

Selected References

New Waste-to-Energy Facilities and Units

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Follo Ren, Oslo	Norway	Green-field WtE AD facility	15,000	Project planning, conceptual design of household waste based biogas facility based on Anaerobic Digestion	2012-2015
Follo Ren, Oslo	Norway	Green-field Dirty MRF Sorting facility	29,000	Project planning, conceptual design of Dirty MRF sorting facility and MBT.	2012-2015
Renergia, Lucerne	Switzerland	Green-field WtE facility	2x100,000	EPCM contractor (Owners Engineer) / Technical Advisor	2011-2015
FCC, Buckinghamshire	UK	Green-field WtE facility	Confidential	Owner's Engineer to FCC on PFI bid and contract implementation. Specification to suppliers and supplier information management to proposal. Bid technical support. Supervision of design, erection and commissioning	2010-2015
I/S Amagerforbrænding, Copenhagen	Denmark	Green-field WtE facility (CHP)	Confidential	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning.	2009-2015
Hertfordshire County Council	UK	Green-field residual waste treatment facility including WtE.	345,000	Technical advisor. Procurement and supervision of PFI contract for the design, build, finance and operation of the new facility.	2009-2015
Palm Beach, Florida	USA	Green-field WtE facility	3x300,000	Assistance to the preparation of technical specifications and contract negotiations.	2008-2015
I/S Nordforbrænding, Hørsholm	Denmark	New WtE unit (CHP)	96,000	Project planning and definition, conceptual design, tendering, procurement, project/contract management, supervision, commissioning	2008-2015
North London Waste Authority (NLWA)	UK	Green-field WtE facility based on RDF/SRF	360,000	Technical advisor. Procurement of PFI contract for the design, build, finance and operation of the new facility.	2009-2014
Lincolnshire County Council	UK	Green-field WtE facility	150,000	Technical advisor. Design-Build-Operation contract. Preparation of outline business case, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations, project/contract management, supervision, commissioning and supervision of initial operation. Mechanical equipment and civil works. In JV with two other consultants	2007-2014

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New Waste-to-Energy Facilities and Units

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
TAQA, Abu Dhabi	United Arab Emirates	Green-field WtE facility	3x320,000	Owners Engineer, Project planning, conceptual design, management of the procurement process, bid evaluation, contract negotiations	2012-2013
RenewGEN Bangalore	Sri Lanka	Green-field WtE facility	200,000	Owners Engineer, Project planning, conceptual design, management of the procurement process, bid evaluation, contract negotiations	2011-2013
Fortum Värme, Brista B2, Stockholm	Sweden	Green-field WtE facility	240,000	EPCM Contractor, Engineering, Procurement, Construction, Management of the new facility	2010-2013
Urbaser S.A. Gloucestershire	UK	Green-field WtE facility	175,000	Technical advisor to Urbaser during the preparation and closure of a WTE PFI (DBFO) contract including bid support, preparation of technical specifications, support in the contracting of suppliers, project management	2009-2013
KARA/NOVE-REN, Roskilde	Denmark	New WtE unit (CHP)	200,000	Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, contracting, supervision of design, erection, commissioning. Site management and H&S.	2008-2013
Lynettefælleskabet I/S, Copenhagen	Denmark	New fluidized bed sludge incineration unit	20,000 (on dry basis)	Owners Engineer/EPCM contractor: Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision, commissioning and guarantee testing. Services include both mechanical equipment and civil works	2008-2013
Westenergy Oy Ab, Vaasa	Finland	Green-field WtE facility (CHP)	160,000	Owners Engineer/EPCM contractor: Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision, commissioning and guarantee testing. Services include both mechanical equipment and civil works	2008-2013

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New Waste-to-Energy Facilities and Units

