



# Complete, Integrated Waste-to-Energy Solutions

The ability to add value at every point in the asset lifecycle, and ensure execution certainty, is why clients trust Black & Veatch to deliver their waste-to-energy projects.



**BLACK & VEATCH**



## End-to-End Delivery Excellence

We create value at every point in the project lifecycle.

Black & Veatch believes execution certainty comes from partners with expertise in every element of the project lifecycle, and the experience to manage the complex interfaces between them.

Very few utilities and independent power producers maintain the technical expertise and knowledge to cover all areas of the technology options available to them. As your technology agnostic partner, Black & Veatch will ensure the equipment selections best aligned with your project's commercial goals.

To learn more contact Ian Blacker ([BlackerI@bv.com](mailto:BlackerI@bv.com)).

# Waste-to-Energy Project Successes

## Deeside Waste-to-Energy Project

EQTEC appointed Black & Veatch to undertake the powertrain front-end engineering design for its Deeside waste-to-energy project. The facility will use advanced gasification to convert domestic and commercial waste into sufficient electricity to power 37,500 homes.

## Energy Works, Hull

Energy Works Hull is a 29-megawatt (MW) gasification waste-to-energy project. Black & Veatch's EpCM scope included a due diligence design review, engineering services, and management of contractors. Additionally, Black & Veatch was responsible for completion of construction, start-up/commissioning and take-over/performance testing.

## Ince Park Resource Recovery Centre

The EPC contract to create the 21.5-MW woodstock biomass energy centre at Ince Park was delivered by a Black & Veatch led joint venture. Black & Veatch provided programme management as well as leading the engineering and commissioning work for the plant.

## Knostrop Energy & Recycling Facility

Yorkshire Water's £72 million Knostrop Energy & Recycling Facility turns wastewater into energy, generating sufficient electricity to power 7,600 homes. Black & Veatch's scope included feasibility studies; after which the company was awarded the EPC delivery contract. Completion was on time and to budget.

# Experience Drives Execution Certainty

## Services

We have abundant experience in every aspect of waste-to-energy project execution:

- Resource assessments and characterisations
- Feasibility studies and technology selection, technical due diligence
- Conceptual and preliminary engineering
- Detailed design
- Owner's engineer services
- Engineer, procure, construction management (EpCM) and Engineer, procure, construct (EPC) delivery

## Combustion Technology

Our combustion technology expertise is comprehensive:

- Combined heat and power
- Fluidised bed staged-gasification
- Moving grate
- Pyrolysis
- Plasma arc gasification

## Feedstocks

We have experience with all common WTE feedstocks:

- Biomass
- Biogas
- Refuse-derived fuel
- Municipal solid waste

## Decarbonisation

Black & Veatch has significant experience with many types of carbon capture and sequestration facilities, including direct air capture and facilities that utilise carbon dioxide to produce commercial products.

## Syngas and Synfuels

We have supported multiple waste-to-energy projects that encompass processing of syngas and production of synfuels including:

- Ammonia
- Biomethane
- Gasoline
- Hydrogen
- Methanol
- Urea
- Urea Ammonium Nitrate

# Get to Know Black & Veatch

Black & Veatch is an employee-owned engineering, procurement, consulting and construction company with a 100-year legacy of innovations in sustainable infrastructure.

- 9,200+ professionals in 120+ offices
- Projects in 100+ countries on six continents

## Black & Veatch in Europe: Established, growing

- 60-plus Europe professionals
  - Construction services, engineering, technical leads, procurement, project control
- Supporting European clients and communities for 30 years
- Putting round-the-clock project delivery at your disposal
  - Thailand: 300-plus BV engineering professionals, established 50+ years
  - India: 750-plus BV engineering professionals, established 50+ years
  - USA: World-class technical and project management resources

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