

## Green-field Waste-to-Energy Facilities and New Units Selected References

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Hertfordshire County Council	UK	Green-field residual waste treatment facility	270,000	Technical advisor. Procurement of PFI contract for the design, build, finance and operation of the new facility.	2009- 2011
North London Waste Authority	UK	Green-field WtE facility based on RDF/SRF	300,000	Technical advisor. Procurement of PFI contract for the design, build, finance and operation of the new facility.	2009- 2012
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	2008- 2013
L90, Esbjerg	Denmark	New WtE unit (CHP)	220,000	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	2008- 2013
Lynettefælles- skabet I/S, Copenhagen	Denmark	New fluidized bed sludge incineration unit	20,000 (on dry basis)	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. Mechanical equipment and civil works	2008- 2013
Westenergy Oy Ab, Vaasa	Finland	Green-field WtE facility	160,000	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 and commissioning. Mechanical equipment and civil works	2008- 2013
AVV I/S, Hjørring	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	2008- 2012

## Green-field Waste-to-Energy Facilities and New Units Selected References

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Lincolnshire County Council	UK	Green-field residual waste treatment facility	150,000	Technical advisor. Preparation of outline business case, procurement of DBO/DBFO contract for the design, build, operation (and potentially finance) of the new facility, and follow-up during construction, commissioning and initial operation.	2007- 2014
Guernsey	Guernsey	Green-field residual waste treatment facility	55,000	Project analysis and planning, conceptual design, permits, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations. Mechanical equipment and civil works	2007- 2012
Tromsø Kraft	Norway	Green-field WtE facility	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
Hamar Regionen Fjernvarme AS/	Norway	Green-field WtE facility	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
Klemetsrud, Oslo	Norway	New WtE unit (CHP)	160,000	Project analysis and planning, conceptual and detailed design, permits, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations. Mechanical equipment and civil works	2007- 2010
AVR, Rotterdam	Netherlands	New WtE units (CHP)	2x200,000	Feasibility study, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations. Mechanical equipment and civil works	2006- 2012
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
MV Kiel	Germany	New WtE unit (CHP)	100,000	Project analysis and planning, conceptual and detailed design, permits, management of the procurement process, preparation of tender documents. Mechanical equipment and civil works	2006- 2010

## Green-field Waste-to-Energy Facilities and New Units Selected References

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
States of Alderney	Alderney	New waste treatment facility	500 kg/h	Updating of tender documents, management of the procurement process, bid evaluation and contract negotiations	2006
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
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, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2005-2008
European Bank for Reconstruction and Development, St. Petersburg	Russia	Green-field fluidised bed sludge incineration facility	3 x 16,000	Lender's Supervisor	2005-2007
South East Region	Ireland	Procurement of an integrated waste management system including WtE (25 years DBFO contract)	up to 300,000	Waste strategy review, PPP assessment, project structuring, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management, supervision and commissioning	2004-2009
European Commission, St. Petersburg	Russia	Green-field fluidised bed sludge incineration facility	2 x 44,000	Bid evaluation, project/contract management, supervision and commissioning	2004-2007

## Green-field Waste-to-Energy Facilities and New Units Selected References

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Trekantområdets Affalds-selskab I/S, Kolding	Denmark	New WtE unit	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	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	2003-2006
I/S FASAN, Næstved	Denmark	Green-field WtE facility	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
States of Guernsey, Board of Administration	Guernsey	Green-field WtE facility (DBO contract)	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
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/contract management, supervision and commissioning	2000-2004
DANIDA / Cairo University Hospital	Egypt	Introduction of a new clinical waste system. Establishment of a state-of-the art clinical waste incineration 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

## Green-field Waste-to-Energy Facilities and New Units Selected References

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
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
SYSAV, 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
Department of Local Government and Environment, Isle of Man	Isle of Man	Green-field WtE facility, including a facility to incinerate special waste (25-year DBO contract)	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
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
BIR, Oslo	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