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Halmstad Renhållnings AB	Sweden	New WtE unit (CHP)	120,000	Project planning and definition, conceptual design, tendering, procurement, project/contract management, supervision, commissioning	2011-2012
AVV I/S, Hjørring	Denmark	New WtE unit (CHP)	80,000	Project analysis and planning, conceptual design and permitting.	2007-2012
L90, Kjellerup	Denmark	Green-field WtE facility (CHP)	220,000	Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents. Mechanical equipment and civil works	2008-2011
FCC/Urbaser Asturias	Spain	Green-field WtE facility	2x200,000	Technical Advisor. Specification for suppliers and supplier information management for the proposal. Bid technical support. Energy modeling and CHP assessment.	2011
Troms Kraft, Tromsø	Norway	Feasibility Study	64,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2007-2011
Eidsiva Bioenergi AS, Hamar	Norway	Green-field WtE facility (CHP)	72,000	Project analysis and planning, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations, project/contract management, supervision and commissioning.	2007-2011
EGE, Oslo	Norway	New WtE unit (CHP)	160,000	Project analysis and planning, conceptual and detailed design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations. Mechanical equipment and civil works Detailed design of concrete constructions, contract management, supervision and commissioning.	2007-2011

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New Waste-to-Energy Facilities and Units

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Tynes Bay Waste Treatment Facility	Bermuda	New WtE unit and upgrading of existing two units	72,000	Feasibility study and preparation of tender documents	2006-2011
Returkraft AS/ Kristiansand	Norway	Green-field WtE facility (CHP)	120,000	Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	2005-2010
AVR, Rotterdam	Netherlands	New WtE units (CHP)	2x200,000	Feasibility study, conceptual design, assistance to application for permits, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations. Mechanical equipment and civil works	2006-2009
European Bank for Reconstruc- tion and Development, St. Petersburg	Russia	Green-field WtE facility for sludge	3x16,000	Lender's Supervisor. Revamping of existing waste water treatment plant (St. Petersburg North), including three new fluidised bed sludge incinerators	2005-2009
South East Region	Ireland	Green-field WtE facility and waste management system	up to 300,000	Waste strategy review, PPP assessment, project structuring, management of the procurement process (25 years DBFO contract), preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2004-2009
MV Kiel	Germany	New WtE unit (CHP)	100,000	Project analysis and planning, conceptual and detailed design, permits and preparation of tender documents. Mechanical equipment and civil works	2006-2008

Selected References New Waste-to-Energy Facilities and Units

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
SYSAV, Malmö	Sweden	New WtE unit (CHP), Line 4	210,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	2005-2008
Uddevalla Energi	Sweden	Green-field WtE facility (CHP)	88,000	Project analysis and planning, conceptual design, assistance to application for permits, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2005- 2008
European Commission, St. Petersburg	Russia	Green-field WtE facility for sludge	2x44,000	Bid evaluation, project/contract management, supervision and commissioning	2004-2007
Trekantområ- dets Affalds- selskab I/S, Kolding	Denmark	New WtE unit (CHP)	80,000	Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	2003- 2007
Trondheim Energiverk	Norway	New WtE unit (CHP)	120,000	Management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2003- 2007
Kraftvärmeverk et Torsvik, Jönköping Energi	Sweden	Green-field WtE facility	160,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning.	2006
States of Alderney	Alderney	Green-field WtE facility	500 kg/h	Updating of tender documents, management of the procurement process, bid evaluation and contract negotiations	2006

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New Waste-to-Energy Facilities and Units

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
I/S Reno-Nord, Aalborg	Denmark	New WtE unit (CHP)	160,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	1999-2006
I/S Vestforbrænding, Copenhagen	Denmark	Upgrading of WtE facility, line 6	280,000	Owner's engineer for procurement, negotiation and follow-up on all technical and civil contracts for the new line 6 (35 t/h).	2005
States of Guernsey, Board of administration	Guernsey	Feasibility Study	72,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2001-2005
I/S FASAN, Næstved	Denmark	Green-field WtE facility (CHP)	65,000	Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	2001-2005
Vattenfall Värme Uppsala AB	Sweden	New WtE unit (CHP)	175,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project management	2000-2004
Halmstad Renhållnings AB	Sweden	New WtE unit (CHP)	120,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning.	1999 – 2003
SYSÄV, Malmö	Sweden	New WtE unit (CHP) - Line 3	210,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	1998 –2003

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New Waste-to-Energy Facilities and Units

