Hitachi Zosen
INOVA

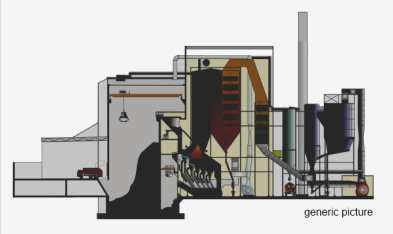
Reference Projects

Plants built by Hitachi Zosen since 2000

in chronological order

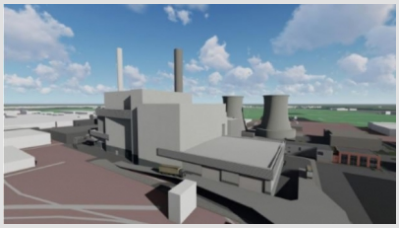
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



CH, Enova Emmenspitz

Start of operation	2025	In construction
Combustion	Concept	Water-cooled Grate
	Fuel	
	Number of Lines	2
	Throughput per line	16.53 t/h
	Thermal power per line	53.72 MW
Boiler	Concept	4-pass boiler with external economizer
	Superheated Steam	66 t/h at 47 bar(a) and 420 °C



GB, Slough Multifuel

Start of operation	2023	In construction
Combustion	Concept	Water-cooled Grate
	Fuel	
	Number of Lines	2
	Throughput per line	36.30 t/h
	Thermal power per line	100.8 MW
Boiler	Concept	4-pass boiler with external economizer
	Superheated Steam	111 t/h at 57 bar(a) and 417 °C
Flue gas treatment	Concept	SNCR, Semi-dry Reactor
	Throughput per line	164'741 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	50.00 MW (gross)
	Output	Electrical Power

RU, Moscow 4

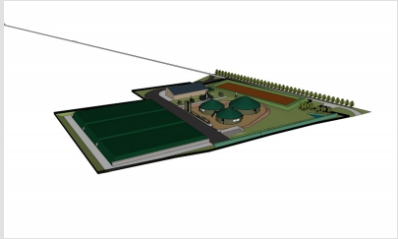
Start of operation	2023	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	
	Number of Lines	3
	Throughput per line	32.89 t/h
	Thermal power per line	75.83 MW
Boiler	Concept	5-pass boiler
	Steam	95 t/h at 70 bar(a) and 430 °C
Flue gas treatment	Concept	Activated Carbon Entrainment, Fabric Filter, SNCR, Dry Sorption Reactor, Heat Exchanger
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	147'030 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	70.00 MW (gross)
	Output	Steam, Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

RU, Moscow 3

Start of operation	2023	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	
	Number of Lines	3
	Throughput per line	32.89 t/h
	Thermal power per line	75.83 MW
Boiler	Concept	5-pass boiler
	Steam	95 t/h at 70 bar(a) and 430 °C
Flue gas treatment	Concept	Activated Carbon Entrainment, Fabric Filter, SNCR, Dry Sorption Reactor, Heat Exchanger
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	147'030 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	70.00 MW (gross)
	Output	Steam, Electrical Power



FR, Brion

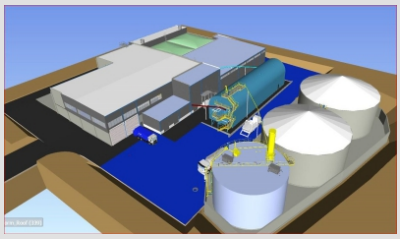
Start of operation	2023	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'493 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

RU, Moscow 2

Start of operation	2023	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	
	Number of Lines	3
	Throughput per line	32.89 t/h
	Thermal power per line	75.83 MW
Boiler	Concept	5-pass boiler
	Steam	95 t/h at 70 bar(a) and 430 °C
Flue gas treatment	Concept	Activated Carbon Entrainment, Fabric Filter, SNCR, Dry Sorption Reactor, Heat Exchanger
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	147'030 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	70.00 MW (gross)
	Output	Steam, Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

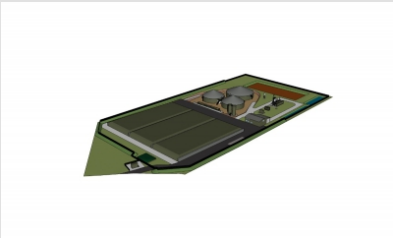


DE, Zuffenhausen

Start of operation	2023	In construction
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	2'100 m^3
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	35'000 t/a

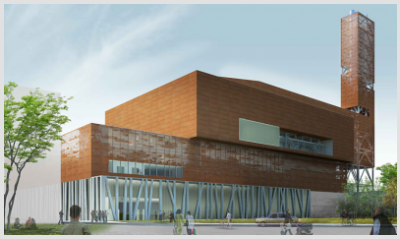
AE, Dubai WMC

Start of operation	2023	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	5
	Throughput per line	53.57 t/h
	Thermal power per line	124.6 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	170 t/h at 77 bar(a) and 432 °C
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	234'064 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	214.6 MW (gross)
	Output	Electrical Power



FR, Lierville

Start of operation	2022	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'493 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



FR, Ivry-sur-Seine

Start of operation	2022	In construction
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Refuse Derived Fuel
	Number of Lines	2
	Throughput per line	24.64 t/h
	Thermal power per line	75.55 MW
Boiler	Concept	4-pass boiler with external economizer
	Superheated Steam	92 t/h at 60 bar(a) and 420 °C

Plants built by Hitachi Zosen since 2000

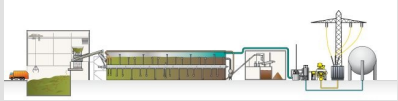
Hitachi Zosen INOVA

AU, Rockingham

Start of operation	2022	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	41.18 t/h
	Thermal power per line	101.8 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	129 t/h at 66 bar(a) and 431 °C
Flue gas treatment	Concept	Dry Sorption Reactor, SNCR, Activated Carbon Entrainment, Fabric Filter
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	236'327 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	32.00 MW (gross)
	Output	Electrical Power

GB, Newhurst

Start of operation	2022	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	50.93 t/h
	Thermal power per line	126.4 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	157 t/h at 80 bar(a) and 450 °C
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter, SNCR
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	239'250 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	43.30 MW (gross)
	Output	Electrical Power

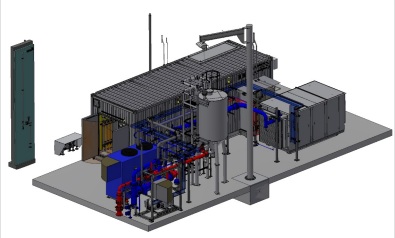


IT, Reggio Emilia

Start of operation	2022	In construction
Anaerobic Digestion	Number of Digester(s)	4
	Net volume per digester	2'100 m^3
	Waste Throughput per Year	111'000 t/a
Gas Upgrading		

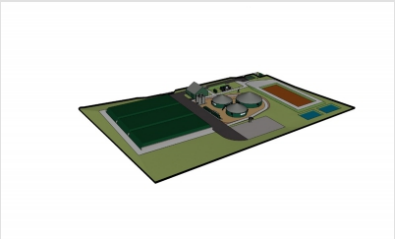
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



US, Carpenter

Start of operation	2022	In construction
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	1'014 Nm^3/h
	Hourly Biomethane Production	575 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection, CNG

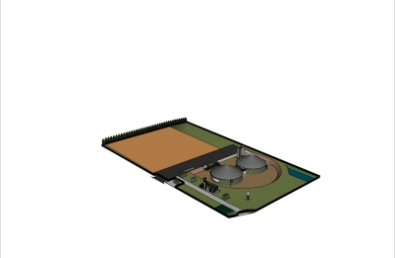


FR, Faremoutiers

Start of operation	2022	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'493 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

RU, Moscow 1

Start of operation	2022	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	32.89 t/h
	Thermal power per line	75.83 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	95 t/h at 70 bar(a) and 430 °C
Flue gas treatment	Concept	Activated Carbon Entrainment, Fabric Filter, SNCR, Dry Sorption Reactor, Heat Exchanger
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	147'030 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	70.00 MW (gross)
	Output	Steam, Electrical Power

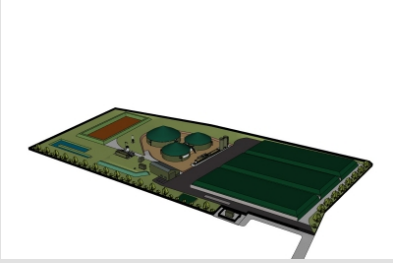


FR, Missy-lès-Pierrepont

Start of operation	2022	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

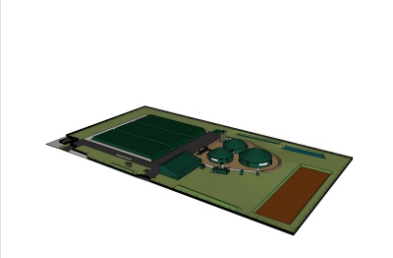
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



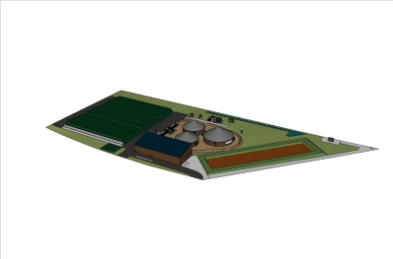
FR, Voulton

Start of operation	2022	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



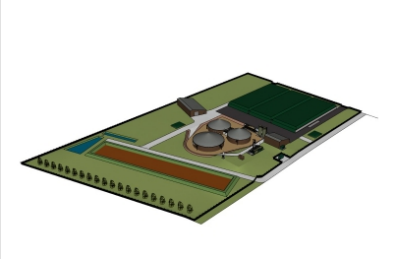
FR, Amillis

Start of operation	2022	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



FR, Saint-Martin-du-Boschet

Start of operation	2022	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

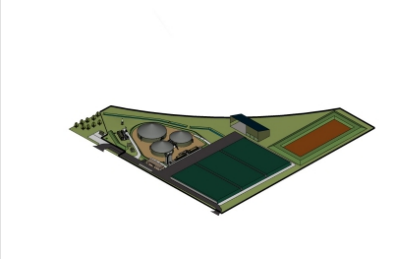


FR, Tremblay-les-Villages

Start of operation	2022	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



FR, Saugnacq-et-Muret

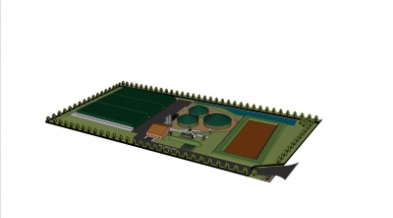
Start of operation	2022	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Bellegarde-sur-Valserine Flue gas Treatment

Start of operation	2021	In construction
Flue gas treatment	Concept	Dry Sorption Reactor, Dry Sorption Reactor 2, Heat Exchanger, Heat exchanger 2, SCR
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Reactant	Sodium Bicarbonate
	Throughput per line	50'000 m^3/h (STP)

FR, Vinantes

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	400 Nm^3/h
	Hourly Biomethane Production	200 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



FR, Réau

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Kirchberg

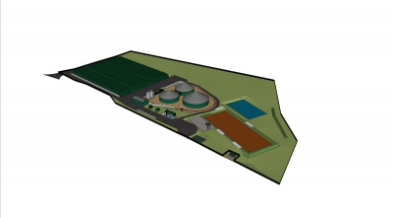
Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'050 m^3
	Waste Throughput per Year	15'000 t/a

GB, Rookery

Start of operation	2021	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	25.00 t/h
	Thermal power per line	64.58 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	82 t/h at 75 bar(a) and 440 °C
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter, SNCR
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	117'000 m^3/h (STP)

