



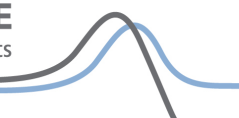
BNDH KO01: Domestic Central Heating Government Standards Evidence Base 2009: Key Outputs

Version 1.1

This Briefing Note and referenced information is a public consultation document and will be used to inform Government decisions. The information and analysis forms part of the Evidence Base created by Defra's Market Transformation Programme.

1 Introduction

- The aim of this Briefing Note is to provide a year-by-year summary of the main outputs from the Market Transformation Programme (MTP) 2009 models.
- There are four main sections to this Briefing Note, corresponding to the main outputs from the MTP modelling:
 - Stock
 - Sales
 - Energy Consumption
 - Government Standards – Charts and Tables



2 Stock

- The following table details the MTP modelling outputs in terms of UK installed base of products:

Table 1 – Domestic Heating Products / Boilers Stock (Reference Scenario)

	Stock (000's)						Totals
	Gas Regular Boiler	Gas Combi Boiler	Oil Boiler	Alt Tech - Electric	Alt Tech - Gas	Alt Tech - Biomass	
2000	13,205	4,395	1,215	-	-	-	18,815
2001	13,161	4,990	1,290	-	-	-	19,441
2002	13,052	5,648	1,345	-	-	-	20,045
2003	12,873	6,378	1,399	-	-	-	20,650
2004	12,631	7,169	1,439	-	-	-	21,239
2005	12,432	7,918	1,469	-	-	-	21,819
2006	12,163	8,687	1,499	-	-	-	22,349
2007	11,848	9,442	1,519	-	-	-	22,809
2008	11,530	10,140	1,539	-	-	-	23,209
2009	11,213	10,782	1,560	-	-	-	23,555
2010	10,896	11,369	1,580	-	-	-	23,845
2011	10,639	11,848	1,592	2	2	1	24,084
2012	10,361	12,319	1,610	6	5	2	24,303
2013	10,068	12,783	1,626	13	10	5	24,505
2014	9,759	13,239	1,641	21	16	8	24,684
2015	9,436	13,685	1,661	32	25	12	24,851
2016	9,218	14,007	1,673	45	35	16	24,994
2017	8,996	14,326	1,684	61	47	21	25,135
2018	8,766	14,638	1,694	79	61	28	25,266
2019	8,531	14,946	1,702	100	76	35	25,390
2020	8,293	15,249	1,708	123	94	43	25,510
2021	8,143	15,449	1,713	149	114	52	25,620
2022	7,991	15,644	1,716	177	135	62	25,725
2023	7,835	15,833	1,719	207	158	73	25,825
2024	7,677	16,018	1,720	239	183	84	25,921
2025	7,515	16,198	1,721	272	209	96	26,011
2026	7,429	16,295	1,721	307	235	108	26,095
2027	7,341	16,388	1,720	343	263	120	26,175
2028	7,250	16,477	1,719	380	291	133	26,250
2029	7,158	16,562	1,717	417	320	146	26,320
2030	7,064	16,642	1,716	455	350	159	26,386

MARKET TRANSFORMATION PROGRAMME

Developing evidence for Government and business on energy using products

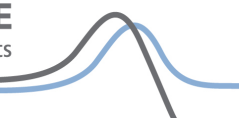


Table 2 – Domestic Heating Products / Boilers Stock (Policy Scenario)

	Stock (000's)						Totals
	Gas Regular Boiler	Gas Combi Boiler	Oil Boiler	Alt Tech - Electric	Alt Tech - Gas	Alt Tech - Biomass	
2000	13,205	4,395	1,215	-	-	-	18,815
2001	13,161	4,990	1,290	-	-	-	19,441
2002	13,052	5,648	1,345	-	-	-	20,045
2003	12,873	6,378	1,399	-	-	-	20,650
2004	12,631	7,169	1,439	-	-	-	21,239
2005	12,432	7,918	1,469	-	-	-	21,819
2006	12,163	8,687	1,499	-	-	-	22,349
2007	11,848	9,442	1,519	-	-	-	22,809
2008	11,530	10,140	1,539	-	-	-	23,209
2009	11,213	10,782	1,560	-	-	-	23,555
2010	10,896	11,369	1,580	-	-	-	23,845
2011	10,635	11,842	1,591	7	6	3	24,084
2012	10,350	12,301	1,606	20	17	9	24,303
2013	10,046	12,746	1,618	41	35	17	24,503
2014	9,724	13,175	1,628	68	59	29	24,683
2015	9,386	13,587	1,641	103	88	44	24,849
2016	9,147	13,871	1,646	145	125	61	24,995
2017	8,899	14,142	1,648	195	168	82	25,134
2018	8,643	14,397	1,647	253	218	106	25,264
2019	8,382	14,637	1,643	319	275	134	25,390
2020	8,115	14,861	1,636	393	339	165	25,509
2021	7,929	14,980	1,626	475	410	200	25,620
2022	7,740	15,083	1,613	565	487	238	25,726
2023	7,547	15,171	1,598	661	570	278	25,825
2024	7,351	15,246	1,580	763	658	321	25,919
2025	7,153	15,309	1,561	870	751	366	26,010
2026	7,019	15,292	1,541	982	847	413	26,094
2027	6,884	15,266	1,520	1,097	947	460	26,174
2028	6,746	15,232	1,498	1,215	1,049	510	26,250
2029	6,606	15,191	1,475	1,335	1,153	559	26,319
2030	6,465	15,143	1,451	1,457	1,259	610	26,385