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
DANIDA / Cairo University Hospital	Egypt	New clinical waste facility	Batch 2 x 3.6 tpd	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2000 – 2002
Spildevands- center Avedøre, Copenhagen	Denmark	Green-field WtE facility for sludge	16,000 (on dry basis)	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management and commissioning. Mechanical equipment and civil works	1995 – 2001
I/S REFA, Nykøbing F.	Denmark	New WtE unit (CHP)	72,000	Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	1997 – 2000
DONG (Now Vattenfall), Odense	Denmark	Green-field WtE facility	250,000	Owner's engineer for feasibility study and conceptual design as well as procurement, negotiation and follow- up on all technical and civil contracts.	1996/2000
I/S Nordforbræn- ding, Hørsholm	Denmark	New WtE unit (CHP)	80,000	Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	1994-2000
I/S KARA, Roskilde	Denmark	New WtE unit (CHP)	160,000	conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	1994-2000

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New Waste-to-Energy Facilities and Units

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
AVV I/S, Hjørring	Denmark	New WtE unit (CHP)	50,000	Analysis, planning, conceptual design, tendering, contracting, project/contract management, commissioning	1993-2000
Svendborg Kraftvarme- værk I/S	Denmark	New WtE unit (CHP)	48,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	1994-1999
I/S Vestforbræn- ding, Copenhagen	Denmark	New WtE unit (CHP)	210,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	1994-1999
Environmental Protection Agency	Taiwan	Green-field WtE facility	300,000	Expert support to tender preparation, bid evaluation, evaluation of specifications, supervision and commissioning	1993-1998
BIR, Bergen	Norway	New WtE unit (CHP)	112,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	1996

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New Waste-to-Energy Facilities and Units

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Sønderborg Kraftvarme værk	Denmark	New WtE unit (CHP)	66,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning. Mechanical equipment and civil works	1993 – 1996
DONG, Måbjerg	Denmark	Green-field WtE facility	2x80,000	Owner's engineer for feasibility study and conceptual design as well as procurement, negotiation and follow- up on all technical contracts.	1993
DONG, Horsens	Denmark	Green-field WtE facility	65,000	Owner's engineer for feasibility study and conceptual design as well as procurement, negotiation and follow- up on all technical and civil contracts.	1992
Isle of Man Government, Department of Local Government and Environment	UK	Green-field WtE facility	65,000 + 5,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision, commissioning, and project follow-up during 25-year operation contract	1997-2025

Selected References

Upgrading/Retrofit of Waste-to-Energy Facilities

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Trondheim Energiverk	Norway	Upgrading of existing WtE facility, including new combustion control system and new CMS	2x48,000	Contract negotiations, project/contract management, supervision and commissioning	2009-2010
IRF, Leirvik	Faroe Islands	Upgrading of existing WtE facility, including new grate, establishment of wear zones and upgrading of boiler	20,000	Contract negotiations, project/contract management, supervision and commissioning	2008-2009
I/S Amagerforbrænding, Copenhagen	Denmark	Upgrading of existing WtE facility, including wear zones	4x96,000	Contract negotiations, project/contract management, supervision and commissioning	2008
I/S Amagerforbrænding, Copenhagen	Denmark	Upgrading of existing WtE facility, including replacement of existing slag and grate riddling transport systems	4x96,000	Contract negotiations, project/contract management, supervision and commissioning	2007-2008
Vattenfall Värme Uppsala AB	Sweden	Upgrading of existing WtE facility, including new turbine	175,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2007-2008
AffaldVarme Arhus	Denmark	Upgrading of existing WtE facility, including water-cooled wear zones, new furnace and flue gas condensation	2x60,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2007-2008
Fernvärme Wien, Spittelau, Vienna	Austria	Upgrading of existing WtE facility, including planning of reconstruction and energy optimization of the two incineration lines	2x133,000	Project analysis and planning	2006-2007
I/S KAVO, Slagelse	Denmark	Upgrading of existing WtE facility, including new furnace, grate and auxiliary burners	32,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2006
Klemetsrud Avfallsenergi- verk, Oslo	Norway	Upgrading of existing WtE facility	2x80,000	Plant inspection and proposal for upgrading	2006

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Upgrading/Retrofit of Waste-to-Energy Facilities