FR, Mont-l'Evêque

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

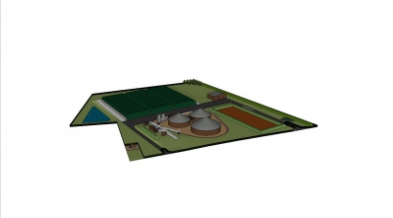


FR, Chauconin-Neufmontiers

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

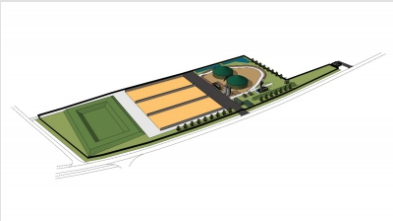
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



FR, Boutigny-sur-Essone

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

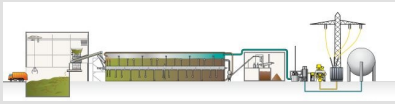


FR, Pouan-les-Vallées

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Trancault

Start of operation	2021	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



IT, Legnano

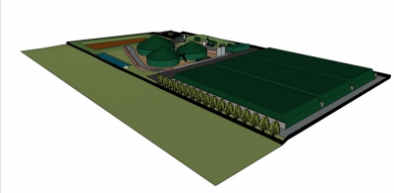
Start of operation	2021	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Waste Throughput per Year	40'500 t/a
Gas Upgrading	Plant Capacity	625 Nm^3/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

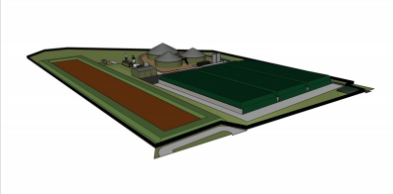
FR, Coulombs-en-Valois

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



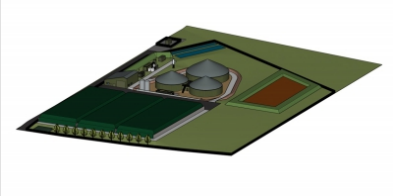
FR, Avon-la-Pèze

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



FR, Saint-Jean-d'Illac

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

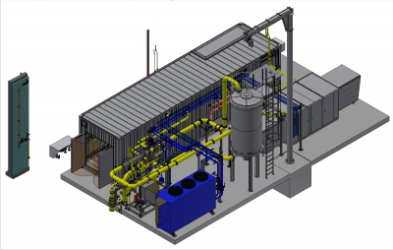


FR, Prémierfait

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

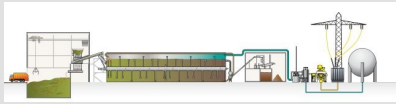


FR, Saint-Laurent-Médoc II

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

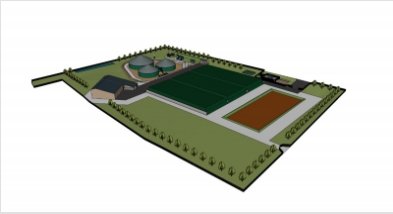
US, Escondido

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'100 m^3
	Waste Type	Food Waste, Green Waste
	Waste Throughput per Year	84'400 t/a
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Green Waste & Bio Waste, Biogas from Energy Crops, Biogas from Agricultural Residues, Biogas from Source Separated Municipal Waste
	Plant Capacity	447 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



CN, Chongqing II

Start of operation	2021	In construction
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	2'100 m^3
	Waste Throughput per Year	110'000 t/a



FR, Bar-sur-Seine

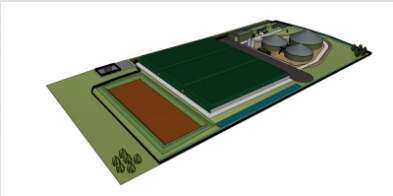
Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

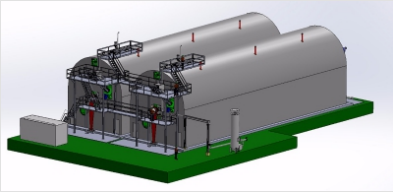
FR, Saint-Mesmin

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



FR, Chapelle-Vallon

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



CN, Chongqing I

Start of operation	2021	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'800 m^3
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	50'000 t/a

CN, Nanjing

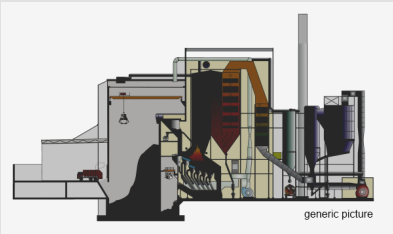
Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'800 m^3
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	55'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

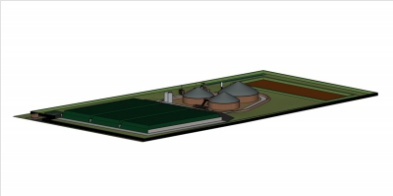
CN, Hangzhou

Start of operation	2020	In construction



SE, Momarken Torsvik

Start of operation	2020	In construction



FR, Charny

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Saint-Germain

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	400 Nm^3/h
	Hourly Biomethane Production	200 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

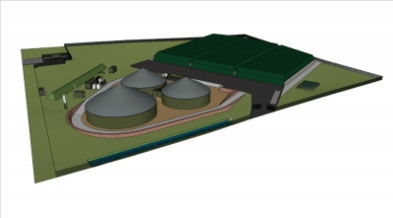
Hitachi Zosen INOVA

FR, Les-Grandes-Chapelles

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

US, Escondido

Start of operation	2020	
Gas Upgrading	Technology	Membrane Technology
	Plant Capacity	1'000 Nm^3/h
	Hourly Biomethane Production	500 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



FR, Herpy-l'Arlésienne

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

SE, Jönköping

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'500 m^3
	Waste Type	Bio Waste, Food Waste, Grease sludge, Green Waste, Production Waste
	Waste Throughput per Year	40'000 t/a
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Green Waste & Bio Waste
	Plant Capacity	717 Nm^3/h
	Hourly Biomethane Production	430 Nm^3/h
	Biomethane Usage	Biomethane Filling Station, CNG

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

FR, Trouy

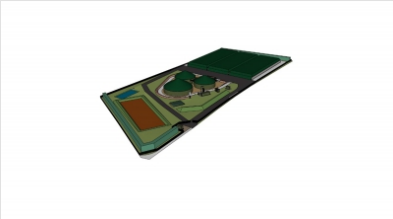
Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	300 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Yversay

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Neuville-Saint-Amand

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



FR, Bucy-le-Long

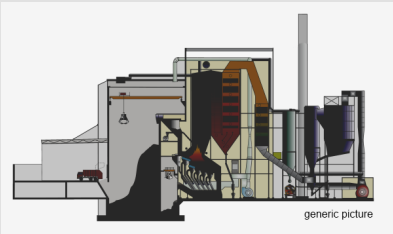
Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

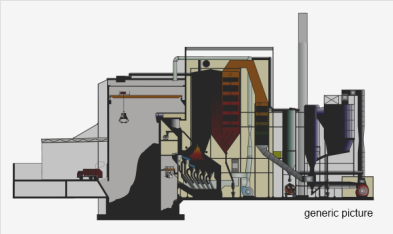
DE, Anröchte

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'500 m^3
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	15'000 t/a



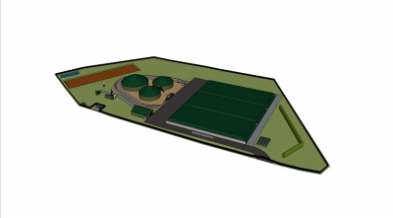
JP, Mito, Ibaraki

Start of operation	2020	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	4.58 t/h



JP, Yokosuka, Kanagawa

Start of operation	2020	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	5.00 t/h



FR, Saint-Aubin

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

FR, Messy

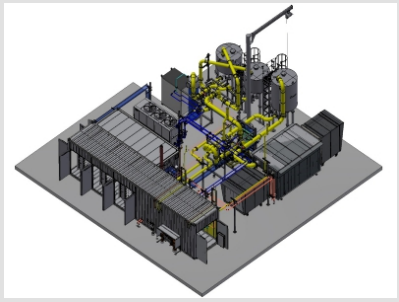
Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	600 Nm^3/h
	Hourly Biomethane Production	430 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

CA, London

Start of operation	2020	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Green Waste & Bio Waste
	Plant Capacity	1'200 Nm^3/h
	Hourly Biomethane Production	800 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DK, Vrå

Start of operation	2020	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	900 Nm^3/h
	Hourly Biomethane Production	500 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

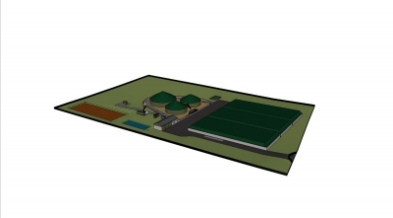


GB, Aberdeenshire

Start of operation	2020	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Green Waste & Bio Waste
	Plant Capacity	1'200 Nm^3/h
	Hourly Biomethane Production	680 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

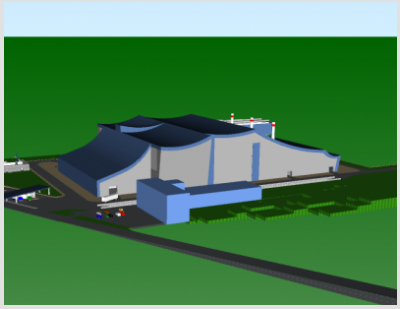
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



FR, Chalandry

Start of operation	2020	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



TR, Istanbul

Start of operation	2019	
Combustion	Concept	Air-cooled Grate
	Fuel	Hospital Waste, Municipal Solid Waste
	Number of Lines	3
	Throughput per line	46.00 t/h
	Thermal power per line	86.81 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	112 t/h at 72 bar(a) and 426 °C
Flue gas treatment	Concept	SNCR, Dry Sorption Reactor, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	173'720 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	77.21 MW (gross)
	Output	Electrical Power

FR, Saint-Laurent-Médoc

Start of operation	2019	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Payns

Start of operation	2019	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

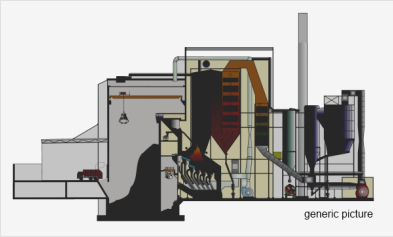
Hitachi Zosen INOVA

CN, Shunde

Start of operation	2019	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	35.42 t/h
Energy recovery	Output	Electrical Power

CN, Jimo

Start of operation	2019	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	12.50 t/h



CN, Tancheng

Start of operation	2019	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.70 t/h

JP, Kyoto (Nambu No.2)

Start of operation	2019	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.42 t/h
	Thermal power per line	39.06 MW
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Nagano, Nagano

Start of operation	2019	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	5.60 t/h
	Thermal power per line	17.90 MW
Energy recovery	Output	Electrical Power

TH, WPP Phetchaburi

Start of operation	2019	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	19.83 t/h
Energy recovery	Output	Electrical Power

GR, Epirus

Start of operation	2019	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'500 m^3
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	38'700 t/a

GB, Ferrybridge Multifuel 2 (FM2)

Start of operation	2019	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Refuse Derived Fuel
	Number of Lines	2
	Throughput per line	42.26 t/h
	Thermal power per line	117.7 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	145 t/h at 73 bar(a) and 430 °C
Flue gas treatment	Concept	Fabric Filter, SNCR, Semi-dry Reactor
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	238'866 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	79.17 MW (gross)
	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Hamburg

Start of operation	2019	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Sewage Sludge
	Plant Capacity	1'500 Nm^3/h
	Hourly Biomethane Production	930 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

GB, Edinburgh

Start of operation	2018	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Refuse Derived Fuel
	Number of Lines	1
	Throughput per line	24.00 t/h
	Thermal power per line	50.00 MW
Boiler	Concept	6-pass boiler
	Superheated Steam	64 t/h at 60 bar(a) and 400 °C
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	103'178 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	12.49 MW (gross)
	Output	Electrical Power

CN, Changsha

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Refuse Derived Fuel, Municipal Solid Waste
	Number of Lines	6
	Throughput per line	35.42 t/h
Energy recovery	Output	Electrical Power

CN, Laohuchong

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	31.25 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Kyoto 2

Start of operation	2018	In construction
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'483 m^3
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	20'820 t/a