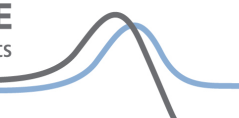


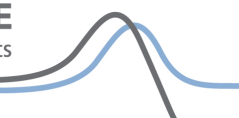
Table 3 – Domestic Heating Products / Boilers Stock (BAT Scenario)

	Stock (000's)						Totals
	Gas Regular Boiler	Gas Combi Boiler	Oil Boiler	Alt Tech - Electric	Alt Tech - Gas	Alt Tech - Biomass	
2000	13,205	4,395	1,215	-	-	-	18,815
2001	13,161	4,990	1,290	-	-	-	19,441
2002	13,052	5,648	1,345	-	-	-	20,045
2003	12,873	6,378	1,399	-	-	-	20,650
2004	12,631	7,169	1,439	-	-	-	21,239
2005	12,432	7,918	1,469	-	-	-	21,819
2006	12,163	8,687	1,499	-	-	-	22,349
2007	11,848	9,442	1,519	-	-	-	22,809
2008	11,530	10,140	1,539	-	-	-	23,209
2009	11,213	10,782	1,560	-	-	-	23,555
2010	10,761	11,112	1,513	223	131	105	23,845
2011	10,353	11,359	1,464	441	259	207	24,083
2012	9,933	11,592	1,420	660	388	310	24,303
2013	9,505	11,809	1,377	880	519	413	24,503
2014	9,070	12,010	1,335	1,102	650	516	24,683
2015	8,631	12,191	1,297	1,327	782	621	24,849
2016	8,274	12,272	1,256	1,552	917	725	24,996
2017	7,920	12,336	1,215	1,782	1,053	829	25,135
2018	7,569	12,383	1,175	2,012	1,191	935	25,265
2019	7,226	12,417	1,136	2,243	1,329	1,039	25,390
2020	6,889	12,440	1,099	2,473	1,467	1,142	25,510
2021	6,629	12,385	1,066	2,697	1,602	1,241	25,620
2022	6,379	12,329	1,037	2,912	1,733	1,336	25,726
2023	6,140	12,276	1,014	3,115	1,856	1,423	25,824
2024	5,915	12,233	997	3,301	1,971	1,503	25,920
2025	5,704	12,205	986	3,468	2,074	1,573	26,010
2026	5,564	12,141	980	3,613	2,163	1,633	26,094
2027	5,439	12,100	979	3,734	2,239	1,684	26,175
2028	5,328	12,083	981	3,833	2,230	1,725	26,180
2029	5,230	12,088	986	3,910	2,347	1,758	26,319
2030	5,143	12,113	993	3,969	2,383	1,783	26,384



Table 4 – Domestic Heating Products / Water Heaters Stock (All Scenarios)

	Stock (000's)
	Electric Water Heaters
2000	14,417
2001	14,667
2002	14,626
2003	14,593
2004	15,094
2005	15,508
2006	15,998
2007	16,466
2008	16,943
2009	17,419
2010	17,894
2011	18,366
2012	18,811
2013	19,229
2014	19,616
2015	19,968
2016	20,283
2017	20,557
2018	20,792
2019	20,991
2020	21,160
2021	21,304
2022	21,431
2023	21,546
2024	21,653
2025	21,753
2026	21,849
2027	21,943
2028	22,034
2029	22,124
2030	22,214



3 Sales

- The following table details the MTP modelling outputs in terms of annual UK sales:

Table 5 – Domestic Heating Products / Boilers Sales (Reference Scenario)