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Tynes Bay Waste Treatment Facility	Bermuda	Upgrading of existing WtE facility and establishment of new WtE unit	2x48,000	Plant inspection and proposal for upgrading	2006
ASM Brescia	Italy	Upgrading of existing WtE facility, including crane automation and establishment of a new crane	3x184,000	Feasibility study, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2004- 2006
I/S Reno-Nord, Aalborg	Denmark	Upgrading of existing WtE facility, including crane automation	160,000 + 88,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2004- 2006
Trondheim Energiverk	Norway	Upgrading of existing WtE facility, including SNCR and wastewater treatment	2x48,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2004 – 2006
IRF, Leirvik	Faroe Islands	Upgrading of existing WtE facility, including flue gas treatment system and furnace/boiler	20,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2004 – 2006
Århus Kommunale Værker	Denmark	Upgrading of existing WtE facility, including flue gas treatment system, SNCR and burners	2x64,000	Feasibility study, project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2003 – 2006
I/S KAVO, Slagelse	Denmark	Upgrading of existing WtE facility, including flue gas treatment system and burners	32,000 + 48,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2002- 2006

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Upgrading/Retrofit of Waste-to-Energy Facilities

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Halmstad Renhållnings AB	Sweden	Upgrading of existing WtE facility, including ECO and convection part	2x40,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2005
Halmstad Renhållnings AB	Sweden	Upgrading of existing WtE facility, including refractory lining, gas/gas reheater, make-up water and electrical installations	120,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2005
TIRME, S.A., Mallorca	Spain	Upgrading of existing WtE facility, including flue gas treatment system and SCR	2x150,000	Bid evaluation	2004- 2005
Torshavn Municipality	Faroe Islands	Upgrading of existing WtE facility, including flue gas treatment system and grate	20,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2004 – 2005
I/S KARA, Roskilde	Denmark	Upgrading of existing WtE facility, including SNCR	160,000 + 2x56,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2003- 2005
Trekant- områdets Affalds- selskab I/S, Kolding	Denmark	Upgrading of existing WtE facility, including flue gas treatment system	2x32,000	Management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations, project/contract management, supervision and commissioning	2003- 2005
Lynette- fællesskabet I/S, Copenhagen	Denmark	Upgrading of existing sludge incineration facility, including flue gas treatment system	-	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2003 – 2005
SYSAV, Malmö	Sweden	Upgrading of existing WtE facility, including flue gas treatment system and boilers	2x96,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2003 – 2005

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Upgrading/Retrofit of Waste-to-Energy Facilities

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
I/S FASAN, Næstved	Denmark	Upgrading of existing WtE facility, including flue gas treatment system	2x36,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2001- 2005
Halmstad Renhållnings AB	Sweden	Upgrading of existing WtE facility, including flue gas treatment system	2x40,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2001- 2005
I/S Nordforbræn- ding, Hørsholm	Denmark	Upgrading of existing WtE facility, including SNCR	88,000 + 3x24,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2001- 2005
I/S KARA, Roskilde	Denmark	Upgrading of existing WtE facility, including crane automation	160,000 + 2x56,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2003- 2004
I/S Amagerfor- brænding, Copenhagen	Denmark	Crane automation	4x96,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2003- 2004
Sønderborg Kraftvarme- værk	Denmark	Upgrading of existing WtE facility, including flue gas treatment system	64,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2002- 2004
AVV I/S, Hjørring	Denmark	Upgrading of existing WtE facility, including flue gas treatment system	48,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2003
City of Budapest	Hungary	Upgrading of existing WtE facility, including flue gas treatment system and furnace/boiler. Introduction of facilities for pre-treatment of waste and treatment and disposal of residues	4x120,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2001- 2002

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Upgrading/Retrofit of Waste-to-Energy Facilities

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Kommune- kemi, Nyborg	Denmark	Complete retrofit of hazardous waste incineration facility	-	Supervisor of the retrofit of the combustion chamber and the boiler	2001
Turku WtE facility	Finland	General consultancy at Turku WtE Plant	2x32,000	General technical and administrative consulting. Plant performance follow- up and reporting. Process modernisation, tendering, procurement and supervision	1988

