

The National Heat Map - UK

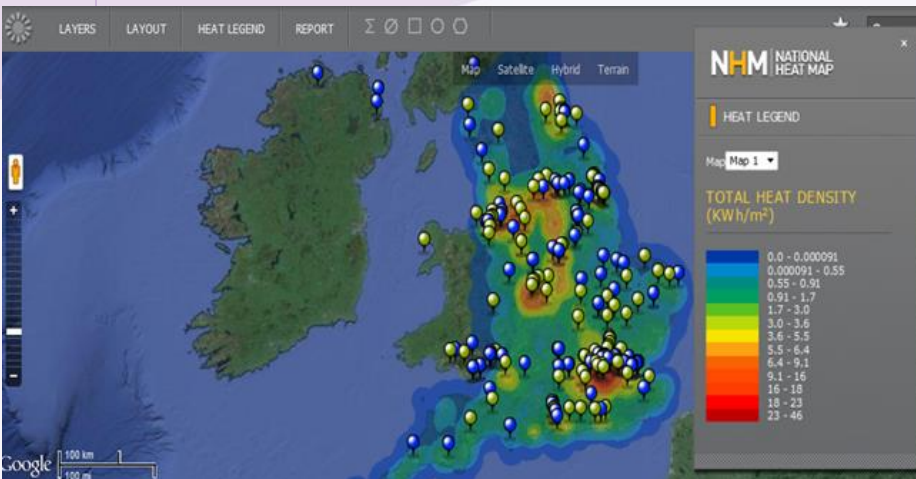


Key goals of the policy

The English Department of Energy and Climate Change (DECC) is developing a policy to support good quality natural gas CHP. Part of this work involves the development of a National Heat Map (NHM). The main purpose of the initiative is to assist the local authorities in their endeavor of planning for heat supply.

Critical success factors

- High resolution and same functions as Google Maps
- Heat demand density/m²/year (space, water, process) and potential heat supply points
- Interactive tools assist review and navigation
- Finer granularity than any other map (individual buildings)



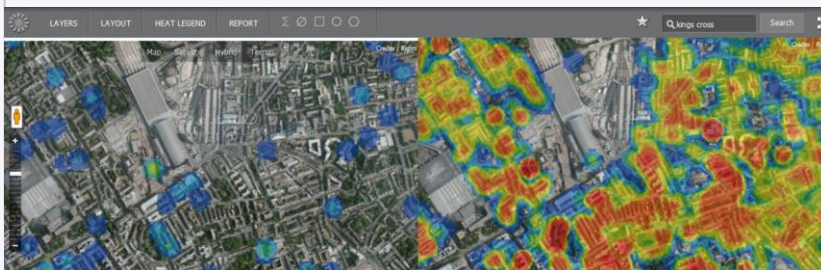
Innovation

Data sources:

- NEED framework and Ordnance Survey data.
- Built from a bottom-up address level **heat demand model** covering residential, commercial, industrial and public buildings, and total heat demand.
- Produced without access to meter readings or energy bills of individual premises (exception public buildings).
- None of the information used contains personal data.

Key achievements – map functions

- Shows local authority boundaries so assists with planning cross-boarder developments
- CHPs and thermal power stations
- Generates reports on selected areas to give accurate heat demand information and sectoral breakdown
- Zoom to particular areas to examine individual buildings
- Use the ‘street view’ function to identify building types
- Split screen function allows comparison of different areas, or viewing one area in different ways
- URL generator available to save and share research
- Data goes back to 2008, and is thinnest for industrial sites (doesn’t exist in NEED). Also doesn’t show things currently in development e.g. The Shard



Lesson learned

- Primarily designed for Local Authorities
- Contains information on building type, heat supply and physical constraints
- Should be used to prioritise locations for more detailed investigation – not as a tool for designing heat networks directly or for querying energy bills
- Provides evidence base for local low-carbon energy projects
- Value for money:
 - map cost c.£150,000 to produce. Were each local authority to produce their own map, could cost £10-60,000 each, totaling £4-20million for the whole of England
 - In reality, many local authorities would not undertake mapping exercise were it not for the NHM
- Heat Network Delivery Unit established by DECC to provide guidance and funding to local authorities in heat network development



Final comments

The NHM is a comprehensive spatial plan of heat demand density for England. It is equipped with a range of tools to help developers and planners identify priority areas for low-carbon energy projects.

Further information

- [National Heat Map](#)
- [Webinar - Using the National Heat Map](#)
- [CA-EED Presentation The National Heat Map](#)
- [BEIS website](#)
- [The Centre for Sustainable Energy website](#)

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