	Sales (000's)						Totals
	Gas Regular Boiler	Gas Combi Boiler	Oil Boiler	Alt Tech - Electric	Alt Tech - Gas	Alt Tech - Biomass	
2000	474	647	112	-	-	-	1,233
2001	443	741	129	-	-	-	1,313
2002	413	833	111	-	-	-	1,357
2003	373	934	114	-	-	-	1,421
2004	339	1,028	104	-	-	-	1,471
2005	407	1,018	101	-	-	-	1,526
2006	357	1,076	110	-	-	-	1,543
2007	326	1,106	110	-	-	-	1,542
2008	336	1,100	119	-	-	-	1,555
2009	343	1,107	127	-	-	-	1,577
2010	347	1,124	132	-	-	-	1,603
2011	406	1,099	127	2	2	1	1,637
2012	383	1,182	132	4	3	2	1,706
2013	361	1,271	129	6	5	2	1,774
2014	338	1,359	126	9	7	3	1,842
2015	315	1,441	129	11	8	4	1,908
2016	410	1,398	122	13	10	5	1,958
2017	393	1,462	121	16	12	5	2,009
2018	374	1,505	122	18	14	6	2,039
2019	356	1,535	123	21	16	7	2,058
2020	337	1,550	125	24	18	8	2,062
2021	412	1,459	126	26	20	9	2,052
2022	393	1,464	128	29	22	10	2,046
2023	376	1,474	128	31	24	11	2,044
2024	359	1,493	129	34	26	12	2,053
2025	343	1,520	128	36	28	13	2,068
2026	407	1,473	128	39	30	13	2,090
2027	395	1,504	127	41	32	14	2,113
2028	385	1,530	125	44	34	15	2,133
2029	378	1,549	124	46	35	16	2,148
2030	372	1,561	123	49	37	17	2,159

MARKET TRANSFORMATION PROGRAMME

Developing evidence for Government and business on energy using products

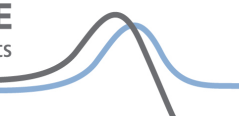


Table 6 – Domestic Heating Products / Boilers Sales (Policy Scenario)

	Sales (000's)						Totals
	Gas Regular Boiler	Gas Combi Boiler	Oil Boiler	Alt Tech - Electric	Alt Tech - Gas	Alt Tech - Biomass	
2000	474	647	112	-	-	-	1,233
2001	443	741	129	-	-	-	1,313
2002	413	833	111	-	-	-	1,357
2003	373	934	114	-	-	-	1,421
2004	339	1,028	104	-	-	-	1,471
2005	407	1,018	101	-	-	-	1,526
2006	357	1,076	110	-	-	-	1,543
2007	326	1,106	110	-	-	-	1,542
2008	336	1,100	119	-	-	-	1,555
2009	343	1,107	127	-	-	-	1,577
2010	347	1,124	132	-	-	-	1,603
2011	402	1,093	126	7	6	3	1,637
2012	375	1,170	129	14	12	6	1,706
2013	351	1,252	125	20	18	9	1,775
2014	325	1,332	121	27	24	12	1,841
2015	300	1,406	122	35	30	15	1,908
2016	388	1,359	114	42	36	18	1,957
2017	369	1,414	112	50	43	21	2,009
2018	348	1,447	111	58	50	24	2,038
2019	328	1,465	111	67	57	28	2,056
2020	309	1,468	111	75	65	32	2,060
2021	375	1,371	111	83	72	35	2,047
2022	356	1,362	110	92	79	39	2,038
2023	338	1,358	110	100	86	42	2,034
2024	320	1,362	108	108	93	45	2,036
2025	304	1,375	106	116	100	49	2,050
2026	357	1,325	104	124	107	52	2,069
2027	343	1,342	101	132	114	55	2,087
2028	332	1,356	99	140	121	58	2,106
2029	322	1,363	96	148	128	62	2,119
2030	314	1,361	93	156	135	65	2,124

MARKET TRANSFORMATION PROGRAMME

Developing evidence for Government and business on energy using products

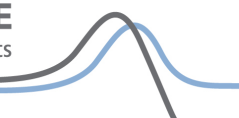


Table 7 – Domestic Heating Products / Boilers Sales (BAT Scenario)

