%</td>
<td>15.4%</td>
<td>14.7%</td>
</tr>
<tr>
<td>2013</td>
<td>15.3%</td>
<td>15.4%</td>
<td>20.4%</td>
</tr>
<tr>
<td>2014</td>
<td>17.7%</td>
<td>15.3%</td>
<td>23.3%</td>
</tr>
<tr>
<td>2015</td>
<td>15.8%</td>
<td>15.8%</td>
<td>28.6%</td>
</tr>
<tr>
<td>2016</td>
<td>40.0%</td>
<td>40.0%</td>
<td>23.3%</td>
</tr>
</tbody>
</table>

How should the Gov’t use the funds generated by mining?

- Invest in economic development: 34%, 35%, 40%, 43%, 38%, 40%
- Invest in social development: 35%
- Help the poor directly: 35%
- Cash handouts: 15%, 15%, 15%, 15%, 15%, 15%

How should the strategic mining deposits be owned?

- 100% Mongolian ownership: 20.7%, 9.3%, 1.3%
- 51% or above by Mongolian: 63.9%, 9.3%, 1.3%
- Equal: 100%, 9.3%, 1.3%
- 51% or above by foreign: 0.1%
- 100% foreign: 0.1%

Source: Sant Maral Foundation
Thank you for your attention

- Any questions or comments regarding this document and the specifics of the transaction should be directed to Bilguun Ankhbayar using the provided contact information below.

- Please visit us at: www.mibg.mn

- Please forward any questions or comments to:

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OT Procurement
Strategic Direction
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# OUR VISION, OUR FUTURE

<table>
<thead>
<tr>
<th>Vision</th>
<th>Natural wealth to enduring value, knowledge and skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission</td>
<td>Together deliver a safe and globally competitive copper business that contributes to the prosperity of Mongolia</td>
</tr>
</tbody>
</table>

## Values
- Safety
- Teamwork
- Respect
- Integrity
- Excellence

## Priorities

<table>
<thead>
<tr>
<th>Focus Areas</th>
<th>Safety</th>
<th>People</th>
<th>Cash</th>
<th>Partnership</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead the mining industry in safety, and influence broader progress</td>
<td>Build a capable and highly engaged workforce</td>
<td>Optimize business performance, increasing efficiency through continuous improvement</td>
<td>Maintain a productive and positive relationship with stakeholders</td>
<td>Deliver the underground development on schedule, with a reliable ramp up, to secure the long term future of Oyu Tolgoi</td>
<td></td>
</tr>
<tr>
<td>Maintain world class environmental performance</td>
<td>Ensure fairness in employment, build a more inclusive and diverse workplace</td>
<td>Build a learning organization with an embedded ‘Owner’s Mindset’ across the whole workforce</td>
<td>Support the creation of an empowered and sustainable local community, with an entrepreneurial Umnugobi</td>
<td>Continue to develop customer relationships underpinned by sustainable value</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continue focus on developing talent pipeline</td>
<td></td>
<td></td>
<td>Develop a mine-to-market supply chain capable of delivering underground volumes safely and efficiently to market</td>
<td></td>
</tr>
</tbody>
</table>
Supplier development approach

OT has developed a fit-for-purpose Supplier Development Policy to address OT and Mongolia’s unique operating context

**Purpose**

Oyu Tolgoi maintains a dedicated national procurement policy focused on promoting and developing a safe, sustainable, and local supply chain.

Oyu Tolgoi actively encourages capacity building efforts of new and existing suppliers and will partner with companies to foster in-country manufacturing and service provision for products and services that are currently imported.

The policy sets overarching principles for current operations and the Oyu Tolgoi Underground Project:

- Oyu Tolgoi prioritises the development of service contractor employment and value-added procurement opportunities in line with a continuous focus on cost and productivity improvements across the supply chain.

**OT has developed a fit-for-purpose Supplier Development Policy to address OT and Mongolia’s unique operating context**

- Oyu Tolgoi maintains a dedicated national procurement policy focused on promoting and developing a safe, sustainable, and local supply chain.

- Oyu Tolgoi actively encourages capacity building efforts of new and existing suppliers and will partner with companies to foster in-country manufacturing and service provision for products and services that are currently imported.

- The policy sets overarching principles for current operations and the Oyu Tolgoi Underground Project.

- Oyu Tolgoi prioritises the development of service contractor employment and value-added procurement opportunities in line with a continuous focus on cost and productivity improvements across the supply chain.
Total in-country spend
(2010-2017)

- In Country suppliers (including VAT): 75%
- Local employees & contractors: 6%
- Direct to Mongolian Government: 19%

8.7 billion USD

OT has achieved significant spends in-country since start of the business, with 75% of all spends happening with In-Country suppliers.
Oyu Tolgoi collaborated with 898 suppliers in 2018, 618 of which are national suppliers that account for 78 per cent of total operations procurement spend. Between 2010 and 2018, Oyu Tolgoi spent US$2.7 billion on national procurement.

