



Infrastructure Transitions Research Consortium

Working paper series



Database structure documentation

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Database Software

PostgreSQL – open source relational database software (9.0.4, 32 bit)

- Installed at: C:\Program Files (x86)\PostgreSQL\9.0
- Data Directory at: D:\Data\PostgreSQL

PostGIS – open source spatial extension for PostgreSQL (1.5.2-3)

pgAgent – open source job scheduler extension for PostgreSQL (3.0.0-win32)

- Code found at C:\Program Files (x86)\pgAgent-3.0.0-win32
- Installed as a windows service, running under postgres user
- Pgpss.conf file needs to be configured and stored in C:\Users\postgres.CEG-ITRC\AppData\Roaming\postgresql
- Job: **itrc_database_backup**
 - Runs D:\Data\DBBackup\itrc_db_backup.bat
 - 1530 every Friday until 31/12/2013
 - Backs up to D:\Data\DBBackup:
 - Itrc db
 - Itrc_CDAM db
 - Itrc_economics db
 - Itrc_population db
 - Itrc_spatial_energy db
 - Itrc_spatial_transport db
 - Itrc_spatial_wastewater db
 - Itrc_spatial_water db
 - Itrc_spatial_solidwaste db
 - Itrc_spatial_hazards db

pgAdmin – open source database viewer / administration tool (ships with PostgreSQL)

Python Software / Packages:

Python version: 2.6.6 (32 bit)

Libraries installed / used:

- Numpy (1.5.1 -32bit)
- Scipy (0.9.0 – 32bit)
- Matplotlib (1.1.0 – 32bit)
- netCDF4 0.9
- h5py 2.0.1
- Django (1.3)
 - Sorl-Thumbnail (3.2.5)
 - OpenXMLLib (1.0.7)
 - Google-Analytics
 - TinyMCE (1.5)
 - Sendfile (0.2.1)
 - Registration
 - Notify (1.1.2)
 - MaintenanceMode (0.9.2)
 - Grappelli (2.2)
 - FileBrowser (3.2)
 - Extensions
 - Easytree
 - Debug Toolbar (0.8.4)
 - Path (2.2.2)
 - Dateutil (1.5)
 - Springmeyer Django Shapes (0.1.0)
 - Shapely (1.2.13 – 32bit)
 - PyEnchant (1.6.5)
 - PyPdf
 - Python Image Library
 - Pscycopg2
 - LXML (2.2.4)
 - SetupTools (0.6)
 - Easy Install
 - PyLab

Other Software Installed:

- FileZilla Server (0.9.39) – (Data Directory: D:\Data\FTP)
- Geoserver 2.1.2 (Data Directory: D:\Data\Geoserver\data_dir)
- Quantum GIS (1.7.0)
- Apache HTTP Server 2.2
 - Configuration:
 - C:\Program Files (x86)\Apache Software Foundation\Apache2.2\conf\httpd.conf
 - C:\Program Files (x86)\Apache Software Foundation\Apache2.2\conf\extra\httpd-vhosts.conf
 - Logs:
 - C:\Program Files (x86)\Apache Software Foundation\Apache2.2\logs\itrc-access.log
 - C:\Program Files (x86)\Apache Software Foundation\Apache2.2\logs\itrc-error.log
- Baretail - D:\Sites\baretail.exe (use this to read the error logs, as it allows auto-updating without reloading the file)
- OSGeo4W - C:\OSGeo4W

Database listing:

- itrc – powering the <http://intranet.itrc.org.uk> site
- itrc_cdam – database to hold CDAM specific uploads and downloads (i.e. store model inputs and outputs)
- itrc_economics – economic projections (employment and GVA as of 13/12/2011) stored here, as supplied by Cambridge Econometrics
- itrc_population – population projections stored here, as supplied by Mark Birkin and Nick Malleson (Leeds University)
- itrc_climate – to store climate-related datasets (potentially used by other models)
- itrc_census – stores 2001, and 2011 related census data
- itrc_spatial – all datasets loaded related to itrc with spatial component
- itrc_spatial_energy – all datasets related to WS1 CDAM: Energy
- itrc_spatial_hazards – to store geo and climate hazards
- itrc_spatial_solidwaste – all datasets related to WS1 CDAM: Solid Waste
- itrc_spatial_transport – all datasets related to WS1 CDAM: Transport
- itrc_spatial_wastewater – all datasets related to WS1 CDAM: Wastewater
- itrc_spatial_water – all datasets related to WS1 CDAM: Water
- ordnance_survey_mastermap – OS MasterMap data for North West Case Study Region
- ordnance_survey_vectormap_district – OS Vector Map data for UK downloaded from Digimap
- ordnance_survey_points_of_interest – OS Points Of Interest data for North West Case Study Region
- openflights – openflights.org data for world and UK subsets

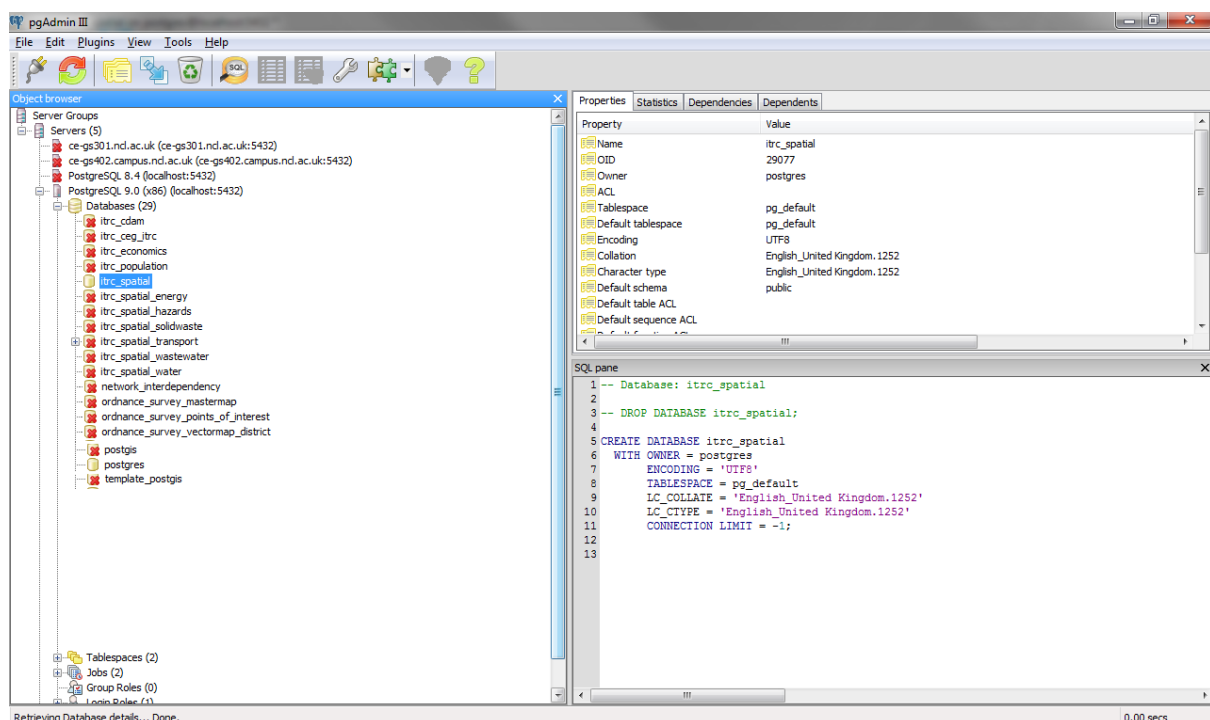


Figure 1 - pgAdmin screenshot of databases listed on ceg-itrc.ncl.ac.uk

Table listings and descriptions

Database: itrc

Table prefix/table name	Description
addressbook_*	Tables related to the addressbook app (apps/basic/addressbook), including those to store
auth_*	Tables related to the built-in django registration app
chunks_chunk	Tables related to the chunks app, used to add snippets of text that could be used multiple times across different pages (apps/basic/chunks)
datadocument_*	Tables related to the datadocument app (apps/datadocument)
django_*	Auto-generated django related tables used to power the django site
events_*	Tables related to the events app, used to store events of interest (apps/basic/events)
google_analytics_analytics	Tables related to the google analytics app, that allows google analytics codes to be related to particular sites
links_link	Tables related to the link app, allowing individual one off definitions of hyperlinks (app/basic/links)
navigation_menuitem	Tables related to the navigation app, used to generate the navigation items in the django site (app/basic/navigation)
news_*	Tables related to the news app, used to store news items of interest to itrc (app/basic/news)
page_*	Tables related to the pages app, used to create web pages of content (app/basic/page)
places_*	Tables related to the places app, used for example in the events app to define the place where an event would occur (app/basic/places)

Figure 2 - overview of itrc database, and the tables held therein.

Database: itrc_cdam

Table prefix/table name	Description
CDAM_cdam	Table for the CDAM app (apps/cdam), but specifically the CDAM model – each record in this table equates to a single CDAM input or output

Figure 3 - overview of the itrc_cdam database, used to store the individual CDAM inputs and outputs

Database: itrc_census

Table prefix/table name	Description
JTW_Bicycle_2001	Journey To Work Origin – Destination Passenger Counts, by bike, 2001
JTW_Bus_2001	Journey To Work Origin – Destination Passenger Counts, by bus, 2001
JTW_CarPool_Northern_Ireland_Only_2001	Journey To Work Origin – Destination Passenger Counts, by car pool, in Northern Ireland Only for 2001
JTW_Car_Driver_2001	Journey To Work Origin – Destination Passenger Counts, for car driver, for 2001
JTW_Car_Passenger_2001	Journey To Work Origin – Destination Passenger Counts, for car passenger, for 2001
JTW_Interaction_Districts_2001_OD_OS_Meridian_2_Stations	
JTW_Motorcycle_2001	Journey To Work Origin – Destination Passenger Counts, for motorcycles, for 2001
JTW_OnFoot_2001	Journey To Work Origin – Destination Passenger Counts, on foot, for 2001
JTW_Other_2001	Journey To Work Origin – Destination Passenger Counts, other class, for 2001
JTW_Taxi_2001	Journey To Work Origin – Destination Passenger Counts, via taxi, for 2001
JTW_Total_2001	Journey To Work Origin – Destination Passenger Counts Totals, for 2001
JTW_Train_2001	Journey To Work Origin – Destination Passenger Counts, by train, for 2001
JTW_Underground_England_Wales_Only_2001	Journey To Work Origin – Destination Passenger Counts, on the underground, for 2001
JTW_WorkStudyAtHome_2001	Journey To Work Origin – Destination Passenger Counts, for those Work and Study at home, for 2001
WICID_JTW_2001_Interaction_Data_Districts	Journey To Work Origin – Data District Zones and Zone Centroids
districts	District geometry, for England and Wales only, supplied by Nick Malleson at Leeds University
england_districts_scotland_ca_2001_wales_ua_2001	Union of England/Wales districts (see above), Scottish Council Areas for 2001, and Wales Unitary Authorities for 2001
nearest_station_district_centroid_all_stations_ftp	Calculation of nearest OS Meridian 2 Railway Station to each District Centroid (ftp – ESRI ArcGIS Feature To Point tool used to generate district centroids), for all stations, whether they lie inside a district or not.
nearest_station_district_centroid_all_stations_st_cent	Calculation of nearest OS Meridian 2 Railway Station to each District Centroid (ST_Centroid of PostGIS used to generate district centroids), for all stations,

	whether they lie inside a district or not.
nearest_station_district_centroid_in_districts_ftp	Calculation of nearest OS Meridian 2 Railway Station to each District Centroid (ftp – ESRI ArcGIS Feature To Point tool used to generate district centroids), initially linking closest station within each district, then linking centroids to stations outside the district boundary if no stations exist within.
nearest_station_district_centroid_in_districts_st_cent	Calculation of nearest OS Meridian 2 Railway Station to each District Centroid (ST_Centroid of PostGIS used to generate district centroids), initially linking closest station within each district, then linking centroids to stations outside the district boundary if no stations exist within.
os_meridian_2_old_station_point	Ordnance Survey Meridian 2 Stations
os_meridian_2_stations_per_district_ftp	Ordnance Survey Meridian 2 Stations per district (ftp – district centroids calculated using ESRI ArcGIS Feature To Point tool)
os_meridian_2_stations_per_district_st_centroid	Ordnance Survey Meridian 2 Stations per district (ST_Centroid of PostGIS used to calculate district centroids)
LSOA_2001_EW_BFC	ONS 2001 lower layer output area boundaries (full resolution, clipped to the coastline)
LSOA_2001_EW_BFC_ST_Centroid	Centroids of ONS 2001 lower layer output area boundaries (full resolution, clipped to the coastline)
LSOA_2001_EW_BFE	ONS 2001 lower layer output area boundaries (full resolution, extent of the realm)
LSOA_2001_EW_BFE_ST_Centroid	Centroids of ONS 2001 lower layer output area boundaries (full resolution, extent of the realm)
LSOA_2001_EW_BGC	ONS 2001 lower layer output area boundaries (generalised 20m – clipped to the coastline)
LSOA_2001_EW_BGC_ST_Centroid	Centroids of ONS 2001 lower layer output area boundaries (generalised 20m – clipped to the coastline)
LSOA_2001_EW_BGE	ONS 2001 lower layer output area boundaries (generalised 20m – extent of the realm)
LSOA_2001_EW_BGE_ST_Centroid	Centroids of ONS 2001 lower layer output area boundaries (generalised 20m – extent of the realm)
MSOA_2001_EW_BFC	ONS 2001 middle layer output area boundaries (full resolution, clipped to the coastline)
MSOA_2001_EW_BFC_ST_Centroid	Centroids of ONS 2001 middle layer output area boundaries (full resolution,

	clipped to the coastline)
MSOA_2001_EW_BFE	ONS 2001 middle layer output area boundaries (full resolution, extent of the realm)
MSOA_2001_EW_BFE_ST_Centroid	Centroids of ONS 2001 middle layer output area boundaries (full resolution, extent of the realm)
MSOA_2001_EW_BGC	ONS 2001 middle layer output area boundaries (generalised 20m – clipped to the coastline)
MSOA_2001_EW_BGC_ST_Centroid	Centroids of ONS 2001 middle layer output area boundaries (generalised 20m – clipped to the coastline)
MSOA_2001_EW_BGE	ONS 2001 middle layer output area boundaries (generalised 20m – extent of the realm)
MSOA_2001_EW_BGE_ST_Centroid	Centroids of ONS 2001 middle layer output area boundaries (generalised 20m – extent of the realm)
OA_2001_EW_BFC	ONS 2001 output area boundaries (full resolution, clipped to the coastline)
OS_2001_EW_BFC_ST_Centroid	Centroids of ONS 2001 output area boundaries (full resolution, clipped to the coastline)
OA_2001_EW_BGE	ONS 2001 output area boundaries (full resolution, extent of the realm)
OA_2001_EW_BGE_ST_Centroid	Centroids of ONS 2001 output area boundaries (full resolution, extent of the realm)
OA_2001_EW_BGC	ONS 2001 output area boundaries (generalised 20m – clipped to the coastline)
OA_2001_EW_BGC_ST_Centroid	Centroids of ONS 2001 output area boundaries (generalised 20m – clipped to the coastline)
LSOA_2011_EW_BFC	ONS 2011 lower layer output area boundaries (full resolution, clipped to the coastline)
LSOA_2011_EW_BFC_ST_Centroid	Centroids of ONS 2011 lower layer output area boundaries (full resolution, clipped to the coastline)
LSOA_2011_EW_BFE	ONS 2011 lower layer output area boundaries (full resolution, extent of the realm)
LSOA_2011_EW_BFE_ST_Centroid	Centroids of ONS 2011 lower layer output area boundaries (full resolution, extent of the realm)
LSOA_2011_EW_BGC	ONS 2011 lower layer output area boundaries (generalised 20m – clipped to the coastline)
LSOA_2011_EW_BGC_ST_Centroid	Centroids of ONS 2011 lower layer output area boundaries (generalised 20m –

	clipped to the coastline)
LSOA_2011_EW_PWC	ONS 2011 lower layer output area population weighted centroids
MSOA_2011_EW_BFC	ONS 2011 middle layer output area boundaries (full resolution, clipped to the coastline)
MSOA_2011_EW_BFC_ST_Centroid	Centroids of ONS 2011 middle layer output area boundaries (full resolution, clipped to the coastline)
MSOA_2011_EW_BFE	ONS 2011 middle layer output area boundaries (full resolution, extent of the realm)
MSOA_2011_EW_BFE_ST_Centroid	Centroids of ONS 2011 middle layer output area boundaries (full resolution, extent of the realm)
MSOA_2011_EW_BGC	ONS 2011 middle layer output area boundaries (generalised 20m – clipped to the coastline)
MSOA_2011_EW_BGC_ST_Centroid	Centroids of ONS 2011 middle layer output area boundaries (generalised 20m – clipped to the coastline)
MSOA_2011_EW_PWC	ONS 2011 middle layer output area population weighted centroids
OA_2011_EW_BFC	ONS 2011 output area boundaries (full resolution, clipped to the coastline)
OA_2011_EW_BFC_ST_Centroid	Centroids of ONS 2011 output area boundaries (full resolution, clipped to the coastline)
OA_2011_EW_BFE	ONS 2011 output area boundaries (full resolution, extent of the realm)
OA_2011_EW_BFE_ST_Centroid	Centroids of ONS 2011 output area boundaries (full resolution, extent of the realm)
OA_2011_EW_BGC	ONS 2011 output area boundaries (generalised 20m – clipped to the coastline)
OA_2011_EW_BGC_ST_Centroid	Centroids of ONS 2011 output area boundaries (generalised 20m – clipped to the coastline)
OA_2011_EW_PWC	ONS 2011 output area population weighted centroids
OA01_OA11_EW_LU	Lookup table mapping 2001 boundaries to 2011 boundaries, for output areas
MSOA01_MSOA11_EW_LUv2	Lookup table mapping 2001 boundaries to 2011 boundaries, for middle layer output areas
LSOA01_LSOA11_EW_LUv2	Lookup table mapping 2001 boundaries to 2011 boundaries, for lower layer output areas.
OA11_CTRY11_EW_LU	ONS 2011 output areas aggregated to countries
OA11_CTY11_EN_LU	ONS 2011 output areas aggregated to

	counties
OA11_LSOA11_MSOA11_LAD11_EW_LUV2	ONS 2011 output areas aggregated to LSOA, MSOA, and LAD
OA11_RGN11_EN_LU	ONS 2011 output areas aggregated to regions

Figure 4 - database containing CENSUS data from 2001, and 2011 release

Database: itrc_variables

Prefixes are mapped as follows:

Prefix	Sector
TR_	Transport Parameters / External Variables
tr_	Transport Sets
SW_	Solid Waste Parameters / External Variables
sw_	Solid Waste Sets
EC_	Energy Capacity Parameters / External Variables
ec_	Energy Capacity Sets
ED	Energy Demand Parameters / External Variables
ed_	Energy Demand Sets

Figure 5 - prefixes assigned to sets and external variables for each sector, helping to distinguish between sets, parameters/external variables across different sectors.

