



Summary:

Vattenfall – a competitive leader in energy transition?

The Swedish National Audit Office has audited Vattenfall's potential for being a competitive and leading company in energy transition, thus contributing to the EU's climate and energy objectives, as well as whether the company can achieve its environmental sustainability objectives within the framework of sustainable enterprise. The Swedish National Audit Office has also examined whether the Government is steering Vattenfall in a direction that will enable it to fulfil its remit and its environmental sustainability objectives.

One starting point in the Swedish NAO's audit is the Riksdag decision and report of the Committee on Industry and Trade in connection with Vattenfall's clarified remit of 2010. A leading position in carbon-efficient technology and sustainable energy production was then stated to be an important component for future value creation for Vattenfall. The Committee also expressed its support for using the EU 2020 targets as a reference point so as to be able to evaluate whether Vattenfall is among the companies that lead development towards reduced emissions of climate gases and an increased share of renewable energy. Moreover the EU and Sweden have adopted the UN's two-degree limit in the climate area for 2050. This means that all organisations and companies, including state-owned enterprises, must reduce their emissions in the long term. The Swedish NAO also takes the Committee on Industry and Trade's statements on sustainability targets and strategies as a precondition for state-owned enterprises' long-term value creation.

In the short term there may be conflicts between economic targets and sustainable energy production. Changed market conditions with sharply falling revenues resulted in the Government reducing Vattenfall's yield requirement in 2012. Moreover there is a flexibility in the annual decisions on Vattenfall's dividend since they are to take into account implementation of the company's strategy, financial position and other financial targets.

The Swedish NAO assesses that the Vattenfall board's choice of sustainability targets focusing on the environment is relevant. The company's targets are in line with its future

challenges. Vattenfall has also concretised the formulation of the owner's intention in the articles of association, thus increasing understanding of it. Recently Vattenfall has also been innovative in identifying financial solutions to be able to increase the rate of investment in renewable forms of energy. In that way the company has contributed to the market's operational knowledge of wind power. The Swedish NAO's overall conclusion is, however, that Vattenfall has not formulated nor has the Government steered towards a CO₂ target that actually leads to reduced emissions or a renewable target that increases Vattenfall's share of renewable energy produced. Vattenfall does not plan and implement measures that reduce carbon emissions to a sufficient extent so that the company can show that it is a competitive and leading company in energy transition, thus contributing to the EU climate and energy objectives. Moreover the Government has not steered Vattenfall clearly enough to ensure conditions for a long-term return for the State.

Audit background

Vattenfall was corporatized in 1992 and its sales turnover in 2014 was SEK 166 billion. A few years after the deregulation of the Swedish electricity market (1996) Vattenfall began international expansion. The company's profile has changed from a Swedish company focused on hydropower and nuclear power to one of Europe's largest electricity and heat generators. Unlike the Nordic operations, Vattenfall's European operations are mainly based on fossil energy.

Reasons: According to the Riksdag it is central for the State as owner that state-owned enterprises conduct their operations to achieve long-term value creation. A prerequisite for long-term value creation is sustainable operation. This is defined as responsible utilisation of resources and responsible management of human rights, working conditions, environment, anti-corruption, business ethics, gender equality and diversity. Vattenfall is one of the companies with the largest CO₂ emissions in Europe, and the company's rate of growth in renewable energy forms is to date lower than the average growth rate in ten countries in northern and central Europe. At the same time the Riksdag and the Government have emphasised that Vattenfall is to generate commercial returns by conducting energy operations commercially so that the company is among those leading development towards environmentally sustainable energy production. One of the company's own environmentally related sustainability targets is also that the company is to grow faster than the market in newly installed renewable capacity by 2020.

Vattenfall is the largest state-owned enterprise in terms of sales turnover and has the greatest impact on the income of the state-owned enterprise portfolio. Vattenfall is facing major challenges in reducing carbon emissions. There is, however, uncertainty as to how the company and the Government will deal with these challenges so that the opportunities for long-term value growth are utilised. Vattenfall is the first company for which a sustainability analysis has been performed by the Government.

Aim: The aim is to examine whether Vattenfall has formulated and the Government steered towards appropriate environmental sustainability targets and whether Vattenfall plans and implements measures and the Government steers towards compliance with remit and sustainability targets.

