EVERYDAY FARM
Gift of nature

New agriculture style that inspires a dream for young generation

Farmdo

JCM's contribution to Paradigm shift (Solar Farm® Project in Mongolia)

SOLAR FARM® developed by Farmdo Holdings

Presenter: R.Jigjid (CEO of Everyday Farm LLC)

The meeting of UNFCCC Subsidiary Body

Bonn, Germany

2018.5.7

Outline of talk

- The concept (Solar Farm®)
  - Developing for Agriculture
  - SOLAR(energy) + FARM(agriculture)
- The mission (Solar Farm®)
  - Enrich Mongolian's Life
- Project outline
  - Solar Farm® Project in Mongolia
- Financing (Monnaran 10MW Solar power plant)
  - Support of Japanese Government
  - Co-financing of Japanese government and Private bank
- Monitoring system
  - Contribution to Environment

The concept (Solar Farm®)

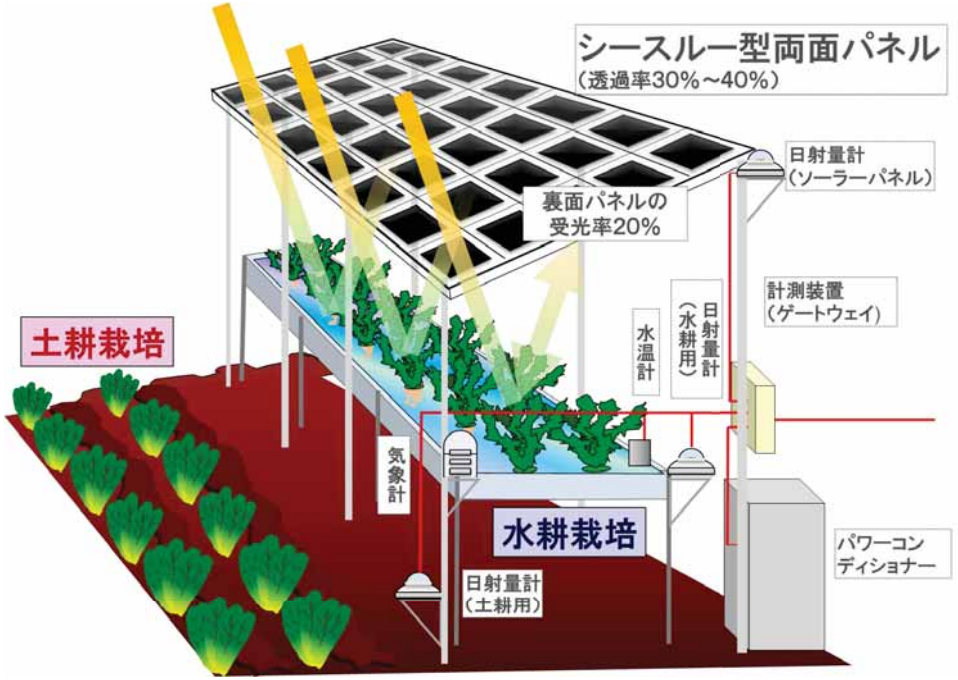
❖ Our way of thinking

New agriculture style that inspires a dream for young generation

❖ SOLAR (energy) + FARM (agriculture)

