Mobilizing Private Sector Investment and Institutional Investors

Issuance of Sovereign and Private Sector Green and Sustainability Bonds: Lessons from ASEAN

About MUB

APPROVED SECURITY ISSUANCES

The capital city of Ulaanbaatar decided to issue 1 trillion MNT (USD 295 million) worth of bonds in the domestic market and USD 500 million in the foreign markets

The proceeds from the issuance of securities was to be used to finance the following priority projects and measures in the following order:

1. Construction of Battery Energy Storage Solution for 296 billion MNT (USD 87.5 million)
2. Demolition of non-functional residential buildings and engineering works of the reconstruction project 26.9 billion MNT (USD 7.9 million)
3. External engineering network works to be implemented as part of the redevelopment of the ger districts 52.5 billion MNT (USD 15 million)
4. To increase the repair and renovation of highway facilities and budget works by 120.6 billion MNT (USD 35 million)
5. Increase of the housing complex of Selbe sub-center by 1.6 trillion MNT (USD 400 million)

The MUB budget revenue is composed of 93.1% tax revenue and 6.9% from nontax revenue. From 2016 the city's budget has expanded 3.5x and its balance has moved from a deficit of 9 million to a surplus of 444 million 49x improvement.

2016

MUB revenue $162 million

MUB spending $171 million

MUB budget deficit $9 million

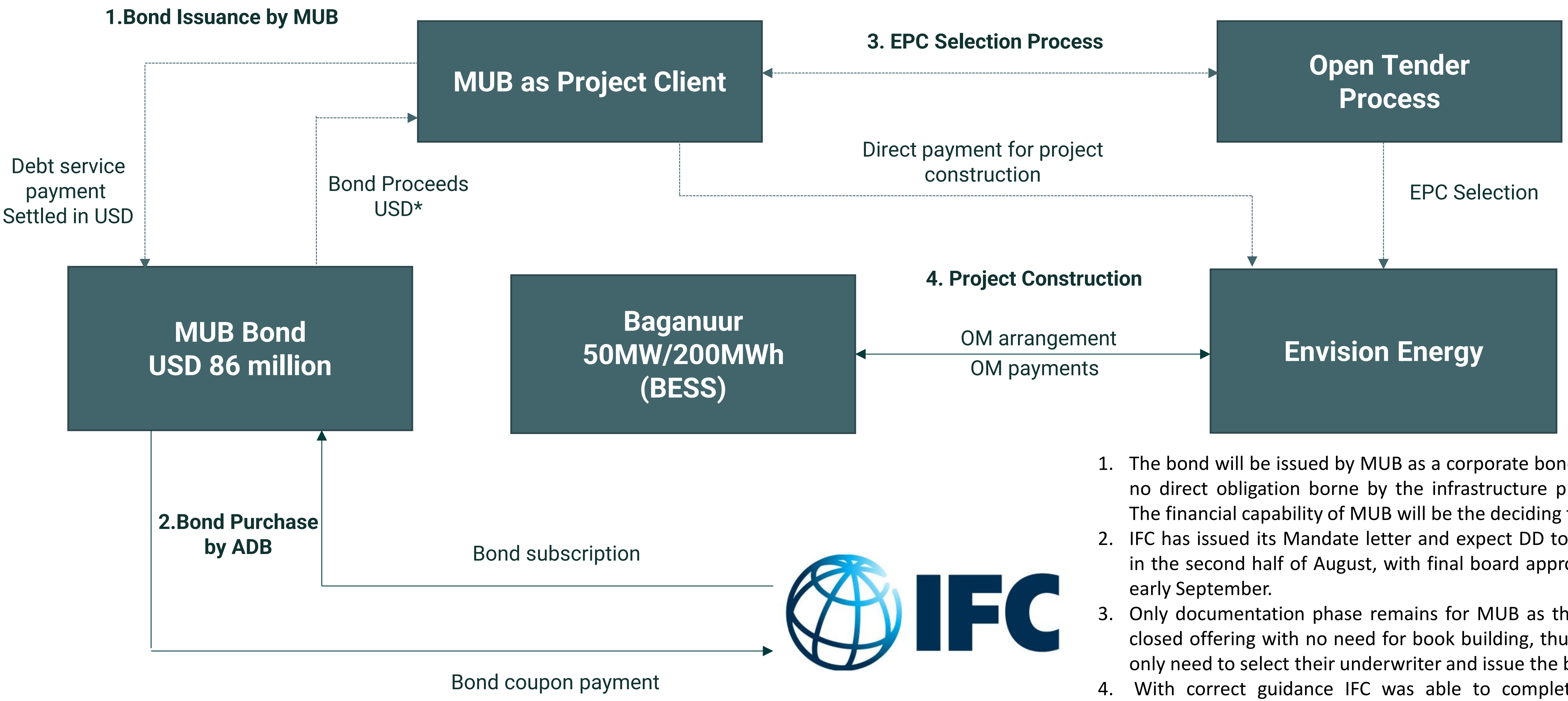
2024

MUB revenue $770 million

MUB spending $326 million

MUB budget surplus $444 million