The Swedish NAO has formulated three audit questions that are to be answered:

1. Are Vattenfall's sustainability targets, planning and implementation 2010–2014 aimed to make it a competitive and leading company in energy transition and contribute to the EU's targets by focusing on real emission reduction measures?
2. Is the Government's governance and follow-up of Vattenfall's remit and sustainability targets 2012–2014 formulated to create conditions for long-term returns for the State?
3. Has the Government in the period 2010–2014 informed the Riksdag of Vattenfall's strategies for compliance with its remit and contribution to the EU's climate and energy targets in accordance with the Riksdag's request for continuous information on the company's development and operations?

Implementation: The audit is based on study of Government and company documents on Vattenfall. The Swedish NAO interviewed representatives of the political leadership and state management who during the audit were working in the Ministry of Finance and representatives of the then Ministry of the Environment and the Ministry of Enterprise, Energy and Communications respectively. Interviews were also carried out with representatives of Vattenfall's management, board, internal audit, research unit and communication unit where responsibility for sustainability lies. In addition a consulting company, Sweco AB, was engaged as support in the audit of Vattenfall. The relevance of the consultants' findings was assessed by the Swedish NAO using data it had collected itself.

Audit conclusions

The environmental sustainability targets promise more than they deliver in emissions reduction effects

The Swedish NAO notes that one of Vattenfall's environmental sustainability targets is a financial exposure target that does not lead to reduced carbon emissions to any great extent. The company's plan in 2010 was originally to reduce carbon emissions with the help of co-incineration with biomass, carbon capture and storage (CCS technology) and in part selling coal-fired power stations. Conditions today are different and the main strategy is to sell the company's German coal power to achieve the financial exposure target. The target thus aims to make the company's production portfolio fossil-free almost exclusively through selling and not to reduce carbon emissions in the EU via measures to reduce carbon dioxide. The Swedish NAO finds that the company does not have an actual environmental sustainability target, despite Vattenfall's high carbon emissions and its remit to be a leader in energy transition.

The target of increased growth in renewable energy that Vattenfall has adopted is measured in relation to the average for ten reference countries in Europe. The renewables target is a long-term average target for 2020. Vattenfall's growth rate for 2013 and 2014 is lower than the average for the reference countries in these years. Vattenfall's calculation of growth rate means that the company can take into account the entire environmental effect of an investment, despite the fact that the company has only financed 51 per cent of it (through partnering). In addition Vattenfall can sell shares in existing wind power parks for the purpose of freeing up capital for new investment in wind power ("capital recycling") without sales of existing wind power capacity having a negative effect on achievement of targets. The Swedish NAO notes that Vattenfall has chosen a measurement method that makes it easier for the company to achieve its sustainability target for renewable energy.

An important part of the owner's governance of sustainable enterprise is that the companies are transparent in their sustainable enterprise work and their sustainability targets. The carbon dioxide target is aimed at making Vattenfall's production portfolio fossil-free. However, it is not sufficiently clear that this is not the same as a reduction in carbon emissions at EU level. Moreover, it is not clearly stated that compliance with the renewables target is affected by the measurement method chosen.

Vattenfall's planning horizon is short-term

Up to 2014 Vattenfall worked with a planning horizon of five years, with a focus on financing of replacement investments and maintenance. Investment in renewable energy forms is a minor part of Vattenfall's investment plan. In light of the fact that the sustainability targets must be achieved by 2020 the Swedish NAO finds that planning and financing of measures is too short-term and neither does it have sufficient emission reducing effects. This risks affecting Vattenfall's long-term potential to be a competitive

company in sustainable energy production. In addition from 2015 Vattenfall has introduced two-year planning. The Swedish NAO considers that this is rather a short-term planning horizon given the company's remit and long-term sustainability targets. For a company that is active in a market undergoing structural change long-term planning is even more important.