PV modules for greenhouse designed by Farmdo Holdings

Patent No. 5791215
Patent No. 5791211

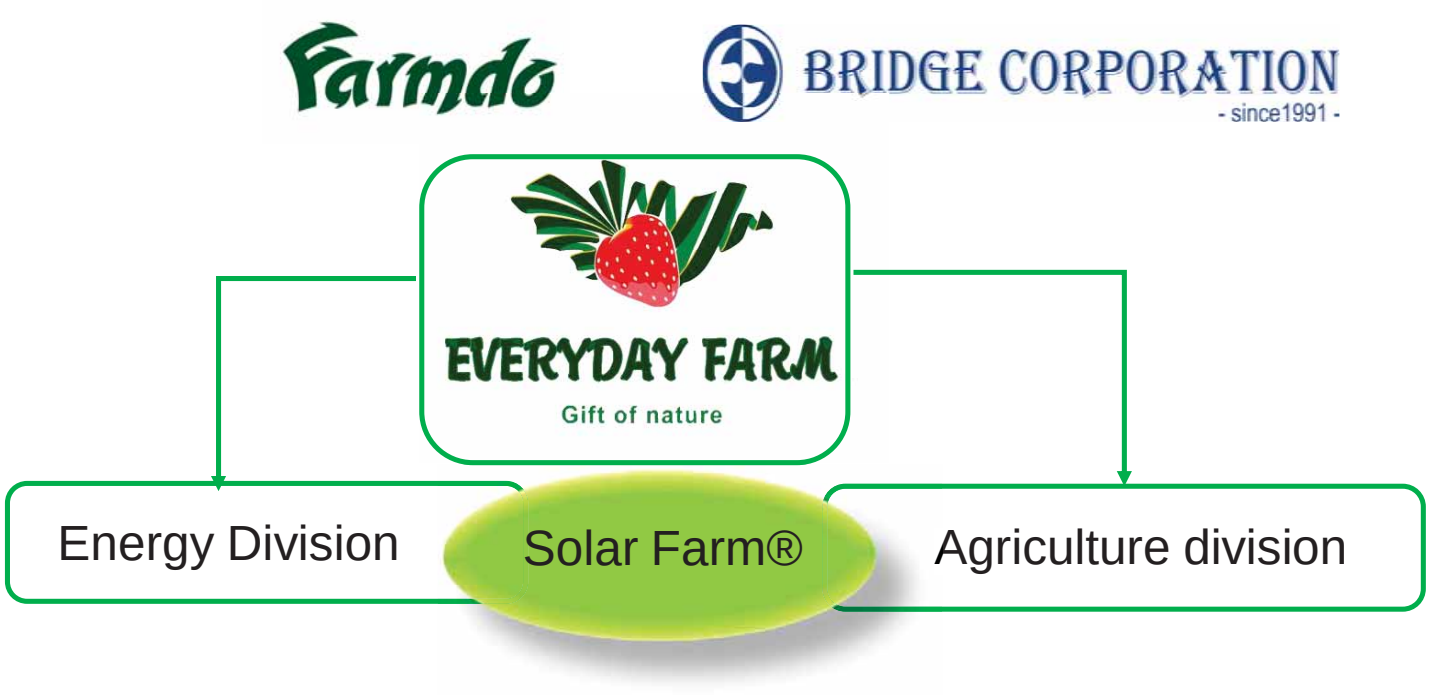


The concept (Solar Farm®)

❖ Everyday Farm LLC (Introducing Solar Farm® technology in Mongolia)

- ➢ Joint venture company between Japan and Mongolia
- ➢ Management philosophy

To support agriculture and to contribute increasing farmer's income



The Mission (Solar Farm®)

❖ Our mission is to enrich Mongolian's life with a successful Solar Farm®.