IT, Foligno

Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	40'000 t/a

CN, Rénhuái

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h

FR, Combrand

Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Solid Manure, Crop Residues
	Waste Throughput per Year	46'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

US, San Luis Obispo

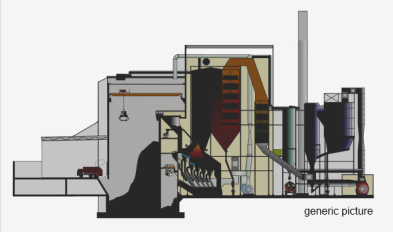
Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'800 m^3
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	30'000 t/a

IT, Bologna

Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	4
	Net volume per digester	1'800 m^3
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	102'000 t/a

SE, Högbytorp

Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	2'100 m^3
	Waste Type	Bio Waste, Food Waste, Green Waste, Solid Manure
	Waste Throughput per Year	83'050 t/a



TH, Nong Khai

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	15.42 t/h
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Orii

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.40 t/h

JP, Yatsushiro, Kumamoto

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.79 t/h
	Thermal power per line	9.93 MW
Energy recovery	Concept	Condensation Turbine
	Electric power output	2.88 MW (gross)
	Output	Electrical Power

JP, Neyagawa

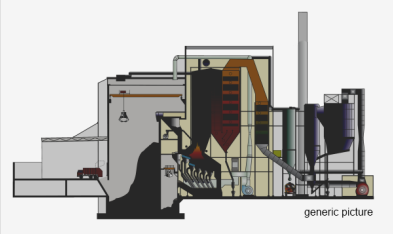
Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.17 t/h
	Thermal power per line	13.60 MW
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter, SCR
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	23'990 m³/h (STP)
Energy recovery	Output	Electrical Power

CN, Pingxiang

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.70 t/h

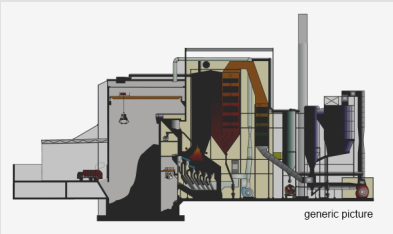
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



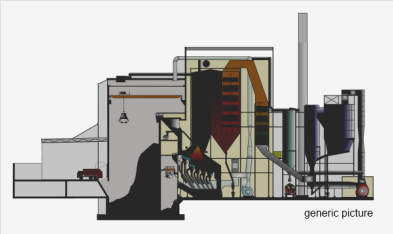
CN, Nínghé

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	20.83 t/h



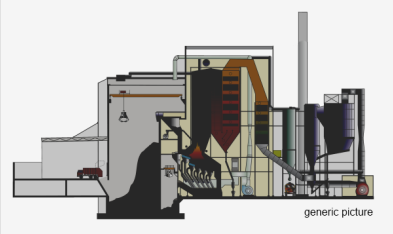
MY, SMART WTE

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	25.00 t/h
	Thermal power per line	69.44 MW
Energy recovery	Concept	Condensation Turbine
	Electric power output	17.70 MW (gross)
	Output	Electrical Power



CN, Déyáng

Start of operation	2018	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	50.00 t/h



SE, Högbytorp (Residue Treatment)

Start of operation	2018

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

FR, Audenge

Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Cernay

Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Fère-Champenoise

Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Grabsleben II

Start of operation	2018	In construction
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Parum

Start of operation	2018	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Green Waste & Bio Waste
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	400 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Plaidt

Start of operation	2018	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Green Waste & Bio Waste
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	300 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Pommeuse

Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Saconin

Start of operation	2018	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CN, Ningbo

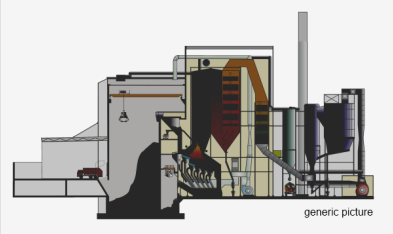
Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	31.25 t/h

CN, Huairou

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h

CN, Chengdu Wanxing

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	25.00 t/h
	Thermal power per line	48.60 MW
Energy recovery	Output	Electrical Power



DE, Herten

Start of operation	2017

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CN, Yulin

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.67 t/h

JP, Joetsu, Niigata

Start of operation	2017	In construction
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	3.54 t/h
	Thermal power per line	15.60 MW
Flue gas treatment	Concept	SNCR, Dry Sorption Reactor, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	20'330 m³/h (STP)
Energy recovery	Output	Hot Water, Electrical Power

CN, Bazhou

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h

CN, Shijiazhuang

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	31.25 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CN, Muping

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.70 t/h

CN, Tonghua

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.70 t/h

CN, Meishan

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	20.83 t/h

IE, Dublin

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	41.00 t/h
	Thermal power per line	102.5 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	125 t/h at 62 bar(a) and 443 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Scrubber, Semi-dry Reactor
	Scrubber Reactant	Caustic Soda
	Reactant	Lignite Coke, Calcium Hydroxide
	Throughput per line	189'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	68.80 MW (gross)
	Output	Electrical Power, Hot Water

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CN, Lhasa

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.60 t/h

JP, Tokyo (Suginami)

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	49.70 MW
Energy recovery	Output	Hot Water, Electrical Power

GB, Herefordshire and Worcestershire

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	30.55 t/h
	Thermal power per line	67.89 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	86 t/h at 60 bar(a) and 415 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Semi-dry Reactor
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	126'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	20.00 MW (gross)
	Output	Electrical Power

CN, Xiamen (Ruikepang reCulture)

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	10.42 t/h
	Thermal power per line	24.05 MW
Flue gas treatment	Concept	
	Throughput per line	54'257 m³/h (STP)

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CN, Guangan

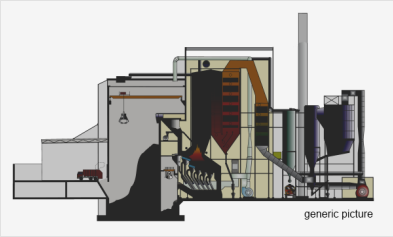
Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	23.26 MW
Flue gas treatment	Concept	
	Throughput per line	55'266 m³/h (STP)

CN, Haikou II

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h
	Thermal power per line	49.31 MW
Flue gas treatment	Concept	
	Throughput per line	115'540 m³/h (STP)

VN, Hanoi

Start of operation	2017	
Combustion	Concept	Rotary Kiln
	Fuel	Industrial Waste
	Number of Lines	1
	Throughput per line	3.13 t/h
Energy recovery	Output	Electrical Power

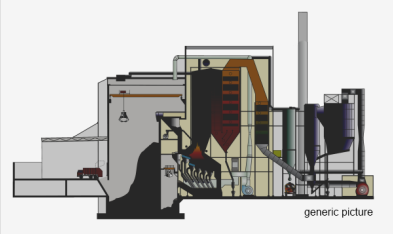


CN, Bozhou

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h

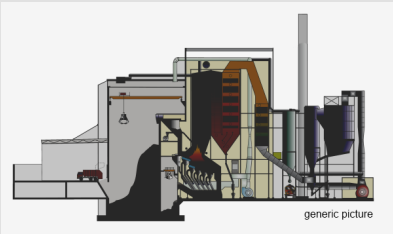
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



CN, Kaixian

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h



CN, Linqu

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h

CN, Huaxi

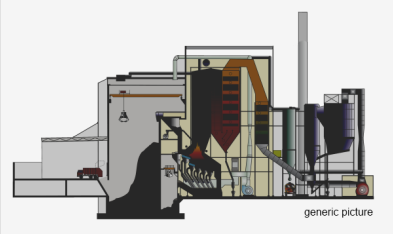
Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h

CN, Wuhu

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h

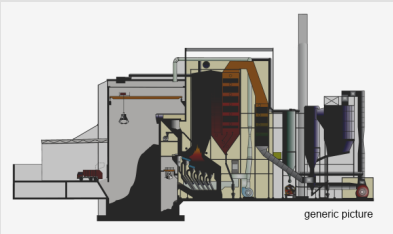
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



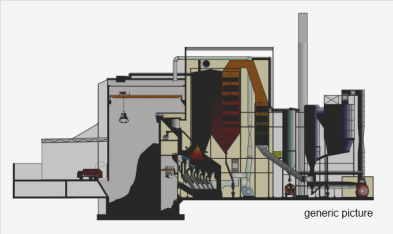
CN, Yíshui

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h



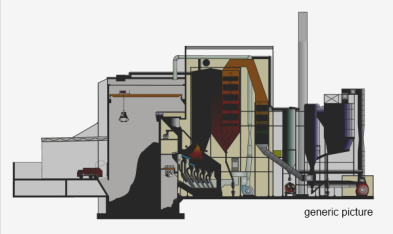
CN, Jùlù

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	20.83 t/h



CN, Wèi Xiàn

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.67 t/h

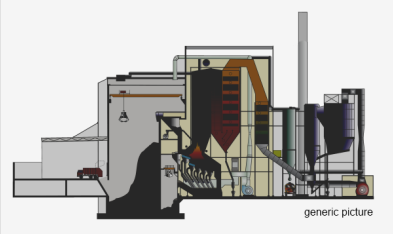


CN, Línqing

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h

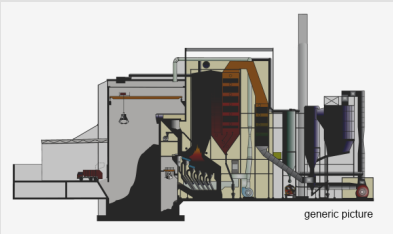
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



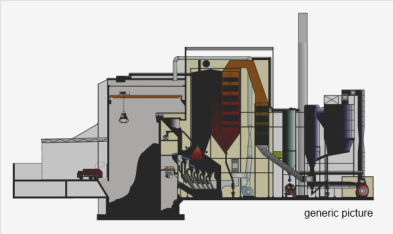
CN, Xinjí

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h



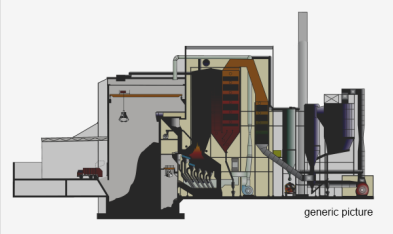
CN, Qian'an

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h



CN, Shuangchéng

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	20.83 t/h

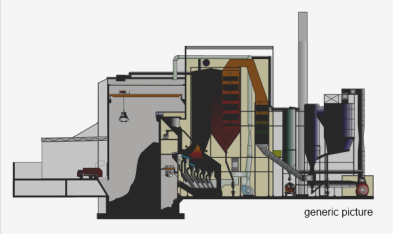


CN, Ch?xiòng

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h

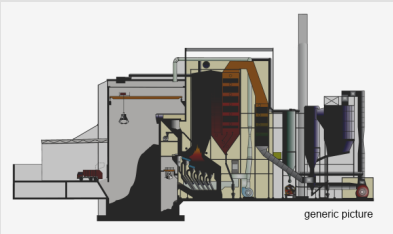
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



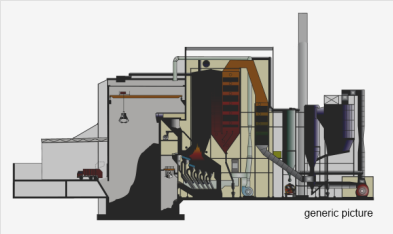
CN, Lánlíng

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.67 t/h



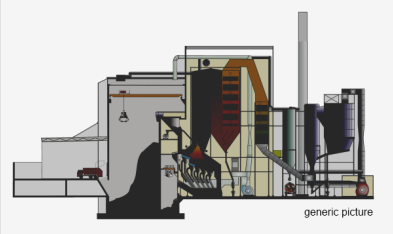
CN, Chéngwu

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h



CN, Beijing, Pínggu

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h

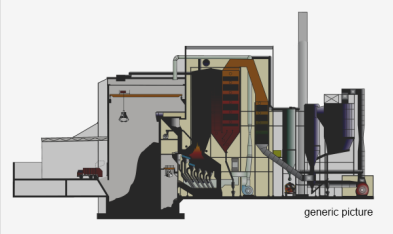


CN, Dehui Phase II

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.67 t/h

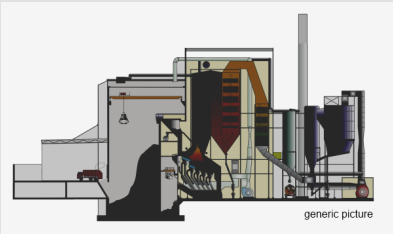
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