Table prefix/table name	Set or External Variable / Parameter	Description	Sector
tr_hrs	Set	Time (daily timeslots, of 1 hour duration)	Transport
tr_iam	Set	Modes (Intrazonal transport modes)	Transport
tr_irm	Set	Modes (Interzonal transport modes)	Transport
tr_rdt	Set	Road Type	Transport
tr_tim	Set	Time (yearly timeslots (t0=2010, t100=2100))	Transport
tr_trt	Set	Traffic types	Transport
tr_vsc	Set	Vehicle categories	Transport
TR_AFE	External Variable / Parameter	Average fuel efficiency	Transport
TR_AFS	External Variable / Parameter	Average free-flow speed	Transport
TR_ATD	External Variable / Parameter	Average trip distribution over the day	Transport
TR_CEM	External Variable / Parameter	Intermodal cross-elasticities	Transport
TR_EDC	External Variable / Parameter	Elasticity of demand wrt travel cost	Transport
TR_EDG	External Variable / Parameter	Elasticity of demand wrt GVA	Transport
TR_EDP	External Variable / Parameter	Elasticity of demand wrt population	Transport
TR_EDS	External Variable / Parameter	Elasticity of demand wrt average speed	Transport
TR_EDU	External Variable / Parameter	Elasticity of demand wrt capacity utilisation for rail and air	Transport
TR_MFC	External Variable / Parameter	Maximum free-flow capacity	Transport
TR_SEU	External Variable /	Elasticity of speed wrt	Transport

	Parameter	capacity utilisation	
sw_swa	Set	Sources of waste arisings	Solid Waste
sw_tim	Set	Yearly time steps from 2008 to 2100	Solid Waste
sw_trt	Set	Treatment types for different waste types	Solid Waste
sw_wst	Set	Waste streams from collection process	Solid Waste
sw_wty	Set	Waste types from separation process	Solid Waste
SW_BLC	External Variable / Parameter	Baseline coupling	Solid Waste
SW_CFG	External Variable / Parameter	Coupling factor GVA-SWA	Solid Waste
SW_CFW	External Variable / Parameter	Cost factor of waste treatment	Solid Waste
SW_CIW	External Variable / Parameter	Carbon intensity of waste treatment	Solid Waste
SW_ETR	External Variable / Parameter	Eligibility for treatment type	Solid Waste
SW_ROD	External Variable / Parameter	Rate of decoupling	Solid Waste
SW_SFI	External Variable / Parameter	Scaling factor of overall investment	Solid Waste
SW_SIC	External Variable / Parameter	Specific investment costs	Solid Waste
SW_STC	External Variable / Parameter	Specific transport costs	Solid Waste
SW_THI	External Variable / Parameter	Time horizon of investment	Solid Waste
SW_TSP	External Variable / Parameter	Time step of planning	Solid Waste
ed_apl	Set	Index for appliance type	Energy Demand
ed_cet	Set	Index for cooking energy technology	Energy Demand
ed_dwt	Set	Index for dwelling type	Energy Demand
ed_fut	Set	Index for fuel types	Energy Demand
ed_hrs	Set	Index for hour of a day	Energy Demand
ed_let	Set	Index for lighting energy technology	Energy Demand
ed_moy	Set	Index for month of a year	Energy Demand
ed_sht	Set	Index for space heating technology	Energy Demand
ed_tec	Set	Index for hot water, space heating/cooling, cooking and microgeneration technologies	Energy Demand
ed_tim	Set	Index for time step	Energy Demand

ed_wht	Set	Index for water heating technology	Energy Demand
ED_DFP	External Variable / Parameter	Domestic retail fuel price	Energy Demand
ED_DGD	External Variable / Parameter	Degree Days	Energy Demand
ED_ELF	External Variable / Parameter	Efficiency/Load factors	Energy Demand
ED_IBT	External Variable / Parameter	Internal base temperature	Energy Demand
ED_IEF	External Variable / Parameter	Income elasticity of fuel demand	Energy Demand
ED_NOD	External Variable / Parameter	Number of dwellings	Energy Demand
ED_PEF	External Variable / Parameter	Price elasticity of fuel demand	Energy Demand
ED_PLP	External Variable / Parameter	Peak Load Profiles	Energy Demand
ED_SCG	External Variable / Parameter	Specific energy consumption of gas cooking	Energy Demand
ec_des	Set	Demand Sectors	Energy Capacity
ec_ect	Set	Energy Carrier Types	Energy Capacity
ec_gst	Set	Gas Storage Facility Type	Energy Capacity
ec_gtt	Set	Gas Terminal Type	Energy Capacity
ec_pgt	Set	Power Generator Type	Energy Capacity
ec_tim	Set	Time	Energy Capacity
EC_CCO	External Variable / Parameter	Capital cost of compressor	Energy Capacity
EC_CES	External Variable / Parameter	Cost of electricity shedding at sector	Energy Capacity
EC_CGE	External Variable / Parameter	Capital cost of gas terminal of type	Energy Capacity
EC_CGS	External Variable / Parameter	Capital cost of gas storage facility of type	Energy Capacity
EC_CGT	External Variable / Parameter	Capital cost of gas transmission capacity	Energy Capacity
EC_CPT	External Variable / Parameter	Capital cost of power transmission capacity	Energy Capacity
EC_CSH	External Variable / Parameter	Cost of gas shedding at sector	Energy Capacity
EC_FCC	External Variable / Parameter	Fixed cost of compressor facility	Energy Capacity
EC_FCP	External Variable / Parameter	Fixed cost of pipeline	Energy Capacity
EC_FCR	External Variable / Parameter	Fixed cost of transmission line	Energy Capacity
EC_FCS	External Variable / Parameter	Fixed cost of gas storage facility of type	Energy Capacity

EC_FCT	External Variable / Parameter	Fixed cost of gas terminal of type	Energy Capacity
EC_GFC	External Variable / Parameter	Gas turbine fuel rate coefficient of a compressor	Energy Capacity
EC_MRR	External Variable / Parameter	Minimum reserve requirement	Energy Capacity
EC_OTH	External Variable / Parameter	Operational time horizon	Energy Capacity
EC_OTS	External Variable / Parameter	Operational time step	Energy Capacity
EC_PEC	External Variable / Parameter	Polytropic exponent of a compressor	Energy Capacity
EC_PTH	External Variable / Parameter	Planning time horizon	Energy Capacity
EC PTS	External Variable / Parameter	Planning time step	Energy Capacity

Figure 6 - database for WS1 containing the sets, parameters and external variables for each sectors (transport, solid waste, energy capacity, energy demand) capacity and demand module (CDAM)

Database: itrc_economics

Table prefix/table name	Description
economics_economicsukco2emissions	Table for the economics app (apps/economics), but specifically the EconomicsUKCO2Emissions model – each record in this table equates to a single UK CO2 Emissions projection
economics_economicsukco2emissionsfile	Table for the economics app (apps/economics), but specifically the EconomicsUKCO2EmissionsFile model – each record in this table equates to a single set of UK CO2 Emissions projections that have been uploaded
economics_economicsukco2emissionsmetaquery	Table for the economics app (apps/economics), but specifically the EconomicsUKCO2EmissionsMetaQuery model – each record in this table equates to a single request made by a user for economics UK CO2 Emissions data (acts as a means of tracking downloads)
economics_economicsukghgemissions	Table for the economics app (apps/economics), but specifically the EconomicsUKGHGEmissions model – each record in this table equates to a single UK GHG Emissions projection
economics_economicsukghgemissionsfile	Table for the economics app (apps/economics), but specifically the EconomicsUKGHGEmissionsFile model – each record in this table equates to a single set of UK GHG Emissions projections that have been uploaded
economics_economicsukghgemissionsmetaquery	Table for the economics app (apps/economics), but specifically the EconomicsUKGHGEmissionsMetaQuery model – each record in this table equates to a single request made by a user for economics UK GHG Emissions data (acts as a means of tracking downloads)
economics_economicsukhouseholdexpenditure	Table for the economics app (apps/economics), but specifically the EconomicsUKHouseholdExpenditure model – each record in this table equates to a single UK Household Expenditure projection
economics_economicsukhouseholdexpenditurefile	Table for the economics app (apps/economics), but specifically the EconomicsUKHouseholdExpenditureFile model – each record in this table equates to a single set of UK Household Expenditure projections that have been uploaded
economics_economicsukhouseholdexpendituremetaquery	Table for the economics app (apps/economics), but specifically the EconomicsUKHouseholdExpenditureMetaQuery model – each record in this table equates to a single request made by a user for economics UK Household Expenditure data (acts as a means of tracking downloads)

economics_economicsukindustryexpenditure	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryExpenditure model – each record in this table equates to a single UK Industry Expenditure projection
economics_economicsukindustryexpenditurefile	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryExpenditureFile model – each record in this table equates to a single set of UK Industry Expenditure projections that have been uploaded
economics_economicsukindustryexpendituremetaquery	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryExpenditureMetaQuery model – each record in this table equates to a single request made by a user for economics UK Industry Expenditure data (acts as a means of tracking downloads)
economics_economicsukindustryexports	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryExports model – each record in this table equates to a single UK Industry Exports projection
economics_economicsukindustryexportsfile	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryExportsFile model – each record in this table equates to a single set of UK Industry Exports projections that have been uploaded
economics_economicsukindustryexportsmetaquery	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryExportsMetaQuery model – each record in this table equates to a single request made by a user for economics UK Industry Exports data (acts as a means of tracking downloads)
economics_economicsukindustryimports	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryImports model – each record in this table equates to a single UK Industry Imports projection
economics_economicsukindustryimportsfile	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryImportsFile model – each record in this table equates to a single set of UK Industry Imports projections that have been uploaded
economics_economicsukindustryimportsmetaquery	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryImportsMetaQuery model – each record in this table equates to a single request made by a user for economics UK Industry Imports data (acts as a means of tracking downloads)
economics_economicsukindustryoutputprices	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryOutputPrices model – each record in this table equates to a single UK Industry Output Prices projection

economics_economicsukindustryoutputpricesfile	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryOutputPrices model – each record in this table equates to a single set of UK Industry Output Prices projections that have been uploaded
economics_economicsukindustryoutputpricesmetaquery	Table for the economics app (apps/economics), but specifically the EconomicsUKIndustryOutputPricesMetaQuery model – each record in this table equates to a single request made by a user for economics UK Industry Output Prices data (acts as a means of tracking downloads)
economics_economicsemployment	Table for the economics app (apps/economics), but specifically the EconomicsEmployment model – each record in this table equates to a single employment projection
economics_economicsemploymentfile	Table for the economics app (apps/economics), but specifically the EconomicsEmploymentFile model – each record in this table equates to a single set of employment projections that have been uploaded
economics_economicsemploymentmetaquery	Table for the economics app (apps/economics), but specifically the EconomicsEmploymentMetaQuery model – each record in this table equates to a single request made by a user for economics employment data (acts as a means of tracking downloads)
economics_economicsenergy	Table for the economics app (apps/economics), but specifically the EconomicsEnergy model – each record in this table equates to a single aggregate energy demand for a single fuel user type and year
economics_economicsenergyfile	Table for the economics app (apps/economics), but specifically the EconomicsEnergyFile model – each record in this table equates to a single set of aggregate energy demand data that have been uploaded
economics_economicsenergymetaquery	Table for the economics app (apps/economics), but specifically the EconomicsEnergyMetaQuery model – each record in this table equates to a single request made by a user for economics aggregate energy data (acts as a means of tracking downloads)
economics_economicsfile	Table for the economics app (apps/economics), but specifically the EconomicsFile model – each record in this table equates to a single zip file containing a netCDF4 file of employment, GVA and aggregate energy demand.
economics_economicsgva	Table for the economics app (apps/economics), but specifically the EconomicsGVA model – each record in this table equates to a single economics GVA projection
economics_economicsgvafile	Table for the economics app (apps/economics), but specifically the EconomicsGVAFile model – each

	record in this table equates to a single set of GVA projections that have been uploaded
economics_economicsgvametaquery	Table for the economics app (apps/economics), but specifically the EconomicsGVAMetaQuery model – each record in this table equates to a single request made by a user for economics GVA data (acts as a means of tracking downloads)
fuel_users	Table containing the list of fuel users and corresponding ids
government_office_regions	Spatial table containing the relevant government office regions against which the economic projections are calculated
greatbritain	Spatial table containing the Great Britain boundary (as downloaded from UK BORDERS)
sectors	List of the sectors and corresponding ids against which the economic projections are calculated

Figure 7 - overview of the itrc_economics database, used to store the economic projections generated by Cambridge Econometrics

Database: itrc_population

Table prefix/table name	Description
population_population	Table for the population app (apps/population), each record in this table equates to a single population projection value
population_populationfile	Table for the population app (apps/population)– each record in this table equates to a single set of population projections that have been uploaded
population_populationmetaquery	Table for the population app (apps/population) – each record in this table equates to a single request made by a user for population data (acts as a means of tracking downloads)
districts	Spatial table containing all the districts against which the population projections are calculated. PROCESSED BY combining all England 2001 output areas in to one file.
districts_gor_union	Spatial table containing the union of all districts and government office regions
government_office_regions	Spatial table containing all government office regions

Figure 8 - overview of the itrc_population database, used to store the population projections generated by Mark Birkin, Nick Malleson, and Chengchao Zuo, Leeds University

Database: itrc_census

Table prefix/table name	Description
LSOA_2001_EW_BFC	2001, full resolution (clipped to coastline), lower layer output area boundaries
LSOA_2001_EW_BFE	2001, full resolution (extent of the realm), lower layer output area boundaries
LSOA_2001_EW_BGC	2001, generalised 20m (clipped to coastline), lower layer output area boundaries
LSOA_2001_EW_BGE	2001, generalised 20m (extent of the realm), lower layer output area boundaries
MSOA_2001_EW_BFC	2001, full resolution (clipped to coastline), middle layer output area boundaries
MSOA_2001_EW_BFE	2001, full resolution (extent of the realm), middle layer output area boundaries
MSOA_2001_EW_BGC	2001, generalised 20m (clipped to coastline), middle layer output area boundaries
MSOA_2001_EW_BGE	2001, generalised 20m (extent of the realm), middle layer output area boundaries
OA_2001_EW_BFC	2001, full resolution (clipped to coastline), output area boundaries
OA_2001_EW_BGE	2001, generalised 20m (extent of the realm), output area boundaries
OA_2001_EW_BGC	2001, generalised 20m (clipped to coastline), output area boundaries
LSOA_2011_EW_BFC	2011, full resolution (clipped to coastline), lower layer output area boundaries
LSOA_2011_EW_BFE	2011, full resolution (extent of the realm), lower layer output area boundaries
LSOA_2011_EW_BGC	2011, generalised 20m (clipped to coastline), lower layer output area boundaries
LSOA_2011_EW_PWC	2011, population weighted centroids, lower layer output area boundaries
MSOA_2011_EW_BFC	2011, full resolution (clipped to coastline), middle layer output area boundaries
MSOA_2011_EW_BFE	2011, full resolution (extent of the realm), middle layer output area boundaries
MSOA_2011_EW_BGC	2011, generalised 20m (clipped to coastline), middle layer output area boundaries
MSOA_2011_EW_PWC	2011, population weighted centroids, middle layer output area boundaries
OA_2011_EW_BFC	2011, full resolution (clipped to coastline), output area boundaries
OA_2011_EW_BFE	2011, full resolution (extent of the realm), output area boundaries
OA_2011_EW_BGC	2011, generalised 20m (clipped to coastline), output area boundaries
OA_2011_EW_PWC	2011, population weighted centroids, output area boundaries

Figure 9 - overview of the itrc_census database

Database: itrc_spatial_water

Table prefix/table name	Description
OS_Reservoirs	Ordnance Survey supplied reservoirs in the UK – POINT
OS_Reservoirs_Covered	Filtered reservoirs to include only OS-supplied covered reservoirs
OS_Reservoirs_Disused	Filtered reservoirs to include only OS-supplied disused reservoirs
OS_WaterPumpingStations	Ordnance Survey supplied water pumping stations in the UK – POINT (can be separated into): <ul style="list-style-type: none"> • Disused Assets • Draining/Drainage Assets • Hydraulic Assets • Pumping Assets • Underground Assets • Water Towers • Wind Assets
OS_WaterPumpingStations_DisusedAssets	OS_WaterPumpingStations filtered for Disused Assets
OS_WaterPumpingStations_DrainingDrainageAssets	OS_WaterPumpingStations filtered for Drainage / Draining Assets
OS_WaterPumpingStations_HydraulicAssets	OS_WaterPumpingStations filtered for Hydraulic Assets
OS_WaterPumpingStations_PumpingAssets	OS_WaterPumpingStations filtered for Pumping Assets
OS_WaterPumpingStations_UndergroundAssets	OS_WaterPumpingStations filtered for Underground Assets
OS_WaterPumpingStations_WaterTower	OS_WaterPumpingStations filtered for Water Tower
OS_WaterPumpingStations_WindAssets	OS_WaterPumpingStations filtered for Wind Assets
indicative_fluvial_flood_10k_2000	Indicative Fluvial Flood Plain Data Supplied by the Environment Agency (N: 255685.300099, S: 14307.473783, E: 445614.018491, W: 135500.558857) – South West GOR Only
indicative_tidal_flood_10k_2000	Indicative Tidal Flood Plain Data Supplied by the Environment Agency (N: 220003.713847, S: 135013.142145, E: 382882.717225, W: 286984.906262) – Bristol Channel Only
nat_floodzone2_v3_8	National Flood Zone Data Supplied by the Environment Agency – England and Wales Coverage Only
nat_floodzone3_v3_8	National Flood Zone Data Supplied by the Environment Agency – England and Wales Coverage Only
os_meridian_2_coast_ln_polyline os_meridian_2_lake_region os_meridian_2_river_polyline	Ordnance Survey Meridian 2 Data (Coast Line, Lakes, Rivers)
os_strategi_combined_*	Ordnance Survey Strategi Data (Coast,

	Foreshore area, Lakes, Rivers)
os_waterpumpingstations_intersect_nat_floodzone2_v3_8	Ordnance Survey supplied water pumping stations intersecting the national flood zone version 2
os_waterpumpingstations_intersect_nat_floodzone3_v3_8	Ordnance Survey supplied water pumping stations intersecting the national flood zone version 3
EA_WM_areawm_250k	Environment Agency Area Boundaries
EA_WM_regionwm_250k	Environment Agency Region Boundaries
SEPA_Teams_250k	Scottish Environment Protection Agency 1:50k SEPA boundaries

Figure 10 - overview of the itrc_spatial_water database, used to store data relating to the water sector

Database: itrc_spatial_wastewater

Table prefix/table name	Description
OS_Reservoirs	Ordnance Survey supplied reservoirs in the UK – POINT
OS_WaterPumpingStations	Ordnance Survey supplied water pumping stations in the UK - POINT(can be separated into): <ul style="list-style-type: none"> • Disused Assets • Draining/Drainage Assets • Hydraulic Assets • Pumping Assets • Underground Assets • Water Towers • Wind Assets
OS_WaterPumpingStations_DisusedAssets	OS_WaterPumpingStations filtered for Disused Assets
OS_WaterPumpingStations_DrainingDrainageAssets	OS_WaterPumpingStations filtered for Drainage / Draining Assets
OS_WaterPumpingStations_HydraulicAssets	OS_WaterPumpingStations filtered for Hydraulic Assets
OS_WaterPumpingStations_PumpingAssets	OS_WaterPumpingStations filtered for Pumping Assets
OS_WaterPumpingStations_UndergroundAssets	OS_WaterPumpingStations filtered for Underground Assets
OS_WaterPumpingStations_WaterTower	OS_WaterPumpingStations filtered for Water Tower
OS_WaterPumpingStations_WindAssets	OS_WaterPumpingStations filtered for Wind Assets
UWWTW_EU_SA_TW_UK_ONLY_OSGB	Sensitive Areas – Transitional Waters?
UWWTW_EU_SA_catchm_UK_ONLY_OSGB	Sensitive Areas - UK Catchments
UWWTW_EU_SA_coastA_UK_ONLY_OSGB	Sensitive Areas – UK Coast Area
UWWTW_EU_SA_coastL_UK_ONLY_OSGB	Sensitive Areas – UK Coast Line
UWWTW_EU_SA_lake_UK_ONLY_OSGB	Sensitive Areas - UK Lakes / Lochs
UWWTW_EU_SA_river_UK_ONLY_OSGB	Sensitive Areas - UK Rivers
UWWTW_T_Agglomerations_UK_ONLY_OSGB	?
UWWTW_T_DischargePoints_UK_ONLY_OSGB	UK Discharge Points and type
UWWTW_T_UWWTPS_UK_ONLY_OSGB	Urban Waste Water Treatment plants?
UWWTW_T_MSLevel	?
UWWTW_T_ReceivingAreas	Details of areas receiving outfall
UWWTW_T_ReportPeriod	Reporting Periods for each member state, the version and current situation
UWWTW_T_Reporter	Details, names and ids of each reporting member state
UWWTW_T_Uwwtp_Agglo	?
UWWTW_Waterbase_UWWTD_v2_codelist_bigcities	Mapping to city names
UWWTW_Waterbase_UWWTD_v2_codelist_LOV	Code mapping table
UWWTW_Waterbase_UWWTD_v2_codelist_NUTS	NUT mapping
UWWTW_Feb2011_EU_LSA_coastL_UK_ONLY_OSGB36	February 2011 Update:
UWWTW_Feb2011_EU_SA_TW_UK_ONLY_OSGB36	February 2011 Update: Sensitive Areas – Transitional Waters?