IFC's Successful bond financing experience



1. The bond will be issued by MUB as a corporate bond with no direct obligation borne by the infrastructure project. The financial capability of MUB will be the deciding factor.
2. IFC has issued its Mandate letter and expect DD to finish in the second half of August, with final board approval in early September.
3. Only documentation phase remains for MUB as this is a closed offering with no need for book building, thus they only need to select their underwriter and issue the bond.
4. With correct guidance IFC was able to complete the process in 4 months.

*Due to IFC's limitations in securing local currency funding they requested that MUB's bond be denominated in USD.

Bond issuance process

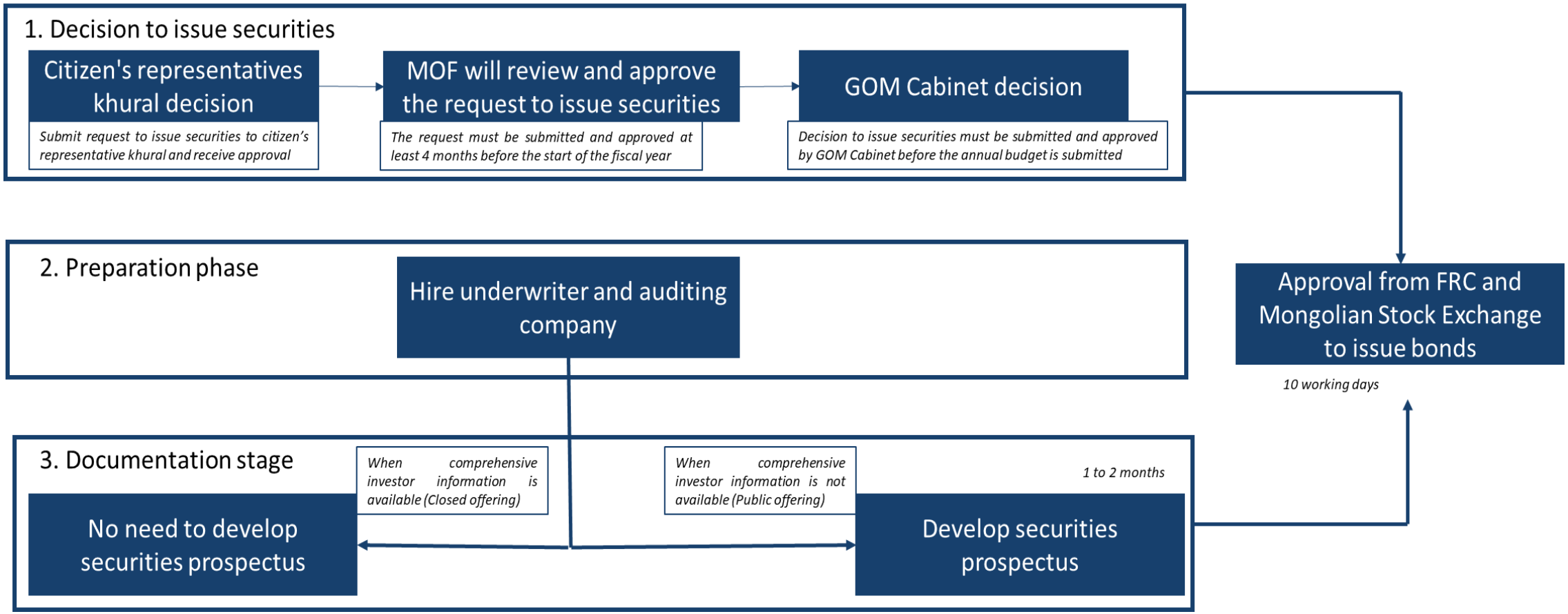
The following is the process for the issuance of capital city bonds in accordance with the relevant laws and regulations.

Legal Framework

The legal authority for Ulaanbaatar to issue bonds stems from a series of updated legislative acts, including:

- **The Law on the Legal Status of the Capital City (2021 amendment)** – This explicitly granted Ulaanbaatar the right to issue bonds for local infrastructure and development projects.
- **The Law on Debt Management (2021 amendment)** – Outlines the procedures for local governments to borrow funds through debt instruments, including bonds.
- **The Law on the Budget (2021 amendment)**– Provides the fiscal guidelines within which municipalities can fund capital projects through domestic and international financing instruments.

