Transfer

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1 Paper Section

1.1 Problem outline

material from `https://github.com/markm541374/tariffset/blob/master/problem_spec.pdf`

1.2 Thermal agent maths

Analysis of the individual agent optimisation and QP solution.

Material from `https://github.com/markm541374/tariffset/blob/master/quadthermo.pdf`

1.3 GPGO

Justification of using an expensive optimisation technique rather than standard ones.

1.4 Results

hopefully showing that the load responds to the tariff and that GPGO makes good reductions in the objective fn of the load.

2 Review/Proposal

2.1 Review-optimisation

Surrogate surface techniques. GPs. different maximization options, EI, PI, Entropy. multistep lookahead.

2.2 Review-tariffsetting

Smartgrid overview. Other proposals for load management. This method is new because it both publishes ahead of time (giving agents time to plan ahead and b more flexible) and is not a direct exposure of market prices so is a proper control signal.

2.3 Proposal-model

Form a defensible model of a home using gov. surveys, power company stats, dissagregation datasets. Correlations between insulation/occupancy/location/weather/season/day-to-day.

2.4 Proposal-optimisation

Fast two-step lookahead `http://www.robots.ox.ac.uk./~markm/MSGPGO.pdf`

Using previous result as information for next day, using true load each day to update the model.