UWWTW_Feb2011_EU_SA_catchm_UK_ONLY_OSGB36	February 2011 Update: Sensitive Areas - UK Catchments
UWWTW_Feb2011_EU_SA_coastA_UK_ONLY_OSGB36	February 2011 Update: Sensitive Areas – UK Coast Area
UWWTW_Feb2011_EU_SA_coastL_UK_ONLY_OSGB36	Sensitive Areas – UK Coast Line
UWWTW_Feb2011_EU_SA_lake_UK_ONLY_OSGB36	February 2011 Update: Sensitive Areas - UK Lakes / Lochs
UWWTW_Feb2011_EU_SA_river_UK_ONLY_OSGB36	February 2011 Update: Sensitive Areas - UK Rivers
UWWTW_Feb2011_T_Agglomerations_Feb2011_UK_ONLY_OSGB36	?
UWWTW_Feb2011_T_DischargePoints_Feb2011_UK_ONLY_OSGB36	February 2011 Update: UK Discharge Points and type
UWWTW_Feb2011_T_UWWTPS_UK_ONLY_OSGB36	February 2011 Update: Urban Waste Water Treatment plants?
UWWTW_T_Agglomerations_Aug2012_UK_ONLY_OSGB36	?
UWWTW_T_DischargePoints_Aug2012_UK_ONLY_OSGB36	August 2012 Update: UK Discharge Points and type
UWWTW_T_UWWTPS_Aug2012_UK_ONLY_OSGB36	August 2012 Update: Urban Waste Water Treatment plants?
UWWTW_Aug2012_T_MSLevel	?
UWWTW_Aug2012_T_ReceivingAreas	Details of areas receiving outfall
UWWTW_Aug2012_T_ReportPeriod	Reporting Periods for each member state, the version and current situation
UWWTW_Aug2012_T_Reporter	Details, names and ids of each reporting member state
UWWTW_Aug2012_T_UWWTP_Agglo	?
UWWTW_T_UWWTPS_UK_ONLY_OSGB36_Intersect_nat_floodzone_2_v3_8	Urban Waste Water Treatment Plants intersect National Flood Zone (v2)
UWWTW_T_UWWTPS_UK_ONLY_OSGB36_Intersect_nat_floodzone_3_v3_8	Urban Waste Water Treatment Plants intersect National Flood Zone (v2)
os_waterpumpingstations_intersect_nat_floodzone2_v3_8	Ordnance Survey supplied water pumping stations intersecting the national flood zone version 2
os_waterpumpingstations_intersect_nat_floodzone3_v3_8	Ordnance Survey supplied water pumping stations intersecting the national flood zone version 3
derived_poi_waste_storage_processing_disposal_sewage_features	Derived from derived_poi_waste_storage_processing_disposal filtered for all features with name ILIKE '%sew%'
derived_poi_waste_storage_processing_disposal_sludge_features	Derived from derived_poi_waste_storage_processing_disposal filtered for all features with name ILIKE '%slud%'
derived_poi_waste_storage_processing_disposal_slurry_features	Derived from derived_poi_waste_storage_processing_disposal filtered for all features with name ILIKE '%slur%'

Figure 11 - overview of the itrc_spatial_wastewater database, used to store data relating to the waste water sector

Database: itrc_spatial_transport

Table prefix/table name	Description
OS_Airports	Ordnance Survey supplied airports – UK ONLY
OS_Seaports	Ordnance Survey supplied sea ports – UK ONLY
dft_annualaveragedailyflow	Department for Transport supplied annual average daily flow statistics (1999-2010 for urban and motorways) - http://www.dft.gov.uk/matrix/Search.aspx
dft_traffic	Department for Transport supplied traffic data (1999-2010 for urban and motorways) - http://www.dft.gov.uk/matrix/Search.aspx
dft_cp_locations	Department for Transport Count Point Locations extracted from annual average daily flow and traffic data.
naptan_*	National Public Transport Access Nodes (data.gov.uk)
nptg_*	National Public Transport Gazetteer (data.gov.uk)
os_meridian_2_a_road_polyline	Ordnance Survey Meridian 2 A Roads – supplied from Digimap
os_meridian_2_b_road_polyline	Ordnance Survey Meridian 2 B Roads – supplied from Digimap
os_meridian_2_junction_font_point	Ordnance Survey Meridian 2 A Junction Points – supplied from Digimap
os_meridian_2_minor_rd_polyline	Ordnance Survey Meridian 2 A Minor Roads – supplied from Digimap
os_meridian_2_motorway_polyline	Ordnance Survey Meridian 2 A Motorway – supplied from Digimap
os_meridian_2_rail_ln_polyline	Ordnance Survey Meridian 2 A Rail Lines – supplied from Digimap
os_meridian_2_ndabout_point	Ordnance Survey Meridian 2 A Roundabout – supplied from Digimap
os_meridian_2_roadnode_point	Ordnance Survey Meridian 2 A Road Node – supplied from Digimap
os_meridian_2_station_point	Ordnance Survey Meridian 2 A Rail Station – supplied from Digimap
os_meridian_*_intersect_nat_floodzone2_v3_8	Ordnance Survey Meridian 2 data (see above) intersected with national flood zone version 2
os_meridian_*_intersect_nat_floodzone3_v3_8	Ordnance Survey Meridian 2 data (see above) intersected with national flood zone version 3
os_strategi_combined_a_road_polyline	Ordnance Survey Strategi A Roads – supplied from Digimap
os_strategi_combined_airport_font_point	Ordnance Survey Strategi Air Points – supplied from Digimap
os_strategi_combined_b_road_polyline	Ordnance Survey Strategi B Roads – supplied from Digimap
os_strategi_combined_ferry_polyline	Ordnance Survey Strategi Ferry Terminals – supplied from Digimap
os_strategi_combined_minor_rd_polyline	Ordnance Survey Strategi Minor Roads – supplied from Digimap
os_strategi_combined_motorway_polyline	Ordnance Survey Strategi Motorways – supplied from Digimap
os_strategi_combined_primry_rd_polyline	Ordnance Survey Strategi Primary Roads – supplied from Digimap
os_strategi_combined_railway_polyline	Ordnance Survey Strategi Rail Lines – supplied from Digimap
os_strategi_road_point	Ordnance Survey Strategi Road Points – supplied from Digimap
os_strategi_railway_point	Ordnance Survey Strategi Railway Points – supplied from

	Digimap
os_strategi_comb_*_Int_nat_floodzone_2_v3_8	Ordnance Survey Strategi data (see above) intersected with national flood zone version 2
os_strategi_comb_*_Int_nat_floodzone_3_v3_8	Ordnance Survey Strategi data (see above) intersected with national flood zone version 3
NetworkAADFCountPoints2010	Department for Transport supplied annual average daily flow statistics (1999-2010 for urban and motorways - http://www.dft.gov.uk/traffic-counts/download.php)
NetworkAADFCountPoints2010_join_OS_Strategi_Road_Layers	Department for Transport supplied annual average daily flow statistics against each count point joined to appropriate road link in OS Strategi Road Layers (A, B, Minor, Motorway, Primry Road)
derived_poi_railway_stations_junctions_halts	Derived from OS Points of Interest data (code: 10570738) – North West coverage only
derived_poi_signalling_facilities	Derived from OS Points of Interest data (code: 10540740) – North West coverage only
Openflights_airlines	Openflights airlines data containing airline name, country of origin and airline code (also integrated in to the itrc_spatial_transport database)
Openflights_airports_uk_only	Openflights airport data (uk only airports) (also integrated in to the itrc_spatial_transport database)
Openflights_routes_uk_only	Openflights routes data contains all routes that start and end within the UK i.e. all internal domestic flights (also integrated in to the itrc_spatial_transport database)
CAA_Table_01_Size_of_UK_Airports_2010_Comp_2009	Civil Aviation Authority Data: Size of UK airports (comparison 2009, 2010)
CAA_Table_01_Size_of_UK_Airports_2011_Comp_2006	Civil Aviation Authority Data: Size of UK airports (comparison 2006, 2011)
CAA_Table_02_1_Main_Outputs_Of_UK_Airports_2010	Civil Aviation Authority Data: Main Outputs of UK Airports (2010)
CAA_Table_02_1_Main_Outputs_Of_UK_Airports_2011	Civil Aviation Authority Data: Main Outputs of UK Airports (2011)
CAA_Table_02_2_Summary_Of_Activity_at_UK_Airports_2010	Civil Aviation Authority Data: Summary of activity at UK airports (2010)
CAA_Table_02_2_Summary_Of_Activity_at_UK_Airports_2011	Civil Aviation Authority Data: Summary of activity at UK airports (2011)
CAA_Table_02_3_Use_Of_UK_Airports_1986_2010	Civil Aviation Authority Data: Use of UK airports – 1986 - 2010
CAA_Table_02_3_Use_Of_UK_Airports_1986_2011	Civil Aviation Authority Data: Use of UK airports – 1986 - 2011
CAA_Table_02_4_Use_Of_UK_Airports_by_Purpose_1986_2010	Civil Aviation Authority Data: Use of UK Airports by purpose (1986-2010)
CAA_Table_02_4_Use_Of_UK_Airports_by_Purpose_1986_2011	Civil Aviation Authority Data: Use of UK Airports by purpose (1986-2011)
CAA_Table_03_1_Aircraft_Movements_2010	Civil Aviation Authority Data: Aircraft movements UK 2010
CAA_Table_03_1_Aircraft_Movements_2011	Civil Aviation Authority Data: Aircraft movements UK 2011
CAA_Table_03_2_Aircraft_Movements_2000_2010	Civil Aviation Authority Data: Aircraft movements from 2000 – 2010 UK
CAA_Table_03_2_Aircraft_Movements_2001_2011	Civil Aviation Authority Data: Aircraft movements from 2000 – 2011 UK
CAA_Table_04_1_Air_Transport_Movements_2010	Civil Aviation Authority Data: Air Transport Movements (1) 2010

CAA_Table_04_1_Air_Transport_Movements_2011	Civil Aviation Authority Data: Air Transport Movements (1) 2011
CAA_Table_04_2_Air_Transport_Movements_2000_2010	Civil Aviation Authority Data: Air Transport Movements (2) 2010
CAA_Table_04_2_Air_Transport_Movements_2001_2011	Civil Aviation Authority Data: Air Transport Movements (2) 2011
CAA_Table_05_Air_Transport_Movements_2010	Civil Aviation Authority Data: Air Transport Movements 2010
CAA_Table_05_Air_Transport_Movements_2011	Civil Aviation Authority Data: Air Transport Movements 2011
CAA_Table_06_Air_Transport_Movements_vs_Previous_Year_2010	Civil Aviation Authority Data: Air Transport Movements v Previous Year 2010
CAA_Table_06_Air_Transport_Movements_vs_Previous_Year_2011	Civil Aviation Authority Data: Air Transport Movements v Previous Year 2011
CAA_Table_07_1_Air_Transport_Movements_Diverted_2010	Civil Aviation Authority Data: Diverted Air Transport Movements 2010
CAA_Table_07_1_Air_Transport_Movements_Diverted_2011	Civil Aviation Authority Data: Diverted Air Transport Movements 2011
CAA_Table_07_2_Number_of_Diversions_to_UK_Airports_2010	Civil Aviation Authority Data: Number of Diversions to UK airports (2010)
CAA_Table_07_2_Number_of_Diversions_to_UK_Airports_2011	Civil Aviation Authority Data: Number of Diversions to UK airports (2011)
CAA_Table_08_Air_Passengers_by_Type_and_Nat_of_Operator_2010	Civil Aviation Authority Data: Air Passengers by Type and Operator (2010)
CAA_Table_08_Air_Passengers_by_Type_and_Nat_of_Operator_2011	Civil Aviation Authority Data: Air Passengers by Type and Operator (2011)
CAA_Table_09_Terminal_and_Transit_Pax_2010	Civil Aviation Authority Data: Terminal / Transit Passenger Numbers 2010
CAA_Table_09_Terminal_and_Transit_Pax_2011	Civil Aviation Authority Data: Terminal / Transit Passenger Numbers 2011
CAA_Table_10_1_EU_and_Other_Intl_Terminal_Pax_Traffic_2010	Civil Aviation Authority Data: EU / Other Intl Terminal Passenger Numbers 2010
CAA_Table_10_1_EU_and_Other_Intl_Terminal_Pax_Traffic_2011	Civil Aviation Authority Data: EU / Other Intl Terminal Passenger Numbers 2011
CAA_Table_10_2_Domestic_Terminal_Pax_Traffic_2010	Civil Aviation Authority Data: Domestic Terminal Passenger Numbers 2010
CAA_Table_10_2_Domestic_Terminal_Pax_Traffic_2011	Civil Aviation Authority Data: Domestic Terminal Passenger Numbers 2011
CAA_Table_10_3_Terminal_Pax_2000_2010	Civil Aviation Authority Data: Terminal Passengers (2000-2010)
CAA_Table_10_3_Terminal_Pax_2001_2011	Civil Aviation Authority Data: Terminal Passengers (2000-2011)
CAA_Table_11_Intl_Pax_Traffic_to_from_UK_by_Country_2000_2010	Civil Aviation Authority Data: International Traffic To / From UK by Country 2010
CAA_Table_11_Intl_Pax_Traffic_to_from_UK_by_Country_2001_2011	Civil Aviation Authority Data: International Traffic To / From UK by Country 2011
CAA_Table_12_1_Intl_Air_Pax_Route_Analysis_2010	Civil Aviation Authority Data: International Air Passenger Route Analysis 2010
CAA_Table_12_1_Intl_Air_Pax_Route_Analysis_2011	Civil Aviation Authority Data: International Air Passenger Route Analysis 2011
CAA_Table_13_1_Freight_by_Type_and_Nat_of_Operator_2010	Civil Aviation Authority Data: Freight by Type and Nation of Operator 2010
CAA_Table_13_1_Freight_by_Type_and_Nat_of_Operator_2011	Civil Aviation Authority Data: Freight by Type and Nation of Operator 2011

CAA_Table_13_2_Freight_2001_2011	Civil Aviation Authority Data: Freight data 2001 – 2011
CAA_Table_14_Intl_and_Domestic_Freight_2010	Civil Aviation Authority Data: International and Domestic Freight Data 2010
CAA_Table_14_Intl_and_Domestic_Freight_2011	Civil Aviation Authority Data: International and Domestic Freight Data 2011
CAA_Table_15_Freight_by_Aircraft_Configuration_2010	Civil Aviation Authority Data: Freight by Aircraft Configuration 2010
CAA_Table_15_Freight_by_Aircraft_Configuration_2011	Civil Aviation Authority Data: Freight by Aircraft Configuration 2011
CAA_Table_16_1_Mail_by_Type_and_Nat_of_Operator_2010	Civil Aviation Authority Data: Mail by Type and Nation of Operator 2010
CAA_Table_16_1_Mail_by_Type_and_Nat_of_Operator_2011	Civil Aviation Authority Data: Mail by Type and Nation of Operator 2011
CAA_Table_16_2_Mail_2000_2010	Civil Aviation Authority Data: Mail from 2000 – 2010
CAA_Table_16_2_Mail_2001_2011	Civil Aviation Authority Data: Mail from 2001 – 2011
CAA_Table_17_Intl_and_Domestic_Mail_2010	Civil Aviation Authority Data: International and Domestic Mail 2010
CAA_Table_17_Intl_and_Domestic_Mail_2011	Civil Aviation Authority Data: International and Domestic Mail 2011
CAA_Table_18_Mail_by_Acft_Configuration_2010	Civil Aviation Authority Data: Mail by Aircraft Configuration 2010
CAA_Table_18_Mail_by_Acft_Configuration_2011	Civil Aviation Authority Data: Mail by Aircraft Configuration 2011
CAA_Table_19_Pax_and_Air_Transport_Movements_by_Fixed_and_Rotary	Civil Aviation Authority Data: Passenger and air transport movement by fixed / rotary

Figure 12 - overview of the itrc_spatial_transport database, used to store data relating to the transport sector

Database: itrc_spatial_energy

Table prefix/table name	Description
EPS_AvAnnDomElecBillsByHomeNonHomeSupplier_E7_CashTerms	Energy Price Statistics - Average annual domestic electricity bills(1)(2) by home and non-home supplier – Economy7 - CashTerms
EPS_AvAnnDomElecBillsByHomeNonHomeSupplier_E7_RealTerms	Energy Price Statistics - Average annual domestic electricity bills(1)(2) by home and non-home supplier – Economy7 – RealTerms
EPS_AvAnnDomElecBillsByHomeNonHomeSupplier_ST_CashTerms	Energy Price Statistics - Average annual domestic electricity bills(1)(2) by home and non-home supplier – Standard – Cash Terms
EPS_AvAnnDomElecBillsByHomeNonHomeSupplier_ST_RealTerms	Energy Price Statistics - Average annual domestic electricity bills(1)(2) by home and non-home supplier – Standard – Real Terms
EPS_AvAnnDomElecBillsSelectedTownCityUKAvUnitCosts_1998	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) - 1998
EPS_AvAnnDomElecBillsSelectedTownCityUKAvUnitCosts_1999	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) – 1999
EPS_AvAnnDomElecBillsSelectedTownCityUKAvUnitCosts_2000	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) – 2000
EPS_AvAnnDomElecBillsSelectedTownCityUKAvUnitCosts_2001	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) – 2001
EPS_AvAnnDomElecBillsSelectedTownCity	Energy Price Statistics - Average annual domestic standard electricity

UKAvUnitCosts_2002	bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) – 2002
EPS_AvAnnDomElecBillsSelectedTownCity UKAvUnitCosts_2003	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) – 2003
EPS_AvAnnDomElecBillsSelectedTownCity UKAvUnitCosts_2004	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) – 2004
EPS_AvAnnDomElecBillsSelectedTownCity UKAvUnitCosts_2005	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) – 2005
EPS_AvAnnDomElecBillsSelectedTownCity UKAvUnitCosts_2006	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) - 2006
EPS_AvAnnDomElecBillsSelectedTownCity UKAvUnitCosts_2007	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) – 2007
EPS_AvAnnDomElecBillsSelectedTownCity UKAvUnitCosts_2008	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) – 2008
EPS_AvAnnDomElecBillsSelectedTownCity UKAvUnitCosts_2009	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) - 2009
EPS_AvAnnDomElecBillsSelectedTownCity UKAvUnitCosts_2010	Energy Price Statistics - Average annual domestic standard electricity bills(1) in 2010 for selected towns and cities in the UK with average unit costs(2) - 2010
EPS_AvAnnDomElecBillsForUKCountries_E 7_CashTerms	Energy Price Statistics - Average annual domestic electricity bills(1)(2) for UK countries – Economy7 – Cash Terms
EPS_AvAnnDomElecBillsForUKCountries_E 7_RealTerms	Energy Price Statistics - Average annual domestic electricity bills(1)(2) for UK countries – Economy7 – Real Terms
EPS_AvAnnDomElecBillsForUKCountries_S T_CashTerms	Energy Price Statistics - Average annual domestic electricity bills(1)(2) for UK countries – Standard – Cash Terms
EPS_AvAnnDomElecBillsForUKCountries_S T_RealTerms	Energy Price Statistics - Average annual domestic electricity bills(1)(2) for UK countries – Standard – Real Terms
EPS_AvAnDomGasBillByHomeNonHomeS upplier_CashTerms	Energy Price Statistics - Average annual domestic gas bills by home and non-home supplier – Cash Terms
EPS_AvAnDomGasBillByHomeNonHomeS upplier_RealTerms	Energy Price Statistics - Average annual domestic gas bills by home and non-home supplier – Real Terms
EPS_AvAnnDomGasBillSelectedTownCityU KAvUnitCosts_1998	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 1998
EPS_AvAnnDomGasBillSelectedTownCityU KAvUnitCosts_19990	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 1999
EPS_AvAnnDomGasBillSelectedTownCityU KAvUnitCosts_2000	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2000
EPS_AvAnnDomGasBillSelectedTownCityU KAvUnitCosts_2001	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2001
EPS_AvAnnDomGasBillSelectedTownCityU KAvUnitCosts_2002	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) –

