

Project ID	DIP118		
Long Title	Zero Bills House		
Short Title			
Keywords	Site; Domestic; Electricity; Heat; Solar PV; Heat Pumps; Waste Heat Recovery; Direct Electric Storage; Power Quality & Grid Integration;		
Location (Town, Region, Country)	Watford	Hertfordshire	England
Latitude and Longitude	51.70N	0.37W	
OSGB code	TL 125 013		
Status	Complete		
Start Date	2015		
End Date	2016		
Description	<p>The Zero Bills Home build at the BRE Innovation Park represents the first show home for a new 96 home zero bills development in Newport Essex.</p> <ul style="list-style-type: none"> • Super insulated concrete foundation slab with optional additional piles to match most ground conditions. • Laser cut galv steel powder coated structural ring beam with C16 UK timber studs. UK fabricated OSB structural boards enables one floor to be built every two days • Super insulated cladding with heat recovery ventilation and triple glazing reduces heat demand to the point where a tiny heat pump can provide comfort and hot water • ZED Factory designed BIPV solar roofing system provides durable roof with electric generation and optional solar loft conservatory • Good daylight, water saving appliances and LED lighting reduces electric demand allowing surplus solar electricity to power an electric car • A smart LIPO4 Fit craft battery system. Positioned under the stair stores solar electricity, minimising grid imports and limiting grid export to 3kw maximum avoids the need to upgrade the existing mains grid infrastructure. 		
Sectors	Domestic		
Funding Sources	Undefined		
Budget £	Undefined		
Partners	BRE Trust, ZEDFactory		
Energy vectors	Electricity, Heat		
Scale (lab/site/ small/community/region/national)	Site		
Technologies demonstrated	Waste heat recovery, heat pumps, solar PV, battery storage, LED lighting, low energy buildings		

Economic models demonstrated	
Other concepts demonstrated	Grid constraint mitigation
Industry engagement	
Consumer engagement	
Project Reports (incl. links)	https://www.bre.co.uk/filelibrary/events/ZeroBillsLaunchFlier.pdf www.build4quality.com/filelibrary/Build4Quality/Bill-Dunster.pdf
Datasets (incl. links)	
Website/social media	https://bregroup.com/ipark/parks/england/buildings/zero-bills-home/ https://www.zedfactory.com/zero-bills-home
Information sources	As above