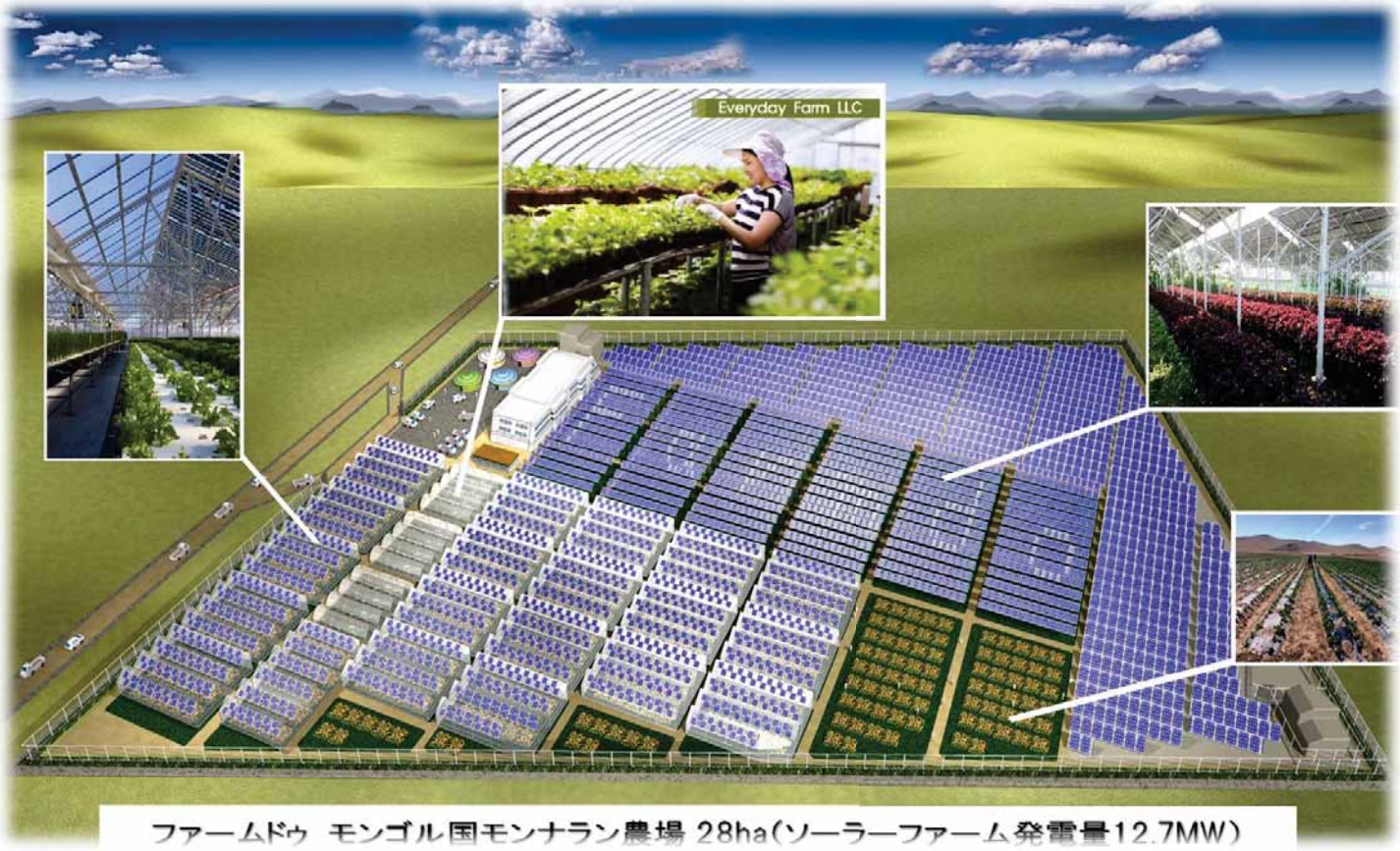
- ➢ Utilize Renewable energy
- ➢ Provide fresh and safe vegetables
- ➢ Develop human resources that supports Mongolian agriculture
- ➢ Expand Solar Farm®

Project outline:

- Total site area is 28.6 [ha] covered by Solar power plant and Greenhouse
  - AC10MW/ DC12.7MW PV plant in 24.8 [ha] area.

- 1st phase 2.4MW
  - PV plant over 4.2ha

- 2nd phase 10.3MW
  - Area 20.6 [ha]
  - 4MW PV plant
  - 6.3MW Solar Farm® over 12.1ha area



Financing: Monnaran 10MW Solar Farm® Project

❖Supported by Japanese Government

(JCM) JOINT CREDITING MECHANISM PROGRAM

- 1st phase 2.1MW as JCM model project
  [2,682 ton CO2/year] expected amount of GHG emission reduction

- 2nd phase 8.3MW as JCM model project
  [10,442 ton CO2/year] expected amount of GHG emission reduction

- In actual, total installed capacity of PV modules is 12.7MW
  [21,300 ton CO2/year] expected amount of GHG emission reduction