	2002
EPS_AvAnnDomGasBillSelectedTownCityUKAvUnitCosts_2003	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2003
EPS_AvAnnDomGasBillSelectedTownCityUKAvUnitCosts_2004	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2004
EPS_AvAnnDomGasBillSelectedTownCityUKAvUnitCosts_2005	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2005
EPS_AvAnnDomGasBillSelectedTownCityUKAvUnitCosts_2006	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2006
EPS_AvAnnDomGasBillSelectedTownCityUKAvUnitCosts_2007	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2007
EPS_AvAnnDomGasBillSelectedTownCityUKAvUnitCosts_2008	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2008
EPS_AvAnnDomGasBillSelectedTownCityUKAvUnitCosts_2009	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2009
EPS_AvAnnDomGasBillSelectedTownCityUKAvUnitCosts_2010	Energy Price Statistics - Average annual domestic gas bills(1) in 2010 for selected towns and cities in Great Britain with average unit costs(2) – 2010
EPS_AvAnnDomGasBillUKCountries_CashTerms	Energy Price Statistics - Average annual domestic gas bills – Cash Terms
EPS_AvAnnDomGasBillUKCountries_RealTerms	Energy Price Statistics - Average annual domestic gas bills – Real Terms
EPS_AvExpWeekFuelPerConsumeHouseholdUK	Energy Price Statistics - Average expenditure each week on fuel per consuming household(1)
EPS_AvVariableUnitCostFixedCostElectricitySelectedTownCity_E7_2010	Energy Price Statistics - Average variable unit costs and fixed costs for electricity in 2010 – Economy7
EPS_AvVariableUnitCostFixedCostElectricitySelectedTownCity_ST_2010	Energy Price Statistics - Average variable unit costs and fixed costs for electricity in 2010 – Standard
EPS_AvVariableUnitCostFixedCostGasSelectedTownCityGB_2010	Energy Price Statistics - Average variable unit costs and fixed costs for gas in 2010 for selected towns and cities in Great Britain
EPS_TotalHouseholdExpEnergyUK_2006Price	Energy Price Statistics - Total household expenditure on energy(1) – 2006 Price
EPS_TotalHouseholdExpEnergyUK_CurrentPrice	Energy Price Statistics - Total household expenditure on energy(1) – Current Price
subnationaldomestic_elec_2008	Sub National Electricity and Gas Consumption Data – Domestic Electricity 2008 (MLSOA)
subnationaldomestic_gas_2008	Sub National Electricity and Gas Consumption Data – Domestic Gas 2008 (MLSOA)
subnationalnondomestic_elec_2008	Sub National Electricity and Gas Consumption Data – Non Domestic Electricity 2008 (MLSOA)
subnationalnondomestic_gas_2008	Sub National Electricity and Gas Consumption Data – Non Domestic Gas 2008 (MLSOA)
subnationaldomestic_elec_2009	Sub National Electricity and Gas Consumption Data – Domestic Electricity 2009 (MLSOA)
subnationaldomestic_gas_2009	Sub National Electricity and Gas Consumption Data – Domestic Gas

	2009 (MLSOA)
subnationalnondomestic_elec_2009	Sub National Electricity and Gas Consumption Data – Non Domestic Electricity 2009 (MLSOA)
subnationalnondomestic_gas_2009	Sub National Electricity and Gas Consumption Data – Non Domestic Gas 2009 (MLSOA)
subnationalelectricitygasconsumption_2005	Sub National Electricity and Gas Consumption Data – 2005 (MLSOA)
subnationalelectricitygasconsumption_2006	Sub National Electricity and Gas Consumption Data – 2006 (MLSOA)
subnationalelectricitygasconsumption_2007	Sub National Electricity and Gas Consumption Data – 2007 (MLSOA)
subnationaldomestic_gas_llsoa_2008	Sub National Electricity and Gas Consumption Data – 2008 (LLSOA) – Gas
subnationaldomestic_elec_llsoa_2008	Sub National Electricity and Gas Consumption Data – 2008 (LLSOA) – Electricity
subnationaldomestic_gas_llsoa_2009	Sub National Electricity and Gas Consumption Data – 2009 (LLSOA) – Gas
subnationaldomestic_elec_llsoa_2009	Sub National Electricity and Gas Consumption Data – 2009 (LLSOA) – Electricity
socioeconomic_englandwales_llsoa_2008	Socio-economic data for LLSOA electricity and gas estimates – 2008 (no geometry)
socioeconomic_englandwales_llsoa_geom_2008	Socio-economic data for LLSOA electricity and gas estimates – 2008 (with geometry)
socioeconomic_englandwales_mlsOA_2008	Socio-economic data for MLSOA electricity and gas estimates – 2008 (no geometry)
socioeconomic_englandwales_mlsOA_geom_2008	Socio-economic data for MLSOA electricity and gas estimates – 2008 (with geometry)
socioeconomic_scotland_igz_2008	Socio-economic data for IGZ electricity and gas estimates – 2008 (no geometry)
socioeconomic_scotland_igz_geom_2008	Socio-economic data for IGZ electricity and gas estimates – 2008 (with geometry)
EHCS_actual_costs_0203_2003	English House Condition Survey – Detailed – Actual Costs – 2003
EHCS_decent_2003	English House Condition Survey – Detailed – Decent – 2003
EHCS_deregionalised_costs_0203_2003	English House Condition Survey – Detailed – Deregionalised Costs – 2003
EHCS_dimensions_0203_2003	English House Condition Survey – Detailed – Dimensions – 2003
EHCS_dims_0203_2003	English House Condition Survey – Detailed – Dims – 2003
EHCS_energydims_0203_2003	English House Condition Survey – Detailed – Energy Dims – 2003
EHCS_equivalised_income_0203_2003	English House Condition Survey – Detailed – Equivalised Income – 2003
EHCS_modernisation_2003	English House Condition Survey – Detailed – Modernisation – 2003
EHCS_regionalised_comp_rcm0203_2003	English House Condition Survey – Detailed – Regionalised Comp RCM – 2003
EHCS_repair_costs_0203_2003	English House Condition Survey – Detailed – Repair Costs – 2003
EHCS_standardised_costs_0203_2003	English House Condition Survey – Detailed – Standardised Costs - 2003
EHCS_fuel_poverty_dataset_2003	English House Condition Survey – Fuel Poverty - 2003
EHCS_adapt_2003	English House Condition Survey – Interview – Adapt – 2003
EHCS_adaptation_2003	English House Condition Survey – Interview – Adaptation – 2003
EHCS_attitudes_2003	English House Condition Survey – Interview – Attitudes – 2003
EHCS_benefits_2003	English House Condition Survey – Interview – Benefits – 2003
EHCS_contact_2003	English House Condition Survey – Interview – Contact – 2003
EHCS_damp_2003	English House Condition Survey – Interview – Damp – 2003
EHCS_disability_2003	English House Condition Survey – Interview – Disability – 2003

EHCS_employment_2003	English House Condition Survey – Interview – Employment – 2003
EHCS_firstimp_2003	English House Condition Survey – Interview – First Imp – 2003
EHCS_income_2003	English House Condition Survey – Interview – Income – 2003
EHCS_intenure_2003	English House Condition Survey – Interview – Intenure – 2003
EHCS_people_2003	English House Condition Survey – Interview – People – 2003
EHCS_repairs_2003	English House Condition Survey – Interview – Repairs – 2003
EHCS_rooms_2003	English House Condition Survey – Interview – Rooms – 2003
EHCS_vacant_2003	English House Condition Survey – Interview – Vacant – 2003
EHCS_workdone_2003	English House Condition Survey – Interview – Workdone – 2003
EHCS_mvs_2003	English House Condition Survey – Market Value - 2003
EHCS_amenity_2003	English House Condition Survey – Physical – Amenity – 2003
EHCS_around_2003	English House Condition Survey – Physical – Around – 2003
EHCS_chimney_2003	English House Condition Survey – Physical – Chimney – 2003
EHCS_commac_2003	English House Condition Survey – Physical – Commac – 2003
EHCS_common_2003	English House Condition Survey – Physical – Common – 2003
EHCS_damppc_2003	English House Condition Survey – Physical – Damppc – 2003
EHCS_doors_2003	English House Condition Survey – Physical – Doors – 2003
EHCS_dormers_2003	English House Condition Survey – Physical – Dormers – 2003
EHCS_elevate_2003	English House Condition Survey – Physical – Elevate – 2003
EHCS_firstimp_2003	English House Condition Survey – Physical – FirstImp Physical – 2003
EHCS_fitness_2003	English House Condition Survey – Physical – Fitness – 2003
EHCS_flatdets_2003	English House Condition Survey – Physical – Flatdets – 2003
EHCS_hmodata_2003	English House Condition Survey – Physical – Hmodata – 2003
EHCS_hq_2003	English House Condition Survey – Physical – HQ – 2003
EHCS_interior_2003	English House Condition Survey – Physical – Interior – 2003
EHCS_introoms_2003	English House Condition Survey – Physical – Introoms – 2003
EHCS_numflats_2003	English House Condition Survey – Physical – Numflats – 2003
EHCS_plotlvl_2003	English House Condition Survey – Physical – Plotlvl – 2003
EHCS_plotwall_2003	English House Condition Survey – Physical – Plotwall – 2003
EHCS_roofcov_2003	English House Condition Survey – Physical – Roofcov – 2003
EHCS_rooffeat_2003	English House Condition Survey – Physical – Rooffeat – 2003
EHCS_roofstru_2003	English House Condition Survey – Physical – Roofstru – 2003
EHCS_services_2003	English House Condition Survey – Physical – Services – 2003
EHCS_shape_2003	English House Condition Survey – Physical – Shape – 2003
EHCS_shared_2003	English House Condition Survey – Physical – Shared – 2003
EHCS_structure_2003	English House Condition Survey – Physical – Structure – 2003
EHCS_unfit_2003	English House Condition Survey – Physical – Unfit – 2003
EHCS_wallfin_2003	English House Condition Survey – Physical – Wallfin – 2003
EHCS_wallstru_2003	English House Condition Survey – Physical – Wallstru – 2003
EHCS_windows_2003	English House Condition Survey – Physical – Windows - 2003
EHCS_actual_costs_0304_2004	English House Condition Survey – Detailed – Actual Costs – 2004
EHCS_deregionalised_costs_0304_2004	English House Condition Survey – Detailed – Deregionalised Costs – 2004
EHCS_dimensions_0304_2004	English House Condition Survey – Detailed – Dimensions – 2004
EHCS_dims_0304_2004	English House Condition Survey – Detailed – Dims – 2004
EHCS_energydims_0304_2004	English House Condition Survey – Detailed – Energy Dims – 2004
EHCS_equivalised_income_0304_2004	English House Condition Survey – Detailed – Equivalised Income – 2004
EHCS_repair_costs_0304_2004	English House Condition Survey – Detailed – Repair Costs – 2004
EHCS_fuel_poverty_dataset_2004	English House Condition Survey – Fuel Poverty - 2004
EHCS_adapt_2004	English House Condition Survey – Interview – Adapt – 2004
EHCS_adaptation_2004	English House Condition Survey – Interview – Adaptation – 2004

EHCS_attitudes_2004	English House Condition Survey – Interview – Attitudes – 2004
EHCS_benefits_2004	English House Condition Survey – Interview – Benefits – 2004
EHCS_contact_2004	English House Condition Survey – Interview – Contact – 2004
EHCS_damp_2004	English House Condition Survey – Interview – Damp – 2004
EHCS_disability_2004	English House Condition Survey – Interview – Disability – 2004
EHCS_employment_2004	English House Condition Survey – Interview – Employment – 2004
EHCS_firstimp_2004	English House Condition Survey – Interview – First Imp – 2004
EHCS_income_2004	English House Condition Survey – Interview – Income – 2004
EHCS_intenure_2004	English House Condition Survey – Interview – Intenure – 2004
EHCS_people_2004	English House Condition Survey – Interview – People – 2004
EHCS_repairs_2004	English House Condition Survey – Interview – Repairs – 2004
EHCS_rooms_2004	English House Condition Survey – Interview – Rooms – 2004
EHCS_vacant_2004	English House Condition Survey – Interview – Vacant – 2004
EHCS_workdone_2004	English House Condition Survey – Interview – Workdone – 2004
EHCS_mvs_2004	English House Condition Survey – Market Value - 2004
EHCS_amenity_2004	English House Condition Survey – Physical – Amenity – 2004
EHCS_around_2004	English House Condition Survey – Physical – Around – 2004
EHCS_chimney_2004	English House Condition Survey – Physical – Chimney – 2004
EHCS_commac_2004	English House Condition Survey – Physical – Commac – 2004
EHCS_common_2004	English House Condition Survey – Physical – Common – 2004
EHCS_damp_2004	English House Condition Survey – Physical – Damp – 2004
EHCS_damppc_2004	English House Condition Survey – Physical – Damppc – 2004
EHCS_doors_2004	English House Condition Survey – Physical – Doors – 2004
EHCS_dormers_2004	English House Condition Survey – Physical – Dormers – 2004
EHCS_elevate_2004	English House Condition Survey – Physical – Elevate – 2004
EHCS_firstimp_2004	English House Condition Survey – Physical – FirstImp Physical – 2004
EHCS_fitness_2004	English House Condition Survey – Physical – Fitness – 2004
EHCS_flatdets_2004	English House Condition Survey – Physical – Flatdets – 2004
EHCS_hmodata_2004	English House Condition Survey – Physical – Hmodata – 2004
EHCS_hq_2004	English House Condition Survey – Physical – HQ – 2004
EHCS_interior_2004	English House Condition Survey – Physical – Interior – 2004
EHCS_introoms_2004	English House Condition Survey – Physical – Introoms – 2004
EHCS_numflats_2004	English House Condition Survey – Physical – Numflats – 2004
EHCS_plotlvl_2004	English House Condition Survey – Physical – Plotlvl – 2004
EHCS_plotwall_2004	English House Condition Survey – Physical – Plotwall – 2004
EHCS_roofcov_2004	English House Condition Survey – Physical – Roofcov – 2004
EHCS_rooffeat_2004	English House Condition Survey – Physical – Rooffeat – 2004
EHCS_roofstru_2004	English House Condition Survey – Physical – Roofstru – 2004
EHCS_services_2004	English House Condition Survey – Physical – Services – 2004
EHCS_shape_2004	English House Condition Survey – Physical – Shape – 2004
EHCS_shared_2004	English House Condition Survey – Physical – Shared – 2004
EHCS_structure_2004	English House Condition Survey – Physical – Structure – 2004
EHCS_wallfin_2004	English House Condition Survey – Physical – Wallfin – 2004
EHCS_wallstru_2004	English House Condition Survey – Physical – Wallstru – 2004
EHCS_windows_2004	English House Condition Survey – Physical – Windows - 2004
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EHCS_deregionalised_costs_2005	English House Condition Survey – Detailed – Deregionalised Costs – 2005
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EHCS_dims_2005	English House Condition Survey – Detailed – Dims – 2005
EHCS_energydims_2005	English House Condition Survey – Detailed – Energy Dims – 2005

EHCS_equivalised_income_2005	English House Condition Survey – Detailed – Equivalised Income – 2005
EHCS_repair_costs_2005	English House Condition Survey – Detailed – Repair Costs – 2005
EHCS_standardised_costs_2005	English House Condition Survey – Detailed – Standardised Costs – 2005
EHCS_fuel_poverty_2005	English House Condition Survey – Fuel Poverty - 2005
EHCS_adapt_2005	English House Condition Survey – Interview – Adapt – 2005
EHCS_adaptation_2005	English House Condition Survey – Interview – Adaptation – 2005
EHCS_attitudes_2005	English House Condition Survey – Interview – Attitudes – 2005
EHCS_benefits_2005	English House Condition Survey – Interview – Benefits – 2005
EHCS_contact_2005	English House Condition Survey – Interview – Contact – 2005
EHCS_disability_2005	English House Condition Survey – Interview – Disability – 2005
EHCS_employment_2005	English House Condition Survey – Interview – Employment – 2005
EHCS_firstimp_2005	English House Condition Survey – Interview – First Imp – 2005
EHCS_income_2005	English House Condition Survey – Interview – Income – 2005
EHCS_intenure_2005	English House Condition Survey – Interview – Intenure – 2005
EHCS_people_2005	English House Condition Survey – Interview – People – 2005
EHCS_repairs_2005	English House Condition Survey – Interview – Repairs – 2005
EHCS_rooms_2005	English House Condition Survey – Interview – Rooms – 2005
EHCS_vacant_2005	English House Condition Survey – Interview – Vacant – 2005
EHCS_workdone_2005	English House Condition Survey – Interview – Workdone – 2005
EHCS_mvs_2005	English House Condition Survey – Market Value - 2005
EHCS_amenity_2005	English House Condition Survey – Physical – Amenity – 2005
EHCS_around_2005	English House Condition Survey – Physical – Around – 2005
EHCS_chimney_2005	English House Condition Survey – Physical – Chimney – 2005
EHCS_commac_2005	English House Condition Survey – Physical – Commac – 2005
EHCS_common_2005	English House Condition Survey – Physical – Common – 2005
EHCS_damp_2005	English House Condition Survey – Physical – Damp – 2005
EHCS_damppc_2005	English House Condition Survey – Physical – Damppc – 2005
EHCS_doors_2005	English House Condition Survey – Physical – Doors – 2005
EHCS_dormers_2005	English House Condition Survey – Physical – Dormers – 2005
EHCS_elevate_2005	English House Condition Survey – Physical – Elevate – 2005
EHCS_firstimp_2005	English House Condition Survey – Physical – FirstImp Physical – 2005
EHCS_fitness_2005	English House Condition Survey – Physical – Fitness – 2005
EHCS_flatdets_2005	English House Condition Survey – Physical – Flatdets – 2005
EHCS_hmodata_2005	English House Condition Survey – Physical – Hmodata – 2005
EHCS_hq_2005	English House Condition Survey – Physical – HQ – 2005
EHCS_interior_2005	English House Condition Survey – Physical – Interior – 2005
EHCS_introoms_2005	English House Condition Survey – Physical – Introoms – 2005
EHCS_numflatsv	English House Condition Survey – Physical – Numflats – 2005
EHCS_plotlvl_2005	English House Condition Survey – Physical – Plotlvl – 2005
EHCS_plotwall_2005	English House Condition Survey – Physical – Plotwall – 2005
EHCS_roofcov_2005	English House Condition Survey – Physical – Roofcov – 2005
EHCS_rooffeat_2005	English House Condition Survey – Physical – Rooffeat – 2005
EHCS_roofstru_2005	English House Condition Survey – Physical – Roofstru – 2005
EHCS_services_2005	English House Condition Survey – Physical – Services – 2005
EHCS_shape_2005	English House Condition Survey – Physical – Shape – 2005
EHCS_shared_2005	English House Condition Survey – Physical – Shared – 2005
EHCS_structure_2005	English House Condition Survey – Physical – Structure – 2005
EHCS_wallfin_2005	English House Condition Survey – Physical – Wallfin – 2005
EHCS_wallstru_2005	English House Condition Survey – Physical – Wallstru – 2005
EHCS_windows_2005	English House Condition Survey – Physical – Windows - 2005
EHCS_actual_costs_2006	English House Condition Survey – Detailed – Actual Costs – 2006

