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Optimal operation of heat supply systems with piping network

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Highlights

> A method is proposed to operate heat supply systems with piping network optimally.

> A discretization approach is proposed to avoid treating the nonlinearity directly.

> A two-stage approach is proposed to derive a suboptimal solution efficiently.

> It is shown the method is effective in solution optimality and computation time.

> It is shown how the piping network can reduce the primary energy consumption.