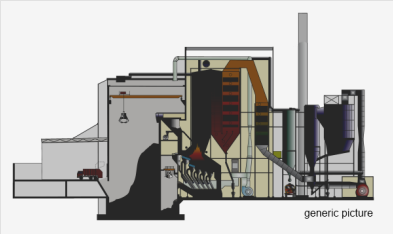
CN, Zhàodong

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	20.83 t/h



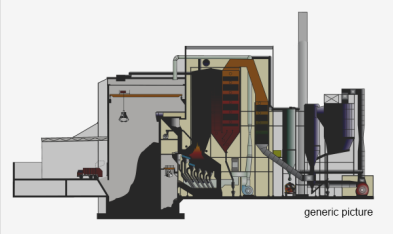
CN, Línqing Phase II

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h



CN, Qian'an Phase II

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h

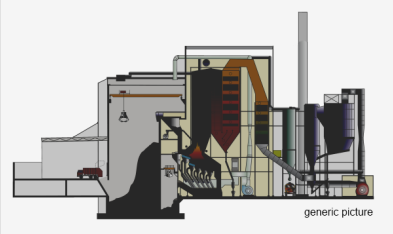


CN, Shuangchéng Phase II

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	20.83 t/h

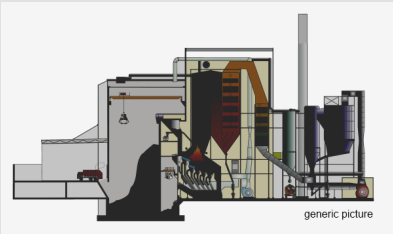
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



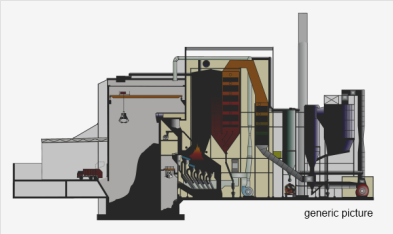
CN, Wèi Xiàn Phase II

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.67 t/h



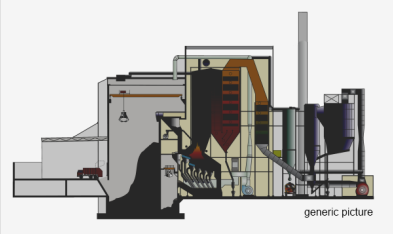
CN, Xinjí Phase II

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h



CN, Yíshui Phase II

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h

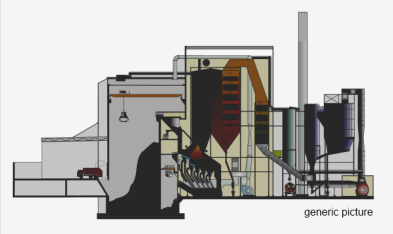


CN, Chéngd?

Start of operation	2017	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	20.83 t/h

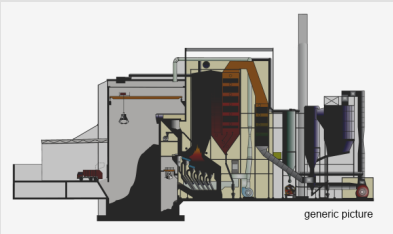
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



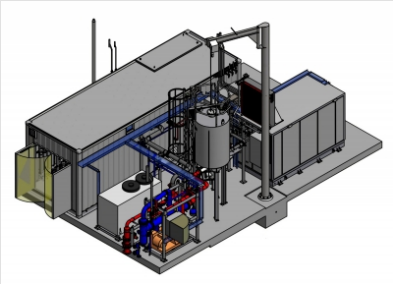
JP, Kurokawa II

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.04 t/h



JP, Kiso

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	0.25 t/h



FR, Barberey

Start of operation	2017	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

CH, Niedergösgen

Start of operation	2017	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Sewage Sludge
	Plant Capacity	400 Nm^3/h
	Hourly Biomethane Production	280 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

FR, Noyen

Start of operation	2017	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Saints

Start of operation	2017	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

CH, Thun

Start of operation	2017	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Sewage Sludge
	Plant Capacity	250 Nm^3/h
	Hourly Biomethane Production	130 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

CN, Zhuhai

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Fujimino, Saitama

Start of operation	2016	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	3.00 t/h
	Thermal power per line	10.30 MW
Energy recovery	Output	Hot Water, Electrical Power

PL, Poznan

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	15.00 t/h
	Thermal power per line	31.50 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	38 t/h at 62 bar(a) and 422 °C
Flue gas treatment	Concept	SNCR, Semi-dry Reactor, Fabric Filter
	Reactant	Calcium Hydroxide
	Throughput per line	66'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	17.30 MW (gross)
	Output	Electrical Power, Hot Water

GB, Severnside L1, L2

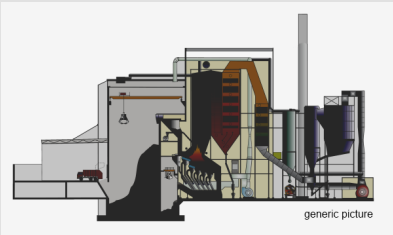
Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	24.24 t/h
	Thermal power per line	62.61 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	78 t/h at 62 bar(a) and 422 °C
Flue gas treatment	Concept	SNCR, Semi-dry Reactor, Fabric Filter
	Reactant	Calcium Hydroxide
	Throughput per line	127'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	37.40 MW (gross)
	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

IN, Essel Jabalpur

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	25.00 t/h
	Thermal power per line	47.97 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	57 t/h at 46 bar(a) and 410 °C
Flue gas treatment	Concept	Evaporation cooler, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	112'178 m³/h (STP)



TH, Bangkok (Nong Khaem)

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.40 t/h

JP, Tsuyama, Okayama

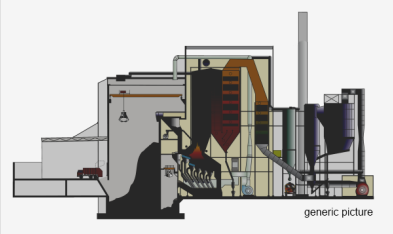
Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.67 t/h
	Thermal power per line	9.40 MW

CN, Wuxi Xidong

Start of operation	2016	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	20.83 t/h
	Thermal power per line	38.77 MW
Flue gas treatment	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	100'950 m³/h (STP)
Energy recovery	Output	Electrical Power

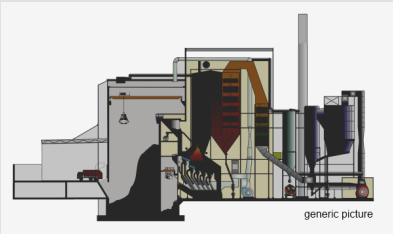
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



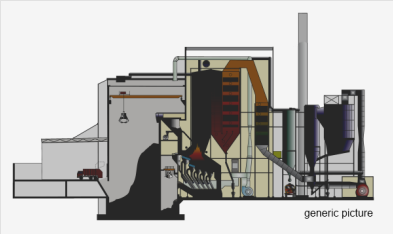
CN, Dehui

Start of operation	2016	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.67 t/h



JP, Nikaho

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	0.60 t/h



JP, Yasu III

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	0.90 t/h

FR, Brie

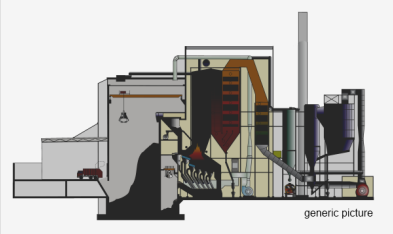
Start of operation	2016	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

FR, Meaux

Start of operation	2016	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



CN, Yongji

Start of operation	2015	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	10.40 t/h

PL, Jarocin

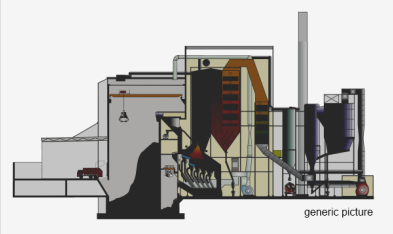
Start of operation	2015	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	RM18
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	15'000 t/a

GB, Buckinghamshire

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	39.40 t/h
	Thermal power per line	101.7 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	127 t/h at 52 bar(a) and 402 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Semi-dry Reactor
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	180'714 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	26.50 MW (gross)
	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



JP, Namie

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Radioactive waste
	Number of Lines	1
	Throughput per line	12.50 t/h
	Thermal power per line	45.00 MW
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	154'040 m³/h (STP)

CH, Horgen

Start of operation	2015	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	5.14 t/h
	Thermal power per line	15.00 MW
Boiler	Concept	3-pass boiler with external economizer
	Steam	18 t/h at 30 bar(a)
Flue gas treatment	Concept	Dry Sorption Reactor, Electrostatic Precipitator (1 Field), Fabric Filter, Heat exchanger again, SCR
	Reactant	Adsorbent, Sodium Bicarbonate
	Throughput per line	25'300 m³/h (STP)

GB, Ferrybridge

Start of operation	2015	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Biomass, Refuse Derived Fuel, Wood
	Number of Lines	2
	Throughput per line	42.25 t/h
	Thermal power per line	117.4 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	104 t/h at 72 bar(a) and 427 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Heat Exchanger, Semi-dry Reactor
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	208'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	75.00 MW (gross)
	Output	Steam, Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Gotemba Oyama, Shizuoka

Start of operation	2015	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.97 t/h
	Thermal power per line	9.80 MW
Energy recovery	Output	Electrical Power

JP, Hagi Nagato, Yamaguchi

Start of operation	2015	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.16 t/h
	Thermal power per line	4.75 MW
Energy recovery	Output	Hot Water

CN, Yingtán

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.67 t/h
	Thermal power per line	25.20 MW
Flue gas treatment	Concept	
	Throughput per line	63'115 m³/h (STP)

CN, Shanghai Chongming

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.42 t/h
	Thermal power per line	18.78 MW
Flue gas treatment	Concept	
	Throughput per line	44'189 m³/h (STP)

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Murakami, Niigata

Start of operation	2015	
Combustion	Fuel	Municipal Solid Waste, Sewage Sludge
	Number of Lines	2
	Throughput per line	1.96 t/h
	Thermal power per line	6.10 MW
Energy recovery	Output	Hot Water, Electrical Power

CN, Xiamen West

Start of operation	2015	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	20.10 MW
Flue gas treatment	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	54'170 m³/h (STP)
Energy recovery	Output	Electrical Power

CN, Nanchong

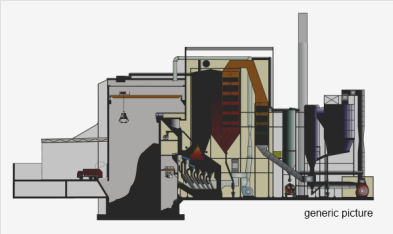
Start of operation	2015	In construction
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.66 t/h
	Thermal power per line	31.98 MW
Flue gas treatment	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	83'230 m³/h (STP)
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Lucerne Perlen

Start of operation	2015	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	15.60 t/h
	Thermal power per line	47.00 MW
Boiler	Concept	4-pass boiler with external economizer
	Superheated Steam	57 t/h at 41 bar(a) and 410 °C
Flue gas treatment	Concept	Dry Sorption Reactor, Dry Sorption Reactor 2, Electrostatic Precipitator (1 Field), Ext. Eco, Fabric Filter, Fabric Filter 2, Heat Exchanger, Heat exchanger 2, SCR
	Reactant	Sodium Bicarbonate, Lignite Coke, Calcium Hydroxide
	Throughput per line	78'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	28.10 MW (gross)
	Output	Steam, Electrical Power, Hot Water