Financing: Monnaran 10MW Solar Farm® Project

❖ Effective utilization of Syndicated Loan

- Japanese Government

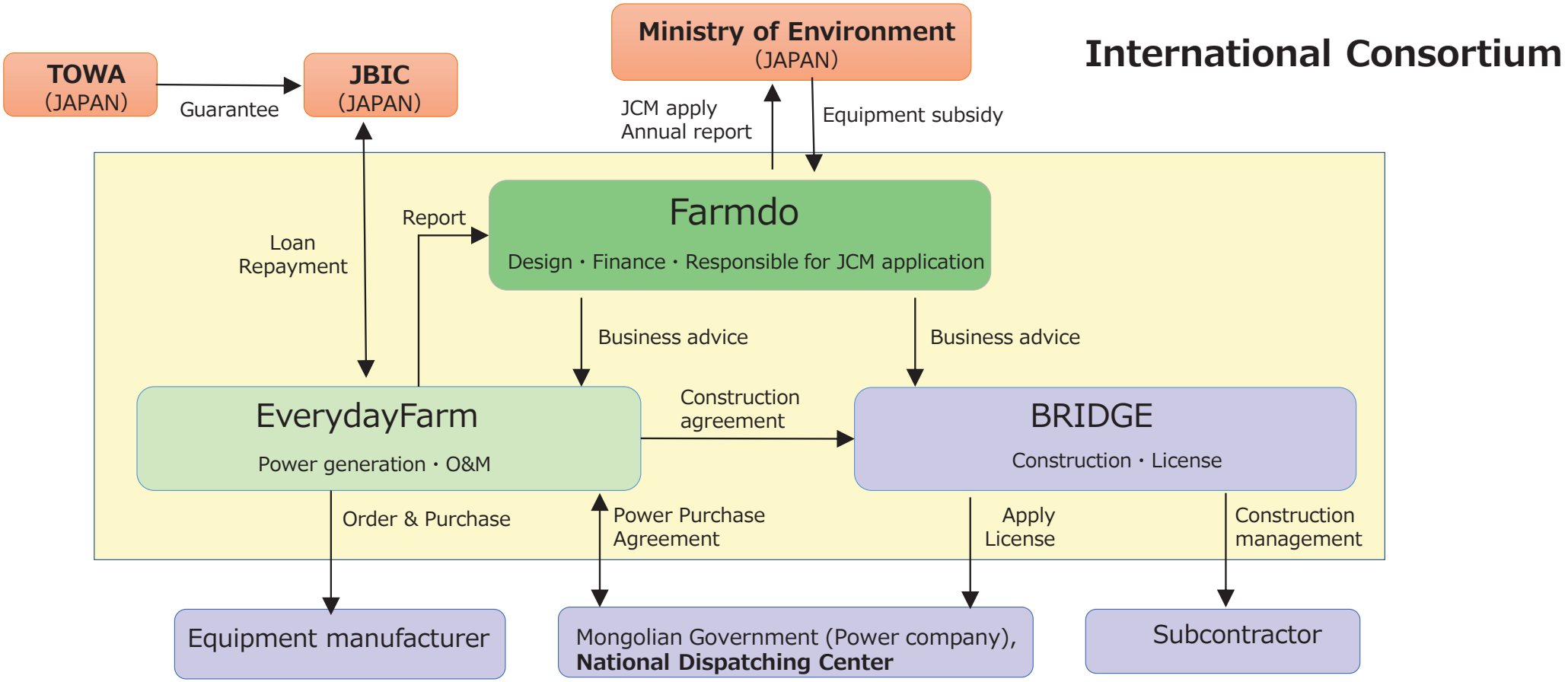
  (JBIC) Japan Bank for International Cooperation

- Local Bank in Japan

  (TOWA) The Towa Bank, Ltd.