Vattenfall has no clear objective of being a competitive and leading company in energy transition

The audit shows that Vattenfall has no clear objective of being a competitive and leading company in energy transition, despite the company's relatively strong position in the European market and thus associated potential to impact market development. The audit shows that Vattenfall finds it difficult to have a long-term vision in the current energy market. The Swedish NAO finds that a company that is to become a leader in the future needs to regularly plan and take financial and emission reducing measures to be competitive in the long term regardless of the structural problems of the energy industry and low demand for electricity. In the opinion of the Swedish NAO Vattenfall needs to strengthen its ability to identify and use future growth opportunities and adapt investment programmes to ensure the company's long-term value creation.

Vattenfall's research is insufficient and hampers the company from taking the lead in energy transition

The audit shows that large parts of Vattenfall's research and development activities (R&D) have decreased considerably as well as becoming more short-term. Vattenfall requires profitability from research areas within a reasonable time frame (5–10 years) which means that long-term research has lower priority. Vattenfall currently only participates marginally in early use of new technology in the form of pilot and demonstration projects that refer to the two major environmental sustainability targets. This participation, in the opinion of the Swedish NAO, is a prerequisite for an energy company to become a leader in energy transition. The audit shows that research activities are not either aimed at making Vattenfall a leader in energy transition. The single focus on wind power as a renewable form of energy in the production portfolio also makes the company vulnerable to fluctuations in demand. This should motivate the company to increase its risk spread and participate in pilot and demonstration projects that refer to other renewable energy forms. The audit shows that research and development is not an issue taken into consideration by the group management or the board in business development to make the company a leader in sustainable energy production.

Vattenfall has not considered proposing the use of a part of the dividend for investment in renewable energy

Vattenfall's financial situation in recent years has been a constraint on growth investments in renewable energy. About 85 per cent of the investment margin has been used for replacement investment and maintenance. In light of the financial restriction a conflict has arisen between economic targets and investments in sustainable energy production. The audit shows that the company has not considered proposing to the Government that part of the dividend could be retained in order to make larger investments in renewable energy, despite the fact that annual decisions at the annual general meeting of shareholders on Vattenfall's dividend must "take into account the implementation of the company's strategy, the company's financial position and other economic targets." Such a proposal would have been justified with reference to the company's clarified remit; to be a leading company in energy transition, as decided by the Riksdag and Government in 2010.

Co-ownership of companies entails a risk of unchanged share of renewable energy production in Vattenfall's production portfolio

Vattenfall states that it has a relatively small share of new renewable energy (excluding Swedish hydropower) in its production portfolio. To be able to increase the rate of investment in renewable energy Vattenfall has increasingly started to use alternative financing solutions such as partnering and capital recycling. Capital recycling is a method for Vattenfall to free capital for investment in renewable energy forms. The method involves the company renouncing up to 49 per cent of ownership in some existing wind power parks. In addition, in some other cases the company owns only 51 per cent of new wind power parks due to the company having gone into partnership (partnering) with institutional investors.

The Swedish NAO considers that Vattenfall may find it difficult to increase its share of renewable energy in pace with its competitors when the company's main strategy for the renewable objective is growth through co-ownership. The strategy may lead to an unchanged share of renewable energy produced for the company. The Swedish NAO considers that this risks not being in line with the position of the Committee on Industry and Trade that Vattenfall should increase its share of renewable energy.

Vattenfall's planned sale of its German coal power will not lead to real emission reductions at EU level

According to the owner policy an important part of the work of sustainable enterprise is that the state-owned enterprises are to act as models by complying with international guidelines on environmental considerations, for example. An important international guideline is the UN two-degree limit in the climate area, which is to be achieved by 2050. The Swedish NAO believes that state-owned enterprises must contribute to the two-degree target that both the EU and Sweden have adopted.

There is a risk that Vattenfall will sell its German coal-fired power stations for the purpose of achieving its financial exposure target at a time that will not give maximum sales value. A sale also means that Vattenfall is not contributing to achievement of the EU climate and energy targets since the problem of reducing carbon emissions from existing plants is being transferred to another company in the EU. Moreover, Vattenfall is only taking minor carbon reduction measures in existing coal-fired plants ahead of a possible sale.

The Government does not scrutinise the selection and design of state-owned enterprises' sustainability targets

The Swedish NAO considers that it is positive that in 2014 the Government conducted a sustainability analysis of Vattenfall's sustainability work and identified some weaknesses. The Swedish NAO assesses that these weaknesses concern matters of strategic importance and coincide with the Swedish NAO's findings concerning Vattenfall's planning and objectives. Furthermore, it is appropriate that at the time of the sustainability analysis the Government identified the need to strengthen the strategic competence of the board in renewable energy production.

