Prominent strategies for environmental sustainability
- in corporations in the energy sector

There is an obvious need for the stationary energy sector to intensify its efforts to contribute to sustainable development, both at a strategy level and in order to integrate sustainable practices into its operations. To gain insight in how environmental sustainability is put into practice within corporations, close-up investigation is essential. For this reason, case studies of companies with a prominent strategy for environmental sustainability were chosen as a research methodology. The selection of case companies was based on an emerging framework of measures for environmental sustainability that was established from an initial study of Swedish and European energy companies.

Focus areas for sustainable development

The findings from the case study interviews are reported by highlighting five focus areas for sustainable development. The first focus area, **Corporate Governance**, focuses on the interplay between owners and the management in relation to corporate environmental issues. The focus area **Co-operation** highlights the possibilities and dimensions offered to sustainable development by joining forces. **Communication** is a further area of interest, exploring the role and benefits of communicating to enhance environmental sustainability. In the forth area, **Innovation**, it is explored how energy companies enhance the sustainability of their products and processes. Lastly, under the heading **Integration** the processes and structures effectively enhancing environmental sustainability are studied.

Empirical findings

CORPORATE GOVERNANCE

Active ownership and a close collaboration between the board of directors and managers seem to be a common denominator for companies that take an active interest in environmentally sustainable development. This shows for instance in a good understanding by both board members and the management of the company's environmental impact and the possibilities to mitigate this impact. There is also clearly a consensus at the board and management level that environmental sustainability is important for business success.

CO-OPERATION

Co-operation was identified as a strong feature of the energy companies studied. One way co-operation is looked at is to see it as a means for business expansion. The benefits of strategic co-operation are an extension of available competences and production resources, leading to better economies of scale and financing possibilities. If synergies can be achieved, the businesses can operate more efficiently, resulting in benefits for the environment. Co-operation is also beneficial for the exchange of ideas, for instance within networks such as business associations or professional networks. Moreover, co-operation with universities can lead to innovations.

COMMUNICATION

Communication both within the company and with its stakeholders is a central aspect of sustainability work. From an internal perspective, communication is vital to create employee commitment to environmental issues which facilitates implementing common goals. Moreover, communication creates transparency about the company's sustainability-related goals and the means by which these are to be achieved. This helps to create trust and acceptance for corporate strategies and products with the company stakeholders. Furthermore, by communicating its sustainability achievements to a broader public via the homepage and media, the company can, by showing good examples, have an impact on sustainable development.

INNOVATION

Innovation at a strategic and at an operational level is important to secure the company's ability to stay competitive. It is also a necessity in order to improve the environmental sustainability of a company's products and processes. To direct the innovation process, a timely identification of opportunities and threats from the environment is vital (preferably beyond Swedish borders). Internal innovation has been observed both at a centralized level and within business units. At a centralized level, a wide view on innovation is applied and issues of strategic nature such as the product portfolio and potential co-operations are areas of interest. Observed areas of innovations are for example energy services, carbon neutral district heat, a new business model for wind farm project etc. At the business unit level, innovation activities are more focused on operations, for example on finding better technical solutions or testing different energy crops. A third source of innovation is external stakeholders. Owners, customers and co-operations can generate new ideas that the company can develop and integrate into its business. Connected to the interest to innovate is the necessity to take risks. Willingness to take a certain amount of risk can thus be considered a property of the energy companies studied. It seems important to understand that innovative solutions are needed on many levels to cope with the challenge to make the energy system more sustainable.

INTEGRATION

The fifth area that appears to be central for companies that take an active interest in sustainability is that they distinguish themselves by a strong capability to integrate respect for the environment and sustainability thinking into the different business areas and processes. Central to the capability to integrate sustainability swiftly is a well-established and competent environmental organization. A timely adoption of the ISO 14001 norms for environmental management appears to be a decisive factor for achieving a high environmental standard.

Framework of measures for environmental sustainability

The framework builds on a four-field matrix divided into measures with an internal or external focus. A distinction is also made between technical measures and "bonding" measures that require greater social involvement.

1. Emission Reductions: The focus lies on minimizing emissions generated internally as a result of different corporate activities. Also internal efficiency measures fall under this category.
2. Product Stewardship: The company searches for new opportunities to produce its current products more sustainably or effectively, extend the use of its products or offer new products that are beneficial to sustainable development.
3. Clean Technology: Shows the range of renewable and bridging technologies that companies can adopt to reduce its environmental impact or improve efficiency. Internal green R & D also falls under this stage.
4. Sustainable Development: In this most advanced stage, the focus is again external and most measures require high social involvement. A wide perspective is taken on possible measures that lie within the reach of energy companies to promote sustainable development.