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Client/ location	Country	Project	Ramboll's main responsibilities	Year
Statkraft Varme AS, Trondheim	Norway	Upgrading of WtE facility, flue gas condensation	Feasibility Study for Heat Recovery Condenser	2012-2013
MPO, Warszaw	Poland	Expansion of WTE plant	Conceptual design / project definition brief on how to significantly expand the capacity of the existing WTE facility	2012
CDR, Beirut	Lebanon	Feasibility Study	Feasibility Study, Preparation of pre-qualification documents and tender documents for solid waste management in Lebanon	2012
Confidential, Doha	Qatar	Feasibility Study	Fact finding, Feasibility study for WTE	2012
I/S Reno-Nord, I/S Reno-Vest og I/S Fælles Forbrænding	Denmark	Merger of three waste management companies	Feasibility study of merging three waste management companies in the northern part of Denmark	2008-2012
FCC, North Wales	UK	Green-field WtE facility	Technical advisor to FCC on PFI bid. Bid technical support. Specification to suppliers and supplier information management to proposal.	2010-2011
FCC, South East Wales	UK	Green-field WtE facility	Technical advisor to FCC on PFI bid. Bid technical support. Specification to suppliers and supplier information management to proposal. Energy modeling and CHP assessment.	2009-2011
AffaldVarme Århus	Denmark	New WtE unit (CHP)	Project analysis and planning, EIA and permits	2009-2011
I/S Kraftvarmeværk Thisted	Denmark	New 100,000 WtE unit (CHP)	Project analysis and planning and permits	2008-2011
Warrington Borough Council	UK	WTE options review	Technical advisor. Review of WTE options for the county.	2010
Lancaster County	USA	New WtE facility	Technology review and strategic advice to the facility owner	2009-2010
Moravia-Silesia Region, Ostrava	Czech Republic	New 192,000 tpa WtE facility	Support to the preparation of an EIA and planning application	2008-2010

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Client/ location	Country	Project	Ramboll's main responsibilities	Year
Guernsey	Guernsey	Feasibility Study	Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations, project/contract management, supervision, commissioning. Mechanical equipment and civil works	2007-2010
Northeast Maryland Waste Disposal Authority, Frederick and Carroll County	USA	New 500,000 WtE facility	Evaluation of technical proposals	2007-2010
York County	USA	Expansion of existing plant with new 200,000 tpa WtE unit	Technical assistance for procurement planning and implementation	2007 - 2010
BOFA, Bornholm	Denmark	Analysis of need for retrofit/replacement of WtE facility	Technical review of existing waste-to-energy facility and preparation of decision-making basis	2009
Skagerak Varme AS, Tønsberg	Norway	New WtE facility	Analysis of technical options	2009
AVØ I/S, Frederikshavn	Denmark	Technical assistance	Technical review of existing waste-to-energy facility and planning of capacity extension	2008-2009
Confidential	Confidential	Technical due diligence	Technical due diligence to support the potential acquisition of a hazardous waste facility	2008-2009
Helsinki Energy	Finland	Technical assistance to 350,000 tpa WtE facility	Pre-engineering of Kivikko WtE facility, including preparation of electromechanical budget and tender preparation	2008-2009
Government of Gibraltar	Gibraltar	New WtE facility for the incineration of MSW and sludge and demolition of an existing WtE facility	Preparation of public sector comparator	2005-2009
Trekant-området Affaldsselskab I/S, Kolding	Denmark	New WtE unit (CHP)	Project analysis and planning and permits	2007-2008

