A regional biogas infrastructure, prospects for the biogas grid.
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Transport of biogas: Quantifying costs of a regional biogas grid

Fishbone lay-out

Star lay-out

Model calculations for a biogas grid

Transport costs are minimized by the optimal choice for pipeline diameters in the grid for the two lay-outs.

NPV-calculations based on the investment costs (pipelines & compressors) and operational costs (O&M & Energy); safety measures not yet considered.

Note that large digesters have a large biomass source area and therefore are more widely spaced. Maximum pressure in the grid to be 9 bar(a).

Line-pack storage in the biogas grid has been assessed by simulation of the maximum pressure.

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