JP, Daigo II

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	0.67 t/h

DE, Heinfelde

Start of operation	2015	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Source Separated Municipal Waste
	Plant Capacity	1'000 Nm^3/h
	Hourly Biomethane Production	500 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

FR, Thennelières

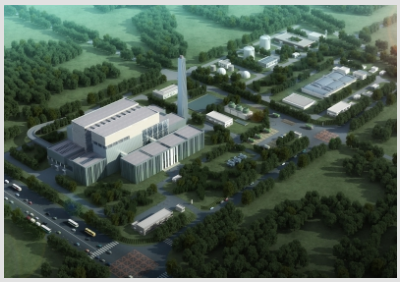
Start of operation	2015	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Wittenburg

Start of operation	2015	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

CN, Shanghai Liming

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	20.83 t/h
	Thermal power per line	37.62 MW
Flue gas treatment	Concept	SNCR, Dry Sorption Reactor, Fabric Filter, Scrubber
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	103'810 m^3/h (STP)
Energy recovery	Output	Electrical Power



CN, Xiangtan

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	20.83 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CN, Shanghai Laogang

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	31.25 t/h
	Thermal power per line	61.80 MW
Energy recovery	Output	Electrical Power

CN, Sanya

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.58 t/h

CN, Harbin

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h

JP, Bekki Hayami, Oita

Start of operation	2014	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.90 t/h
	Thermal power per line	14.60 MW
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CN, Tianjin Binghai

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	20.83 t/h
	Thermal power per line	38.80 MW
Flue gas treatment	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	100'250 m³/h (STP)
Energy recovery	Output	Electrical Power

CN, Zhuzhou

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	20.83 t/h

CN, Rongcheng

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.58 t/h

CN, Shuyang

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.58 t/h

Plants built by Hitachi Zosen since 2000

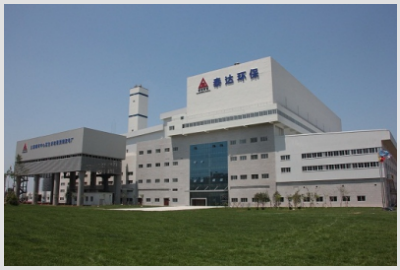
Hitachi Zosen INOVA

CN, Xingyi

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h

FI, Vantaa

Start of operation	2014	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	24.00 t/h
	Thermal power per line	64.20 MW
Boiler	Concept	4-pass boiler with external economizer
	Superheated Steam	83 t/h at 91 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR
	Throughput per line	111'100 m³/h (STP)



CN, Dalian

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	20.83 t/h
	Thermal power per line	38.80 MW
Flue gas treatment	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	100'250 m³/h (STP)
Energy recovery	Output	Electrical Power

CH, Winterthur Digester

Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'500 m^3
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	25'000 t/a
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Green Waste & Bio Waste
	Plant Capacity	300 Nm^3/h
	Hourly Biomethane Production	122 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Vétroz

Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste, Liquid Manure, Waste Oil
	Waste Throughput per Year	20'000 t/a
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Green Waste & Bio Waste
	Plant Capacity	250 Nm^3/h
	Hourly Biomethane Production	130 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

PT, Amarsul

Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	60'000 t/a

PL, Olawa

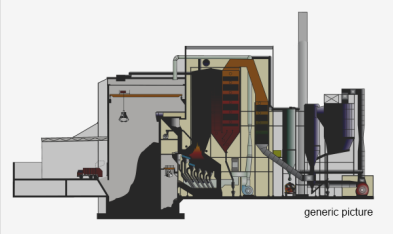
Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	RM18
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	25'000 t/a

GB, Saint Nicholas Court Farm

Start of operation	2014	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

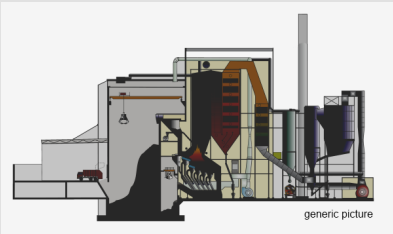
Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



JP, Oshima

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	0.31 t/h



JP, Mimasaka

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	0.71 t/h

DE, Feldberg

Start of operation	2014	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Méry-sur-Seine

Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Niederröblingen

Start of operation	2014	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Rackwitz

Start of operation	2014	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	1'400 Nm^3/h
	Hourly Biomethane Production	700 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Sourdun

Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Ussy-sur-Marne

Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	2'300 m^3
	Digester Type	Wet AD
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Agricultural Residues
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Zuchwil

Start of operation	2014	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Sewage Sludge
	Plant Capacity	250 Nm^3/h
	Hourly Biomethane Production	130 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

KR, Namyangju

Start of operation	2013	
Combustion	Concept	Fluidised Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	2.66 t/h

CN, Changshu

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	12.50 t/h

CN, Yantai

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	20.83 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Nantan

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'030 m^3
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	10'800 t/a

JP, Matsuyama, Ehime

Start of operation	2013	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	5.83 t/h
	Thermal power per line	16.90 MW
Energy recovery	Output	Electrical Power

JP, Nishiharima, Hyogo

Start of operation	2013	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.85 t/h
	Thermal power per line	5.80 MW
Energy recovery	Output	Electrical Power, Hot Water

JP, Nakakita Sorachi, Hokkaido

Start of operation	2013	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.77 t/h
	Thermal power per line	8.20 MW
Boiler	Concept	3-pass boiler
	Steam	
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Coesfeld

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	40'000 t/a

CN, Haikou

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h
	Thermal power per line	46.00 MW
Energy recovery	Output	Electrical Power

JP, Hadano Isehara, Kanagawa

Start of operation	2013	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.16 t/h
	Thermal power per line	13.30 MW
Energy recovery	Output	Electrical Power

GB, Cleveland L4, L5

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	2
	Throughput per line	19.00 t/h
	Thermal power per line	45.85 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	56 t/h at 50 bar(a) and 410 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Semi-dry Reactor
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	95'400 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	26.00 MW (gross)
	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CN, Longyan

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
Flue gas treatment	Concept	Dry Sorption Reactor, Semi-dry Reactor, Fabric Filter

CN, Rudong II

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	20.83 t/h
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter

DE, Fulda

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	32'000 t/a

NL, Tilburg

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	46'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Zurich Werdhölzli

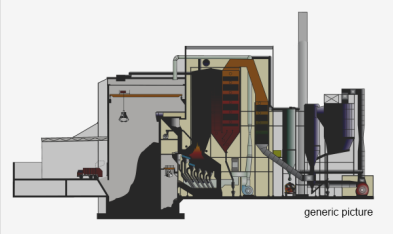
Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'500 m^3
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	25'000 t/a

FR, Clermont-Ferrand

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	15'000 t/a

JP, Hofu

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	750 m^3
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	17'500 t/a



JP, Hida

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	0.52 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Altenhof

Start of operation	2013	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	1'400 Nm^3/h
	Hourly Biomethane Production	700 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Gardelegen

Start of operation	2013	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Jabel

Start of operation	2013	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Kirchgellersen

Start of operation	2013	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Kroppenstedt

Start of operation	2013	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	1'400 Nm^3/h
	Hourly Biomethane Production	700 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Werlte

Start of operation	2013	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	1'000 Nm^3/h
	Hourly Biomethane Production	500 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

CN, Huzhou

Start of operation	2012	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	8.33 t/h
Flue gas treatment	Concept	Fabric Filter, Semi-dry Reactor, SNCR
Energy recovery	Output	Electrical Power

FI, Vaasa

Start of operation	2012	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	24.00 t/h
	Thermal power per line	61.00 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	74 t/h at 42 bar(a) and 402 °C
Flue gas treatment	Concept	SNCR
	Throughput per line	104'140 m^3/h (STP)
Energy recovery	Output	Hot Water, Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Hinwil

Start of operation	2012	
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter, Heat Exchanger, SCR
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Reactant	Sodium Bicarbonate, Activated Carbon
	Throughput per line	87'500 m³/h (STP)

ES, Sant Adrià de Besòs L1-L3

Start of operation	2012	
Combustion	Concept	Air-cooled Grate
	Fuel	Industrial Waste, Municipal Solid Waste
	Number of Lines	3
	Throughput per line	15.00 t/h
	Thermal power per line	48.80 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	50 t/h at 40 bar(a) and 400 °C

CN, Ningde

Start of operation	2012	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
Flue gas treatment	Concept	Dry Sorption Reactor, Semi-dry Reactor, Fabric Filter

TH, Phuket

Start of operation	2012	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.58 t/h
Flue gas treatment	Concept	Semi-dry Reactor, Fabric Filter

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

FR, Vannes

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	15'000 t/a

FR, Angers

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	4
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	50'000 t/a

DE, Witten

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	26'300 t/a

DE, Trittau

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste
	Waste Throughput per Year	20'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

IT, Faedo

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	32'000 t/a

IT, Terni

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	17'500 t/a

NL, Weurt

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	38'000 t/a

IT, Novi Ligure

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	16'800 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Heidenau

Start of operation	2012	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Karben

Start of operation	2012	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Klein Wanzleben

Start of operation	2012	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	1'400 Nm^3/h
	Hourly Biomethane Production	700 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Leizen

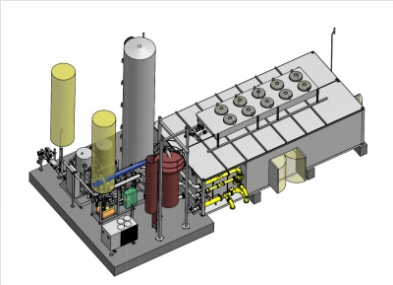
Start of operation	2012	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Marienthal

Start of operation	2012	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

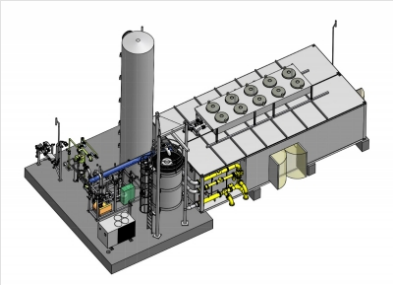


DE, Müden-Aller

Start of operation	2012	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Neudorf-Helle

Start of operation	2012	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	1'400 Nm^3/h
	Hourly Biomethane Production	700 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



DE, Rätzlingen

Start of operation	2012	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Rosche

Start of operation	2012	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Zeven II

Start of operation	2012	
Gas Upgrading	Technology	Membrane Technology
	Input Gas	Biogas from Energy Crops
	Plant Capacity	250 Nm^3/h
	Hourly Biomethane Production	130 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

FR, Forbach

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	42'000 t/a

GB, Newhaven

Start of operation	2011	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.50 t/h
	Thermal power per line	35.85 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	44 t/h at 50 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR, Semi-dry Reactor, Fabric Filter
	Throughput per line	75'600 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	19.25 MW (gross)
	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

NO, Oslo

Start of operation	2011	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	24.00 t/h
	Thermal power per line	66.70 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	78 t/h at 42 bar(a) and 402 °C
Flue gas treatment	Concept	Electrostatic Precipitator (3 Fields), Heat Exchanger, Scrubber, Heat exchanger again, Heat exchanger 2, Heat exchanger 3, SCR, Heat exchanger 2 again
	Scrubber Reactant	Lye
	Throughput per line	130'000 m³/h (STP)
Energy recovery	Concept	Back-pressure Turbine
	Electric power output	12.80 MW (gross)
	Output	Hot Water, Electrical Power

JP, Iwata Bannan II, Shizuoka

Start of operation	2011	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.67 t/h
	Thermal power per line	3.00 MW
Energy recovery	Output	Hot Water, Electrical Power

GB, Riverside, London

Start of operation	2011	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	3
	Throughput per line	32.44 t/h
	Thermal power per line	81.10 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	99 t/h at 72 bar(a) and 427 °C
Flue gas treatment	Concept	SNCR, Semi-dry Reactor, Fabric Filter
	Throughput per line	169'800 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	73.00 MW (gross)
	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