The Swedish NAO notes, however, that the Government makes no initial scrutiny or quality assurance of the companies' choice and design of strategic sustainability targets. However, the Government regularly monitors achievement of objectives during the owner dialogue. The Swedish NAO finds that the process is ineffective, since the Government has not assessed whether the targets are appropriately formulated. Vattenfall's carbon dioxide target is a purely financial exposure target and not a target that actually leads to reduced emissions. In that way resources are being used unnecessarily without having either actual emission reducing effects or increasing Vattenfall's long-term competitiveness.

It is not clear how the Government monitors the environmental part of Vattenfall's remit

The articles of association are adopted by the general meeting of shareholders and thus legally binding on the company. According to the Government Vattenfall's remit is purely commercial and it is monitored through the economic target process. However, the Riksdag has decided that Vattenfall is to generate commercial returns by conducting energy operations commercially so that the company is among those leading development towards environmentally sustainable energy production. The Swedish NAO considers that it is unclear how the Government monitors the environmental part of the remit in the articles of association. According to the central government ownership policy one of the purposes of the economic targets is to keep the companies' financial risk at a reasonable level. The Swedish NAO assesses that it is a financial risk to the State that

the Government does not explicitly monitor the environmental part of the company's remit from the Riksdag. By working actively on carbon reducing measures the company can become competitive and create long-term value for the State.

Vattenfall has concretised the environmental part of the remit in the articles of association through the environmental sustainability targets. This interpretation has not, however, been confirmed by the Government, which leads to uncertainty as to how the company is to govern its operations. The Swedish NAO considers it to be important that the Government is clear on how the company is to interpret its remit in the articles of association and how the Government intends to follow up the company's compliance, so that it is given clear incentives to implement the remit as decided by the Riksdag.

The Swedish NAO considers that the Committee on Industry and Trade, in connection with the Riksdag decision on Vattenfall's clarified remit, has made the Riksdag's intention for the company's focus clear. According to legal experts, the Government has far-reaching legal scope to exercise majority ownership control over the board work of state-owned enterprises by formulating terms of reference, instructions and directions. In light of this the Swedish NAO considers that there is no formal obstacle to the Government deciding at the general meeting of shareholders on how the company is to interpret its remit without needing to return to the Riksdag. This also applies to Vattenfall's approach to the UN two-degree limit in the climate area, which has been adopted both by Sweden and the EU.

The Government's knowledge acquisition and independent analysis is not sufficiently proactive for appropriate governance of the company

The Swedish NAO notes that in its ownership administration the Government has not formally used other expertise in the Government Offices through working groups or networks, for example, to acquire a broader knowledge base on matters concerning Vattenfall's central sustainability targets. The monitoring of Vattenfall's sustainability work has only been carried out by state management at the Government Offices.

Through its state management the Government has not required written strategic material from the company for purposes of acquiring knowledge. The ownership administration makes its own independent analyses to a limited extent. Moreover the Government has not identified strategic success factors for the company's long-term competitiveness such as early adoption of new research technology in the energy industry. The Government has therefore not put questions to Vattenfall about why research investments have decreased and become short-term. This lack of a knowledge base of a strategic nature impairs the Government's possibility of being sufficiently proactive in its governance of Vattenfall.

Lack of expectations means the steering process starts too late

The Swedish NAO notes that the Government has observed certain weaknesses in the company's sustainability work and has requested a discussion on the measures the company is planning to achieve the targets. However, in the opinion of the Swedish NAO, the Government does not make any clear demands on the company to act on policy signals on the basis of the sustainability analysis results. Policy is instead based on Vattenfall itself initiating measures, which may mean that forceful measures to create competitiveness and contribute to value creation are started too late.

Sale of the lignite operations has not been prepared despite the fact that Vattenfall has seen this as an alternative since 2012

According to the Riksdag and Government the Swedish State must be a responsible owner of the Vattenfall Group and the company is to conduct model operations regardless of the market in which it operates. According to the company, the Government has known since 2012 that Vattenfall is considering divesting its lignite operations in Germany. The Swedish NAO considers that proactive governance assumes the preparation of risk analyses and action plans to enable any sale to be handled in an exemplary way.