	Sales (000's)						Totals
	Gas Regular Boiler	Gas Combi Boiler	Oil Boiler	Alt Tech - Electric	Alt Tech - Gas	Alt Tech - Biomass	
2000	474	647	112	-	-	-	1,233
2001	443	741	129	-	-	-	1,313
2002	413	833	111	-	-	-	1,357
2003	373	934	114	-	-	-	1,421
2004	339	1,028	104	-	-	-	1,471
2005	407	1,018	101	-	-	-	1,526
2006	357	1,076	110	-	-	-	1,543
2007	326	1,106	110	-	-	-	1,542
2008	336	1,100	119	-	-	-	1,555
2009	343	1,107	127	-	-	-	1,577
2010	211	867	65	223	131	105	1,602
2011	255	867	66	218	129	102	1,637
2012	240	943	70	219	129	103	1,704
2013	227	1,024	70	221	130	103	1,775
2014	212	1,102	69	222	132	103	1,840
2015	199	1,171	71	225	133	105	1,904
2016	269	1,145	67	228	135	105	1,949
2017	261	1,185	68	233	139	107	1,993
2018	252	1,200	69	237	142	108	2,008
2019	243	1,193	71	243	146	110	2,006
2020	234	1,167	72	250	150	112	1,985
2021	292	1,064	73	255	154	114	1,952
2022	284	1,036	74	262	158	116	1,930
2023	275	1,025	73	268	162	118	1,921
2024	267	1,035	73	274	166	120	1,935
2025	258	1,063	72	278	168	122	1,961
2026	307	1,047	73	280	169	123	1,999
2027	300	1,089	73	279	168	124	2,033
2028	293	1,125	75	276	166	124	2,059
2029	286	1,150	76	272	163	123	2,070
2030	280	1,163	77	267	159	122	2,068

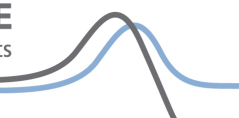
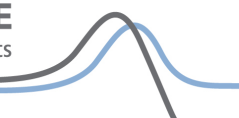


Table 8 – Domestic Heating Products / Water Heaters Sales (All Scenarios)

	Sales (000's)
	Electric Water Heaters
2000	1,167
2001	1,206
2002	976
2003	1,000
2004	1,522
2005	1,410
2006	1,462
2007	1,426
2008	1,434
2009	1,447
2010	1,468
2011	1,493
2012	1,499
2013	1,505
2014	1,511
2015	1,517
2016	1,523
2017	1,529
2018	1,535
2019	1,541
2020	1,547
2021	1,553
2022	1,560
2023	1,566
2024	1,572
2025	1,578
2026	1,585
2027	1,591
2028	1,597
2029	1,604
2030	1,610

- Boiler sales are estimated and do not refer to actual market data. They are outputs based upon stock and lifetime inputs. However the available electric water heater sales data are better than the stock data. In this case, sales are the main input and stock is calculated using sales and lifetime.
- Please refer to the relevant Key Inputs GSN for further details of actual sales/stock data used to calibrate the model.



4 Energy Consumption

- The following tables detail the MTP modelling outputs in terms of annual UK energy consumption.
- Note: The policy energy consumption corresponds to the Government Standards. All scenarios are the same until 2009.

Table 9 – Domestic Heating Products / Boilers Reference Energy Consumption

	Reference Energy consumption (GWh)						Totals
	Gas Regular Boiler	Gas Combi Boiler	Oil Boiler	Alt Tech - Electric	Alt Tech - Gas	Alt Tech - Biomass	
2000	210,942	67,631	25,156	-	-	-	303,729
2001	210,144	76,712	26,709	-	-	-	313,565
2002	207,620	85,516	27,824	-	-	-	320,960
2003	204,020	95,241	28,936	-	-	-	328,197
2004	199,470	105,733	29,738	-	-	-	334,941
2005	195,448	115,412	30,313	-	-	-	341,173
2006	188,542	124,015	30,571	-	-	-	343,128
2007	181,059	132,149	30,445	-	-	-	343,653
2008	173,642	139,247	30,294	-	-	-	343,183
2009	166,334	145,379	30,125	-	-	-	341,838
2010	155,647	147,271	29,283	-	-	-	332,201
2011	146,235	147,554	28,338	11	12	9	322,159
2012	141,276	152,137	28,350	32	35	26	321,856
2013	136,154	156,660	28,345	64	70	52	321,345
2014	130,893	161,143	28,238	106	118	86	320,584
2015	125,514	165,595	28,209	160	177	130	319,785
2016	121,521	168,646	28,081	224	249	181	318,902
2017	117,528	171,745	27,942	301	335	242	318,093
2018	113,524	174,831	27,796	389	433	312	317,285
2019	109,546	177,915	27,644	489	545	392	316,531
2020	105,605	180,971	27,489	602	670	482	315,819
2021	102,857	182,817	27,334	725	808	582	315,123
2022	100,161	184,604	27,180	859	957	690	314,451
2023	97,519	186,324	27,029	1,003	1,117	806	313,798
2024	94,931	187,975	26,880	1,155	1,286	927	313,154
2025	92,394	189,559	26,736	1,313	1,463	1,054	312,519
2026	90,844	190,173	26,597	1,477	1,647	1,183	311,921
2027	89,330	190,727	26,465	1,646	1,836	1,316	311,320
2028	87,845	191,225	26,339	1,817	2,028	1,450	310,704
2029	86,384	191,667	26,218	1,991	2,223	1,587	310,070
2030	84,937	192,057	26,101	2,166	2,419	1,725	309,405