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Client/ location	Country	Project	Ramboll's main responsibilities	Year
Private client - Confidential	Poland	Production of electricity based on waste	Feasibility study	2008
KARA/ NOVEREN, I/S KAVO & I/S FASAN	Denmark	Merger of waste management companies	Feasibility study of merging three waste management companies in Region Sjælland in the eastern part of Denmark	2008
Affald Danmark	Denmark	Waste-to-energy in Denmark	Assessment of the amount of incinerable waste in Denmark. Preparation of report	2008
North London Waste Authority	UK	Upgrading or sale of existing WTE facility	Plant survey of the Edmonton WTE facility in London	2008
Durham County	Canada	New 200,000 tpa WTE facility	Quality assurance during preparation of RFQ and RFP	2008
Region of Peel	Canada	New 250,000 tpa WTE facility	Feasibility study	2008
Biolan/Nefco	Russia	Technical assistance	Feasibility study of the combustion potential of poultry litter, including a study of AD process and composting	2008
North London Waste Authority	UK	Technical assistance	Framework contract for technical advisory services concerning the treatment of residual waste within North London Waste Authority. Preparation of Outline Business Case	2007- 2008
OÜ Norman In- vest	Estonia	Technical assistance	Pre-feasibility Study. Technical and economic evaluation of project. Different consultancy work for the plant owner.	2007
I/S Amagerfor- brænding & I/S Vestfor- brænding	Denmark	Thermal waste treatment capacity in Copenhagen	Analysis of new thermal waste treatment capacity in Region Sjælland in the eastern part of Denmark	2007
The regional municipality of Halton	Canada	New WTE facility	Business case analysis	2007

Selected References Waste-to-Energy Studies

Client/ location	Country	Project	Ramboll's main responsibilities	Year
Environment Canada	Canada	MSW thermal treatment in Canada	Status of MSW thermal treatment in Canada	2007
Salt Lake City, Utah	USA	Technical assistance	Description and evaluation of alternative waste management technologies	2007
Confidential	Confidential	Acquisition of hazardous waste treatment facility	Due diligence of a hazardous waste treatment facility with a capacity of 60,000 tpa in relation to a possible acquisition by a private equity fund	2007
Board of Investment , Mauritius	Mauritius	New 300,000 tpa WtE facility	Technical/economical assessment of private developer's proposal to build and operate a WtE plant to treat the island's waste	2007
Durham and York County	Canada	New 250,000-400,000 tpa WtE facility	Incorporation of the most recent WtE knowledge and experience in the project and tender documents; participation in the overall planning of the facility, detailed layout, risk analysis and discussions related to the ownership and operation of the facility and mechanical equipment	2006- 2007
RVF	Sweden	Grate technology	Comparison of grate technologies	2006- 2007
Arctic Paper Häfreström	Sweden	Concept for fuel conversion	Pre-feasibility study	2006- 2007
Lincolnshire County Council	UK	Development and procurement of a Public Private Partnership for Lincolnshire Waste Treatment Project	Preparation of Outline Business Case for the treatment of residual waste in Lincolnshire County including a 150,000 tpa WtE facility. Design for planning application	2006- 2007
Merseyside Waste Disposal Authority	UK	Review of waste strategy	Preparation of Outline Business Case for two MBT plants followed by two 170,000 tpa WtE plants	2005- 2007
I/S KARA, I/S KAVO, I/S NOVEREN	Denmark	Merger of waste management companies	Feasibility study of merging three waste management companies in the eastern part of Denmark	2006
Dufferin	Canada	New 100,000 tpa WtE facility	Evaluation of tender documents	2006
Vancouver	Canada	Seminar	Planning and conduct of seminar for the board of Greater Vancouver Waste Authority and its technical staff. The seminar focussed on waste management in Europe and North America	2006
SORPA	Iceland	New 200,000 tpa WtE facility	Feasibility study	2006
MVA Flingern, Düsseldorf	Germany	Strategic development of existing WtE facility	Master plan	2006
Vilnius Energija/ Dalkia	Lithuania	New MSW and straw fired CHP plant in Vilnius	Pre-feasibility study	2006