However, the Government is not prepared to deal with the financial risk either of continued ownership or of a sale of German coal power. It is important that Vattenfall, within the framework of current regulations, is provided with what it needs to be able to assess the consequences of any sale. This may include the financial scope that exists to cover the costs of more research on carbon reducing measures in existing plants or any loss on sale.

All in all this lack of analysis and governance means that the Government is not sufficiently proactive and that consequently there is a risk that long-term returns for the State will be impacted.

The Government does not sufficiently report Vattenfall's strategies, development and contribution to EU targets to the Riksdag

In connection with Vattenfall's clarified remit in 2010, the Committee on Industry and Trade emphasised the need for regular information on Vattenfall's development and operations as well as the fact that the EU 2020 targets were a reference point for evaluating Vattenfall's fulfilment of its remit. The Swedish NAO considers that the Government's current reporting does not deal with the company's development, strategies and contribution to the EU's 2020 targets and the EU's adopted two-degree limit by 2050 to an extent sufficient to enable the Riksdag to assess how well the

company is fulfilling its overall remit in the articles of association and is thus contributing to the EU's targets.

Recommendations

The Swedish NAO's recommendations to Vattenfall:

Under its remit Vattenfall is to generate commercial returns by conducting energy operations so that the company becomes a leader in energy transition. This assumes innovation capacity and investment in new sustainable products and technologies with emission reducing effects. At the same time as this meets demand it creates competitiveness and long-term returns for the State as owner. A positive side-effect is that the result is in line with the EU's climate and energy targets. The Swedish NAO gives the following recommendations, based on Riksdag decisions and the Committee on Industry and Trade's report in connection with Vattenfall's clarified remit of 2010.

- Vattenfall should formulate an objective to be a competitive and leading company in energy transition and implement long-term strategic planning for how the company is to achieve this. This planning should be broken down into operational planning, partly at business area level and partly in the company's different development departments. Investment planning should coincide with the time period for sustainability targets to enable the company to take the financial and emission reducing measures necessary to fulfil the remit and sustainability targets.
- Vattenfall's research and development should increase and be more long-term so that the company can take carbon reducing measures in existing plants and broaden the company's production portfolio in renewable energy forms.
- Vattenfall should draw up sustainability targets that lead to emission reducing effects, for example through
 - a carbon dioxide target aimed at actual reduction of carbon dioxide in the company's facilities
 - a renewable target that aims at an actual increase in the production from new renewable energy forms
 - a target of being a project owner that erects and runs wind power parks, thus contributing its operational knowledge to energy transition.

The Swedish NAO's recommendations to the Government:

The Government should clarify for the company how the remit in the articles of association should be interpreted and ensure that sustainability targets are changed so that the remit and targets aim at achieving real emission reducing effects. This improves the framework for Vattenfall's future competitiveness and contribution to achievement of the EU's climate and energy targets. Moreover the sustainable enterprise policy instrument can be formulated in a more effective way to ensure increased competitiveness and long-term value growth for the State to a greater extent.

- The Government should influence the choice and design of Vattenfall's sustainability targets at an early stage, in the review of the targets initiated by Vattenfall, so that the new targets will have real emission reducing effects.
- The Government should monitor Vattenfall's remit in the articles of association in its entirety and clarify how the company is to interpret the remit to guarantee that the company is a leader in energy transition and entails a reasonable financial risk for the State.
- The Government should continuously acquire a broad knowledge base and make its own analyses of the company's risks and market conditions to be able to challenge and make demands on the company and increase the company's long-term potential competitiveness and returns to the State.
- Within the framework of current regulations the Government should clarify how Vattenfall should act in an exemplary way regarding its German lignite operations. Consequently, the Government should specify for example the financial scope that exists to cover the costs of research on carbon reducing measures or any loss on sale of the lignite operations.
- In its reporting to the Riksdag the Government should be more transparent, thorough and qualitative in describing Vattenfall's strategies and development to enable the Riksdag to assess whether the company is a competitive and leading company in energy transition and thus contributes to the EU's climate and energy targets.