EHCS_dampmould_2006	English House Condition Survey – Detailed – DampMould – 2006
EHCS_deregionalised_costs_2006	English House Condition Survey – Detailed – Deregionalised Costs – 2006
EHCS_dimensions_2006	English House Condition Survey – Detailed – Dimensions – 2006
EHCS_energy_2006	English House Condition Survey – Detailed – Energy Performance – 2006
EHCS_energydims_2006	English House Condition Survey – Detailed – Energy Dims – 2006
EHCS_equivalised_income_2006	English House Condition Survey – Detailed – Equivalised Income – 2006
EHCS_standardised_costs_2006	English House Condition Survey – Detailed – Standardised Costs – 2006
EHCS_fuel_poverty_2006	English House Condition Survey – Fuel Poverty - 2006
EHCS_adapt_2006	English House Condition Survey – Interview – Adapt – 2006
EHCS_around_2006	English House Condition Survey – Interview – Around – 2006
EHCS_attitudes_2006	English House Condition Survey – Interview – Attitudes – 2006
EHCS_benefits_2006	English House Condition Survey – Interview – Benefits – 2006
EHCS_contact_2006	English House Condition Survey – Interview – Contact – 2006
EHCS_disability_2006	English House Condition Survey – Interview – Disability – 2006
EHCS_employment_2006	English House Condition Survey – Interview – Employment – 2006
EHCS_firstimp_2006	English House Condition Survey – Interview – First Imp – 2006
EHCS_income_2006	English House Condition Survey – Interview – Income – 2006
EHCS_intenure_2006	English House Condition Survey – Interview – Intenure – 2006
EHCS_introoms_2006	English House Condition Survey – Interview – Introoms – 2006
EHCS_people_2006	English House Condition Survey – Interview – People – 2006
EHCS_repairs_2006	English House Condition Survey – Interview – Repairs – 2006
EHCS_vacant_2006	English House Condition Survey – Interview – Vacant – 2006
EHCS_workdone_2006	English House Condition Survey – Interview – Workdone – 2006
EHCS_mvs_2006	English House Condition Survey – Market Value - 2006
EHCS_amenity_2006	English House Condition Survey – Physical – Amenity – 2006
EHCS_around_physical_2006	English House Condition Survey – Physical – Around Physical – 2006
EHCS_chimney_2006	English House Condition Survey – Physical – Chimney – 2006
EHCS_commac_2006	English House Condition Survey – Physical – Commac – 2006
EHCS_common_2006	English House Condition Survey – Physical – Common – 2006
EHCS_damp_2006	English House Condition Survey – Physical – Damp – 2006
EHCS_damppc_2006	English House Condition Survey – Physical – Damppc – 2006
EHCS_doors_2006	English House Condition Survey – Physical – Doors – 2006
EHCS_dormers_2006	English House Condition Survey – Physical – Dormers – 2006
EHCS_elevate_2006	English House Condition Survey – Physical – Elevate – 2006
EHCS_firstimp_2006	English House Condition Survey – Physical – FirstImp Physical – 2006
EHCS_flatdets_2006	English House Condition Survey – Physical – Flatdets – 2006
EHCS_hmodata_2006	English House Condition Survey – Physical – Hmodata – 2006
EHCS_hq_2006	English House Condition Survey – Physical – HQ – 2006
EHCS_interior_2006	English House Condition Survey – Physical – Interior – 2006
EHCS_numflats_2006	English House Condition Survey – Physical – Numflats – 2006
EHCS_plotlvl_2006	English House Condition Survey – Physical – Plotlvl – 2006
EHCS_plotwall_2006	English House Condition Survey – Physical – Plotwall – 2006
EHCS_roofcov_2006	English House Condition Survey – Physical – Roofcov – 2006
EHCS_rooffeat_2006	English House Condition Survey – Physical – Rooffeat – 2006
EHCS_roofstru_2006	English House Condition Survey – Physical – Roofstru – 2006
EHCS_services_2006	English House Condition Survey – Physical – Services – 2006
EHCS_shape_2006	English House Condition Survey – Physical – Shape – 2006
EHCS_shared_2006	English House Condition Survey – Physical – Shared – 2006
EHCS_structure_2006	English House Condition Survey – Physical – Structure – 2006

EHCS_wallfin_2006	English House Condition Survey – Physical – Wallfin – 2006
EHCS_wallstru_2006	English House Condition Survey – Physical – Wallstru – 2006
EHCS_windows_2006	English House Condition Survey – Physical – Windows - 2006
EHCS_actual_costs_2007	English House Condition Survey – Detailed – Actual Costs – 2007
EHCS_deregionalised_costs_2007	English House Condition Survey – Detailed – Deregionalised Costs – 2007
EHCS_dimensions_2007	English House Condition Survey – Detailed – Dimensions – 2006
EHCS_energy_2007	English House Condition Survey – Detailed – Energy Performance – 2007
EHCS_energy_dims_2007	English House Condition Survey – Detailed – Energy Dims – 2007
EHCS_equivalised_income_2007	English House Condition Survey – Detailed – Equivalised Income – 2007
EHCS_hhsrs_2007	English House Condition Survey – Detailed – HHSRS – 2007
EHCS_standardised_costs_2007	English House Condition Survey – Detailed – Standardised Costs – 2007
EHCS_fuel_poverty_2007	English House Condition Survey – Fuel Poverty - 2007
EHCS_adapt_2007	English House Condition Survey – Interview – Adapt – 2007
EHCS_attitudes_2007	English House Condition Survey – Interview – Attitudes – 2007
EHCS_benefits_2007	English House Condition Survey – Interview – Benefits – 2007
EHCS_contact_2007	English House Condition Survey – Interview – Contact – 2007
EHCS_damp_2007	English House Condition Survey – Interview – Damp – 2007
EHCS_disability_2007	English House Condition Survey – Interview – Disability – 2007
EHCS_employment_2007	English House Condition Survey – Interview – Employment – 2007
EHCS_firstimp_2007	English House Condition Survey – Interview – First Imp – 2007
EHCS_income_2007	English House Condition Survey – Interview – Income – 2007
EHCS_intenure_2007	English House Condition Survey – Interview – Intenure – 2007
EHCS_rooms_2007	English House Condition Survey – Interview – Rooms – 2007
EHCS_people_2007	English House Condition Survey – Interview – People – 2007
EHCS_repairs_2007	English House Condition Survey – Interview – Repairs – 2007
EHCS_vacant_2007	English House Condition Survey – Interview – Vacant – 2007
EHCS_workdone_2007	English House Condition Survey – Interview – Workdone – 2007
EHCS_mvs_2007	English House Condition Survey – Market Value - 2007
EHCS_amenity_2007	English House Condition Survey – Physical – Amenity – 2007
EHCS_around_2007	English House Condition Survey – Physical – Around – 2007
EHCS_chimney_2007	English House Condition Survey – Physical – Chimney – 2007
EHCS_commac_2007	English House Condition Survey – Physical – Commac – 2007
EHCS_common_2007	English House Condition Survey – Physical – Common – 2007
EHCS_damppc_2007	English House Condition Survey – Physical – Damppc – 2007
EHCS_doors_2007	English House Condition Survey – Physical – Doors – 2007
EHCS_dormers_2007	English House Condition Survey – Physical – Dormers – 2007
EHCS_elevate_2007	English House Condition Survey – Physical – Elevate – 2007
EHCS_firstimp_2007	English House Condition Survey – Physical – FirstImp Physical – 2007
EHCS_flatdets_2007	English House Condition Survey – Physical – Flatdets – 2007
EHCS_hhsrs_2007	English House Condition Survey – Physical – HHSRS – 2007
EHCS_hmodata_2007	English House Condition Survey – Physical – Hmodata – 2007
EHCS_hq_2007	English House Condition Survey – Physical – HQ – 2007
EHCS_interior_2007	English House Condition Survey – Physical – Interior – 2007
EHCS_introoms_2007	English House Condition Survey – Physical – Introoms – 2007
EHCS_numflats_2007	English House Condition Survey – Physical – Numflats – 2007
EHCS_plotlvl_2007	English House Condition Survey – Physical – Plotlvl – 2007
EHCS_plotwall_2007	English House Condition Survey – Physical – Plotwall – 2007
EHCS_roofcov_2007	English House Condition Survey – Physical – Roofcov – 2007
EHCS_rooffeat_2007	English House Condition Survey – Physical – Rooffeat – 2007

EHCS_roofstru_2007	English House Condition Survey – Physical – Roofstru – 2007
EHCS_services_2007	English House Condition Survey – Physical – Services – 2007
EHCS_shape_2007	English House Condition Survey – Physical – Shape – 2007
EHCS_shared_2007	English House Condition Survey – Physical – Shared – 2007
EHCS_structure_2007	English House Condition Survey – Physical – Structure – 2007
EHCS_wallfin_2007	English House Condition Survey – Physical – Wallfin – 2007
EHCS_wallstru_2007	English House Condition Survey – Physical – Wallstru – 2007
EHCS_windows_2007	English House Condition Survey – Physical – Windows - 2007
OS_ElectricitySubStations	Ordnance Survey supplied electricity sub station locations for UK
os_electricitysubstations_intersect_nat_floodzone2_v3_8	Ordnance Survey supplied electricity sub station locations for UK intersected with national floodzone version 2
os_electricitysubstations_intersect_nat_floodzone3_v3_8	Ordnance Survey supplied electricity sub station locations for UK intersected with national floodzone version 3
OS_EnergyProductionSites	Ordnance Survey supplied energy production sites for UK (can be separated into): <ul style="list-style-type: none"> • Stations (Power and other) • Turbines • Wind
OS_EnergyProductionSites_Stations	OS_EnergyProductionSites filtered for power stations or other
OS_EnergyProductionSites_Turbines	OS_EnergyProductionSites filtered for turbines
OS_EnergyProductionSites_Wind	OS_EnergyProductionSites filtered for wind turbines / farms / generators
os_energyproductionsites_intersect_nat_floodzone2_v3_8	Ordnance Survey supplied energy production sites for UK intersected with national floodzone version 2
os_energyproductionsites_intersect_nat_floodzone3_v3_8	Ordnance Survey supplied energy production sites for UK intersected with national floodzone version 3
OS_Refineries	Ordnance Survey supplied oil refinery sites for UK (can be separated into): <ul style="list-style-type: none"> • Gas Assets • Oil Assets
OS_Refineries_GasAssets	OS_Refineries filtered for Gas Assets
OS_Refineries_OilAssets	OS_Refineries filtered for Oil Assets
os_refineries_intersect_nat_floodzone2_v3_8	Ordnance Survey supplied oil refinery sites for UK intersected with national floodzone version 2
os_refineries_intersect_nat_floodzone3_v3_8	Ordnance Survey supplied oil refinery sites for UK intersected with national floodzone version 3
Nationalgrid_cable	Supplied by National Grid (http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/) Electricity and Gas Transmission System
Nationalgrid_gas_pipeline_feeder	
Nationalgrid_gas_site	
Nationalgrid_line	
Nationalgrid_substation_site	
Nationalgrid_tower	
nationalgrid_cable_intersect_nat_floodzone2_v3_8	National Grid Cable intersected with national floodzone version 2
nationalgrid_cable_intersect_nat_floodzone3_v3_8	National Grid Cable intersected with national floodzone version 3
nationalgrid_gas_pipeline_feeder_intersect_nat_floodzone2_v3_8	National Grid Gas Pipeline Feeder intersected with national floodzone version 2
nationalgrid_gas_pipeline_feeder_intersect_nat_floodzone3_v3_8	National Grid Gas Pipeline Feeder intersected with national floodzone version 3
nationalgrid_gas_site_intersect_nat_floodzone2_v3_8	National Grid Gas Site intersected with national floodzone version 2

zone2_v3_8	
nationalgrid_gas_site_intersect_nat_floodzone3_v3_8	National Grid Gas Site intersected with national floodzone version 3
nationalgrid_line_intersect_nat_floodzone2_v3_8	National Grid Line intersected with national floodzone version 2
nationalgrid_line_intersect_nat_floodzone3_v3_8	National Grid Line intersected with national floodzone version 3
nationalgrid_substation_site_intersect_nat_floodzone2_v3_8	National Grid Substation Site intersected with national floodzone version 2
nationalgrid_substation_site_intersect_nat_floodzone3_v3_8	National Grid Substation Site intersected with national floodzone version 3
AEP_PlannedNewBuildPowerStationsGas	Association of Electricity Producers New Build Power Station Locations: Gas
AEP_PlannedNewBuildPowerStationsCoal	Association of Electricity Producers New Build Power Station Locations: Coal
AEP_ClosuresPowerStationsCoal	Association of Electricity Producers Power Station Closures (Coal)
AEP_ClosuresPowerStationNuclearAGR	Association of Electricity Producers Power Station Closures: Nuclear (AGR)
AEP_ClosuresPowerStationNuclearMagnar	Association of Electricity Producers Power Station Closures: Nuclear (Magnar)
AEP_ClosuresPowerStationsOil	Association of Electricity Producers Power Station Closures: Oil
AEP_CWIntakesAtNuclearAndOtherLargeUKPowerStations1000MWe	Association of Electricity Producers Nuclear and Large Power Station Sites with Cold Water Intake
DECC_OperationalPowerStationLocations_May2011	Department of Energy and Climate Change list of operational power stations within the UK, as of May 2011 (all sites, http://www.decc.gov.uk/media/viewfile.ashx?filetype=4&filepath=Statistics/source/electricity/dukes5_11.xls&minwidth=true , http://www.decc.gov.uk/en/content/cms/statistics/energy_stats/source/source.aspx)
DECC_ListPotentialFutureElectricityGeneratingCapacity_UK	Department of Energy and Climate Change list of potential future electricity generation sites
derived_poi_electrical_features	Derived from OS Points of Interest data (code: 06340433) – North West coverage only
derived_poi_energy_production	Derived from OS Points of Interest data (code: 07410534) – North West coverage only
derived_poi_gas_features	Derived from OS Points of Interest data (code: 06340437) – North West coverage only
derived_poi_oil_gas_extraction_refine_manufacture	Derived from OS Points of Interest data (code: 07380501) – North West coverage only
derived_poi_pipelines	Derived from OS Points of Interest data (code: 07410538) – North West coverage only
ENW_LTDS_2010_33kV_Geographic_Lake Districts_3	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Lake District
ENW_LTDS_2010_33kV_Geographic_Lancashire_3	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Lancashire
ENW_LTDS_2010_33kV_geographic_southern_3	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Southern Lancashire
ENW_LTDS_2010_132kV_geographic_exp	Derived from Electricity North West data received from Gaihua Fu (pdf)

anded_rev2_7	and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 132kV NW England
ENW_LTDS_2010_132kV_geographic_expanded_rev2_polygon_7_centroid	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 132kV NW England Sub stations
ENW_LTDS_2010_33kV_geographic_lakes_polygon_7_centroids	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Lake District Sub stations
ENW_LTDS_2010_33kV_geographic_lancs_polygon_7_centroids	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Lancashire Sub stations
ENW_LTDS_2010_33kV_geographic_south_polygon_7_centroids	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Southern Lancashire Sub stations
NEDL_PrimarySubStations	Northern Electric Distribution Limited (10/1999) Primary Substations Northern Area
NEDL_132kV	Northern Electric Distribution Limited (10/1999) 132 kV line
NEDL_66kV	Northern Electric Distribution Limited (10/1999) 66 kV line
NEDL_33kV	Northern Electric Distribution Limited (10/1999) 33 kV line
NationalGrid_Derived_Gas_LNG_Operators	Derived from coordinates available online (and visual checking via Google Maps) for LNG sites for National Grid for National Grid Gas Transmission System
NationalGrid_Derived_Gas_Storage	Derived from coordinates available online (and visual checking via Google Maps) for gas storage sites for National Grid for National Grid Gas Transmission System
NationalGrid_Derived_Gas_Terminals	Derived from coordinates available online (and visual checking via Google Maps) for gas terminal sites for National Grid Gas Transmission System
NationalGrid_Derived_Gas_Compressors	Derived from gas site centroids and national grid data available online for gas compressors that form part of the National Grid Gas Transmission System
OS_Refineries_OilGatheringStation	Derived from Ordnance Survey supplied OS_Refineries dataset: (Oil Gathering Centre / Station)
OS_Refineries_OilBoreHoles	Derived from Ordnance Survey supplied OS_Refineries dataset: (Oil Bore Holes (used/disused))
OS_Refineries_OilRefineries	Derived from Ordnance Survey supplied OS_Refineries dataset (Oil Refinery / LIKE Refine)
OS_Refineries_OilWells	Derived from Ordnance Survey supplied OS_Refineries dataset (Oil Well / Oil Well Site / Oil Wells)
nationalgrid_substation_site_derived_operating_voltage	National Grid supplied substation sites with operating voltage (polygon)
nationalgrid_substation_site_centroids_derived_operating_voltage	Centroids of National Grid supplied substation sites with operating voltage (point)
nationalgrid_line_derived_operating_voltage	National Grid supplied Electricity Transmission Line with minimum (minoperatv) and maximum (maxoperatv) operating voltages as double
power_station_generation_parameters	Power station generation parameters provided by Meysam Qadrdan
WS1_CGEN_DB_BusData	WorkStream1 CGEN Database Tables: Electricity Busbar identification (Name, ID)

WS1_CGEN_DB_CompressorData	WorkStream1 CGEN Database Tables: Gas Compressor identifiers and coefficients
WS1_CGEN_DB_Connections	WorkStream1 CGEN Database Tables: denotes which CCGT electricity generation station links to which gas compressor?
WS1_CGEN_DB_DaySeason	WorkStream1 CGEN Database Tables: Sets the number of days occurring within each season i.e. number of days in Spring, Summer, Autumn, Winter
WS1_CGEN_DB_DomLink	WorkStream1 CGEN Database Tables:
WS1_CGEN_DB_DomesticGas	WorkStream1 CGEN Database Tables:
WS1_CGEN_DB_ElecLoad	WorkStream1 CGEN Database Tables: Denotes the load on each busbar edge for particular years, seasons and periods of a day
WS1_CGEN_DB_Fuel	WorkStream1 CGEN Database Tables: Fuel Prices set for each type of fuel (coal, nuclear, oil, waste, biomass)
WS1_CGEN_DB_GasImports	WorkStream1 CGEN Database Tables: Parameters associated with 4 gas imports (Norway, and 3 to Russia). Sets volume imported and cost per import type
WS1_CGEN_DB_GasLoad	WorkStream1 CGEN Database Tables:
WS1_CGEN_DB_GasSupply	WorkStream1 CGEN Database Tables: Gas Supply Locations and associated coefficients / parameters of operation at each
WS1_CGEN_DB_GenData	WorkStream1 CGEN Database Tables: Electricity Generation Sites linking generation station to electricity busbar (see BusData)
WS1_CGEN_DB_GenData_GenName_AEP_CW_Nuclear_LargePS	WorkStream 1 CGEN Database Tables: Names and geometries of stations in WS1 CGEN database tables matching those in AEP_CWIntakesAtNuclearAndOtherLargeUKPowerStations1000MWe
WS1_CGEN_DB_GenData_GenName_AEP_ClosureCoal	WorkStream 1 CGEN Database Tables: Names and geometries of stations in WS1 CGEN database tables matching those in Association of Electricity Producers Power Station Closures (Coal)
WS1_CGEN_DB_GenData_GenName_AEP_ClosureNuclearAGR	WorkStream 1 CGEN Database Tables: Names and geometries of stations in WS1 CGEN database tables matching those in Association of Electricity Producers Power Station Closures: Nuclear (AGR)
WS1_CGEN_DB_GenData_GenName_AEP_ClosureNuclearMagnox	WorkStream 1 CGEN Database Tables: Names and geometries of stations in WS1 CGEN database tables matching those in Association of Electricity Producers Power Station Closures: Nuclear (Magnox)
WS1_CGEN_DB_GenData_GenName_AEP_ClosureOil	WorkStream 1 CGEN Database Tables: Names and geometries of stations in WS1 CGEN database tables matching those in Association of Electricity Producers Power Station Closures: Nuclear (Oil)
WS1_CGEN_DB_GenData_GenName_AEP_NewCoal	WorkStream 1 CGEN Database Tables: Names and geometries of stations in WS1 CGEN database tables matching those in Association of Electricity Producers New Build Power Station Locations: Coal
WS1_CGEN_DB_GenData_GenName_AEP_NewGas	WorkStream 1 CGEN Database Tables: Names and geometries of stations in WS1 CGEN database tables matching those in Association of Electricity Producers New Build Power Station Locations: Gas
WS1_CGEN_DB_GenData_GenName_DEC_C_PotElec_name	WorkStream 1 CGEN Database Tables: Names and geometries of stations in WS1 CGEN database tables matching those in Department of Energy and Climate Change list of potential future electricity generation sites
WS1_CGEN_DB_GenData_GenName_DEC_C_Station_Na	WorkStream 1 CGEN Database Tables: Names and geometries of stations in WS1 CGEN database tables matching those in Department of Energy and Climate Change list of operational power stations within the UK, as of May 2011
WS1_CGEN_DB_GenData_Geom_Matches	WorkStream 1 CGEN Database Tables: Names of stations and geometries with geometry matches

