

Samcheok Green Power Project

A giant leap for sustainable and affordable power



Project summary

Location: Samcheok, S. Korea
 Plant Owner: KOSPO
 Commercial Operation: 2016-2017
 Scope: Design and supply of four CFB boilers

After over a year of careful study and evaluation, KOSPO selected our advanced CFBs to power its green power project in Samcheok, Korea.

- ▶ The CFB's wide fuel range gives KOSPO the widest fuel procurement flexibility and the ability to save millions of dollars in fuel cost over the plant's life
- ▶ The CFBs didn't require back-end flue gas desulfurization equipment for SOx control saving KOSPO hundreds of millions of dollars to build this plant
- ▶ The unique low temperature CFB combustion process coupled with ultra supercritical steam technology provided KOSPO with high plant efficiency and low emissions including carbon emissions

Plant Electrical Output (Gross/Net)	4 x 550 / 4 x 514 MWe
Plant LHV Efficiency (Gross/Net)	45.9%/42.9%
Plant LHV Heat Rate (Gross/Net)	7843/8391 KJ/kWh
Steam Flow (SH/RH)	1570/1275 tph
Steam Pressure (SH/RH)	257/54 barg
Steam Temperature (SH/RH)	603/603°C
CFB Boiler LHV Efficiency (ASME 4.0)	93.5%
Fuel	Imported coals and biomass

Plant power output, efficiency and heat rate are estimates by SFW.

Metsänneidonkuja 10
FI-02130 Espoo, Finland
T +358 (0) 10 393 11

Relanderinkatu 2
FI-78201 Varkaus, Finland
T +358 (0) 10 393 11

ul. Staszica 31
41-200 Sosnowiec, Poland
T +48 (0) 32 368 1300

ul. Młynarska 42
01-171 Warsaw, Poland
T +48 (0) 22 535 50 65

Lindövägen 75
602 28 Norrköping, Sweden
T +46 (0) 11 285 330

Petersstrasse 120
47798 Krefeld, Germany
T +49 151 108 51366

53 Frontage Rd, PO Box 9000
Hampton, NJ 08827 USA
T +1 908 713 2700

8th Floor, UC Tower
500 Fushan Rd
Pudong New Area
Shanghai 200122 China
T +86 (0) 21 5058 2266

C-3A-45, IOI Boulevard, Jalan Kenari 5,
Bandar Puchong Jaya, 47100 Puchong,
Selangor, Malaysia
T +603 8075 0887

20th Floor Bhiraj Tower
at EmQuartier, 689 Sukhumvit Rd
Klongton Nuea, Wattana
Bangkok 10110 Thailand
T +66 (0) 2 0417140 3

Suite 706-708, 7th Floor, Central Bldg
31 Hai Ba Trung St
Hanoi, Vietnam
T +84 (0) 4 39393809

7th floor, 621, Yeong-dong-daero,
Gangnam-gu, Seoul, Korea 06087
T +82 2 3446 8325

Room 901A, 9th Floor
Vicente Madrigal Bldg, Ayala Ave
Makati City 6793, Philippines

WISMA GKBI #1606, Jl. Jend. Sudirman No.28,
Jakarta 10210 Indonesia
T +62 (21) 5795 1095

ThinkPark Tower, 1-1 Osaki 2-chome
Shinagawa-ku, Tokyo 141-6025, Japan
T +81 (0) 3 6737 2000

www.shi-fw.com

Our vision is to provide sustainable energy solutions through decarbonization, decentralization and digitalization of the energy industry. Our capabilities cover customer needs in the fields of power generation utilizing circulating fluidized bed (CFB) technologies, long term energy storage, and related network services. We continuously broaden our portfolio of products and services by advancing our in-house technologies and developing further alliances with new partners.

Our Values

Respect for people.

Valuing and inviting differing views and ideas

Committed to customers.

Exceeding expectations and providing value

Safety, integrity and teamwork.

Incorporating ethics in everything we do

Ownership of results.

Personally ensuring that success is achieved

Passion to innovate and grow.

Setting challenging goals for growth



Sumitomo
SHI **FW**