* - National Supplier: A supplier registered in Mongolia and more than 50% owned by Mongolian citizen.
80 Umnugovi suppliers provided goods and services to Oyu Tolgoi in 2018. Between 2010 and 2018, Oyu Tolgoi spent US$413 million on procurement from Umnugovi.

* - Umnugovi Supplier: A supplier registered in Umnugovi province and more than 75% of its employees are from Umnugovi province.
Procurement Process
Transparent and value driven with focus on integrity

1. SOW – Scope of Work
2. DFA – Delegated Financial Approval
3. EOI/Bid – Expression of Interest
4. Evaluation
5. RTA/RFA – Recommendation to/for Award
6. DFA/Award
7. Contract administration

- Package owner/End User
- Procurement
- Approval

- HSE
- Technical
- Commercial

- Developed by package owner/End user
- Authority matrix
- Senior Management committee meeting
- Manage contractors performance
- Watch postings via ot.mn
- Register to “Oyu” database to be notified

- Approval in accordance with financial authority matrix
- Approval in accordance with financial authority matrix
- Develop/submit result of evaluation
- Develop by package owner/End user
- Developed by package owner/End user
- Manage contractors performance
- Authority matrix
- Senior Management committee meeting
- Senior Management committee meeting

Procurement Process

Procurement Process

Procurement Process
NEW STRATEGIC DIRECTION
It will compliment our existing measures so previous improvements are still recognised and driven for further improvements.

- Existing measures are (i) In country, (ii) National and (iii) Umnugovi spend targets

Total spend **spent** to suppliers in country

<table>
<thead>
<tr>
<th>Time</th>
<th>In Country Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>In country spend</td>
</tr>
</tbody>
</table>

Total spend **retained** by suppliers in country through value add

<table>
<thead>
<tr>
<th>Time</th>
<th>In Country Value add</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>In country value</td>
</tr>
</tbody>
</table>
**“Made in Mongolia” Strategy Implementation**

(Highlights)

**Grinding Media – 15mm/ 65mm**

(US$ 4m/ 14m)

- Through Open EOI, national supplier awarded
- Employment increased from 16 to 130 people with installation of new state of the art technology in Mongolia
- Reduced cost

**Lime**

(US$ 7m)

- Through Open EOI, national supplier awarded
- Employment increased from 12 to 140 people
- New technology in Mongolia with improved skillset
- Reduced cost
Oyu Supplier Database

First - please register

- Complete system with supplier registration,
- pre-qualification and qualification processes
- Request for Quote* and Expression of Interests are process through "Oyu"
- Total 1,200 suppliers are registered in the system to date
- Free to register
- Every supplier has to be registered and pre-qualified**

* - Small value requests
** - change is in progress
Key communication channel

- Policies and Procedures
  - The Way We Work
  - Business Integrity Principle
  - Procurement standards/process

- Useful documents
- Procurement numbers
  - Operation
  - Underground
- Expression of Interests
- Register as a Supplier
- Register for events/activities
- Key suppliers’ list
- Contact details
Upcoming Opportunities* available at ot.mn and register at “Oyu” database

<table>
<thead>
<tr>
<th>EOI - Short description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inbound transportation (GMD - OT)</td>
</tr>
<tr>
<td>Inbound transportation (UB - OT- UB)</td>
</tr>
<tr>
<td>Supply of frother collector reagent</td>
</tr>
<tr>
<td>PPE - fabric - MIM</td>
</tr>
<tr>
<td>Industrial Gas</td>
</tr>
<tr>
<td>Hearing protection - MIM</td>
</tr>
<tr>
<td>Engineering service</td>
</tr>
<tr>
<td>Supply of Safety Products</td>
</tr>
<tr>
<td>MRO Integration</td>
</tr>
<tr>
<td>Rehabilitation service contract</td>
</tr>
<tr>
<td>Roller/ Pulley</td>
</tr>
<tr>
<td>Supply of light vehicle spare parts</td>
</tr>
<tr>
<td>Supply of AC technicians for Mobile Equipment</td>
</tr>
<tr>
<td>Operation and Maintenance Service of HVAC Facilities associated with Supply of Parts</td>
</tr>
<tr>
<td>Water Treatment chemical - MIM</td>
</tr>
<tr>
<td>Electrical board/ consumables</td>
</tr>
<tr>
<td>Supply of Specialty oil and greases - MIM</td>
</tr>
<tr>
<td>Supply of Liners</td>
</tr>
<tr>
<td>Coolant - MIM</td>
</tr>
<tr>
<td>Metal fabrication</td>
</tr>
</tbody>
</table>

* - subject to change
Key in Doing Business with Oyu Tolgoi

**Safety**
- Policies
- Procedures
- Processes
- Culture
- Monitoring
- Risk management
- Record keeping

**Integrity**
- No interference from Board or other parties on bids / supplier evaluation
- Anti-bribery and corruption
- Management of conflicts of interest and no personal benefits

**Alignment**
- Technical requirements
- Quality assurance
- Quality control
  - *Think local*

**Value**
- Competitive prices
- Productivity
- Vendor managed stock
- On schedule within budget

**Timeliness**
- On time
- Short lead-times
  - *Closer capability/capacity*