  ※ Local bank of Gunma Prefecture in Japan

Financing: JCM model project

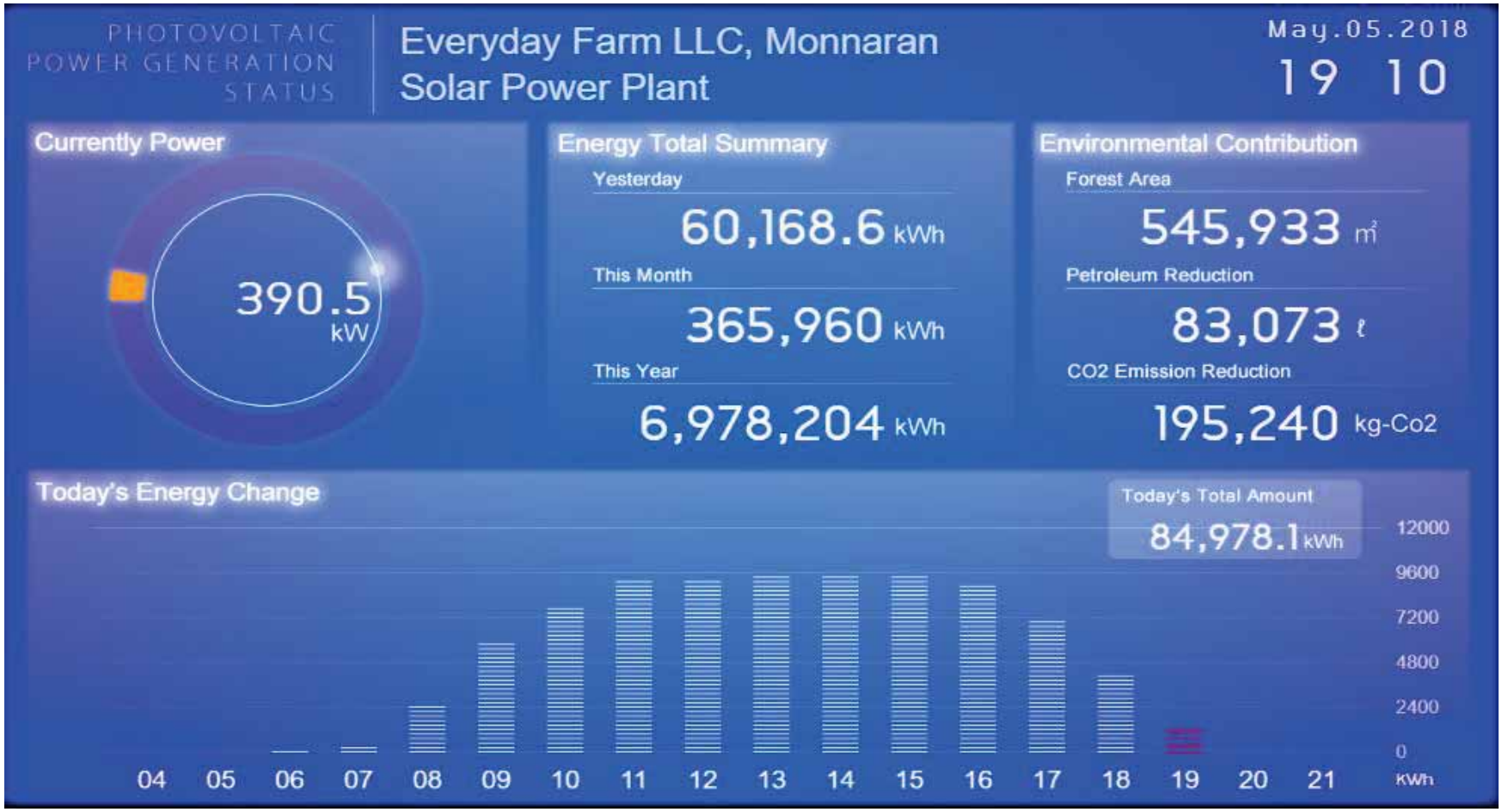


First phase 2.1MW + Second phase 8.3MW

Monitoring system: PV plant power plant

❖ Hitachi Monitoring system:

➢ Monitor the power generation and Environmental contribution simultaneously.



Monitoring system: Environmental contribution

❖ Contribution to Environment

Total installed capacity of PV plant: AC 10MW inverters/ DC 12.7MW PV modules

Electricity production is equal to the total consumption of 6500 Mongolian households

[21,300 ton CO2/year] expected amount of **GHG** emission reduction

[16,600 ton coal/year] expected amount of conserving **COAL** consumption

60 ton truck ×277 = 16,600 ton coal

[103,900 ton water/year] expected amount of conserving **WATER** use

Same volume to 100,000 ton Loadable Oil Tanker

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Thank you for your kind attention