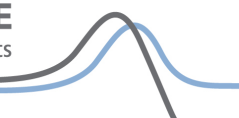


Table 10 – Domestic Heating Products / Boilers Policy Energy Consumption

	Policy Energy consumption (GWh)						Totals
	Gas Regular Boiler	Gas Combi Boiler	Oil Boiler	Alt Tech - Electric	Alt Tech - Gas	Alt Tech - Biomass	
2009	166,333	145,379	30,125	-	-	-	341,837
2010	155,459	146,707	29,183	-	-	-	331,349
2011	145,783	146,405	28,113	34	42	33	320,410
2012	140,527	150,278	27,971	101	127	99	319,103
2013	134,624	152,852	27,551	203	253	197	315,680
2014	128,598	155,198	27,111	338	424	327	311,996
2015	122,480	157,332	26,725	510	638	494	308,179
2016	117,500	158,111	26,244	716	897	691	304,159
2017	112,534	158,797	25,737	960	1,205	924	300,157
2018	107,582	159,377	25,205	1,243	1,559	1,194	296,160
2019	102,685	159,907	24,652	1,564	1,963	1,503	292,274
2020	97,862	160,421	24,082	1,923	2,413	1,848	288,549
2021	94,022	160,017	23,505	2,317	2,908	2,228	284,997
2022	90,277	159,676	22,930	2,746	3,445	2,641	281,715
2023	86,636	159,416	22,369	3,205	4,021	3,083	278,730
2024	83,107	159,232	21,829	3,690	4,630	3,549	276,037
2025	79,692	159,103	21,318	4,198	5,268	4,035	273,614
2026	77,095	158,296	20,838	4,724	5,929	4,536	271,418
2027	74,607	157,486	20,389	5,263	6,608	5,049	269,402
2028	72,226	156,648	19,965	5,812	7,300	5,571	267,522
2029	69,953	155,763	19,561	6,369	8,001	6,100	265,747
2030	67,782	154,822	19,167	6,930	8,708	6,635	264,044

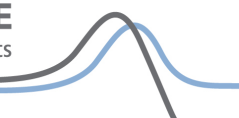


Table 11 – Domestic Heating Products / Boilers BAT Energy Consumption

	Best Available Technology Energy consumption (GWh)						Totals
	Gas Regular Boiler	Gas Combi Boiler	Oil Boiler	Alt Tech - Electric	Alt Tech - Gas	Alt Tech - Biomass	
2009	164,907	141,351	29,387	-	-	-	335,645
2010	151,651	137,099	27,050	1,152	983	1,245	319,180
2011	139,468	131,944	24,794	2,207	1,889	2,371	302,673
2012	131,798	130,484	23,406	3,296	2,822	3,542	295,348
2013	124,136	128,640	22,051	4,386	3,757	4,703	287,673
2014	116,513	126,456	20,733	5,476	4,697	5,859	279,734
2015	108,958	124,005	19,481	6,575	5,640	7,032	271,691
2016	102,230	120,705	18,225	7,673	6,589	8,187	263,609
2017	95,668	117,456	17,003	8,782	7,550	9,346	255,805
2018	89,287	114,415	15,826	9,892	8,514	10,501	248,435
2019	83,128	111,766	14,720	10,999	9,479	11,646	241,738
2020	77,216	109,623	13,714	12,092	10,434	12,765	235,844
2021	72,153	107,420	12,836	13,151	11,364	13,838	230,762
2022	67,395	105,724	12,111	14,162	12,257	14,849	226,498
2023	62,969	104,457	11,545	15,107	13,096	15,780	222,954
2024	58,897	103,534	11,134	15,967	13,865	16,615	220,012
2025	55,193	102,894	10,858	16,727	14,548	17,343	217,563
2026	52,340	102,023	10,694	17,377	15,135	17,958	215,527
2027	49,855	101,378	10,612	17,912	15,618	18,462	213,837
2028	47,723	100,944	10,590	18,334	16,000	18,860	212,451
2029	45,914	100,701	10,608	18,652	16,286	19,164	211,325
2030	44,387	100,624	10,651	18,880	16,488	19,389	210,419

