


## ENERGY

# MOBILISATION

Clever trading and smart growing decrease energy costs

By Leo Marcelis, Wageningen UR Greenhouse Horticulture

View metadata, citation and similar papers at [core.ac.uk](http://core.ac.uk)

brought to you by  CORE

provided by Wageningen University & Research Publications

of the different energy sources continuously change and are unpredictable. This has an impact on the price of horticultural produce and growers can achieve huge savings by following smart strategies for buying and selling energy. In addition, new growing strategies can save 50% on the use of energy while increasing production.

In the Netherlands, energy costs often make up 15-30% of the total expenses of a grower. There are, however, many opportunities to



money. At the same time, it is possible to save energy via a newly developed strategy: Next generation cultivation.

### Clear strategy

When investing money in energy, it is important for growers to define a clear strategy, says Roger Martinus, investment specialist of Rabobank Westland. Growers must ask themselves: What is my aim and which risks are acceptable? They have to be aware of the necessity to manage risk, and the fact that this may put limits on the maximisation of returns on investment. As such, investing can be very similar to trading on the energy market.

The energy market has changed dramatically over the last five years. Dutch growers now have access to different short-term and long-term energy markets, there are several options for buying and selling, and many new energy companies have come into play. The modern grower has become an energy trader. Internet trading floors like Powerhouse provide a great number of possibilities for Dutch growers to trade and to optimise their purchase of energy.

### Less consumption and higher yields

Next generation cultivation allows greenhouse growers to realise a substantial reduction in energy use. This concept starts by looking at the demands of the crop and only supplies the minimum needed. Energy losses can be reduced by insulation with screens or covers. Air humidity is efficiently controlled by using a controlled inlet of outside air. Temperature control is also a possibility, although it is strongly dependent on outside temperature.

These energy saving techniques may involve additional costs. Researchers are therefore looking for solutions to increase yield at the same time. An example is using screens that make incoming light diffuse or allow more light to enter the greenhouse.

Although energy is an asset for a greenhouse nursery, it needs to be mobilised. The opportunities for buying and selling should be continuously monitored and energy use attuned to crop demand.

Partners in this seminar: Powerhouse, Rabobank and Wageningen UR Greenhouse Horticulture