NL, Roosendaal

Start of operation	2011	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	21.00 t/h
	Thermal power per line	62.00 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	76 t/h at 62 bar(a) and 422 °C
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter, SCR, Electrostatic Precipitator
	Reactant	Sodium Bicarbonate
	Throughput per line	127'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	28.70 MW (gross)
	Output	Hot Water, Electrical Power

CN, Xiangyang

Start of operation	2011	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.67 t/h
Flue gas treatment	Concept	Semi-dry Reactor, Fabric Filter

DE, Neunkirchen EEW

Start of operation	2011	
Flue gas treatment	Concept	Spray Dryer, Fabric Filter, Scrubber
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Throughput per line	50'000 m³/h (STP)

CN, Rudong

Start of operation	2011	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.42 t/h
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

IT, Belluno

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	22'000 t/a

DE, Ennigerloh

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	21'000 t/a

DE, Backnang-Neuschöntal

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	36'000 t/a

CH, Wauwil

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	16'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Chavornay

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'500 m^3
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	23'000 t/a

DE, Ingolstadt

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	20'000 t/a

DE, Altena

Start of operation	2011	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Apensen

Start of operation	2011	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Bruchhausen-Vilsen

Start of operation	2011	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Gross Kelle

Start of operation	2011	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Jürgenshagen

Start of operation	2011	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Karft

Start of operation	2011	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Source Separated Municipal Waste
	Plant Capacity	1'000 Nm^3/h
	Hourly Biomethane Production	500 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Malstedt

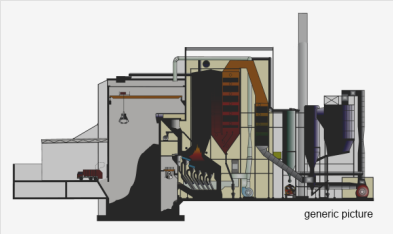
Start of operation	2011	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Oberriexingen

Start of operation	2011	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Schwedt

Start of operation	2011	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	1'400 Nm^3/h
	Hourly Biomethane Production	700 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



JP, Osaka IV

Start of operation	2010	
Combustion	Concept	Rotary Kiln
	Fuel	Industrial Waste, Sewage Sludge, Waste Oil, Green Waste, Wood Waste
	Number of Lines	1
	Throughput per line	4.46 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Yamagata, Gifu

Start of operation	2010	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	0.75 t/h
Boiler	Concept	Water Injection
	Steam	

LU, Leudelange TABA

Start of operation	2010	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	22.00 t/h
	Thermal power per line	67.00 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	79 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter, SCR
	Reactant	Lignite Coke, Sodium Bicarbonate
	Throughput per line	136'642 m³/h (STP)
Energy recovery	Output	Electrical Power

US, Olmsted L5, MN

Start of operation	2010	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Waste Oil
	Number of Lines	1
	Throughput per line	7.93 t/h
	Thermal power per line	23.30 MW
Boiler	Concept	2-pass boiler
	Superheated Steam	29 t/h at 44 bar(a) and 346 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Spray Dryer
	Throughput per line	46'300 m³/h (STP)
Energy recovery	Output	Electrical Power, Steam

NO, Bergen L2

Start of operation	2010	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.00 t/h
	Thermal power per line	44.80 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	57 t/h at 43 bar(a) and 402 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Scrubber, Semi-dry Reactor
	Scrubber Reactant	Caustic Soda
	Reactant	Lignite Coke, Calcium Hydroxide
	Throughput per line	92'000 m³/h (STP)
Energy recovery	Output	Hot Water, Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Aurich-Grossefehn

Start of operation	2010	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	18'000 t/a

NL, Rijsenhout

Start of operation	2010	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	42'000 t/a

CH, Villeneuve

Start of operation	2010	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	20'000 t/a

NL, Zwolle

Start of operation	2010	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	45'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Drögennindorf

Start of operation	2010	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	500 Nm^3/h
	Hourly Biomethane Production	250 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Eggertshofen

Start of operation	2010	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	400 Nm^3/h
	Hourly Biomethane Production	200 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Grabsleben

Start of operation	2010	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Unsleben

Start of operation	2010	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	700 Nm^3/h
	Hourly Biomethane Production	350 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

BE, Intradel

Start of operation	2009	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Sewage Sludge
	Number of Lines	2
	Throughput per line	23.63 t/h
	Thermal power per line	67.10 MW
Boiler	Concept	3-pass boiler with external economizer
	Superheated Steam	80 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Electrostatic Precipitator (1 Field), Ext. Eco, SCR, Spray Absorber, Dry Sorption Reactor
	Throughput per line	141'000 m³/h (STP)

CN, Chengdu Luodai

Start of operation	2009	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	16.70 t/h
Flue gas treatment	Concept	SNCR, Dry Sorption Reactor, Fabric Filter
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	93'720 m³/h (STP)
Energy recovery	Output	Electrical Power

KR, Iksan

Start of operation	2009	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.17 t/h
	Thermal power per line	3.90 MW
Energy recovery	Output	Electrical Power

JP, Osaka (Higashiyodo)

Start of operation	2009	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	8.33 t/h
	Thermal power per line	12.00 MW
Energy recovery	Output	Steam, Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Aira

Start of operation	2009	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.54 t/h
Boiler	Concept	Water Injection
	Steam	

AT, Zistersdorf

Start of operation	2009	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	19.79 t/h
	Thermal power per line	57.80 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	68 t/h at 42 bar(a) and 405 °C
Flue gas treatment	Concept	Fabric Filter, SCR, Dry Sorption Reactor
	Reactant	Sodium Bicarbonate
	Throughput per line	97'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	14.90 MW (gross)
	Output	Electrical Power

ES, Mallorca

Start of operation	2009	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Sewage Sludge
	Number of Lines	2
	Throughput per line	27.00 t/h
	Thermal power per line	70.00 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	82 t/h at 52 bar(a) and 400 °C
Flue gas treatment	Concept	Semi-dry Reactor, Fabric Filter, Heat Exchanger, Heat exchanger 2, SCR, Heat exchanger again
	Throughput per line	142'000 m³/h (STP)
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

GB, Cleveland L3

Start of operation	2009	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	19.00 t/h
	Thermal power per line	45.80 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	55 t/h at 43 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Semi-dry Reactor
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	94'600 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	10.00 MW (gross)
	Output	Electrical Power

CH, Altdorf

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	340 m^3
	Waste Type	Food Waste, Green Waste
	Waste Throughput per Year	5'000 t/a

ES, Botarell

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	54'000 t/a

QA, Doha

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	15
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Green Waste, Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	274'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Oensingen

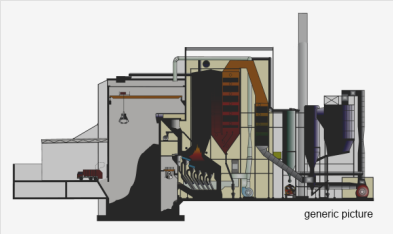
Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	18'000 t/a

FR, Saint Lô

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Green Waste, Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	22'000 t/a

CH, Volketswil

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	20'000 t/a
Gas Upgrading	Technology	Amine Scrubbing
	Biomethane Usage	Biomethane for gas-grid injection, Combined Heat and Power



JP, Aira

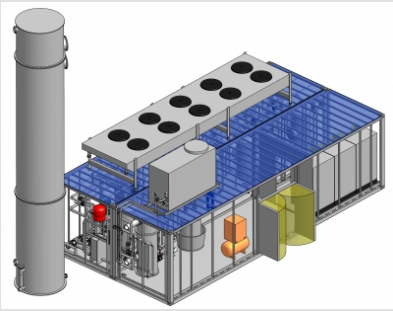
Start of operation	2009	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.54 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

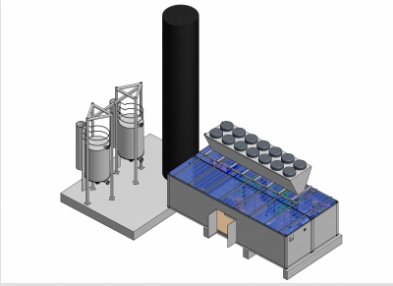
DE, Einbeck

Start of operation	2009	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	1'000 Nm^3/h
	Hourly Biomethane Production	500 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



DE, Hardegsen

Start of operation	2009	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	1'100 Nm^3/h
	Hourly Biomethane Production	550 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection



DE, Horn-Bad Meinberg

Start of operation	2009	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	2'000 Nm^3/h
	Hourly Biomethane Production	1'000 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

DE, Zeven

Start of operation	2009	
Gas Upgrading	Technology	Amine Scrubbing
	Input Gas	Biogas from Energy Crops
	Plant Capacity	250 Nm^3/h
	Hourly Biomethane Production	130 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

FR, Argenteuil L4

Start of operation	2008	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.50 t/h
	Thermal power per line	44.14 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	54 t/h at 47 bar(a) and 380 °C

DE, Witzenhausen

Start of operation	2008	
Combustion	Concept	Circulating Fluidised Bed
	Fuel	Refuse Derived Fuel, Pulp Sludge
	Number of Lines	1
	Throughput per line	34.92 t/h
	Thermal power per line	125.3 MW
Flue gas treatment	Concept	SNCR, Semi-dry Reactor, Fabric Filter
	Throughput per line	207'100 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power

JP, Osumi-kimotsuki, Kagoshima Pref.

Start of operation	2008	
Combustion	Concept	Fluidised Bed Gasification
	Fuel	
	Number of Lines	2
	Throughput per line	2.66 t/h

CN, Xiamen Garbage Treatment

Start of operation	2008	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	9.00 t/h
	Thermal power per line	14.65 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	18 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Semi-dry Reactor, Fabric Filter
	Throughput per line	42'000 m³/h (STP)
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

NL, Moerdijk L4

Start of operation	2008	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	38.33 t/h
	Thermal power per line	95.80 MW
Boiler	Concept	2-pass boiler
	Superheated Steam	121 t/h at 107 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Ext. Eco, Scrubber, Dry Sorption Reactor
	Scrubber Reactant	Lye
	Throughput per line	199'200 m³/h (STP)
Energy recovery	Concept	Back-pressure Turbine
	Electric power output	13.47 MW (gross)
	Output	Steam, Electrical Power

CH, Giubiasco

Start of operation	2008	
Flue gas treatment	Concept	Electrostatic Precipitator (3 Fields), Ext. Eco, Fabric Filter, Fly Ash Treatment, Heat Exchanger, Heat exchanger 2, Heat exchanger 2 again, Heat exchanger 3, Heat exchanger again, SCR, Scrubber, Activated Carbon Entrainment
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Scrubber Reactant	Caustic Soda
	Reactant	Lignite Coke
	Throughput per line	67'430 m³/h (STP)

FR, Pithiviers

Start of operation	2008	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.00 t/h
	Thermal power per line	10.93 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	13 t/h at 40 bar(a) and 380 °C
Flue gas treatment	Concept	SNCR, Dry Sorption Reactor, Fabric Filter
	Reactant	Sodium Bicarbonate
	Throughput per line	24'000 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Flörsheim Wicker

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1'300 m^3
	Digester Type	GG20
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	45'000 t/a

CH, Klingnau

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	GG20
	Waste Type	Bio Waste, Food Waste, Green Waste, Liquid Waste
	Waste Throughput per Year	20'000 t/a

CH, Lavigny

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	960 m^3
	Digester Type	GG16
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	16'000 t/a

FR, Montpellier

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	8
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	100'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Inwil

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	960 m^3
	Digester Type	GG16
	Waste Type	Bio Waste, Green Waste, Liquid Manure, Liquid Waste, Solid Manure
	Waste Throughput per Year	16'000 t/a

NL, Wilp-Achterhoeck

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	4
	Net volume per digester	1'300 m^3
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste, Liquid Waste
	Waste Throughput per Year	60'000 t/a

FR, Dunkerque

Start of operation	2007	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.00 t/h
	Thermal power per line	29.30 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	35 t/h at 40 bar(a) and 380 °C
Flue gas treatment	Concept	SCR, Scrubber, Electrostatic Precipitator
	Scrubber Reactant	Caustic Soda
	Reactant	Lignite Coke
	Throughput per line	50'000 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	6.00 MW (gross)
	Output	Electrical Power

JP, Sano, Tochigi Pref.