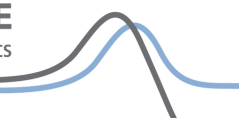


Table 12 – Domestic Heating Products / Water Heaters Reference Energy Consumption

	Reference Energy consumption (GWh)
	Electric Water Heaters
2000	12,230
2001	12,420
2002	12,388
2003	12,361
2004	12,755
2005	13,075
2006	13,463
2007	13,835
2008	14,216
2009	14,598
2010	14,979
2011	15,357
2012	15,714
2013	16,048
2014	16,357
2015	16,638
2016	16,889
2017	17,107
2018	17,294
2019	17,452
2020	17,587
2021	17,703
2022	17,805
2023	17,899
2024	17,986
2025	18,069
2026	18,148
2027	18,225
2028	18,301
2029	18,376
2030	18,450

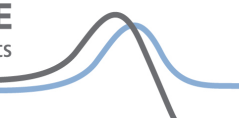


Table 13 – Domestic Heating Products / Water Heaters Policy Energy Consumption

	Policy Energy consumption (GWh)
	Electric Water Heaters
2009	14,598
2010	14,979
2011	15,260
2012	15,520
2013	15,756
2014	15,967
2015	16,144
2016	16,290
2017	16,404
2018	16,487
2019	16,544
2020	16,580
2021	16,602
2022	16,619
2023	16,635
2024	16,655
2025	16,682
2026	16,717
2027	16,761
2028	16,811
2029	16,867
2030	16,928

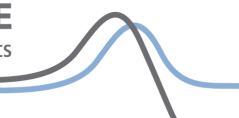
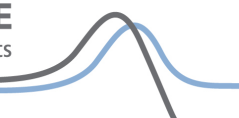


Table 14 – Domestic Heating Products / Water Heaters BAT Energy Consumption

	Best Available Technology Energy consumption (GWh)
	Electric Water Heaters
2009	14,499
2010	14,779
2011	15,053
2012	15,306
2013	15,536
2014	15,740
2015	15,917
2016	16,064
2017	16,181
2018	16,269
2019	16,335
2020	16,383
2021	16,423
2022	16,460
2023	16,500
2024	16,545
2025	16,596
2026	16,652
2027	16,712
2028	16,775
2029	16,841
2030	16,907



