

Risk management

Risk management is an integrated part of business planning and performance management. Its purpose is to enable the execution of the company's strategy and to support the business in achieving financial targets.

1 Risk management framework

1.1 Objective

Involvement in the power and heat business exposes Fortum to several types of financial, operational and strategic risks. Electricity prices, which in turn are affected by the weather in the Nordic region and the development of the global commodity markets, are the main sources of financial risk. The Russian business is exposed to fuel and electricity prices in form of margin exposure.

Fortum is continuously developing its risk management capabilities to cope with prevailing market conditions, developing operations and an ever-changing business environment. In the Risk Management development work the focus has been on further enhancing the framework for operational risk management especially within the concept of internal controls and compliance risk management. At the same time market and credit risk modelling has been continuously developed.

1.2 Policy

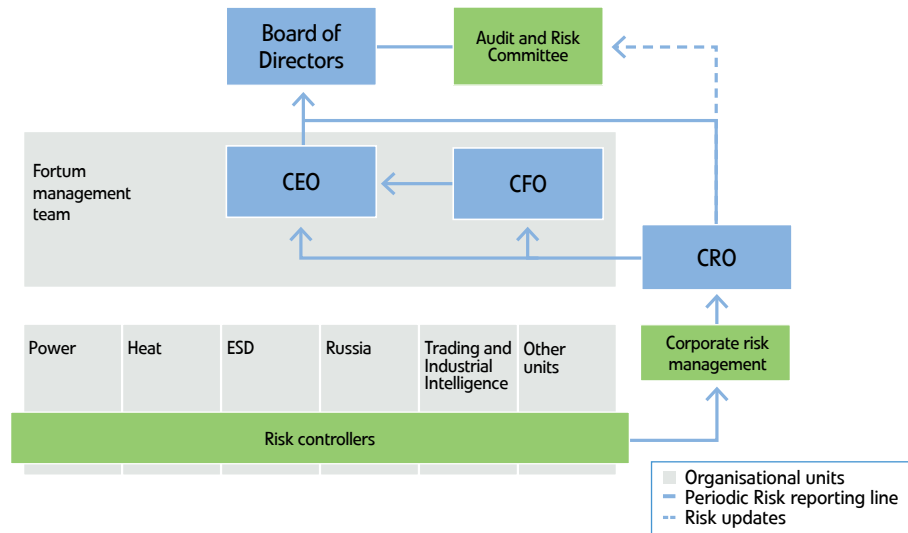
Fortum's Board of Directors approves the Corporate Risk Policy which sets the objective, principles and division of responsibilities for risk management activities within the Group as well as defines the overall risk management process.

Corporate guidelines are issued for those risks which are managed on Group level. Corporate Treasury is responsible for managing the Group's currency, interest rate, and liquidity and refinancing risks as well as for insurance management. Corporate Credit Control is responsible for assessing and consolidating the Group's exposure to counterpart risk, monitoring the creditworthiness of counterparts and for approving counterpart credit limits. Corporate IT is responsible for managing IT information and security risks. There are also corporate functions dealing with risks related to human resources, laws and regulation, and sustainability.

