A HOLISTIC APPROACH TO ENERGY

In an energy sector that is transforming rapidly, Ramboll offers a strategic approach to energy and utility projects facilitated by our holistic perspective on energy planning. Our detailed knowledge and experience of the energy sector value chain enable us to create innovative solutions and strategies for our clients. Ramboll’s clients can then make decisions based on the complete picture of energy demand and supply to ensure their sustainability through this transformation.

Ramboll is a strategic partner to international and domestic clients, offering proven commercial, financial and engineering consulting capabilities to assist our clients with the current transformation of the energy sector.

We add value to projects by utilising our comprehensive knowledge and understanding of the energy life cycle. We seek to develop a strong understanding of our clients’ needs and aspirations in order to use our experience and knowledge to the fullest for the benefit of our clients. This allows us to be in the driving seat when it comes to planning and investment of tomorrow’s energy infrastructure.

Ramboll’s vision of the energy transition
- Increased share of renewable energy requires a flexible energy system
- Digitization will enable new and flexible sources, e.g. virtual power plants and smart metering
- Decarbonisation targets and how to capitalise on these
- Optimal utilization and replacement of conventional generation as the power system evolves
- Production of renewable thermal energy
- Sector coupling and sector integration

THE INTEGRATED ENERGY SYSTEM
WE PROVIDE SOLUTIONS TO THE CHALLENGES OUR CLIENTS HAVE

CITIES, UNIVERSITIES, GOVERNMENTS, EU
- How do we move towards carbon neutrality?
- How can we integrate district heating and cooling into our energy supply?
- What changes can we implement to facilitate climate mitigation?
- How much should we insulate our building stock?

TRANSMISSION SYSTEM OPERATORS
- How do we incorporate new regulations?
- How can we optimise our transmission system to deal with future change?
- How do we guarantee security of supply?

INVESTORS
- Is it a healthy project/asset?
- Is the investment sustainable?
- How can energy storage bring value to investors?

DISTRIBUTION SYSTEM OPERATORS
- How do we deal with distributed generation?
- Should we expand our network under the existing tariff structure?
- Could smart meters help control supply more efficiently?

GENERATORS
- How do we guarantee security of supply?
- When should we invest in the supply market?
- Will energy storage improve our cost base?
- Should we buy or sell assets?

LARGE CONSUMERS
- Where should we source our energy from?
- Will on-site generation improve our bottom line/resilience?
- How much should we insulate our building stock?
- How do we guarantee security of supply?

DISTRIBUTION SYSTEM OPERATORS
- How do we deal with distributed generation?
- Should we expand our network under the existing tariff structure?
- Could smart meters help control supply more efficiently?

OUR SERVICES
We offer our clients strong strategy and planning capabilities within the development of strategy documents, business cases, policy and due diligence studies based on an understanding of the interaction of the different sectors and in-depth technical insight into each of the elements in the energy system.

Ramboll is a trusted partner for change.

With our energy strategy and planning capabilities, we can assist our clients in capitalising and planning for the green transition by providing the answers for the questions this transition poses.

We offer a multidisciplinary team dedicated to energy strategy and planning that serves as the single point of contact within Ramboll for the development, execution and implementation of energy strategy and planning projects globally.

The core team draws on Ramboll expertise in 300 offices in 35 countries to offer our clients the advantage of a global platform with leading energy sector experts and local knowledge across Europe, US, UK and Asia to provide the right knowledge for the right geography.
INVESTMENTS IN INNOVATION AND SECURITY OF SUPPLY IN ELECTRICITY AND GAS INFRASTRUCTURE
Ramboll advised the European Commission on the central role played by European Transmission System Operators for electricity and gas in the energy system. We also advised on how the two sectors can be coupled to support the integration of renewable energy sources as well as storage and Power-to-X technologies in the market. Ramboll assessed the ways in which the existing regulatory framework in the Member States supports and incentivizes energy infrastructure investments, with a specific focus on investments in sector coupling, innovation and security of supply investments.

JOINT BALANCING ZONE – DENMARK-SWEDEN
Ramboll assisted the Danish gas Transmission System Operator, Energinet, in conducting a merger of the Danish and Swedish gas balancing markets to introduce a more flexible and well-functioning market. Ramboll’s scope of work included governance setup, commercial agreement, Interconnection agreement and other service level agreements, IT project management and system integration as well as communication with shippers and Distribution System Operators in both Denmark and Sweden.

OFFSHORE WIND ASSET MANAGEMENT ADVISORY
Ramboll provided strategic asset management services to a globally active investor, developer and operator of power generation assets. The company was developing an offshore wind farm in a new market, and Ramboll supported it by developing asset management strategies and plans with a special focus on optimising operation and maintenance. Ramboll’s scope of work included assessment of the service contract proposed by the wind turbine supplier and consultation regarding exclusions, weather risks, scope and caps; assessment of operational strategies (O&M vessel and helicopter fleet, onshore facilities); development of business cases with likely scenarios (best / worst case); consultancy regarding strategic asset management plan (in-house vs. outsourcing); and assessment and mitigation plan for main technological risks throughout the lifecycle of the offshore wind farm. Ramboll’s work enabled the company to reduce operation and maintenance costs by 10-15%.