Start of operation	2007	
Combustion	Concept	Fluidised Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	5.33 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

NO, Trondheim L3

Start of operation	2007	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	17.29 t/h
	Thermal power per line	45.80 MW
Boiler	Concept	2-pass boiler
	Hot Water	911 t/h at 16 bar(a) and 180 °C
Flue gas treatment	Concept	SNCR, Semi-dry Reactor, Fabric Filter, Scrubber
	Scrubber Reactant	Lye
	Throughput per line	84'000 m³/h (STP)
Energy recovery	Output	Hot Water

JP, Toyota, Aichi Pref.

Start of operation	2007	
Combustion	Concept	Fluidised Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	5.63 t/h

JP, Kitashiribeshi, Hokkaido

Start of operation	2007	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.10 t/h
	Thermal power per line	2.00 MW
Energy recovery	Output	Electrical Power

DE, Bamberg L1 - L3

Start of operation	2007	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste, Sewage Sludge
	Number of Lines	3
	Throughput per line	6.00 t/h
	Thermal power per line	17.50 MW
Boiler	Concept	5-pass boiler
	Superheated Steam	20 t/h at 40 bar(a) and 400 °C
Energy recovery	Output	Hot Water

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Stassfurt EVZA

Start of operation	2007	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	2
	Throughput per line	22.50 t/h
	Thermal power per line	55.60 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	64 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR, Semi-dry Reactor, Fabric Filter
	Throughput per line	116'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	28.14 MW (gross)
	Output	Steam, Electrical Power

FR, Issy-les-Moulineaux

Start of operation	2007	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	34.90 t/h
	Thermal power per line	85.23 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	104 t/h at 50 bar(a) and 400 °C
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter, SCR
	Reactant	Lignite Coke, Sodium Bicarbonate
	Throughput per line	151'000 m³/h (STP)
Energy recovery	Output	Electrical Power, Hot Water

DE, Amtzell

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	GG20
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	18'000 t/a

DE, Gröbern

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	GG20
	Waste Type	Energy Crops
	Waste Throughput per Year	17'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Ilbenstadt

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	GG20
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	18'250 t/a

CH, Oetwil am See 2

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	340 m^3
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	5'000 t/a

DE, Regen

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	GG20
	Waste Type	Bio Waste, Energy Crops, Green Waste
	Waste Throughput per Year	18'000 t/a

DE, Rostock

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1'300 m^3
	Digester Type	RM18
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	40'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Utzenstorf

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	720 m^3
	Digester Type	GG12
	Waste Type	Bio Waste, Green Waste, Liquid Waste
	Waste Throughput per Year	12'000 t/a
Gas Upgrading	Hourly Biomethane Production	42 Nm^3/h
	Biomethane Usage	Biomethane for gas-grid injection, Combined Heat and Power

DE, Erfurt

Start of operation	2006	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Refuse Derived Fuel
	Number of Lines	1
	Throughput per line	9.75 t/h
	Thermal power per line	26.00 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	29 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Semi-dry Reactor
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	54'000 m^3/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	4.90 MW (gross)
	Output	Steam, Hot Water, Electrical Power

FR, Sète

Start of operation	2006	
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter
	Number of Lines	1
	Fuel	Municipal Solid Waste
	Reactant	Sodium Bicarbonate
	Throughput per line	30'000 m^3/h (STP)

JP, Ariake, Kumamoto Pref.

Start of operation	2006	
Combustion	Concept	Fluidised Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.04 t/h
Boiler	Concept	Water Injection
	Steam	

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Jonan Haseyama II

Start of operation	2006	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	5.00 t/h
	Thermal power per line	4.90 MW
Energy recovery	Output	Electrical Power

JP, Tamura, Fukushima

Start of operation	2006	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	1.60 t/h
Energy recovery	Output	Steam

JP, Tokyo (Shinagawa)

Start of operation	2006	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	15.00 MW
Energy recovery	Output	Hot Water, Electrical Power

CH, Lausanne (Tridel)

Start of operation	2006	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Hospital Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	40.00 MW
Boiler	Concept	4-pass boiler with external economizer
	Superheated Steam	46 t/h at 52 bar(a) and 403 °C
Flue gas treatment	Concept	Electrostatic Precipitator (2 Fields), Ext. Eco, Fly Ash Treatment, Heat Exchanger, Heat exchanger 2, Heat exchanger 2 again, Heat exchanger 3, Heat exchanger again, SCR, Scrubber
	Scrubber Reactant	Caustic Soda
	Throughput per line	63'200 m³/h (STP)
Energy recovery	Output	Hot Water, Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Aarberg

Start of operation	2006	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	GG20
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	20'000 t/a

CH, Langenthal

Start of operation	2006	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	240 m^3
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	5'600 t/a

CH, Ottenbach

Start of operation	2006	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	960 m^3
	Digester Type	GG16
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	16'000 t/a

CH, Pratteln

Start of operation	2006	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	960 m^3
	Digester Type	GG16
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	15'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Reimlingen

Start of operation	2006	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'300 m^3
	Digester Type	GG20
	Waste Type	Energy Crops
	Waste Throughput per Year	27'000 t/a

DE, Weissenfels 2

Start of operation	2006	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	960 m^3
	Digester Type	GG16
	Waste Type	Bio Waste, Crop Residues
	Waste Throughput per Year	14'500 t/a

JP, Kushimoto/Kozagawa

Start of operation	2006	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	0.63 t/h

FR, Nantes Valorena

Start of operation	2005	
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter, SCR
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Reactant	Sodium Bicarbonate
	Throughput per line	56'500 m^3/h (STP)

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Kashiwa, Chiba

Start of operation	2005	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	5.21 t/h
	Thermal power per line	2.50 MW
Energy recovery	Output	Hot Water, Electrical Power

KR, Incheon South

Start of operation	2005	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.42 t/h
Energy recovery	Output	Steam

JP, Odate, Akita

Start of operation	2005	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.88 t/h
Boiler	Concept	Water Injection
	Steam	
Energy recovery	Output	Hot Water

TW, Yunlin

Start of operation	2005	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	15.80 MW
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, Ludwigslust

Start of operation	2005	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	6.00 t/h
	Thermal power per line	16.00 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	19 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR, Fabric Filter, Semi-dry Reactor
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	34'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	3.00 MW (gross)
	Output	Electrical Power

DE, Zorbau

Start of operation	2005	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	21.00 t/h
	Thermal power per line	53.60 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	63 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR, Semi-dry Reactor, Fabric Filter
	Throughput per line	118'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	28.30 MW (gross)
	Output	Electrical Power

FR, Rennes L1+L2

Start of operation	2005	
Flue gas treatment	Concept	Fabric Filter, SCR, Dry Sorption Reactor
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Reactant	Sodium Bicarbonate
	Throughput per line	40'400 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power

FR, Rennes L3

Start of operation	2005	
Flue gas treatment	Concept	Fabric Filter, SCR, Dry Sorption Reactor
	Number of Lines	1
	Fuel	Municipal Solid Waste
	Reactant	Sodium Bicarbonate
	Throughput per line	61'900 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

SE, Uppsala (Block 5)

Start of operation	2005	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Hospital Waste
	Number of Lines	1
	Throughput per line	26.40 t/h
	Thermal power per line	73.33 MW
Boiler	Concept	4-pass boiler
	Saturated Steam	100 t/h at 20 bar(a) and 212 °C
Flue gas treatment	Concept	Electrostatic Precipitator (2 Fields), Scrubber, Fabric Filter, SCR
	Scrubber Reactant	Lye, Limestone
	Throughput per line	148'900 m³/h (STP)
Energy recovery	Output	Steam, Hot Water

US, Corn Plus, Winnebago, MN

Start of operation	2005	
Combustion	Concept	Fluidised Bed
	Fuel	Corn Syrup
	Number of Lines	1
	Throughput per line	22.70 t/h
	Thermal power per line	38.00 MW
Flue gas treatment	Concept	Dry Sorption Reactor, Fabric Filter
Energy recovery	Output	Steam

US, Hampton Roads, VA

Start of operation	2005	
Combustion	Concept	Fluidised Bed
	Fuel	Sewage Sludge
	Number of Lines	1
	Throughput per line	1.10 t/h
	Thermal power per line	2.60 MW
Flue gas treatment	Concept	Scrubber
	Throughput per line	23'000 m³/h (STP)

CH, Jona

Start of operation	2005	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	330 m^3
	Digester Type	ZAFE
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	5'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

ES, La Rioja

Start of operation	2005	
Anaerobic Digestion	Number of Digester(s)	6
	Net volume per digester	1'050 m^3
	Digester Type	ZAFB
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	75'000 t/a

CH, Lenzburg

Start of operation	2005	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	340 m^3
	Waste Type	Bio Waste, Food Waste, Green Waste, Liquid Waste
	Waste Throughput per Year	5'000 t/a

MQ, Martinique

Start of operation	2005	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	750 m^3
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	20'000 t/a

CH, Uzwil 2

Start of operation	2005	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1'300 m^3
	Digester Type	ZAFB
	Waste Type	Bio Waste, Food Waste, Green Waste, Liquid Waste
	Waste Throughput per Year	20'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

DE, TREA Breisgau

Start of operation	2004	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	22.00 t/h
	Thermal power per line	61.10 MW
Boiler	Concept	3-pass boiler with external economizer
	Superheated Steam	74 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Electrostatic Precipitator (2 Fields), SCR, Semi-dry Reactor, Fabric Filter, Scrubber
	Scrubber Reactant	Lye
	Throughput per line	116'000 m³/h (STP)

JP, Takamatsu, Kagawa Pref.

Start of operation	2004	
Combustion	Concept	Fluidised Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	4.17 t/h

TW, Taitung

Start of operation	2004	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	6.25 t/h
Energy recovery	Output	Electrical Power

US, MCES, St. Paul, MN

Start of operation	2004	
Combustion	Concept	Fluidised Bed
	Fuel	Sewage Sludge
	Number of Lines	3
	Throughput per line	4.00 t/h
	Thermal power per line	9.40 MW
Flue gas treatment	Concept	SNCR, Fabric Filter, Scrubber
	Scrubber Reactant	Lye
	Throughput per line	40'190 m³/h (STP)
Energy recovery	Output	Steam

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

NL, Alkmaar L4

Start of operation	2004	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	27.50 t/h
	Thermal power per line	75.00 MW
Boiler	Concept	4-pass boiler with external economizer
	Superheated Steam	89 t/h at 42 bar(a) and 405 °C
Flue gas treatment	Concept	Electrostatic Precipitator (2 Fields), Electrostatic Precipitator (3 Fields), SCR, Scrubber
	Scrubber Reactant	Caustic Soda
	Reactant	Activated Carbon
	Throughput per line	155'900 m³/h (STP)
Energy recovery	Output	Electrical Power

JP, Kyoto 1

Start of operation	2004	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1'150 m^3
	Waste Type	Food Waste, Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	15'000 t/a

DE, Passau

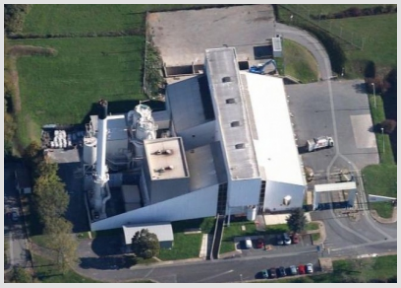
Start of operation	2004	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	980 m^3
	Digester Type	ZAFB
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	39'000 t/a

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Thun

Start of operation	2003	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Sewage Sludge
	Number of Lines	1
	Throughput per line	18.40 t/h
	Thermal power per line	46.00 MW
Boiler	Concept	4-pass boiler with external economizer
	Superheated Steam	55 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Electrostatic Precipitator (3 Fields), SCR, Ext. Eco, Heat Exchanger, Scrubber, Heat exchanger again, Fabric Filter, Fly Ash Treatment, Dry Sorption Reactor
	Scrubber Reactant	Lye
	Throughput per line	78'000 m³/h (STP)



FR, Poitiers

Start of operation	2003	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	3.30 t/h

FR, Evreux

Start of operation	2003	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Sewage Sludge
	Number of Lines	2
	Throughput per line	5.63 t/h
	Thermal power per line	14.40 MW
Boiler	Concept	2-pass boiler
	Superheated Steam	17 t/h at 40 bar(a) and 380 °C
Flue gas treatment	Concept	Fabric Filter, SCR, Semi-dry Reactor, Dry Sorption Reactor
	Reactant	Lignite Coke, Calcium Hydroxide, Sodium Bicarbonate
	Throughput per line	31'000 m³/h (STP)
Energy recovery	Concept	Back-pressure Turbine
	Electric power output	6.00 MW (gross)
	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Fukue, Nagasaki Pref

Start of operation	2003	
Combustion	Concept	Fluidised Bed Gasification
	Fuel	
	Number of Lines	2
	Throughput per line	1.20 t/h

JP, Ishikawahokubu, Ishikawa Pref.