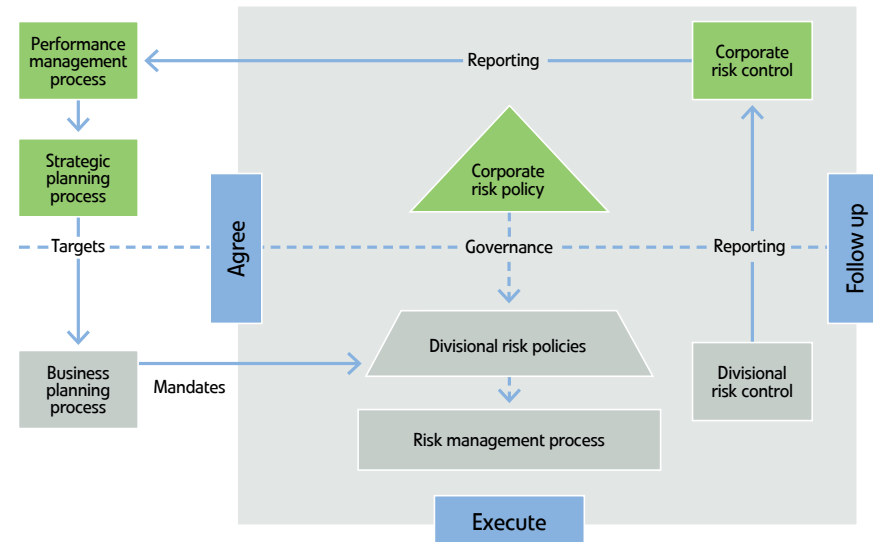
1.3 Organisation

The Audit and Risk Committee is responsible for risk oversight within the Group. Corporate Risk Management is an independent function headed by the Chief Risk Officer (CRO), who reports to the CFO and is responsible for assessing and reporting the Group's consolidated risk exposure to the Board of Directors and Group Management. Corporate Risk Management also monitors and reports risk in relation to mandates approved by the CEO. The main principle is that risks are managed at source if not agreed otherwise and in order to maintain a strict segregation of duties, risk control functions in Divisions and Group functions like Treasury and Trading and Industrial Intelligence (TII) are responsible for reporting risks to Corporate Risk Management.

Fortum's risk management reporting structure



Risk management process



1.3.1 Process

The risk management process consists of event identification, risk assessment, risk response and risk control. Risks are primarily identified and assessed by divisions and staff functions in accordance with corporate guidelines and models that are approved by Corporate Risk Management. Every unit is also responsible for responding to risks by taking appropriate actions. Risk responses can be one of, or a combination of, mitigating, transferring or absorbing the risk.

Risk control, monitoring and reporting is carried out by the divisional risk control functions. The frequency of reporting is dependent upon the scope of the business. For example, trading activities and limit breaches are reported daily whereas strategic and operational risks are reported as part of the annual business planning process. Corporate Risk Management assesses and reports the Group's consolidated exposure to financial risks to Group Management and the Board of Directors on a monthly basis and main commodity exposures to the Group management on weekly basis.

2 Description of risks

2.1 Strategic risks

Fortum seeks growth both by leveraging organic growth opportunities and actively participating in further Nordic consolidation. Fortum's aim is to grow profitably in chosen market areas: the Nordic countries, Russia, Poland and the Baltic countries. The growth possibilities are in part subject to regulatory supervision and political decisions.

Nordic/EU Policy harmonisation, infrastructure development and integration of the Nordic electricity market towards continental Europe depend partly on the actions of authorities. Changes in the market environment and regulation could endanger the implementation of the market-driven development of the electricity market. Fortum promotes market-driven development by maintaining an active dialogue with all stakeholders.

2.1.1 Integration risks

Fortum's growth strategy includes expanding operations, particularly in Poland and Russia. In the first quarter of 2008, Fortum acquired a controlling stake in the Russian territorial generating company TGC-10. The integration of OAO Fortum (former TGC-10) has proceeded well but integration of any other such business may be difficult for a variety of reasons, including differing business environment, culture or management styles. As a result any potential future acquisition poses risks to existing operations, including:

- additional demands placed on senior management, who are also responsible for managing existing operations;
- increased overall operating complexity, requiring greater personnel and other resources;
- additional cash expenditures;

- the need to attract and retain sufficient numbers of qualified management and other personnel.

2.1.2 Political and regulatory risks

Development of the political and regulatory environment has a major impact on the energy industry and on the conditions of its business operations. Fortum is thus exposed to regulatory risks in various countries. Regulatory bodies and competition authorities regularly perform analysis, investigations and inquiries, which might lead to changes in business conditions. To manage these risks and proactively participate in the development of the political and regulatory framework, including energy taxation, Fortum maintains an active and on-going dialogue with the bodies involved in the development of laws and regulations. On-going discussions around windfall taxation and permits to build new nuclear capacity in Finland can both have an effect on Fortum's operations especially in the long-run.