Selected References Waste-to-Energy Studies

Client/ location	Country	Project	Ramboll's main responsibilities	Year
Norsk Varme, Kristiansand	Norway	New WtE facility	Environmental Impact Assessment	2005-2006
Energinet.dk	Denmark	Dioxin formation	Study of dioxin formation and destruction mechanisms in WtE facilities	2005-2006
Denmark nationwide	Denmark	Valuation of WtE facilities	Preparation of report	2005
States of Alderney	Alderney	New incineration facility	Feasibility study	2005
I/S Amagerforbrænding, Copenhagen	Denmark	New WtE unit(s)	Feasibility study	2005
Reno-Sam	Denmark	Waste incineration in Denmark	Study of waste incineration in Denmark	2005
Eight waste management companies	Denmark	Merger	Feasibility study of merging eight waste management companies	2005
Rambøll/Vølund	Denmark	100 years of waste incineration in Denmark	Preparation of historical review of waste incineration in Denmark	2004
Trekant-området's Affaldsselskab I/S, Kolding	Denmark	New WtE facility	Environmental Impact Assessment	2004
States of Guernsey	Guernsey	Emerging technologies	Study of emerging technologies	2004
States of Alderney	Alderney	Waste gasification system	Procurement of a waste gasification system (2,000 tpa) on a lease basis	2002-2004
EPA Hong Kong	Hong Kong	Household problematic waste	Study of household problematic waste	2003
I/S Reno-Nord, Aalborg	Denmark	New WtE facility	Environmental Impact Assessment	2002
NEFCO via ERM, Murmansk	Russia	Retrofit of waste incineration facility	Feasibility study	2002
EPA Hong Kong	Hong Kong	30 tpd animal carcass incineration facility	Feasibility study and preparation of tender documents	2001
States of Alderney	Alderney	Review of waste strategy	Review of Alderney's preliminary waste strategy including an analysis of an on-island disposal option of MSW through thermal treatment	2001

Selected References Waste-to-Energy Studies

Client/ location	Country	Project	Ramboll's main responsibilities	Year
Moscow City	Russia	Rehabilitation of existing WtE facility	Detailed study of the feasibility of rehabilitating plant no. 3 in Moscow (4 x 84,000 tpa)	1993-2001
South East Region	Ireland	Preparation of waste management plan for the South East Region	Review and assessment of thermal treatment options outlined in a previous strategy study	2000
Danish EPA	Denmark	Waste as a resource for energy production	Studies to assess the need for incineration over the next decade for each region and for Denmark as a whole	2000
Municipality of Torshavn	Faroe Islands	New WtE unit (CHP)	Feasibility study	2000
I/S FASAN, Næstved	Denmark	New WtE unit and purchase of a gas fired power plant	Technical, operational and financial analysis to assess the feasibility of a new facility and the purchase of a gas fired power plant	1999-2000
I/S Vestforbrænding, Copenhagen	Denmark	Retrofit and/or new WtE unit	Feasibility study	1999
Danish Energy Agency, Kiev	Ukraine	New WtE facility or upgrade of existing facility	Feasibility study	1999
World Bank (IBRD)	Regional	World Bank publication: "Decision Makers Guide to Municipal Solid Waste Incineration"	Preparation of the guide and a supporting World Bank Technical Paper "Municipal Solid Waste Incineration – Requirements for a Successful Project"	1998

Selected References Waste-to-Energy Studies

Client/ location	Country	Project	Ramboll's main responsibilities	Year
I/S Vestforbrænding, Copenhagen	Denmark	New WtE unit	Preparation of EIA and application for environmental/operational permit for the largest WtE facility in Scandinavia	1998
Køge Kommune	Denmark	Privatisation of sludge incineration facility	Support to the seller of the facility (the municipality) with analysis and during negotiations	1998
The European Bank, Moscow City	Russia	PPP options for waste treatment in Moscow	Review of PPP options for the revamping, financing and operation of incineration plants in Moscow city	1997
I/S Fælles Forbrænding, Hobro	Denmark	New WtE facility	Feasibility study	1996
Oslo Renholdsverket	Norway	New WtE unit	Feasibility study	1996
DANIDA	Philippines	Pre-appraisal of WtE facility	Review of project feasibility	1995-1996
IPE-EGF	Portugal	Alternative thermal treatment technologies	Review of different thermal treatment technologies. Presentation of plant concepts, environmental performance, costs and manufactures	1994
DANIDA, Guangzhou	China	Pre-appraisal of WtE facility	Review of project to assess feasibility for soft credit financing	1994
Municipality of Skagen	Denmark	New CC plant for incineration of waste, biomass and natural gas	Feasibility study. Preparation of preliminary design	1993
I/S KARA, Roskilde	Denmark	New WtE facility	Feasibility study	1993
LIPOR, Oporto	Portugal	Green-field 400,000 tpa WtE facility	Expert assistance in the evaluation of bids	1993