

Selected References

Green-field Waste-to-Energy Facilities and New Units

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|--|---------|---|---|---|---------------|
| Warrington Borough Council | UK | Green-field residual waste treatment facility | 50,000 | Technical advisor. Procurement of contract for the design and build of the new facility | 2010- 2014 |
| I/S Amagerforbræn- ding, Copenhagen | Denmark | Green-field WtE facility (CHP) | 2x280,000 (prepared for 50% extension) | 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 |
| North London Waste Authority | 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- 2012 |
| 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 |
| 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, 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- 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 (CHP) | 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 |
| Palm Beach, Florida | USA | Green-field WtE facility | 3x240,000 | Assistance to the preparation of technical specifications and contract negotiations. | 2008- 2013 |

Selected References

Green-field Waste-to-Energy Facilities and New Units

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|-----------------------------------|----------|--|-----------------|---|---------------|
| 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 |
| 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 |
| Troms Kraft, Tromsø | 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 |
| 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 | 2007- 2011 |
| Guernsey | Guernsey | Green-field residual waste treatment facility | 55,00 | 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 |

Selected References

Green-field Waste-to-Energy Facilities and New 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 |
| 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 |
| 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 |
| 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, 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 |

Selected References

Green-field Waste-to-Energy Facilities and New Units

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|--|---------|--|------------------|--|---------------|
| European Bank for Reconstruction and Development, St. Petersburg | Russia | Revamping of existing waste water treatment plant (St. Petersburg North), including three new fluidised bed sludge incinerators | 3 x 16,000 | Lender's Supervisor | 2005- 2009 |
| 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 |
| 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 |
| 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 |

Selected References

Green-field Waste-to-Energy Facilities and New Units

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|--|----------|--|----------------------|--|----------------|
| 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 management | 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 |
| 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 |
| 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 |

Selected References

Green-field Waste-to-Energy Facilities and New Units

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|--|---------|--|--------------------------|--|----------------|
| Isle of Man Government, Department of Local Government and Environment | UK | 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 |
| 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 | 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 |

Selected References

Green-field Waste-to-Energy Facilities and New Units

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|---|---------|---|-----------------|--|----------------|
| 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 | Analysis, planning, conceptual design, tendering, contracting, project/contract management, commissioning | 1993- 2000 |
| Environmental Protection Agency | Taiwan | Establishment and operation of a green-field WtE facility | 300,000 | Expert support to tender preparation, 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 |

Selected References

Upgrading/Retrofit of Waste-to-Energy Facilities

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|---|------------------|---|-----------------|---|---------------|
| Turku WtE facility | Finland | General consultancy at Turku WtE Plant | 2 x 32,000 | General technical and administrative consulting. Plant performance follow- up and reporting. Process modernisation, tendering, procurement and supervision | 1988- |
| Trondheim Energiverk | Norway | Upgrading of existing WtE facility, including new combustion control system and new CMS | 2 x 48,000 | 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 Amagerfor- brænding, 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 Amagerfor- brænding, 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 |

Selected References

Upgrading/Retrofit of Waste-to-Energy Facilities

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|---|---------|---|---------------------|---|----------------|
| 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 |
| 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 |

Selected References

Upgrading/Retrofit of Waste-to-Energy Facilities

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|--|------------------|---|-------------------------|---|----------------|
| 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 |
| 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, permits, 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- |
| 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 | 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 |

Selected References

Upgrading/Retrofit of Waste-to-Energy Facilities

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|--|---------|--|-------------------------|---|---------------|
| Trekant-området 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 | 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 |
| 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 |

Selected References

Upgrading/Retrofit of Waste-to-Energy Facilities

| Client/ location | Country | Project | Capacity tpa | Ramboll's main responsibilities | Year |
|---------------------------------------|---------|---|------------------------|---|---------------|
| 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 |

Selected References Waste-to-Energy Studies

| Client/ location | Country | Project | Ramboll's main responsibilities | Year |
|--|----------------|---|---|-----------|
| Lancaster County | USA | New WtE facility | Technology review and strategic advice to the facility owner | 2009-2010 |
| AffaldVarme Århus | Denmark | New WtE unit (CHP) | Project analysis and planning, EIA and permits | 2009-2011 |
| OÜ Norman Invest | Estonia | Technical assistance | Pre-feasibility Study. Technical and economic evaluation of project. Different consultancy work for the plant owner. | 2007- |
| 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 |
| Trekant-området Affaldsselskab I/S, Kolding | Denmark | New WtE unit (CHP) | Project analysis and planning and permits | 2008-2014 |
| I/S Kraftvarmeværk Thisted | Denmark | New 100,000 WtE unit (CHP) | Project analysis and planning and permits | 2008-2013 |
| I/S Nordforbrænding, Hørsholm | Denmark | New 96,000 tpa WtE unit (CHP) | Project analysis and planning and permits | 2008-2013 |
| Moravia-Silesia Region, Ostrava | Czech Republic | New 192,000 tpa WtE facility | Support to the preparation of an EIA and planning application | 2008-2010 |
| AVØ I/S, Frederikshavn | Denmark | Technical assistance | Technical review of existing waste-to-energy facility and planning of capacity extension | 2008-2009 |
| Confidential | Confidential | Acquisition of hazardous waste treatment plant | Due diligence | 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 |
| 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 |

Selected References Waste-to-Energy Studies

| Client/ location | Country | Project | Ramboll's main responsibilities | Year |
|--|--------------|---|---|----------------|
| KARA/ NOVEREN, I/S KAVO & I/S FASAN | 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 |
| 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 |
| 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 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 |
| 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 |

Selected References Waste-to-Energy Studies

| Client/ location | Country | Project | Ramboll's main responsibilities | Year |
|---------------------------------|-----------|--|--|-----------|
| 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 |
| 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 |
| 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 |

Selected References Waste-to-Energy Studies

| Client/ location | Country | Project | Ramboll's main responsibilities | Year |
|---|-----------|--|--|-----------|
| 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 |
| 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 |
| EPA Hong Kong | Hong Kong | Household problematic waste | Study of household problematic waste | 2003 |
| 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 |

Selected References Waste-to-Energy Studies

| Client/ location | Country | Project | Ramboll's main responsibilities | Year |
|---------------------------------|---------------|---|---|-----------|
| 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 |
| 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 |
| 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 |

Selected References Waste-to-Energy Studies

| 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 | 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 |