

Exhibit A: Example Application (Case Study) Power Market control assimilation lighting and heating in the horticultural sector

Please provide the following information:

A. General Company contact information:

In the Netherlands a number of companies are active on the horticultural market. In this market electricity is consumed in massive quantities for assimilation lighting of crops and flowers. Assimilation lighting is combined with carbon dioxide treatment for manuring. Companies can be found throughout the country. Examples include ROMESQ (www.romesq.nl), AgroEnergy (www.agroenergy.nl), Westland Energie (www.westlandenergie.nl), Anode (www.anode.nl) and Eneco (www.eneco.nl). Demand side management and demand response in this sector has been utilized in this sector for decades now. Apart from the demand the supply side is involved as well. Combined heat power installations with storage of heat in a heat tank are used throughout. Due to the increase in fuel prices (gas price) the technique no longer used for peak-shaving but for direct operation on the power markets.

B. Overview of the Company:

Companies are on the greenhouse control center integrators or utility companies.

C. Description of Demand Response related Technologies:

The technologies are focused on getting the most out of the flexible demand and supply from a market perspective. Markets include the day-ahead market and the imbalance and control power markets. Long term contracts are established for consumption/supply in peak hours at a certain price (the marginal price when looking at the fuel cost). If the day-ahead prices are lower, the equipment is not put into operation, but the electricity is bought on the market and used to . If the price is higher the electricity is generated and transmitted to the customer. In most cases, the generation price is lower, so there is a gain by not operating the CHP but the gas-heater in the greenhouse instead. Having large volumes of very flexible and predictable demand can also be utilized on the balancing market. Having a very accurately known measured realization of power in a portfolio and an accurate prediction a day ahead, knowing the sign of the national imbalance, as it is transmitted through the TSO, is used to obtain financial benefits on the imbalance market.

D. Features & Benefits and Expenditures vs. Savings Consideration:

Measurement and control equipment is installed at the customer premises mapping the user's preferences and internal process information to market signals. The horticultural market in the Netherlands is very competitive and innovative. A three-year payback of these systems is achieved; investment costs are in the order of

3000 Euro including network connectivity. In order to conserve energy apart from market optimization, heat balance control of neighboring installations is also served by these systems, as well as having the potential to transport the excess CO₂ to other greenhouses.

IEA/Dec01, 04