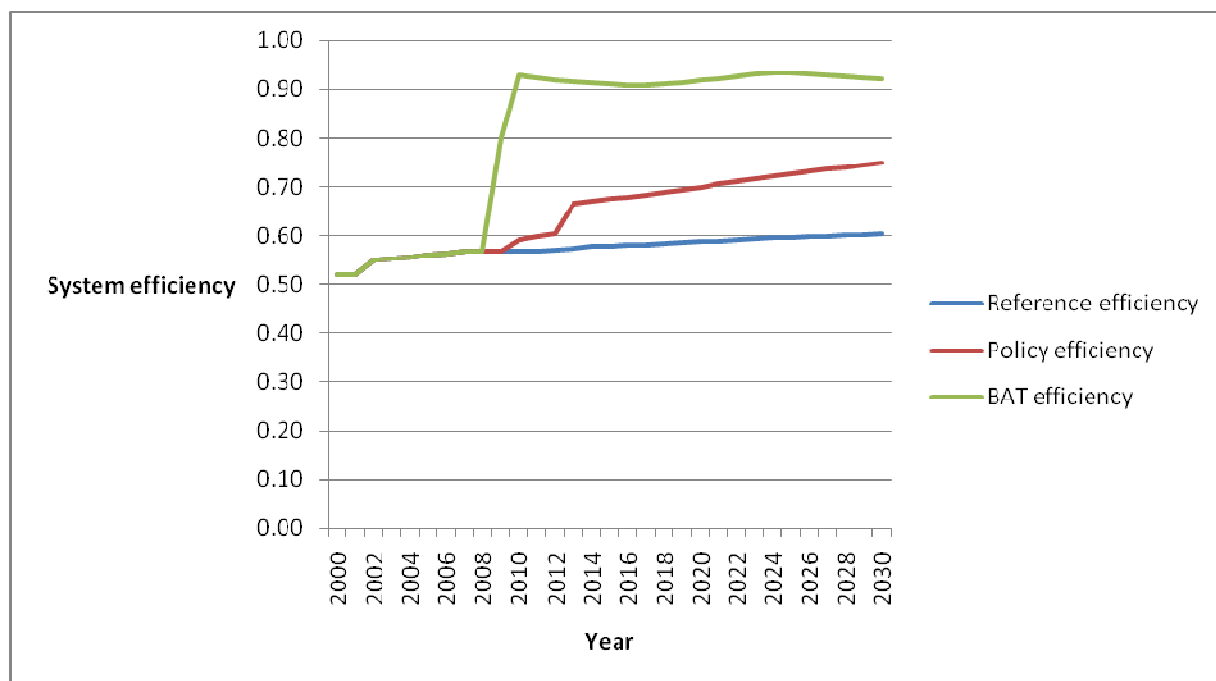
5 Government Standards

- As part of its commitments in May 2007's Energy White Paper, the government, via its Market Transformation Programme, is obliged to "publish a series of consultation papers setting out [its] analysis of how the performance of energy-using products will need to improve over the next 10-20 years, including proposals for product standards and targets to phase out the least efficient products"

5.1 Charts

- The following chart illustrates the expected market trend over time of domestic heating system efficiency.

Figure 1 – Projected average heating system efficiency by scenario



5.2 Tables

- The market trends translate to measurements of average sales efficiency over time.
- The following tables illustrate the expected change in average specific efficiency over time, of the products addressed. Note: These tables reflect one possible mix of sales distributions to achieve the government standards.

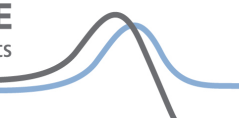


Table 15 – Average heating system efficiency by year

Scenario	Reference	Policy	BAT
2000	0.52	0.52	0.52
2001	0.52	0.52	0.52
2002	0.55	0.55	0.55
2003	0.55	0.55	0.55
2004	0.56	0.56	0.56
2005	0.56	0.56	0.56
2006	0.56	0.56	0.56
2007	0.57	0.57	0.57
2008	0.57	0.57	0.57
2009	0.57	0.57	0.80
2010	0.57	0.59	0.93
2011	0.57	0.60	0.92
2012	0.57	0.60	0.92
2013	0.57	0.67	0.92
2014	0.58	0.67	0.91
2015	0.58	0.67	0.91
2016	0.58	0.68	0.91
2017	0.58	0.68	0.91
2018	0.58	0.69	0.91
2019	0.59	0.69	0.91
2020	0.59	0.70	0.92
2021	0.59	0.71	0.92
2022	0.59	0.71	0.93
2023	0.59	0.72	0.93
2024	0.60	0.72	0.93
2025	0.60	0.73	0.93
2026	0.60	0.73	0.93
2027	0.60	0.74	0.93
2028	0.60	0.74	0.93
2029	0.60	0.74	0.92
2030	0.60	0.75	0.92

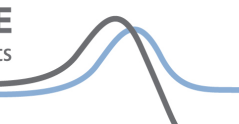


Table 16 – Domestic Heating Products / Gas Regular Boilers Government Standards Average Specific Efficiency (%) – Policy Scenario

	Gas Regular Boiler					
	XXS	XS	S	M	L	XL
	3.6-10kW	10-15kW	16-20 kW	21-25 kW	26-32kW	33-70kW
2000	51.47	55.49	52.77	55.53	55.84	57.83
2001	51.47	55.49	52.77	55.53	55.84	57.83
2002	51.47	55.49	52.77	55.53	55.84	57.83
2003	51.47	55.49	52.77	55.53	55.84	57.83
2004	51.47	55.49	52.77	55.53	55.84	57.83
2005	51.47	55.49	52.77	55.53	55.84	57.83
2006	51.47	55.49	52.77	55.53	55.84	57.83
2007	51.47	55.49	52.77	55.53	55.84	57.83
2008	51.47	55.49	52.77	55.53	55.84	57.83
2009	51.47	55.49	52.77	55.53	55.84	57.83
2010	53.87	57.89	55.17	57.93	58.24	60.23
2011	56.00	57.89	56.00	57.93	58.24	60.23
2012	56.00	57.89	56.00	57.93	58.24	60.23
2013	65.00	65.00	65.00	65.00	65.00	65.00
2014	65.00	65.00	65.00	65.00	65.00	65.00
2015	65.00	65.00	65.00	65.00	65.00	65.00
2016	65.00	65.00	65.00	65.00	65.00	65.00
2017	65.00	65.00	65.00	65.00	65.00	65.00
2018	65.00	65.00	65.00	65.00	65.00	65.00
2019	65.00	65.00	65.00	65.00	65.00	65.00
2020	65.00	65.00	65.00	65.00	65.00	65.00
2021	65.00	65.00	65.00	65.00	65.00	65.00
2022	65.00	65.00	65.00	65.00	65.00	65.00
2023	65.00	65.00	65.00	65.00	65.00	65.00
2024	65.00	65.00	65.00	65.00	65.00	65.00
2025	65.00	65.00	65.00	65.00	65.00	65.00
2026	65.00	65.00	65.00	65.00	65.00	65.00
2027	65.00	65.00	65.00	65.00	65.00	65.00
2028	65.00	65.00	65.00	65.00	65.00	65.00
2029	65.00	65.00	65.00	65.00	65.00	65.00
2030	65.00	65.00	65.00	65.00	65.00	65.00

