



Project: Energy consumption per product

Background:

Allnex focuses on reducing the annual energy consumption. In order to identify improvement potential Allnex have requested a report where theoretical energy consumption per product were calculated. This report will enable Allnex to benchmark their energy consumption per product and to estimate the future energy consumption based on the budgeted product mix and volume. The energy model will be used during management review to identify products and product groups for further optimization and energy reduction.

Description:

The theoretical energy consumption per product was calculated based upon the production process. Allnex production processes involves batch production of amino resins for paint and coating. The energy consumption is mainly due to stripping off excess raw materials from the reactors and recovery of excess raw materials by use of distillation columns.

Summary:

The project report reveals the theoretical energy needed to produce 1 kg of the different products. It also tells how much different processes contribute to the overall energy usage, and the capacity needed for each of the recovery processes. Different energy saving projects have been looked into and calculations have been made in order to detect the actual saving of the different initiatives. Allnex produces three different product group and the average energy consumption per product group has been calculated. Allnex focus on reducing the annual energy consumption. In order to identify improvement potential Allnex requested a report where theoretical energy consumption per product was calculated. This report will enable Allnex to benchmark their energy consumption per product and to estimate the future energy consumption based on the budgeted product mix and volume.



"In August 2014 Allnex did receive the ISO 50 001 certificate, confirming a good management system around energy consumption. This will give further support for continues improvement and reduction in energy consumption. The model prepared by Lean-tech will be a contributor to understand and make the right prioritization of where to get the most benefits for further improvements."

Roger Søråsdekkkan, Site Leader at Allnex Norway