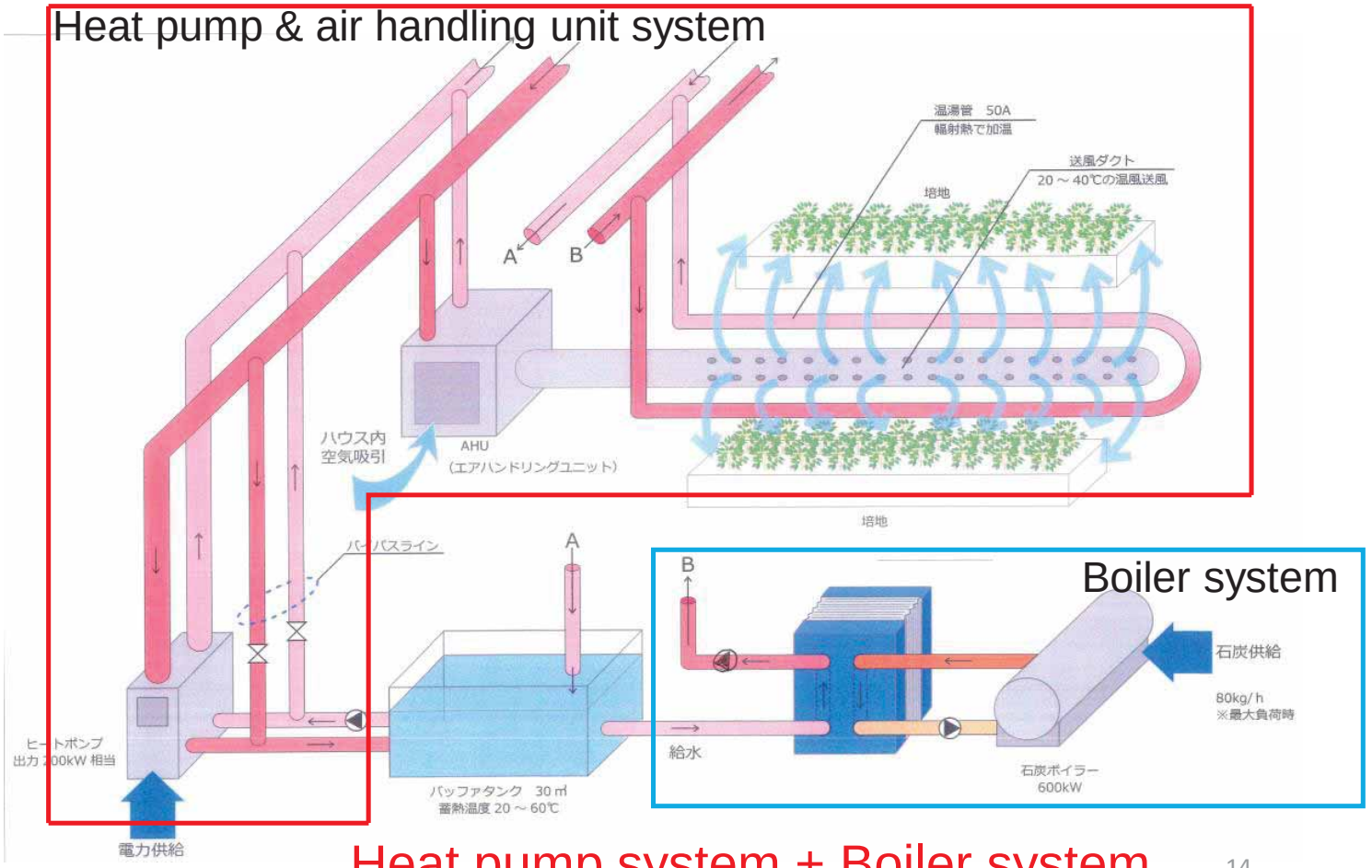
For further information, search for
"Farmdo case: large scale solar sharing project" on Youtube.

APPENDIX

1. (Farmdo Holdings) Solar Farm® development practices
2. (Everyday Farm) Solar Farm® development practices
3. (Nalaikh Project) Expanding Solar Farm®

Solar Farm® development practices in Mongolia

Monnaran Solar Farm®



Heat pump system + Boiler system

Solar Farm® development practices in Mongolia

Solar panels for electricity + Air curtain for heat insulator

- Air Handling Units