## Green-field Waste-to-Energy Facilities and New Units Selected References

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Spildevands- center Avedøre, Copenhagen	Denmark	New sludge incineration facility based on fluidised bed technology	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 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	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- 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
AVV I/S, Hjørring	Denmark	New WtE unit (CHP)	50,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation, contract negotiations, project/contract management and commissioning.	1993- 2000

## Green-field Waste-to-Energy Facilities and New Units Selected References

Client/ location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Environmental Protection Agency, Kaohsiung	Taiwan	Green-field WtE facility	300,000	Expert support to the preparation of tender documents, bid evaluation, evaluation of specifications, supervision and commissioning	1993- 1999
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

## Upgrading/Retrofit of Waste-to-Energy Facilities Selected References

Client/ Location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
I/S REFA, Nykøbing F.	Denmark	Upgrading of existing WtE facility	2 x 32,000	Project analysis and planning, contract negotiations, project/contract management, supervision and commissioning	2008-2009
IRF, Leirvik	Faroe Islands	Upgrading of existing WtE facility, including new grate, establishment of wear zones and upgrading of boiler	16,000	Contract negotiations, project/contract management, supervision and commissioning	2008-2009
I/S Amagerforbrænding, Copenhagen	Denmark	Upgrading of existing WtE facility, including wear zones	4 x 96,000	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	4 x 96,000	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 Århus	Denmark	Upgrading of existing WtE facility, including water-cooled wear zones, new furnace and flue gas condensation	2 x 60,000	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	2 x 133,000	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	2 x 80,000	Plant inspection and proposal for upgrading	2006
Tynes Bay Waste Treatment Facility	Bermuda	Upgrading of existing WtE facility and establishment of new WtE unit	2 x 48,000	Plant inspection and proposal for upgrading	2006

## Upgrading/Retrofit of Waste-to-Energy Facilities Selected References

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	2 x 40,000	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
ASM Brescia	Italy	Upgrading of existing WtE facility, including crane automation and establishment of a new crane	3 x 184,000	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	2 x 48,000	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
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
TIRME, S.A., Mallorca	Spain	Upgrading of existing WtE facility, including flue gas treatment system and SCR	2 x 150,000	Bid evaluation	2004-2005

## Upgrading/Retrofit of Waste-to-Energy Facilities Selected References

Client/ Location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
Århus Kommunale Værker	Denmark	Upgrading of existing WtE facility, including flue gas treatment system, SNCR and burners	2 x 64,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2003 – 2006
I/S KARA, Roskilde	Denmark	Upgrading of existing WtE facility, including SNCR	160,000 + 2 x 56,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2003-2005
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	2003-2005
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
SYSÄV, Malmö	Sweden	Upgrading of existing WtE facility, including flue gas treatment system and boilers	2 x 96,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2003 – 2005
Trekantområ- dets Affalds- selskab I/S, Kolding	Denmark	Upgrading of existing WtE facility, including flue gas treatment system	2 x 32,000	Management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations, project/contract management, supervision and commissioning	2003-2005
I/S KARA, Roskilde	Denmark	Upgrading of existing WtE facility, including crane automation	160,000 + 2 x 56,000	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	Upgrading of existing WtE facility, including crane automation	4 x 96,000	Feasibility study, project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2003-2004

## Upgrading/Retrofit of Waste-to-Energy Facilities Selected References

Client/ Location	Country	Project	Capacity tpa	Ramboll's main responsibilities	Year
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
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
I/S FASAN, Næstved	Denmark	Upgrading of existing WtE facility, including flue gas treatment system	2 x 36,000	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	2 x 40,000	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 + 3 x 24,000	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
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	4 x 120,000	Project analysis and planning, conceptual design, management of the procurement process, preparation of tender documents, bid evaluation and contract negotiations	2001- 2002
Kommune- kemi, Nyborg	Denmark	Complete retrofit of hazardous waste incineration facility	-	Supervisor of the retrofit of the combustion chamber and the boiler	2001