Fortum now owns and operates heat and power generation assets in Russia under operations of OAO Fortum. These businesses are currently largely subject to regulation, but the power market in particular is undergoing a process of deregulation and, as a result, the prices for electricity in Russia are expected to increase. The main fuel source for heat and power generation in Russia is gas. Gas prices are partially regulated, and there is a dependency on a limited number of suppliers. Changes in the regulation regarding gas prices and suppliers can affect the supply and price of gas. Furthermore, if deregulation of the gas and electricity markets is not aligned, the impact of price changes in either electricity or gas could be significant. Emerging markets countries are subject to greater political, economic and social uncertainties than countries with more developed institutional structures, and the risk of loss resulting from changes in law, economic and social upheaval and other factors may be substantial.

2.1.3 Legal and compliance risks

Fortum's operations are subject to rules and regulations set forth by the relevant authorities, exchanges, and other regulatory bodies in all markets which it operates on. 25% of the controls in the Fortum internal control framework mitigate compliance risks.

Inadequacies in the legal systems and law enforcement mechanisms in Russia and certain other of the emerging markets expose Fortum to risk of loss as a result of criminal or abusive practices by competitors, suppliers, or contracting parties. Fortum's ability to operate in Russia may also be adversely affected by difficulties in protecting and enforcing its rights in disputes with its contractual partners or other parties, and also by future changes to local laws and regulations.

Fortum maintains strict internal market conduct rules and has procedures in place to prevent, for example, the use of proprietary information before it is published. Segregation of duties and internal controls are enforced to minimise the possibilities of unauthorised activities. Fortum has also MiFID Licence relating to its Customer Portfolio Services.

Compliance with the competition legislation is an important area for Fortum and it is managed through Fortum's Competition Compliance Programme. Fortum has also enhanced Compliance risk management by establishing a process to systematically identify and mitigate compliance risks linked to the operational risk framework.

2.2 Financial risks

Financial risk refers to the potential negative effects of market price movements, volume changes, liquidity events or counterpart events. A number of different methods, such as Value-at-Risk and Profit-at-Risk, are used throughout the Group to quantify financial risks. In particular, the potential impact of price and volume risks of electricity, weather, CO₂ and the main fuels are assessed taking into account their interdependencies. Stress-testing is carried out in order to assess the effects of extreme price movements on Fortum's earnings.

Risk taking is limited by risk mandates. Risk mandates include minimum EBITDA level for the Group that are set by the Board of Directors and exposure level mandates set by CEO like Volumetric limits, Value-at-Risk limits, Stop Loss limits and counterpart exposure limits.

⊕ For further information on hedge ratios, exposures, sensitivities and outstanding derivatives contracts, see Note 3 Financial risk management on page 126.

2.2.1 Electricity price risks

Fortum is exposed to electricity market price movements mainly through its power generation and customer sales businesses. The short-term factors affecting electricity prices on the Nordic market include hydrological conditions, temperature, CO₂ allowance prices, fuel prices, and the import/export situation. Fortum manages exposure to electricity price risk through the use of hedging strategies that are executed by the centralised Trading and Industrial Intelligence unit within set mandates. Hedges for electricity price risks consist of electricity derivatives contracts.

2.2.2 Volume risks

Power and heat generation, customer sales, and electricity distribution volumes are subject to changes in, for example, hydrological conditions and temperature. Although volume risks in power and heat generation are partly mitigated through generation flexibility, changes in volumes are closely monitored so that hedges can be adjusted accordingly.

2.2.3 CO₂ allowances price risks

The European Union has established an emissions trading scheme to limit the amount of CO₂ emissions. Part of Fortum's power and heat generation is subject to requirements of the trading scheme. Fortum manages its exposure to CO₂ allowance prices through the use of CO₂ forwards and by ensuring that the costs of allowances are taken into account during production planning.