WS1_CGEN_DB_GenData_Geom_No_Matches	WorkStream 1 CGEN Database Tables: Names of stations with no geometry matches
WS1_CGEN_DB_GenPar	WorkStream1 CGEN Database Tables: Electricity Generation Station Type parameters and coefficients. Sets varying values depending on <i>type</i> of generation station
WS1_CGEN_DB_ImportLink	WorkStream1 CGEN Database Tables: Links the Gas Compressor to the correct import link
WS1_CGEN_DB_Importexpand1	WorkStream1 CGEN Database Tables: Parameters to denote the expansion of a gas import site (case study 1???)
WS1_CGEN_DB_Importexpand2	WorkStream1 CGEN Database Tables: Parameters to denote the expansion of a gas import site (case study 2???)
WS1_CGEN_DB_LNG	WorkStream1 CGEN Database Tables: Liquefied Natural Gas (LNG) Sites
WS1_CGEN_DB_LNGLink	WorkStream1 CGEN Database Tables: Determines which nodes in the Gas network link to the LNG sites
WS1_CGEN_DB_LNGexpand	WorkStream1 CGEN Database Tables: Parameters for expanding Liquefied Natural Gas sites (including year to expand and capacity increases)
WS1_CGEN_DB_LineData	WorkStream1 CGEN Database Tables: Denotes the linkages between the different electricity busbars in the electricity transmission network
WS1_CGEN_DB_Location	WorkStream1 CGEN Database Tables:
WS1_CGEN_DB_NewAssets	WorkStream1 CGEN Database Tables: Denotes types of new asset, lifetime and cost to add to either the electricity or gas networks: Electricity (Transmission Line) Gas (Pipe, Compressor, Expand LNG Terminal, Import pipe, Gas Terminal, LNG Terminal, Gas Storage site)
WS1_CGEN_DB_NodeData	WorkStream1 CGEN Database Tables: Gas
WS1_CGEN_DB_OptimData	WorkStream1 CGEN Database Tables: Model optimisation data?
WS1_CGEN_DB_PipeData	WorkStream1 CGEN Database Tables: Denotes between which nodes a pipe in the Gas Network runs between, including an indication of the diameter of these pipes and there flow transfer efficiency
WS1_CGEN_DB_StorageData	WorkStream1 CGEN Database Tables: Denotes the nodes within the Gas network used as storage sites, including parameters associated with storage capacities
WS1_CGEN_DB_StorageLocation	WorkStream1 CGEN Database Tables: Denotes nodes within the Electricity network that are used to store Gas. Stores just the IDs of these Electricity nodes
WS1_CGEN_DB_TPeriods	WorkStream1 CGEN Database Tables: Splits day in to 3 sections of varying length. This table denotes how many hours are within each period (1=10,2=10,3= 4)
WS1_CGEN_DB_Terminalexpand	WorkStream1 CGEN Database Tables: Denotes which Gas Terminals to expand
WS1_CGEN_DB_WindData	WorkStream1 CGEN Database Tables: Wind Power coefficients for each busbar, season and period
nationalgrid_jan2012_cable	National Grid supplied underground electricity cables – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
nationalgrid_jan2012_gas_agis_singlepart	National Grid supplied underground gas sites – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)

nationalgrid_jan2012_gas_pipe_feeder	National Grid supplied underground gas pipes – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
nationalgrid_jan2012_line	National Grid supplied underground overhead electricity lines – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
nationalgrid_jan2012_substation_site_centroids	National Grid supplied underground electricity substation site centroids – Jan2012 Update (Derived) (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
nationalgrid_jan2012_substation_site	National Grid supplied underground electricity substation sites – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)

Figure 13 - overview of the itrc_spatial_energy database, used to store data relating to the energy sector

Database: itrc_spatial_solidwaste

Table prefix/table name	Description
Scotland_Active_Landfill_Capacity_2007	Active Landfills, Scotland, 2007
Scotland_Non_Active_Landfill_Capacity_2007	Non Active Landfills, Scotland, 2007
Scotland_Business_waste_arisings_LA_2009	Scotland Waste Data Digest - Business waste arisings by local authority in Scotland 2009 – Table5
Scotland_Business_waste_arisings_sector_2009	Scotland Waste Data Digest - Business waste arisings by business sector in Scotland 2009 – Table6
Scotland_Construction_Demolition_Waste_Managed_2009	Scotland Waste Data Digest - Construction and demolition waste managed by waste facilities in Scotland 2009 – Table7
Scotland_LA_Composted_Material_2009_2010	Scotland Waste Data Digest - Use of composted materials by Scottish local authorities 2009/2010 – Table17
Scotland_LA_Controlled_Waste_Landfill_2009	Scotland Waste Data Digest - Controlled waste disposed of to landfill in Scotland 2009 – Table28
Scotland_LA_Municipal_Compost_Method_2009_2010	Scotland Waste Data Digest - Scottish local authority collected municipal waste composting methods 2009/2010 – Table18
Scotland_LA_Municipal_Disposed_2009_2010	Scotland Waste Data Digest - Scottish local authority collected municipal waste disposed 2009/2010 – Table23
Scotland_LA_Municipal_Waste_Disposed_Type_Method_2009_2010	Scotland Waste Data Digest - Local authority collected municipal waste disposed of by type and by disposal method 2009/2010 – Table26
Scotland_LA_Municipal_Waste_Material_2009_2010	Scotland Waste Data Digest - Scottish local authority collected municipal waste recycled by material and by local authority 2009/2010 – Table12
Scotland_LA_Municipal_Waste_Recycled_By_Source_2009_2010	Scotland Waste Data Digest - Scottish local authority collected municipal waste recycled by breakdown of material source and collection type 2009/2010 – Table13a
Scotland_LA_Municipal_Waste_Recycled_Collection_Type_2009_2010	Scotland Waste Data Digest - Scottish local authority collected municipal waste recycled by breakdown of material source and collection type 2009/2010 – Table13b
Scotland_LA_Municipal_Waste_Recycling_Compost_2009_2010	Scotland Waste Data Digest - Local authority collected municipal waste recycling and composting rates by local authority for Scotland 2009/2010 – Table11
Scotland_LA_Special_Waste_Landfill_2009	Scotland Waste Data Digest - Special waste consigned to landfill in Scotland 2009 – Table29
Scotland_LA_Waste_EWC_Stat	Scotland Waste Data Digest – Table19 (European Waste Catalogue - http://www.sepa.org.uk/waste/waste_data/reporting_definitions_and_term/coding_systems.aspx#EWC2002)
Scotland_LA_collected_municipal_waste_2009_2010	Scotland Waste Data Digest - Local authority collected municipal waste managed by, or on

	behalf of, Scottish local authorities 2009/2010 – Table2
Scotland_LA_collected_municipal_waste_breakdown_2009_2010	Scotland Waste Data Digest - Local authority collected municipal waste managed by, or on behalf of, Scottish local authorities - breakdown by individual local authority 2009/2010 – Table3
Scotland_LA_collected_non_municipal_waste_breakdown_2009_2010	Scotland Waste Data Digest - Local authority collected non-municipal waste managed by, or on behalf of, Scottish local authorities - breakdown by individual local authority 2009/2010 – Table4
Scotland_Total_Waste_Arisings_2009	Scotland Waste Data Digest - Total controlled waste arisings in Scotland 2009
Scotland_Type_Construction_Demolition_Waste_Managed_2009	Scotland Waste Data Digest - Types of construction and demolition waste managed at waste facilities in Scotland 2009 – Table8
scotland_electoral_ca_2001	Scottish Electoral Council Areas 2001 (against which most of the above mentioned data is referring)
scotland_active_landfill_sites_2007	Scottish Active Landfill Sites 2007
scotland_active_landfill_sites_2008	Scottish Active Landfill Sites 2008
scotland_landfills_authorised_2009	Scottish Authorised Landfill Sites 2009
scotland_landfills_authorised_2010	Scottish Authorised Landfill Sites 2010
scotland_landfills_closed_2009	Scottish Landfill Sites Closed 2009
scotland_landfills_closed_2010	Scottish Landfill Sites Closed 2010
scotland_landfills_restoration_2009	Scottish Landfill Site Restoration 2009
scotland_landfills_restoration_2010	Scottish Landfill Site Restoration 2010
scotland_non_active_landfill_sites_2007	Scottish Non Active Landfill Sites 2007
scotland_non_active_landfill_sites_2008	Scottish Non Active Landfill Sites 2008
scotland_wastesites_2010	Scottish Waste Sites 2010
scotland_wastesites_allsites_2009	Scottish Waste Sites 2009
scotland_wastesites_nothandlingwaste_2007	Scottish Waste Sites Not Handling Waste 2007
scotland_wastesites_ppcsites_2007	Scottish Waste Sites Pollution, Prevention and Control Sites 2007
scotland_wastesites_siteshandlingwaste_2008	Scottish Waste Sites Handling Waste 2008
scotland_wastesites_sitesnothandlingwaste_2008	Scottish Waste Sites Not Handling Waste 2008
scotland_wastesites_wml_ppcsitehandlingwaste_2007	Scottish Waste Sites, Waste Management Licensing and Pollution, Prevention and Control Sites 2007
derived_poi_recycling_centres	Derived from OS Points of Interest data (code: 06340462) – North West coverage only
derived_poi_refuse_disposal_facilities	Derived from OS Points of Interest data (code: 06340440) – North West coverage only
derived_poi_waste_storage_processing_disposal	Derived from OS Points of Interest data (code: 06340441) – North West coverage only

Figure 14 - overview of the itrc_spatial_solidwaste database, used to store data relating to the solid waste sector

Database: itrc_ws1_solid_waste_distances

Table prefix/table name	Description
England_GOR_East_Midlands_Vertices	Vertices of East Midlands Government Office Region boundary
GOR_East_Midlands	East Midlands Government Office Region boundary
East_Midlands_Centroid	East Midlands Government Office Region Centroid
England_OA_2001_Centroid_EastMidlands_County_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (East Midlands)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for East Midlands</p>
England_OA_2001_Centroid_EastMidlands_County_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (East Midlands), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for East Midlands</p>
England_UA_2001_Centroid_EastMidlands_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (East Midlands)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for East Midlands</p>
England_UA_2001_Centroid_EastMidlands_GOR_BD_AVG_Joi	Distances for WS1 Solid Waste calculation (East

n	<p>Midlands), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for East Midlands</p>
England_GOR_East_Of_England_Vertices	Vertices of East Of England Government Office Region boundary
GOR_East_of_England	East of England Government Office Region boundary
East_of_England_Centroid	East of England Government Office Region Centroid
England_OA_2001_Centroid_EastEngland_County_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (East Of England)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for East Of England</p>
England_OA_2001_Centroid_EastEngland_County_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (East Of England), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for East Of England</p>
England_UA_2001_Centroid_EastEngland_GOR_BD_AVG	Distances for WS1 Solid Waste calculation (East Of England)

	<p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for East Of England</p>
England_UA_2001_Centroid_EastEngland_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (East Of England), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for East Of England</p>
England_GOR_GLA_Vertices	Vertices of Greater London Authority (GLA) Government Office Region boundary
GOR_GLA	Greater London Authority Government Office Region boundary
GLA_Centroid	Greater London Authority Government Office Region Centroid
England_OA_2001_Centroid_GLA_County_GOR_BD_AVG	
England_OA_2001_Centroid_GLA_County_GOR_BD_AVG_Join	
England_GOR_North_East_Vertices	Vertices of North East Government Office Region boundary
GOR_North_East	North East Government Office Region boundary
North_East_Centroid	North East Government Office Region Centroid
England_OA_2001_Centroid_NorthEast_County_GOR_BD_AVG	Distances for WS1 Solid Waste calculation (North East)
G	<p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region

	County OA only for North East
England_OA_2001_Centroid_NorthEast_County_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (North East), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for North East</p>
England_UA_2001_Centroid_NorthEast_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (North East)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for North East</p>
England_UA_2001_Centroid_NorthEast_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (North East), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for North East</p>
England_GOR_North_West_Vertices	Vertices of North West Government Office Region boundary
GOR_North_West	North West Government Office Region boundary
North_West_Centroid	North West Government Office Region Centroid

<p>England_OA_2001_Centroid_NorthWest_County_GOR_BD_AVG</p>	<p>Distances for WS1 Solid Waste calculation (North West)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for North West</p>
<p>England_OA_2001_Centroid_NorthWest_County_GOR_BD_AVG_Join</p>	<p>Distances for WS1 Solid Waste calculation (North West), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for North West</p>
<p>England_UA_2001_Centroid_NorthWest_GOR_BD_AVG</p>	<p>Distances for WS1 Solid Waste calculation (North West)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for North West</p>
<p>England_UA_2001_Centroid_NorthWest_GOR_BD_AVG_Join</p>	<p>Distances for WS1 Solid Waste calculation (North West), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of

	<p>encompassing government office region</p> <ul style="list-style-type: none"> AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for North West</p>
England_GOR_South_East_Vertices	Vertices of South East Government Office Region boundary
GOR_South_East	South East Government Office Region boundary
South_East_Centroid	South East Government Office Region Centroid
England_OA_2001_Centroid_SouthEast_County_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (South East)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for North West</p>
England_OA_2001_Centroid_SouthEast_County_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (South East), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for North West</p>
England_UA_2001_Centroid_SouthEast_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (South East)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and

	<p>each vertex of encompassing government office region</p> <p>UA only for North West</p>
England_UA_2001_Centroid_SouthEast_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (South East), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for South East</p>
England_GOR_South_West_Vertices	Vertices of South West Government Office Region boundary
GOR_South_West	South West Government Office Region boundary
South_West_Centroid	South West Government Office Region Centroid
England_OA_2001_Centroid_SouthWest_County_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (South West)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for South West</p>
England_OA_2001_Centroid_SouthWest_County_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (South West), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region

	County OA only for South West
England_UA_2001_Centroid_SouthWest_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (South West)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for South West</p>
England_UA_2001_Centroid_SouthWest_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (South West), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for South West</p>
England_GOR_West_Midlands_Vertices	Vertices of West Midlands Government Office Region boundary
GOR_West_Midlands	West Midlands Government Office Region boundary
West_Midlands_Centroid	West Midlands Government Office Region Centroid
England_OA_2001_Centroid_WestMidlands_County_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (West Midlands)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for West Midlands</p>

England_OA_2001_Centroid_WestMidlands _County_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (West Midlands), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for West Midlands</p>
England_UA_2001_Centroid_WestMidlands_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (West Midlands)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for West Midlands</p>
England_UA_2001_Centroid_WestMidlands_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (West Midlands), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for West Midlands</p>
England_GOR_Yorkshire_Humber_Vertices	Vertices of Yorkshire and the Humber Government Office Region boundary
GOR_Yorkshire_Humber	Yorkshire and the Humber Government Office Region boundary
Yorkshire_Humber_Centroid	Yorkshire and the Humber Government Office Region Centroid
England_OA_2001_Centroid_YorkshireHumber_County_GOR_	Distances for WS1 Solid Waste calculation

BD_AVG	<p>(Yorkshire and the Humber)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for Yorkshire and the Humber</p>
England_OA_2001_Centroid_YorkshireHumber_County_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (Yorkshire and the Humber), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>County OA only for Yorkshire and the Humber</p>
England_UA_2001_Centroid_YorkshireHumber_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation (Yorkshire and the Humber)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output area centroid and centroid of encompassing government office region AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for South West</p>
England_UA_2001_Centroid_YorkshireHumber_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (Yorkshire and the Humber), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> Near_dist – distance between each output

	<p>area centroid and centroid of encompassing government office region</p> <ul style="list-style-type: none"> • AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region <p>UA only for West Midlands</p>
Scotland_ol_2001_area_vertices	Vertices of Scotland boundary
Scotland_Centroid	Scotland centroid
Scotland_OA_2001_Centroid_Wales_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation Wales)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> • Near_dist – distance between each output area centroid and centroid of encompassing government office region • AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region
Scotland_OA_2001_Centroid_Wales_GOR_BD_AVG_Join	<p>Distances for WS1 Solid Waste calculation (Wales), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> • Near_dist – distance between each output area centroid and centroid of encompassing government office region • AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region
Wales_ol_2001_area_vertices	Vertices of Wales boundary
Wales_Centroid	Wales centroid
Wales_OA_2001_Centroid_Wales_GOR_BD_AVG	<p>Distances for WS1 Solid Waste calculation Wales)</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> • Near_dist – distance between each output area centroid and centroid of encompassing government office region • AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region

<p>Wales_OA_2001_Centroid_Wales_GOR_BD_AVG_Join</p>	<p>Distances for WS1 Solid Waste calculation (Wales), and joined to GOR geometry</p> <p>Attributes of interest in table:</p> <ul style="list-style-type: none"> • Near_dist – distance between each output area centroid and centroid of encompassing government office region • AVG_Vertex_Distance – average distance between each output area centroid and each vertex of encompassing government office region
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Figure 15 - overview of contents of WS1-related database containing distances between output area centroids and government office region boundaries

Database: itrc_spatial

Table prefix/table name	Description
dft_*	Department for Transport supplied annual average daily flow, and traffic statistics (1999-2010 for urban and motorways) - http://www.dft.gov.uk/matrix/Search.aspx
England_admin_*	Administrative Boundaries from UK BORDERS – England Only
England_census_*	Census Boundaries from UK BORDERS – England Only
England_electoral_*	Electoral Boundaries from UK BORDERS – England Only
Nireland_admin_*	Administrative Boundaries from UK BORDERS – Northern Ireland Only
Nireland_census_*	Census Boundaries from UK BORDERS – Northern Ireland Only
Nireland_electoral_*	Electoral Boundaries from UK BORDERS – Northern Ireland Only
Government_office_network_regions	Government Office Regions from ShareGeo
Indicative_fluvial_flood / Indicative_tidal_flood	Indicative Fluvial Flood Plain Data Supplied by the Environment Agency – South West GOR / Bristol Channel Region Only
Greatbritain	Great Britain Outline (excluding Northern Ireland) - Digimap
Gazetteer_2011	Gazetteer 2011 - http://digimap.edina.ac.uk/gaz-download/GazetteerFullDownload.jsp?useJS=true (Digimap)
NAPTAN_*	National Public Transport Access Nodes (data.gov.uk)
Nat_Floodzone_*	National Flood Zone Data Supplied by the Environment Agency – England and Wales Coverage Only
NationalGrid_*	Supplied by National Grid (http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/) Electricity and Gas Transmission System
nationalgrid_jan2012_cable	National Grid supplied underground electricity cables – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
nationalgrid_jan2012_gas_agis_singlepart	National Grid supplied underground gas sites – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
nationalgrid_jan2012_gas_pipe_feeder	National Grid supplied underground gas pipes – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
nationalgrid_jan2012_line	National Grid supplied underground overhead electricity lines – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
nationalgrid_jan2012_substation_site_centroids	National Grid supplied underground electricity substation site centroids – Jan2012 Update (Derived) (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
nationalgrid_jan2012_substation_site	National Grid supplied underground electricity substation sites – Jan2012 Update (from: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/undergroundcables/shape/)
NPTG_*	National Public Transport Gazetteer (data.gov.uk)
OS_CODE_POINT_*	Ordnance Survey Code Point Data – Digimap
OS_Meridian_2_*	Ordnance Survey Meridian 2 Data Layers include:

