

Summary

Over a period of two years the NAP's Special Interest Group Energy (SIG-E) has dedicated itself to studying the way in which the process industry and its supply chain has been dealing with energy as a theme. In the past it was strongly believed that many opportunities were left unused and that different forms of cooperation inside the chain should contribute to accelerated improvement of energy efficiency in the process industry. Sixteen companies that are actively involved in the entire value chain have scrutinised their daily situation wondering how to operate more successfully. With approximately one quarter of total energy consumption the Dutch process industry is a major player in reaching national energy and climate objectives by 2020. The objective (improve energy efficiency by 2% annually) is as ambitious as that 'business as usual' is insufficient. A drastic change in how matters are approached is thus essential. The question is: how to proceed?

By analysing energy projects, in-depth interviews with decision makers in the industry, through literature searches and by organising lectures inside and outside the sector, SIG-E has been able to develop a true picture of the mechanisms concerning energy-related investments. Two major points of interest have been energy-oriented tendering (demand side) and the market introduction of innovations (supply side).

The main problem of "how to do more at the energy level" is this:

- The process industry is insufficiently familiar with the capabilities of the supply chain.
- The supply chain is insufficiently aware of the questions that exist in the process industry.

Therefore, the links in the value chain understand each other poorly. The answer to this problem is compound and consists of more interaction between the process industry and the supply chain (machine constructors, engineering firms and consultancies, education and research).

As for the process industry:

- Make improved energy efficiency an integral part of corporate strategy.
- Wherever possible opt for functional tendering, which should challenge suppliers.
- Make sure investment decisions are based on life cycle costing.

As for interaction between the process industry and the supply chain:

- Make sure the supply chain is involved at an early stage in the project development cycle.
- Make sure risks are suitably distributed across the chain, including smart financing.

As for the supply chain:

- Provide insight into the pros and cons of an energy-related measure.
- Map risks and uncertainties.
- Sufficiently supervise the right level at market launching.

Implementing energy measures in the process industry should increasingly become a coproduction of companies that are actively involved in the value chain. This is the only way to help innovations travel fast towards the market and have breakthroughs in pushing back the energy consumption level in the process industry. The message to the value chain is this: venture coproduction, give creativity a serious chance and push out frontiers. A more sustainable society will be the result; companies that are involved in and around the process industry will be able to improve their competitiveness.