

## E-RATIONAL REFERENCE PROJECTS



Country	Client	Installed Power	#	Commissioning	Project Description
<b>Belgium</b>	HoWest	11 kWe	1	2011	Test unit for simulation and R&D in UGent University
<b>Germany</b>	Sennergie Holzheizkraftwerk Oerlinghausen	90 kWe	1	2013	Recovery of heat excess in district heating. Heat delivered by biomass boiler (wood).
<b>Norway</b>	Alstom- Alcoa	90 kWe	1	2013	Recovery of heat from exhaust gases in anode baking furnace through Alstom's patented heat exchanger.
<b>Germany</b>	Sennergie Holzheizkraftwerk Hövelhof	315 kWe	1	2014	Recovery of heat excess in district heating. Heat train with biomass boiler, high temperature ORC and district heating with E-RATIONAL ORC.
<b>Belgium</b>	Delta Thermic	22 kWe	1	2014	Heat recovery to electricity combined with heating of public swimming pool at ORC cold side. Heat delivered by wood chip boiler.
<b>Japan</b>	Tokyo Sangyo	260 kWe	1	2014	Power production with geothermal heat. Delivery of first machine in project.
<b>Japan</b>	Tokyo Sangyo	260 kWe	2	2015	Power production with geothermal heat. Delivery of 2 additional machines on same project as previous.
<b>Belgium</b>	Beneens	110 kWe	1	2016	Recovery of heat from biomass boiler (wood). Cold side of the machine is connected to the local heating network.
<b>UK</b>	Dordtech	90 kWe	1	2015	Recovery of waste heat from a biomass boiler. The cooling side of the ORC is used for low temperature drying processes.
<b>France</b>	TREDI S.A.	370 kWe	2	2016	Recovery of waste heat from industrial waste incinerator.
<b>UK</b>	Dordtech	110 kWe	1	2016	Recovery of waste heat from a biomass boiler. The cooling side of the ORC is used for low temperature drying processes.
<b>Romania</b>	Energy Serv	200 kWe	1	2016	Recovery of waste heat from wood fired boiler. E-RATIONAL ORC connected to cooling side of a Turboden high temperature ORC.
<b>UK</b>	Crossfieds Farm	220 kWe	1	2016	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes.
<b>UK</b>	Barden Biomass New Hall Farm	160 kWe	1	2016	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes.

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South Korea	LSIS Gyeongseongnam	160 kWe	1	2016	Recovery of waste heat in the form of steam into electrical power.
UK	Barden Biomass Slacks Farm	90 kWe	2	2016	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes. These are an off-grid machines.
UK	Isambard Ltd	90 kWe	1	2016	Recovery of waste heat from biomass boiler.
UK	BHSL/ Baxter	90kWe	1	2017	Recovery of waste heat from biomass boiler. Condenser heat is used for heating chicken houses.
UK	Barden biomass Littleton Farm	185 kWe	1	2017	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes. This is an off-grid machine.
UK	Barden Biomass James Halley's	160kWe	1	2017	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes.
UK	Wood Energy Ltd PET UK	315kWe	1	2017	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes.
UK	Barden Biomass Littleton Farm	185 kWe	1	2017	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes. This is an off-grid machine.
UK	Gibson & Goold Raith Farm	90kWe	1	2017	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes.
DE	GE Norway-TRIMET Hamburg	250 kWe	1	2018	Heat Recovery in Aluminium factory.
UK	Wood Energy Ltd Kiely Bros	132kWe	1	2018	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes.
UK	Wood Energy Ltd Sheean	200kWe	1	2018	Recovery of waste heat from biomass boiler. The cooling side is used for drying processes.
NL	Moerman	250kWe	1	Commissioning 2019	Recovery of waste heat from a biomass Vynkce boiler. The cooling side is used to heat greenhouses on the site.