2.2.4 Fuel price risks

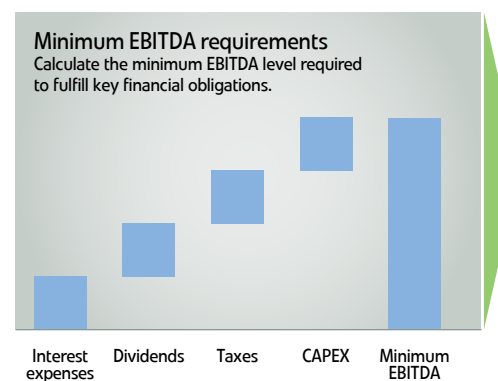
Heat and power generation requires the use of fuels that are purchased from global or local markets. The main fuels used by the Group are uranium, coal, natural gas, peat, oil, and various bio-fuels such as wood pellets. Exposure to fuel prices is to some extent limited because of Fortum's flexible generation possibilities, which allow for switching between different fuels according to prevailing market conditions, and in some cases, the fuel price risk can be transferred to the customer. The remaining exposure to fuel price risk is mitigated through fixed price purchases that cover forecasted

Fortum risk map

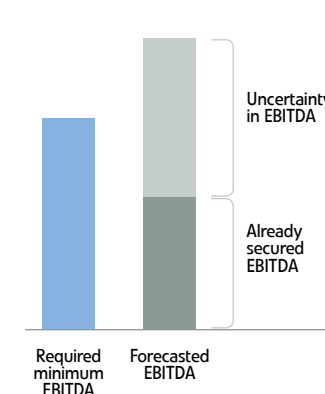


Corporate view on minimum EBITDA mandate

Financial obligations



Guidelines to risk management



consumption levels. Fixed price purchases can be either for physical deliveries or in the form of financial hedges.

2.2.5 Proprietary trading risks

Fortum engages in a certain level of trading for profit based on a high level of market knowledge. Fortum's proprietary trading activities are limited to standardised electricity, coal and CO₂ allowance contracts mainly traded through established markets such as Nord Pool, EEX and ICE.

Risks associated with trading activities are limited through strict management controls. Stop Loss mandates are set to limit the cumulative maximum loss during the year, and Value-at-Risk mandates limit the maximum risk taking during one day. All trading risks are monitored and reported on a daily basis.

2.2.6 Liquidity and refinancing risks

Fortum's business is capital intensive and the Group has a regular need to raise financing. Financing needs may also arise as a result of Fortum's growth strategy, such as the acquisition of OAO Fortum. This acquisition included a committed investment program which was partially prefunded with approximately EUR 1 billion of bank deposits earmarked for investments. Fortum has a diversified loan portfolio mainly consisting of long-term bond financing but also a variety of other long- and short-term financing facilities.

The global financial crisis during 2008 has emphasised the need for prudent management of liquidity and refinancing risk. Fortum manages these risks through a combination of cash positions and committed credit facility agreements with its core banks. The Group shall at all times have access to cash/marketable securities and unused committed credit facilities including overdrafts, to cover all loans maturing within the next twelve-month period. As of 31 December 2009, Fortum had EUR 890 million of liquid funds as well as access to EUR 2.9 billion of undrawn committed credit facilities. Debt maturities for 2010 amounted to EUR 857 million.

2.2.7 Interest rate risks

Fortum's debt portfolio consists of interest-bearing assets and liabilities on fixed and floating rate bases with differing maturity profiles. Fortum manages the duration of the debt portfolio by entering into different types of financing contracts and interest rate derivative contracts such as interest rate swaps and forward rate agreements (FRAs).

2.2.8 Currency risks

Fortum has cash flows, assets and liabilities in currencies other than in euro. Changes in exchange rates can therefore have an effect on Fortum's earnings and balance sheet. The main currency exposures for Fortum are EUR/SEK, arising from the Group's extensive operations in Sweden and EUR/RUB from translation exposure of OAO Fortum in Russia.

The Group's currency exposures are divided into transaction exposures (foreign exchange exposures relating to contracted cash flows, and balance sheet items where

changes in exchange rates will have an impact on earnings and cash flows) and translation exposure (foreign exchange exposure that arises when profits and balance sheets in foreign entities are consolidated in on Group level). Fortum Treasury policy states the principles and limits for managing currency exposures. For transaction risk the main principle is that all material exposures are hedged while translation exposures are not hedged or hedged selectively.

2.2.9 Counterpart risks

Fortum is exposed to counterpart risk whenever there is a contractual obligation with an external counterpart. In order to minimise counterpart risk, Fortum has well established routines and processes to identify, assess and control counterpart exposure. The Group Credit Guidelines regulates that no contractual obligation should be entered into without a proper, reasonable and viable credit check.

