

SOUTH KOREA'S RENEWABLE ENERGY PARTNER

South Korea has set ambitious renewable energy goals. And BWSC would like to play a role in helping the country realise these ambitions.

Our new, grate-fired, biomass-fuelled boilers produce from 15-65 MWe of electricity, making them well-suited for supplying major power providers with the green energy they need to meet the Renewable Portfolio Standard. In this way, a BWSC power plant or boiler becomes a bankable energy investment.

Solid track record

At BWSC, we know developing renewable energy sources is difficult. In addition to complex boiler technology, power plant operators must overcome logistical and legal hurdles.

Fortunately, BWSC has the experience and expertise to guide you on this journey. As a leading producer and operator of biomass boilers in Northern Europe, we know the intricacies of payment systems, fuel delivery and plant maintenance.

With a BWSC biomass boiler system, South Korea power providers can make a smooth transition from fossil fuels to renewable energy.

At BWSC, we have already solid references where we provided:

- best available technology within high-pressure steam boilers
- conversion projects from coal to biomass
- operation and maintenance agreements after a power plant is completed

Seeing is believing

We would like to invite you to tour a BWSC power plant in Scandinavia or the UK, so you can experience first-hand how biomass is transformed into power and heat.

The summer months are a great time to experience our part of the world, but if you visit during the winter, you can see how BWSC biomass plants turn agricultural biomass waste into power and heat to district heating systems. These combined heat and power (CHP) plants provide high energy efficiency rates, reaching efficiency levels of 36% on electricity and up to 103% on energy utility.

To arrange a site visit, please contact BWSC.

BWSC biomass boiler systems:

The idea is simple. The technology is remarkable. And the benefits are many.



How the wood chips fall. Biomass-fired power plants offer a reliable renewable energy source for South Korea.

THE BWSC BIOMASS WASTE-TO-ENERGY POWER PRODUCTION CYCLE

1. Agricultural waste products, wood pellets or other biomass products are gathered and delivered to the power plant.
2. A specialised fuel feeding system transports the biomass fuel to the boiler's grate where it is combusted at about 1,400°C.
3. Water circulates through the boiler's evaporator system where it turns to steam. Internal superheaters raise the steam temperature up to 540°C.
4. The steam then drives the turbine, turning the generator to produce electricity for the grid, or it is converted into heat energy, so it can be used for district heating, district cooling, manufacturing process steam or any combination as needed.



Wood pellets, lumber and agrowaste can be used as biomass fuel.

Bioenergy benefits

- delivers reliable baseload energy (in contrast to wind and solar)
- increases South Korea's energy security
- reduces greenhouse gas emissions
- provides jobs and regional development

BWSC boilers can be scaled to produce 50/65/75/80/90 ton of steam per hour.

Conditions for steam production:

Pressure: 80-140 bar
Temperature: 480-540°C
Fuel: 24-60 Heston bales per hour



BWSC has designed boilers for dozens of power plants in Scandinavia and Northern Europe.