## Waste-to-Energy Studies Selected References

Client/ Location	Country	Project	Ramboll's main Responsibilities	Year
Skagerak Varme AS, Tønsberg	Norway	New WtE facility	Analysis of technical options	2009
I/S Kraftvarme- værk Thisted	Denmark	New 100,000 WtE unit (CHP)	Project analysis and planning and permits	2008- 2013
I/S Nordforbræn- ding, Hørsholm	Denmark	New 96,000 tpa WtE unit (CHP)	Project analysis and planning and permits	2008- 2013
Trekantom- rådets Affaldsselskab I/S, Kolding	Denmark	New WtE unit (CHP)	Project analysis and planning and permits	2008- 2014
Moravia- Silesia Region, Ostrava	Czech Republic	New 192,000 WtE facility	Support to the preparation of an EIA and planning application	2008- 2010
AVØ I/S, Frederiks- havn	Denmark	Technical assistance	Technical review of existing waste-to-energy facility and planning of capacity extension	2008- 2009
Confidential	Denmark	Acquisition of hazardous waste treatment plant	Due diligence	2008- 2009
I/S Reno- Nord, I/S Reno-Vest og I/S Fælles Forbrænding	Denmark	Merger	Feasibility study of merging three waste management companies in the northern part of Denmark	2008
Private client - Confidential	Poland	Production of electricity based on waste	Feasibility study	2008
KARA/ NOVE- REN, I/S KA- VO & I/S FA- SAN	Denmark	Merger	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	Technical assistance	Plant survey of the Edmonton WtE facility in London	2008
Warrington Borough County	UK	Thermal treatment of residual waste	Study tour to selected WtE facilities in Denmark	2008
Durham County	Canada	New 200,000 tpa WtE facility	Quality assurance during preparation of RFQ and RFP	2008
Palm Beach, Florida	USA	Technical assistance	Presentation of facilities and technologies applied for waste management in Europe	2008

## Waste-to-Energy Studies Selected References

Client/ Location	Country	Project	Ramboll's main Responsibilities	Year
Region of Peel	Canada	New 250,000 tpa WtE facility	Feasibility study	2008
Maryland	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
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
I/S Amagerforbrænding & I/S Vestforbrænding	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
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	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
I/S KARA, I/S KAVO, I/S NOVEREN	Denmark	Merger	Feasibility study of merging three waste management companies in the eastern part of Denmark	2006

## Waste-to-Energy Studies Selected References

Client/ Location	Country	Project	Ramboll's main Responsibilities	Year
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
Vilniaus Energija/ Dalkia	Lithuania	New MSW and straw fired CHP plant in Vilnius	Pre-feasibility study	2006
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
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
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
Trekantområdets Affaldsselskab I/S, Kolding	Denmark	New WtE facility	Environmental Impact Assessment	2004
States of Guernsey	Guernsey	Emerging technologies	Study of emerging technologies	2004
EPA Hong Kong	Hong Kong	Household problematic waste	Study of household problematic waste	2003

## Waste-to-Energy Studies Selected References

Client/ Location	Country	Project	Ramboll's main Responsibilities	Year
States of Alderney	Alderney	Waste gasification system	Procurement of a waste gasification system (2,000 tpa) on a lease basis	2002-2004
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	New animal carcass incinerator	Feasibility study	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
EPA Hong Kong	Hong Kong	30 tpd animal carcass incineration facility	Feasibility study and preparation of tender documents	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: <i>"Decision Makers Guide to Municipal Solid Waste Incineration"</i>	Preparation of the guide and a supporting World Bank Technical Paper <i>"Municipal Solid Waste Incineration – Requirements for a Successful Project"</i>	1998
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
Municipality of Køge	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

## Waste-to-Energy Studies Selected References

Client/ Location	Country	Project	Ramboll's main Responsibilities	Year
DANIDA	Philippines	Pre-appraisal of WtE facility	Review of project feasibility	1995- 1996
IPE-EGF	Portugal	Alternative thermal treatment technologies	Preparation and 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
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
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