Corporate Credit Control is responsible for assuring stringent controls for all larger individual counterpart exposures. Creditworthiness is continuously monitored through the use of external sources to ensure that actions can be taken immediately when changes occur, and annual credit reviews are performed manually for all larger approved limits. Each Division is responsible for ensuring that exposures remain within approved limits. Mitigation of counterpart risk includes, for example, the use of collateral, managing payment terms and contract length, as well as pursuing netting agreements. Corporate Credit Control continuously monitors and reports counterpart exposures against the approved limits.

Fortum's counterpart portfolio is well-diversified over a wide-range of industries, private customers, small businesses and geographical regions. Although the Nordic countries account for most of the counterpart exposure, the exposure to Russia has increased as a result of OAO Fortum. Most of the exposures in Russia are related to deposits and guarantees from Russian banks which are earmarked for the ongoing investment program.

2.3 Operational risks

Operational risks are defined as the negative effects resulting from inadequate or failed internal processes, people and systems or equipment, or from external events. The main objective of operational risk management is to reduce the risk of unwanted operational events by clearly documenting and automating processes and by ensuring a strict segregation of duties between decision-making and controlling functions. Quality and environmental management systems are a tool for achieving this objective, and Fortum has several certifications including ISO 9001 and ISO 14001. Equipment and system risks are primarily managed within maintenance investment planning, and there are contingency plans in place to ensure business continuity.

The Group Insurance Policy governs the management of insurable operational risks. The objective of insurance management is to optimise loss prevention activities, self retentions and insurance coverage in a long-term cost-efficient manner. Fortum has established Group-wide insurance programmes for risks related to property damages, business interruption and liability exposures.

2.3.1 Risks at production facilities

Operational events at power and heat generation or electricity distribution facilities can lead to physical damages, business interruptions, and third-party liabilities. In Sweden, third-party liabilities from dam failures are strictly the plant owner's responsibility. Together with other hydropower producers, Fortum has a shared dam liability insurance program in place that covers Swedish dam failure liabilities up to SEK 8,000 million. Operational risks in production facilities are mitigated by continuous maintenance, condition monitoring, and other operational improvements.

Storms and other unexpected events can result in electricity outages that create costs in the form of repairs and compensations. Although outages are typically short, it is not possible to completely prevent long outages in exceptional circumstances. There is an extensive procedure in place to minimise the length and consequences of outages.

2.3.2 Nuclear risks

Fortum owns the Loviisa nuclear power plant, and has minority interests in one Finnish and two Swedish companies with nuclear plants. In the Loviisa power plant, assessment and improvement of nuclear safety is a continuous process which is performed under the supervision of the Radiation and Nuclear Safety Authority of Finland (STUK). In Finland and Sweden, third-party liability relating to nuclear accidents is strictly the plant operator's responsibility and must be covered by insurance. As the operator of the Loviisa power plant, Fortum has a statutory insurance policy of SDR (Special Drawing Rights) 175 million +20%, which means approximately EUR 230 million per nuclear incident. Similar insurance policies are in place for the operators where Fortum has a minority interest.

2.3.3 Environmental, health and safety risks

Operating power and heat generation and electricity distribution facilities involves the use, storage and transportation of fuels and materials that can have adverse effects on the environment. The risks involved with these activities and their supply chain are receiving increased attention due to the growing public awareness of sustainable development and the expectations on companies' responsible conduct. Operation and maintenance of the facilities exposes the personnel to potential safety risks. Environmental, health and safety (EHS) risks are regularly evaluated through internal and external audits and risk assessments, and corrective and preventive actions are launched when necessary. EHS related risks arising in investments are systematically evaluated in accordance with Fortum's Investment Evaluation and Approval Procedure.

2.3.4 IT and information security risks

Information security risks are managed centrally by the corporate security and IT functions. Business-specific risks are managed within the divisions and staff functions. Corporate policies define guidelines and set procedures for reducing risks and managing IT and other information security incidents. The main objective is to ensure high availability and fast recovery of IT systems.