	<ul style="list-style-type: none"> • A roads • B roads • Coastline • Country Region • District Region • DLUA Region • Junction Point • Lake Region • Minor road • Motorway • Rail line • River • Roundabout • Road Node • Settlement • Station • Woodland Region
OS_Strategi_Combined_*	<p>Ordnance Survey Strategi Data</p> <p>Layers include:</p> <ul style="list-style-type: none"> • A road • B road • Airport • Coast • Ferry Terminal • Foreshore Region • Lakes Region • Land Use • Minor Road • National Park • Primary Road • Railway • River • Settlement • Urban Region • Woodland Region
OS_*	<p>Ordnance Survey supplied (bespoke data available under evaluation licence to ITRC):</p> <ul style="list-style-type: none"> • Airports • Seaports • Electricity Sub Stations • Refineries • Reservoirs • Telco Masts • Water Pumping Stations
Scotland_admin_*	Administrative Boundaries from UK BORDERS – Scotland Only
Scotland_census_*	Census Boundaries from UK BORDERS – Scotland Only

Scotland_electoral_*	Electoral Boundaries from UK BORDERS – Scotland Only
Wales_admin_*	Administrative Boundaries from UK BORDERS – Wales Only
Wales_census_*	Census Boundaries from UK BORDERS – Wales Only
Wales_electoral_*	Electoral Boundaries from UK BORDERS – Wales Only
NetworkAADFCountPoints2010	Department for Transport supplied annual average daily flow statistics (1999-2010 for urban and motorways - http://www.dft.gov.uk/traffic-counts/download.php)
NetworkAADFCountPoints2010_join_OS_Strategi_Road_Layers	Department for Transport supplied annual average daily flow statistics against each count point joined to appropriate road link in OS Strategi Road Layers (A, B, Minor, Motorway, Primry Road)
AEP_PlannedNewBuildPowerStationsGas	Association of Electricity Producers New Build Power Station Locations: Gas
AEP_PlannedNewBuildPowerStationsCoal	Association of Electricity Producers New Build Power Station Locations: Coal
AEP_ClosuresPowerStationsCoal	Association of Electricity Producers Power Station Closures (Coal)
AEP_ClosuresPowerStationNuclearAGR	Association of Electricity Producers Power Station Closures: Nuclear (AGR)
AEP_ClosuresPowerStationNuclearMagnar	Association of Electricity Producers Power Station Closures: Nuclear (Magnox)
AEP_ClosuresPowerStationsOil	Association of Electricity Producers Power Station Closures: Oil
AEP_CWIntakesAtNuclearAndOtherLargeUKPowerStations1000MWe	Association of Electricity Producers Nuclear and Large Power Station Sites with Cold Water Intake
DECC_OperationalPowerStationStations_May2011	Department of Energy and Climate Change list of operational power stations within the UK, as of May 2011 (all sites)
DECC_ListPotentialFutureElectricityGeneratingCapacity_UK	Department of Energy and Climate Change list of potential future electricity generation sites
derived_poi_railway_stations_junctions_highways	Derived from OS Points of Interest data (code: 10570738) – North West coverage only
derived_poi_signalling_facilities	Derived from OS Points of Interest data (code: 10540740) – North West coverage only
derived_poi_electrical_features	Derived from OS Points of Interest data (code: 06340433) – North West coverage only
derived_poi_energy_production	Derived from OS Points of Interest data (code: 07410534) – North West coverage only
derived_poi_gas_features	Derived from OS Points of Interest data (code: 06340437) – North West coverage only
derived_poi_oil_gas_extraction_refine_manufacture	Derived from OS Points of Interest data (code: 07380501) – North West coverage only
derived_poi_pipelines	Derived from OS Points of Interest data (code: 07410538) – North West coverage only
derived_poi_recycling_centres	Derived from OS Points of Interest data (code: 06340462) – North West coverage only
derived_poi_refuse_disposal_facilities	Derived from OS Points of Interest data (code: 06340440) – North West coverage only
derived_poi_waste_storage_processing_disposal	Derived from OS Points of Interest data (code: 06340441) – North West coverage only
derived_poi_waste_storage_processing_disposal_sewage_features	Derived from derived_poi_waste_storage_processing_disposal filtered for all features with name ILIKE '%sew%'
derived_poi_waste_storage_processing_disposal_sludge_features	Derived from derived_poi_waste_storage_processing_disposal filtered for all features with name ILIKE '%slud%'
derived_poi_waste_storage_processing_disposal_slurry_features	Derived from derived_poi_waste_storage_processing_disposal filtered for all features with name ILIKE '%slur%'

ENW_LTDS_2010_33kV_Geographic_Lakes_3	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Lake District
ENW_LTDS_2010_33kV_Geographic_Lancs_3	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Lancashire
ENW_LTDS_2010_33kV_geographic_south_3	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Southern Lancashire
ENW_LTDS_2010_132kV_geographic_expanded_rev2_7	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 132kV NW England
ENW_LTDS_2010_132kV_geographic_expanded_rev2_polygon_7_centroid	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 132kV NW England Sub stations
ENW_LTDS_2010_33kV_geographic_lakes_polygon_7_centroids	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Lake District Sub stations
ENW_LTDS_2010_33kV_geographic_lancs_polygon_7_centroids	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Lancashire Sub stations
ENW_LTDS_2010_33kV_geographic_south_polygon_7_centroids	Derived from Electricity North West data received from Gaihua Fu (pdf) and georeferenced using the OS 1:50000 Gazetteer to match place names (and coordinates) to sub station names – 33kV Southern Lancashire Sub stations
NEDL_PrimarySubStations	Northern Electric Distribution Limited (10/1999) Primary Substations Northern Area
NEDL_132kV	Northern Electric Distribution Limited (10/1999) 132 kV line
NEDL_66kV	Northern Electric Distribution Limited (10/1999) 66 kV line
NEDL_33kV	Northern Electric Distribution Limited (10/1999) 33 kV line
nationalgrid_substation_site_derived_operating_voltage	National Grid supplied substation sites with operating voltage (polygon)
nationalgrid_substation_site_centroids_derived_operating_voltag	Centroids of National Grid supplied substation sites with operating voltage (point)
nationalgrid_line_derived_operating_voltage	National Grid supplied Electricity Transmission Line with minimum (minoperatv) and maximum (maxoperatv) operating voltages as double
NationalGrid_Derived_Gas_LNG_Operators	Derived from coordinates available online (and visual checking via Google Maps) for LNG sites for National Grid for National Grid Gas Transmission System
NationalGrid_Derived_Gas_Storage	Derived from coordinates available online (and visual checking via Google Maps) for gas storage sites for National Grid for National Grid Gas Transmission System
NationalGrid_Derived_Gas_Terminals	Derived from coordinates available online (and visual checking via Google Maps) for gas terminal sites for National Grid Gas Transmission System
NationalGrid_Derived_Gas_Compressors	Derived from gas site centroids and national grid data available online for gas compressors that form part of the National Grid Gas Transmission System

OS_Refinerries_OilGatheringStation	Derived from Ordnance Survey supplied OS_Refinerries dataset: (Oil Gathering Centre / Station)
OS_Refinerries_OilBoreHoles	Derived from Ordnance Survey supplied OS_Refinerries dataset: (Oil Bore Holes (used/disused))
OS_Refinerries_OilRefinerries	Derived from Ordnance Survey supplied OS_Refinerries dataset (Oil Refinery / LIKE Refine)
OS_Refinerries_OilWells	Derived from Ordnance Survey supplied OS_Refinerries dataset (Oil Well / Oil Well Site / Oil Wells)
NSRI_NPD_Flood	Cranfield supplied NSRI Natural Perils Flood Extent Dataset
EA_WM_areawm_250k	Environment Agency Area Boundaries
EA_WM_regionwm_250k	Environment Agency Region Boundaries
SEPA_Teams_250k	Scottish Environment Protection Agency 1:50k SEPA boundaries

Figure 16 - overview of the itrc_spatial database

Database: [itrc_spatial_hazards](#)

Table prefix/table name	Description
indicative_fluvial_flood_10k_2000	Indicative Fluvial Flood Plain Data Supplied by the Environment Agency (N: 255685.300099, S: 14307.473783, E: 445614.018491, W: 135500.558857) – South West GOR Only
indicative_tidal_flood_10k_2000	Indicative Tidal Flood Plain Data Supplied by the Environment Agency (N: 220003.713847, S: 135013.142145, E: 382882.717225, W: 286984.906262) – Bristol Channel Only
nat_floodzone2_v3_8	National Flood Zone Data Supplied by the Environment Agency – England and Wales Coverage Only
nat_floodzone3_v3_8	National Flood Zone Data Supplied by the Environment Agency – England and Wales Coverage Only
NSRI_NPD_Flood	Cranfield supplied NSRI Natural Perils Flood Extent Dataset
EA_NAFRA_all_Nov2012	November 2012 Update of Environment Agency Flood Likelihood

Figure 17 - overview of the [itrc_spatial_hazards](#) database

Itrc_ws1_solid_waste_distances

This database was initiated to calculate and store the average straight line distance between the output area centroids for each government office region, and the boundary of each government office region. Furthermore, it stores the straight line distance between each output area centroid, and the centroid of the government office region within which that output area lies.

Table prefix/table name	Description
England_GOR_East_Midlands_Vertices	Point dataset of all vertices in East Midlands Government Office Region
East_Midlands_Centroid	Geographic centroid of East Midlands Government Office Region
GOR_East_Midlands	East Midlands Government Office Region boundary
England_OA_2001_Centroid_EastMidlands_County_GOR_BD_AVG	<p>Table containing distance between East Midlands Government Office Region centroid and all output area centroids within East Midlands Government Office Region</p> <p>Near_dist: straight line distance between output area centroid and East Midlands government office region centroid</p> <p>AVG_Vertex_Distance: average distance between output area centroid and all vertices of East Midlands government office region boundary.</p>
England_OA_2001_Centroid_EastMidlands_County_GOR_BD_AVG_Join	<p>As England_OA_2001_Centroid_EastMidlands_County_GOR_BD_AVG, but joined back to the original output area centroid geometries for East Midlands output areas</p> <p>geom: geometry of East Midlands centroids</p>
England_GOR_East_Of_England_Vertices	Point dataset of all vertices in East Of England Government Office Region
East_Of_England_Centroid	Geographic centroid of East Of England Government Office Region
GOR_East_Of_England	East Of England Government Office Region boundary
England_OA_2001_Centroid_EastEngland_County_GOR_BD_AVG	<p>Table containing distance between East of England Government Office Region centroid and all output area centroids within East of England Government Office Region</p> <p>Near_dist: straight line distance between output area centroid and East of England government office region centroid</p> <p>AVG_Vertex_Distance: average distance between output area centroid and all vertices of East of England government office region boundary.</p>
England_OA_2001_Centroid_EastEngland_County_GOR_B	As

D_AVG_Join	England_OA_2001_Centroid_EastEngland_County_GOR_BD_AVG, but joined back to the original output area centroid geometries for East of England output areas geom: geometry of East of England centroids
England_GOR_GLA_Vertices	Point dataset of all vertices in Greater London Authority Government Office Region
GLA_Centroid	Geographic centroid of Greater London Authority Government Office Region
GOR_GLA	Greater London Authority Government Office Region boundary
England_OA_2001_Centroid_GLA_County_GOR_BD_AVG	Table containing distance between GLA Government Office Region centroid and all output area centroids within GLA Government Office Region Near_dist: straight line distance between output area centroid and GLA government office region centroid AVG_Vertex_Distance: average distance between output area centroid and all vertices of GLA government office region boundary.
England_OA_2001_Centroid_GLA_County_GOR_BD_AVG_Join	As England_OA_2001_Centroid_GLA_County_GOR_BD_AVG, but joined back to the original output area centroid geometries for GLA output areas geom: geometry of GLA centroids
England_GOR_North_East_Vertices	Point dataset of all vertices in North East Government Office Region
North_East_Centroid	Geographic centroid of North East Government Office Region
GOR_North_East	North East Government Office Region boundary
England_OA_2001_Centroid_North_East_County_GOR_BD_AVG	Table containing distance between North East Government Office Region centroid and all output area centroids within North East Government Office Region Near_dist: straight line distance between output area centroid and North East government office region centroid AVG_Vertex_Distance: average distance between output area centroid and all vertices of North East government office region boundary.
England_OA_2001_Centroid_North_East_County_GOR_BD_AVG_Join	As England_OA_2001_Centroid_North_East_County_GOR_BD_AVG, but joined back to the original output area centroid geometries for North East output areas

	geom: geometry of North East centroids
England_GOR_North_West_Vertices	Point dataset of all vertices in North West Government Office Region
North_West_Centroid	Geographic centroid of North West Government Office Region
GOR_North_West	North West Government Office Region boundary
England_OA_2001_Centroid_North_West_County_GOR_BD_AVG	<p>Table containing distance between North_West Government Office Region centroid and all output area centroids within North_West Government Office Region</p> <p>Near_dist: straight line distance between output area centroid and North_West government office region centroid</p> <p>AVG_Vertex_Distance: average distance between output area centroid and all vertices of North_West government office region boundary.</p>
England_OA_2001_Centroid_North_West_County_GOR_BD_AVG_Join	<p>As England_OA_2001_Centroid_North_West_County_GOR_BD_AVG, but joined back to the original output area centroid geometries for North_West output areas</p> <p>geom: geometry of North_West centroids</p>
England_GOR_South_East_Vertices	Point dataset of all vertices in South East Government Office Region
South_East_Centroid	Geographic centroid of South East Government Office Region
GOR_South_East	South East Government Office Region boundary
England_OA_2001_Centroid_South_East_County_GOR_BD_AVG	<p>Table containing distance between South_East Government Office Region centroid and all output area centroids within South_East Government Office Region</p> <p>Near_dist: straight line distance between output area centroid and South_East government office region centroid</p> <p>AVG_Vertex_Distance: average distance between output area centroid and all vertices of South_East government office region boundary.</p>
England_OA_2001_Centroid_South_East_County_GOR_BD_AVG_Join	<p>As England_OA_2001_Centroid_South_East_County_GOR_BD_AVG, but joined back to the original output area centroid geometries for South_East output areas</p> <p>geom: geometry of South_East centroids</p>
England_GOR_South_West_Vertices	Point dataset of all vertices in South West Government

	Office Region
South_West_Centroid	Geographic centroid of South West Government Office Region
GOR_South_West	South West Government Office Region boundary
England_OA_2001_Centroid_South_West_County_GOR_BD_AVG	<p>Table containing distance between South_West Government Office Region centroid and all output area centroids within South_West Government Office Region</p> <p>Near_dist: straight line distance between output area centroid and South_West government office region centroid</p> <p>AVG_Vertex_Distance: average distance between output area centroid and all vertices of South_West government office region boundary.</p>
England_OA_2001_Centroid_South_West_County_GOR_BD_AVG_Join	<p>As England_OA_2001_Centroid_South_West_County_GOR_BD_AVG, but joined back to the original output area centroid geometries for South_West output areas</p> <p>geom: geometry of South_West_centroids</p>
England_GOR_West_Midlands_Vertices	Point dataset of all vertices in West Midlands Government Office Region
West_Midlands_Centroid	Geographic centroid of West Midlands Government Office Region
GOR_West_Midlands	West Midlands Government Office Region boundary
England_OA_2001_Centroid_West_Midlands_County_GOR_BD_AVG	<p>Table containing distance between West_Midlands Government Office Region centroid and all output area centroids within West_Midlands Government Office Region</p> <p>Near_dist: straight line distance between output area centroid and West_Midlands government office region centroid</p> <p>AVG_Vertex_Distance: average distance between output area centroid and all vertices of West_Midlands government office region boundary.</p>
England_OA_2001_Centroid_West_Midlands_County_GOR_BD_AVG_Join	<p>As England_OA_2001_Centroid_West_Midlands_County_GOR_BD_AVG, but joined back to the original output area centroid geometries for West_Midlands output areas</p> <p>geom: geometry of West_Midlands_centroids</p>
England_GOR_Yorkshire_Humber_Vertices	Point dataset of all vertices in Yorkshire and the Humber Government Office Region
Yorkshire_Humber_Centroid	Geographic centroid of Yorkshire and the Humber

	Government Office Region
GOR_Yorkshire_Humber	Yorkshire and the Humber Government Office Region boundary
England_OA_2001_Centroid_Yorkshire_Humber_County_GOR_BD_AVG	<p>Table containing distance between Yorkshire_Humber Government Office Region centroid and all output area centroids within Yorkshire_Humber Government Office Region</p> <p>Near_dist: straight line distance between output area centroid and Yorkshire_Humber government office region centroid</p> <p>AVG_Vertex_Distance: average distance between output area centroid and all vertices of Yorkshire_Humber government office region boundary.</p>
England_OA_2001_Centroid_Yorkshire_Humber_County_GOR_BD_AVG_Join	<p>As England_OA_2001_Centroid_Yorkshire_Humber_County_GOR_BD_AVG, but joined back to the original output area centroid geometries for Yorkshire_Humber output areas</p> <p>geom: geometry of Yorkshire_Humber_centroids</p>
Scotland_ol_2001_area_vertices	Point dataset of all vertices in Scottish country outline
Scotland_Centroid	Geographic centroid of Scotland country outline
GOR_Scotland_ol_2001_area	Scotland country outline
Wales_ol_2001_area_vertices	Point dataset of all vertices in Wales country outline
Wales_Centroid	Geographic centroid of Wales country outline
GOR_Wales_ol_2001_area_area	Wales country outline
Wales_OA_2001_Centroid_Wales_GOR_BD_AVG	<p>Table containing distance between Wales Government Office Region centroid and all output area centroids within Wales country outline</p> <p>Near_dist: straight line distance between output area centroid and Wales country outline</p> <p>AVG_Vertex_Distance: average distance between output area centroid and all vertices of Wales government office region boundary.</p>
Wales_OA_2001_Centroid_Wales_GOR_BD_AVG_Join	<p>As Wales_OA_2001_Centroid_Wales_GOR_BD_AVG, but joined back to the original output area centroid geometries for Wales output areas</p> <p>geom: geometry of Wales_centroids</p>

Figure 18 - overview of the database initiated to calculate average distances between output area centroids and government office region centroids

Ordinance Survey data supplied under evaluation licence (separate from downloads from EDINA Digimap)

A number of datasets have been sourced directly from the Ordnance Survey, following a meeting between Stuart Barr, David Alderson (Newcastle University) and Nick Groome, Glen Hart, Mark Hobell, Mark Pendlington (Ordnance Survey, Southampton). These datasets are **SEPARATE** to other Ordnance Survey datasets downloaded from EDINA Digimap, and not available via EDINA Digimap. The following images show a portion of the data for the whole of the UK