The City Council (Citizens' Representative Khural) of Ulaanbaatar, in coordination with the central government, approved the bond issuance within this legal framework.



For a thriving Mongolia, an advanced, green, and self-reliant power grid is essential

"By 2050 Mongolia shall become a leading Asian country in terms of its social development, economic growth and its citizens' quality of life… we need to transfer energy consumption of ger area and green zone households to renewable energy sources…Increase green energy production and ensure sustainable energy supply."

– Mongolia PM Oyun-Erdene
Mongolia's Vision 2050

Under-developed power infrastructure challenges Mongolia's future

Under-developed energy system hinders economic growth and citizens' quality of lives

- Energy is at the heart of economic growth, boosting investments, innovations and new industries
- **Aging infrastructure, regular daily blackouts and load shedding** during winter peaks, disrupting lives and businesses, **especially winter heating**

Installed capacity cannot meet the growing electricity demand, leading to over-reliance on energy Imports and financial losses

- Total electricity demand achieved **~3GW (CAGR 8~9%)**
- Installed electricity capacity **~1.6GW** (grid connected)
- **Over-reliance on Russian** imports capped at **300-310MW** (**~20%** of total capacity)
- **Financial losses** due to electricity high-price imports, but low-price exports

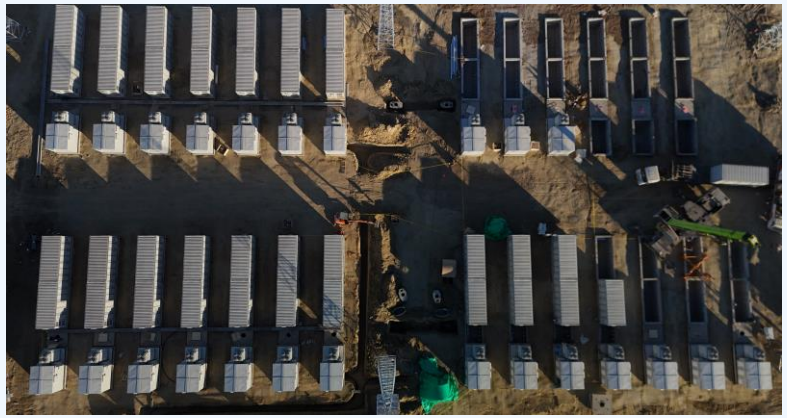
Unbalanced energy structure cannot ensure sustainable energy supply

- **~90%** coal-based power generation, with no natural gas and no large hydropower generation
- **Increase in green energy production** is essential to ensure sustainable energy supply

Source: Mongolia's Vision 2050, World Bank, ADB, IMF, IEA

At Baganuur, Envision's BESS Project has been swiftly delivered in BOT mode <90 Days, which enhances grid robustness, achieves stable returns, and ensures 30 mins more electricity per day

BESS[1] Project in Mongolia



Baganuur Mongolia	▪ **Location:** Baganuur, 120km east of Ulaanbaatar ▪ **Capacity:** 50MW/263MWh
Swift BOT mode with $	▪ **<90Days**: BESS built in **77 days**, launched at 11.30.2024 ▪ **BOT+$**: Envision pre-invested with BOT mode to achieve project excellence
Strong E2E Solution	▪ **Module-based**: 27 sets of LFP liquid-cooled BESS ▪ **Grid-enhanced**: 35kV/110KV transformer system connected to the grid ▪ **Daily discharge**: 200MWh ▪ **Annual discharge**: 73Mn kWh ▪ **De-carbonization** = 9,000 tons of standard coal burning per year
Reduced Load Shedding	▪ At 7pm, 12.20.2024, grid **peak load reached ~1,650 MW** ▪ Envision's BESS plant supplied **50MW, 4hrs, 210MWh totally** ▪ **BESS reduces imports by ~120MW**

Impact for local

Enhance Grid Stability

- **Reduce outages** through peak load management
- **More stable frequency and voltage regulation**
- **Backup power** for the aging CHP[2]s (>40 years old)
- Integration of renewables and **grid forming**

Improve Life Quality

- **Stable energy supply for 1.7mn residents** and more reliable for critical infra (e.g. hospital, schools, CHPs)
  - **30min less curtailment per day** with BESS
  - Improved power supply during winter peaks

Strengthen Energy Economy

- **Import reduction, save $ for the economy**
- 2024.12, project has achieved **charging/discharging twice a day** to gain profits from **peak-valley arbitrage**

1 BESS = Battery Energy Storage System; 2 CHP = combined heat and power

Source: Envision Energy Baganuur Project Case

Thank you