Start of operation	2003	
Combustion	Concept	Fluidised Bed Gasification
	Fuel	
	Number of Lines	2
	Throughput per line	3.33 t/h

FR, Perpignan

Start of operation	2003	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.10 t/h
	Thermal power per line	32.40 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	35 t/h at 40 bar(a) and 380 °C
Flue gas treatment	Concept	SNCR, Semi-dry Reactor, Fabric Filter
	Throughput per line	61'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	21.00 MW (gross)
	Output	Electrical Power

JP, Touga, Pref Shizuoka

Start of operation	2003	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.88 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

US, WWTP Lynn, MA

Start of operation	2003	
Combustion	Concept	Fluidised Bed
	Fuel	Sewage Sludge
	Number of Lines	1
	Throughput per line	1.07 t/h
	Thermal power per line	2.10 MW
Flue gas treatment	Concept	Scrubber, Electrostatic Precipitator (1 Field)
	Throughput per line	40'100 m³/h (STP)

CH, Buchs SG L1

Start of operation	2003	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	6.88 t/h
	Thermal power per line	21.80 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	30 t/h at 40 bar(a)
Energy recovery	Output	Steam, Hot Water, Electrical Power

IT, Bologna

Start of operation	2003	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	13.75 t/h
	Thermal power per line	44.80 MW
Boiler	Concept	4-pass boiler
	Steam	53 t/h at 50 bar(a)

JP, Niijima, Tokyo Pref.

Start of operation	2003	
Combustion	Fuel	
	Number of Lines	1
	Throughput per line	1.00 t/h

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Bachenbülach 2

Start of operation	2003	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	340 m^3
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	10'000 t/a
Gas Upgrading	Technology	Membrane Technology
	Biomethane Usage	Biomethane for gas-grid injection, Combined Heat and Power

DE, Weissenfels 1

Start of operation	2003	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	980 m^3
	Digester Type	ZAFB
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	12'500 t/a

JP, Yachimata II

Start of operation	2003	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.60 t/h

DE, Bremerhaven Duotherm

Start of operation	2002	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	8.00 t/h
	Thermal power per line	23.30 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	27 t/h at 40 bar(a)
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Sakurai, Nara Pref.

Start of operation	2002	
Combustion	Concept	Fluidised Bed Gasification
	Fuel	
	Number of Lines	2
	Throughput per line	3.12 t/h

FR, Le Mans L2bis

Start of operation	2002	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Hospital Waste
	Number of Lines	1
	Throughput per line	9.00 t/h
	Thermal power per line	24.10 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	29 t/h at 30 bar(a) and 350 °C
Flue gas treatment	Concept	Fabric Filter, SCR, Semi-dry Reactor
	Throughput per line	50'000 m³/h (STP)
Energy recovery	Output	Electrical Power

JP, Nasu, Tochigi Pref.

Start of operation	2002	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.50 t/h
Energy recovery	Output	Steam, Hot Water

JP, Okinoerabu, Kagoshima Pref.

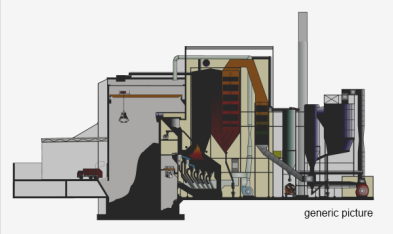
Start of operation	2002	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.00 t/h
Boiler	Concept	Water Injection
	Steam	

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

CH, Emmenspitz L4

Start of operation	2002	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste, Sewage Sludge
	Number of Lines	1
	Throughput per line	10.00 t/h
	Thermal power per line	28.50 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	32 t/h at 38 bar(a) and 385 °C
Flue gas treatment	Concept	SNCR, Fly Ash Treatment, Scrubber, NH4OH-Stripper, Electrostatic Precipitator
	Scrubber Reactant	Lye
	Throughput per line	58'040 m³/h (STP)
Energy recovery	Concept	Back-pressure Turbine
	Electric power output	7.70 MW (gross)
	Output	Steam, Hot Water, Electrical Power



JP, Yamaguchi

Start of operation	2002	
Combustion	Concept	Fluidised Bed
	Fuel	Industrial Waste, Wood Waste
	Number of Lines	1
	Throughput per line	8.87 t/h

JP, Osaka (Maishima)

Start of operation	2001	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	18.75 t/h
Flue gas treatment	Concept	Fabric Filter, Heat Exchanger, SCR, Scrubber
Energy recovery	Output	Electrical Power

JP, Fukuoka Rinkai

Start of operation	2001	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	12.50 t/h
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

JP, Nishimurayama, Yamagata Pref.

Start of operation	2001	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.08 t/h
Boiler	Concept	Water Injection
	Steam	
Energy recovery	Output	Hot Water

JP, Tokyo (Chuo)

Start of operation	2001	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	15.00 MW
Energy recovery	Output	Hot Water, Electrical Power

FR, Maubeuge

Start of operation	2001	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	5.50 t/h
	Thermal power per line	14.10 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	17 t/h at 36 bar(a) and 360 °C
Flue gas treatment	Concept	Semi-dry Reactor, Fabric Filter
	Throughput per line	30'500 m³/h (STP)
Energy recovery	Output	Steam, Hot Water, Electrical Power

FR, Rouen

Start of operation	2001	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	14.50 t/h
	Thermal power per line	38.80 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	46 t/h at 36 bar(a)
Energy recovery	Output	Electrical Power

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

FR, Salaise L3

Start of operation	2001	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	19.00 t/h
	Thermal power per line	48.60 MW
Boiler	Concept	3-pass boiler
	Superheated Steam	77 t/h at 42 bar(a) and 350 °C
Flue gas treatment	Concept	
	Throughput per line	140'000 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power

IT, Trezzo

Start of operation	2001	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.16 t/h
	Thermal power per line	41.20 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	49 t/h at 40 bar(a) and 400 °C
Energy recovery	Output	Electrical Power

US, McKay Bay, Tampa, FL

Start of operation	2001	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	9.46 t/h
	Thermal power per line	26.30 MW
Boiler	Concept	2-pass boiler
	Steam	24 t/h at 45 bar(a)

CH, Oetwil am See 1

Start of operation	2001	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	750 m^3
	Waste Type	Bio Waste, Food Waste, Green Waste, Liquid Waste
	Waste Throughput per Year	10'000 t/a

Plants built by Hitachi Zosen since 2000

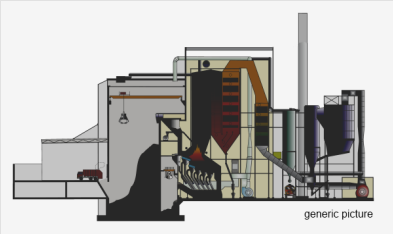
Hitachi Zosen INOVA

AT, Roppen

Start of operation	2001	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	750 m^3
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	10'000 t/a

DE, Nuremberg L1-L3

Start of operation	2001	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	10.50 t/h
	Thermal power per line	35.00 MW
Boiler	Concept	4-pass boiler
	Superheated Steam	41 t/h at 45 bar(a) and 400 °C
Flue gas treatment	Concept	Electrostatic Precipitator (3 Fields), SCR, Scrubber
	Scrubber Reactant	Lye
	Throughput per line	64'250 m^3/h (STP)
Energy recovery	Output	Steam



JP, Ibaraki III

Start of operation	2001	
Combustion	Concept	Rotary Kiln
	Fuel	Industrial Waste, Refuse Derived Fuel
	Number of Lines	2
	Throughput per line	4.17 t/h

JP, Minamikawachi-2, Osaka Pref.

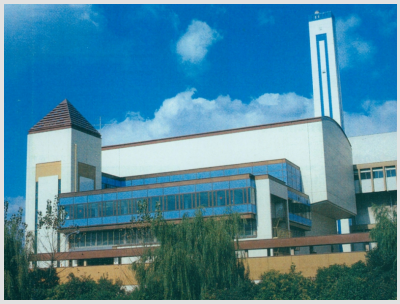
Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	3.96 t/h
Boiler	Concept	Water Injection
	Steam	

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

KR, Buchon Daejang-Dong

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h
Energy recovery	Output	Electrical Power



JP, Amagasaki II, Hyogo Pref.

Start of operation	2000	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	6.25 t/h

JP, Hitachi, Ibaraki Pref.

Start of operation	2000	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	4.17 t/h

JP, Nishikaigan, Aomori Pref.

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	2.75 t/h
Boiler	Concept	Water Injection
	Steam	

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA

TW, Hsichou Changhua

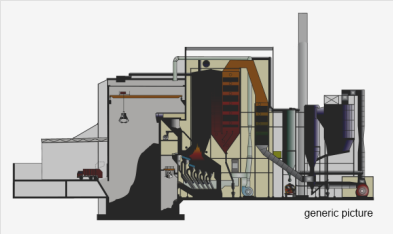
Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	18.75 t/h
Energy recovery	Output	Electrical Power

TW, Houli Taichung

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	18.75 t/h
Energy recovery	Output	Electrical Power

US, Palo Alto, CA

Start of operation	2000	
Combustion	Concept	Multiple Hearth
	Fuel	Sewage Sludge
	Number of Lines	1
	Throughput per line	1.20 t/h
Flue gas treatment	Concept	Scrubber
	Throughput per line	18'500 m³/h (STP)

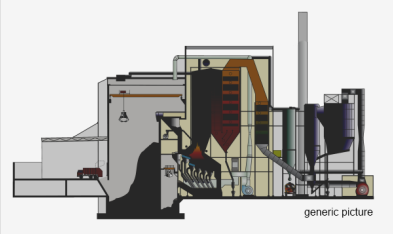


JP, Chiba II

Start of operation	2000	
Combustion	Concept	Unknown
	Fuel	Hospital Waste
	Number of Lines	1
	Throughput per line	1.75 t/h
	Thermal power per line	10.17 MW

Plants built by Hitachi Zosen since 2000

Hitachi Zosen INOVA



JP, Nankonanbu

Start of operation	2000	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.25 t/h

Hitachi Zosen Inova AG
Hardturmstrasse 127
8005 Zurich
Switzerland
P +41 44 277 11 11
F +41 44 277 13 13
info@hz-inova.com

Hitachi Zosen Inova U.S.A. LLC
10100 Global Way Suite 210
Knoxville, TN 37932
United States
P +1 678 987 25 00
F +1 678 987 25 99
info@hz-inova.com

Hitachi Zosen KRB AG
Industriestrasse 6
9470 Buchs/SG
Switzerland
P +41 81 750 45 00
F +41 81 750 45 01
info-krb@hz-inova.com

Hitachi Zosen Inova Australia Pty Ltd
Level 17 40 Mount Street
North Sydney, NSW 2060
Australia
P +61 (02) 8003 4110
info@hz-inova.com