Energy

- OS_ElectricitySubStations
- OS_EnergyProductionSites
- OS_Refineries

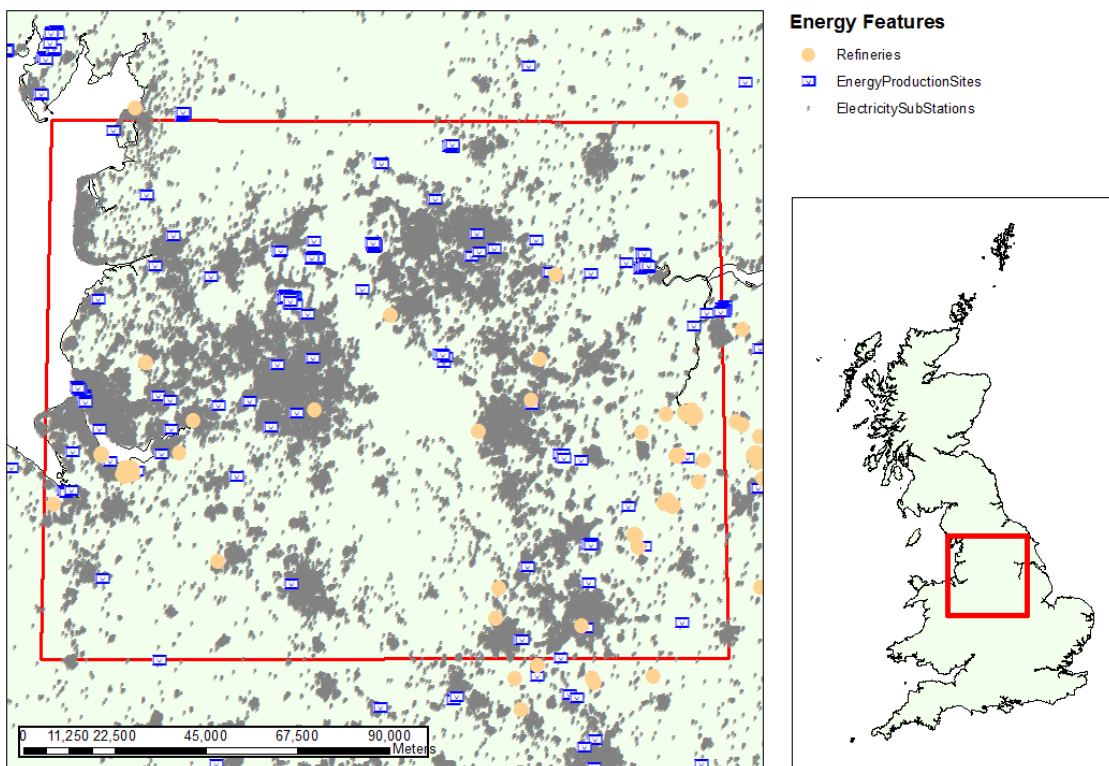


Figure 19 - overview of the energy sector-related Ordnance Survey data (Electricity Substations, Energy Production Sites, Oil Refineries)

Transport

- OS_Airports
- OS_Seaports

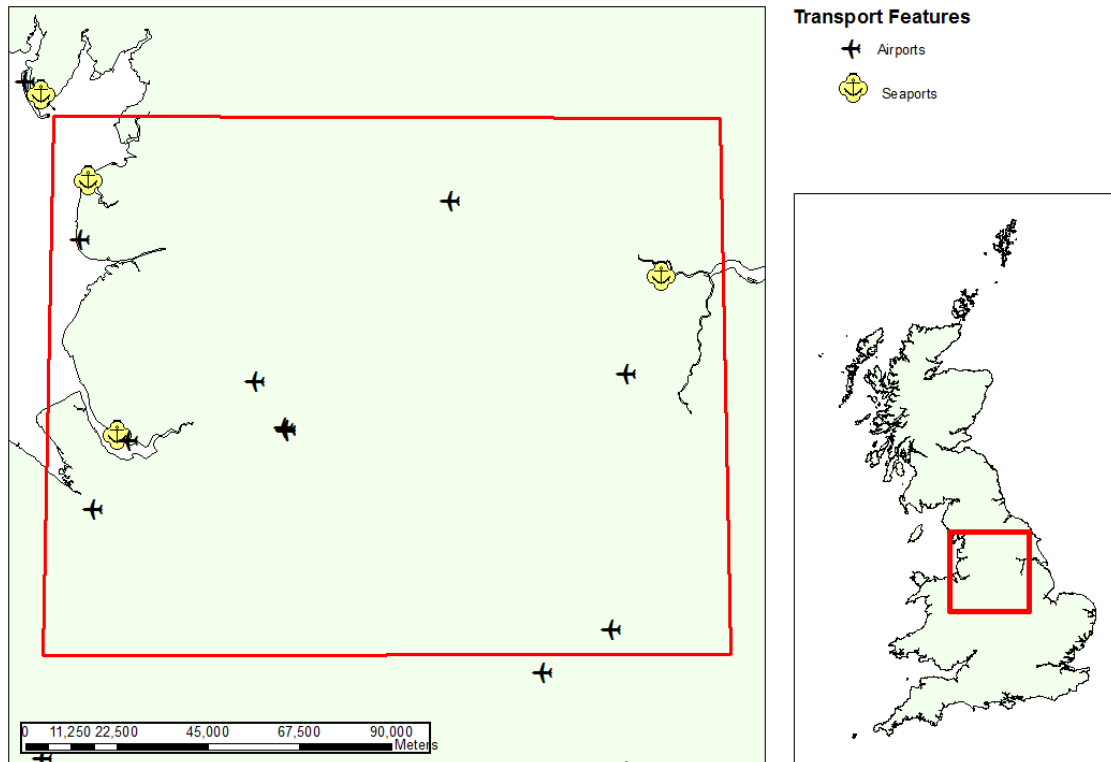


Figure 20 - overview of the transport sector-related Ordnance Survey data (Airports and Seaports)

Water

- OS_Reservoirs
- OS_WaterPumpingStations

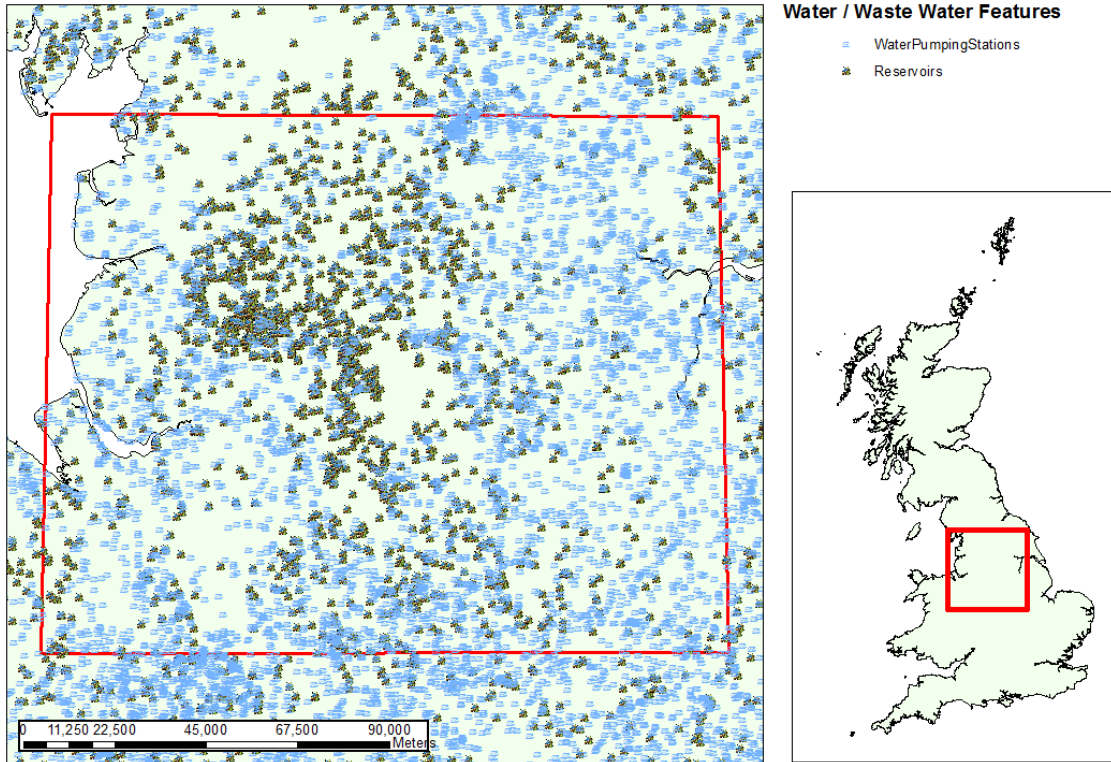


Figure 21 - overview of the water sector-related Ordnance Survey data (Reservoirs and Water Pumping Stations)

ICT

- OS_Telco_Masts

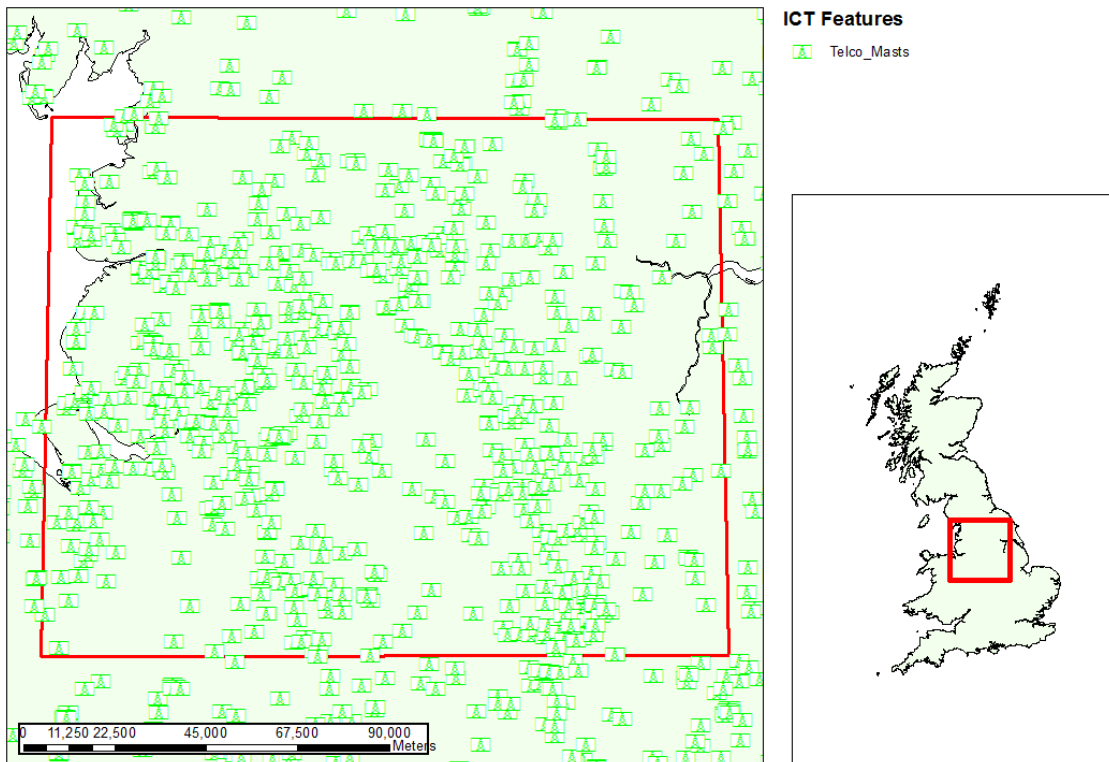


Figure 22 - overview of the ICT sector-related Ordnance Survey data (Telecommunication Masts)

Database: ordnance_survey_mastermap (Evaluation Licence)

Table prefix/table name	Description
OS_AddressPoint	North West Case Study Coverage of Ordnance Survey Address Layer 2
OS_BoundaryLine	
OS_FerryLink	North West Case Study Coverage of Ordnance Survey Ferry Links i.e. A FerryLink is a logical connection between two FerryNode features and represents a pedestrian ferry route between two ferry terminals.
OS_FerryNode	North West Case Study Coverage of Ordnance Survey Ferry Nodes i.e. harbours / ports from http://www.ordnancesurvey.co.uk/oswebsite/support/products/os-mastermap/itn-layer-technical-specification/feature-types-and-attribution-in-the-urban-paths-network-theme.html#ferrynode
OS_FerryTerminal	North West Case Study Coverage of Ordnance Survey Ferry Terminals i.e. A FerryTerminal is a logical connection between a PathNode, or a RoadNode, and a FerryNode – from http://www.ordnancesurvey.co.uk/oswebsite/support/products/os-mastermap/itn-layer-technical-specification/feature-types-and-attribution-in-the-urban-paths-network-theme.html#ferrynode
OS_InformationPoint	
OS_Road	North West Case Study Coverage of Ordnance Survey ITN Road Node and Link information feature types
OS_RoadLink	
OS_RoadLinkInformation	
OS_RoadNode	
OS_RoadNodeInformation	
OS_RoadRouteInformation	
OS_TopographicArea	North West Case Study Coverage of Ordnance Survey topographic feature types
OS_TopographicLine	
OS_TopographicPoint	

Figure 23 - overview of ordnance survey mastermap data converted to PostGIS tables

Database: ordnance_survey_points_of_interest (Evaluation Licence)

Table prefix/table name	Description
Points_of_interest	Ordnance Survey Points of Interest
POI_Categories	Ordnance Survey Points of Interest Classification and Grouping Tables used to help group features of similar nature.
POI_Categories_v31	
POI_Classes_v31	
POI_Groups	
POI_Groups_v31	
POI_Classifications	
derived_poi_railway_stations_junctions_halts	Derived from OS Points of Interest data (code: 10570738) – North West coverage only
derived_poi_signalling_facilities	Derived from OS Points of Interest data (code: 10540740) – North West coverage only
derived_poi_electrical_features	Derived from OS Points of Interest data (code: 06340433) – North West coverage only
derived_poi_energy_production	Derived from OS Points of Interest data (code: 07410534) – North West coverage only
derived_poi_gas_features	Derived from OS Points of Interest data (code: 06340437) – North West coverage only
derived_poi_oil_gas_extraction_refine_manufacture	Derived from OS Points of Interest data (code: 07380501) – North West coverage only
derived_poi_pipelines	Derived from OS Points of Interest data (code: 07380501) – North West coverage only

	07410538) – North West coverage only
derived_poi_recycling_centres	Derived from OS Points of Interest data (code: 06340462) – North West coverage only
derived_poi_refuse_disposal_facilities	Derived from OS Points of Interest data (code: 06340440) – North West coverage only
derived_poi_waste_storage_processing_disposal	Derived from OS Points of Interest data (code: 06340441) – North West coverage only
derived_poi_waste_storage_processing_disposal_sewage_features	Derived from derived_poi_waste_storage_processing_disposal filtered for all features with name ILIKE '%sew%'
derived_poi_waste_storage_processing_disposal_sludge_features	Derived from derived_poi_waste_storage_processing_disposal filtered for all features with name ILIKE '%slud%'
derived_poi_waste_storage_processing_disposal_slurry_features	Derived from derived_poi_waste_storage_processing_disposal filtered for all features with name ILIKE '%slur%'

Figure 24 - overview of ordnance survey points of interest data

Database: ordnance_survey_vectormap_district (Digimap)

Table prefix/table name	Description
AdministrativeBoundary	Ordnance Survey VectorMap District Data downloaded from Digimap containing the layers opposite
Airport	
Building	
ElectricityTransmissionLine	
Foreshore	
Glasshouse	
HeritageSite	
Land	
MotorwayJunction	
NamedPlace	
Ornament	
PublicAmenity	
RailwayStation	
RailwayTrack	
RailwayTunnel	
Road	
RoadTunnel	
SpotHeight	
SurfaceWater_Area	
SurfaceWater_Line	
TidalBoundary	
TidalWater	
Woodland	

Figure 25 - overview of ordnance survey vectormap district data

Database: [network_interdependency](#)

Table prefix/table name	Description
Nodes	<p>Base node table inherited from when creating specific nodes for a new graph. Contains the following columns that CANNOT be deleted from child tables that inherit from it:</p> <ul style="list-style-type: none"> • GraphID – fr key to Graphs table • Geom – geometry column (POINT)
Edges	<p>Base edge table inherited from when creating a set of edges for a new graph. Contains the following columns that CANNOT be deleted from child tables that inherit from it:</p> <ul style="list-style-type: none"> • GraphID – fr key to Graphs table • Node_F_ID – from node (in Nodes table) • Node_T_ID – to node (in Nodes table) • Edge_Geom_ID – reference to the Edge_Geometry table, matching the Edge to the corresponding geometry
Edge_Geometry	<p>Base edge_geometry table to store the actual physical link that the edge in Edges represents. Contains the following columns that CANNOT be deleted from child tables that inherit from it:</p> <ul style="list-style-type: none"> • Geom – geometry of the edge
Graphs	<p>Contains the name of the graphs and references to the relevant Nodes, Edges and Edge_Geometry tables for all graphs stored in the database. Acts as an index to all graphs.</p>
Interdependency	<p>Base interdependency table inherited from when a new interdependency between two graphs is created. Contains the following columns:</p> <ul style="list-style-type: none"> • Interdependency_Graphs_F_GraphID – fr key to graphs table • Interdependency_Graphs_T_GraphID – fr key to graphs table • Interdependency_Nodes_F_NodeID – from node in graph with ID = Interdependency_Graphs_F_GraphID • Interdependency_Nodes_T_NodeID – to node in graph with ID = Interdependency_Graphs_T_GraphID • GeomID – link to the Interdependency_Edges table containing the physical geometry of the interdependency
Interdependency_Edges	<p>Contains the actual geometry of the interdependencies</p>
Global_Interdependency	<p>Similar to the Graphs table, this acts as an index to all interdependencies that exist BETWEEN graphs. It records the IDS of the graphs between which an interdependency exists and also the names of the table representing the interdependencies and interdependency edges</p>

Figure 26 - overview of custom network database schema, developed by David Alderson, Newcastle University



Database: openflights (data received via downloads from openflights.org)

Table prefix/table name	Description
Openflights_airlines	Openflights airlines data containing airline name, country of origin and airline code (also integrated in to the itrc_spatial_transport database)
Openflights_airports	Openflights worldwide airport data containing city, country, code and position of airport (WGS84)
Openflights_routes	Openflights routes data contains all routes between all airports, worldwide
Openflights_airports_uk_only	Openflights airport data (uk only airports) (also integrated in to the itrc_spatial_transport database)
Openflights_routes_uk_only	Openflights routes data contains all routes that start and end within the UK i.e. all internal domestic flights (also integrated in to the itrc_spatial_transport database)

Figure 27 - overview of Openflights data database

The *Openflights_routes_uk_only* dataset was created by initially subsetting the *openflights_airports* data for UK only airports, producing the table *openflights_airports_uk_only*. This subsetting was completed by filtering on the country attribute of the *openflights_airports* table.

Secondly a plpgsql function was written to extract all routes from the *openflights_routes* table where the route started and ended at one of the UK airports found in *openflights_airports_uk_only*. The result of this can be seen below:

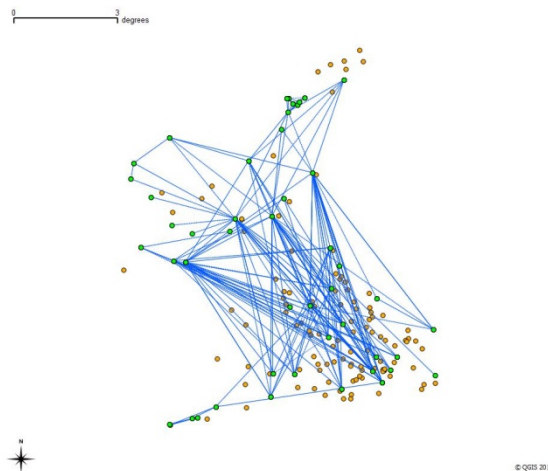


Figure.5 – Demonstrating the extraction of UK internal domestic flights from openflights worldwide data