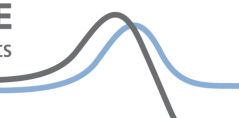


Table 17 – Domestic Heating Products / Gas Combi Boilers Government Standards Average Specific Efficiency (%) – Policy Scenario

	Gas Combi Boiler					
	XXS	XS	S	M	L	XL
	3.6-10kW	10-15kW	16-20 kW	21-25 kW	26-32kW	33-70kW
2000	54.37	58.77	55.43	57.84	57.86	59.08
2001	54.37	58.77	55.43	57.84	57.86	59.08
2002	54.37	58.77	55.43	57.84	57.86	59.08
2003	54.37	58.77	55.43	57.84	57.86	59.08
2004	54.37	58.77	55.43	57.84	57.86	59.08
2005	54.37	58.77	55.43	57.84	57.86	59.08
2006	54.37	58.77	55.43	57.84	57.86	59.08
2007	54.37	58.77	55.43	57.84	57.86	59.08
2008	54.37	58.77	55.43	57.84	57.86	59.08
2009	54.37	58.77	55.43	57.84	57.86	59.08
2010	56.77	61.17	57.83	60.24	60.26	61.48
2011	56.77	61.17	57.83	60.24	60.26	61.48
2012	56.77	61.17	57.83	60.24	60.26	61.48
2013	65.00	65.00	65.00	65.00	65.00	65.00
2014	65.00	65.00	65.00	65.00	65.00	65.00
2015	65.00	65.00	65.00	65.00	65.00	65.00
2016	65.00	65.00	65.00	65.00	65.00	65.00
2017	65.00	65.00	65.00	65.00	65.00	65.00
2018	65.00	65.00	65.00	65.00	65.00	65.00
2019	65.00	65.00	65.00	65.00	65.00	65.00
2020	65.00	65.00	65.00	65.00	65.00	65.00
2021	65.00	65.00	65.00	65.00	65.00	65.00
2022	65.00	65.00	65.00	65.00	65.00	65.00
2023	65.00	65.00	65.00	65.00	65.00	65.00
2024	65.00	65.00	65.00	65.00	65.00	65.00
2025	65.00	65.00	65.00	65.00	65.00	65.00
2026	65.00	65.00	65.00	65.00	65.00	65.00
2027	65.00	65.00	65.00	65.00	65.00	65.00
2028	65.00	65.00	65.00	65.00	65.00	65.00
2029	65.00	65.00	65.00	65.00	65.00	65.00
2030	65.00	65.00	65.00	65.00	65.00	65.00

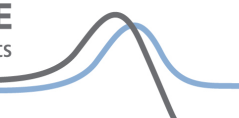


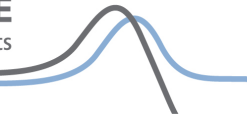
Table 18 – Domestic Heating Products / Oil Boilers Government Standards Average Specific Efficiency (%) – Policy Scenario

	Oil Boiler					
	XXS	XS	S	M	L	XL
	3.6-10kW	10-15kW	16-20 kW	21-25 kW	26-32kW	33-70kW
2000	50.35	54.86	52.32	54.92	55.15	56.64
2001	50.35	54.86	52.32	54.92	55.15	56.64
2002	50.35	54.86	52.32	54.92	55.15	56.64
2003	50.35	54.86	52.32	54.92	55.15	56.64
2004	50.35	54.86	52.32	54.92	55.15	56.64
2005	50.35	54.86	52.32	54.92	55.15	56.64
2006	50.35	54.86	52.32	54.92	55.15	56.64
2007	50.35	54.86	52.32	54.92	55.15	56.64
2008	50.35	54.86	52.32	54.92	55.15	56.64
2009	50.35	54.86	52.32	54.92	55.15	56.64
2010	52.75	57.26	54.72	57.32	57.55	59.04
2011	56.00	57.26	56.00	57.32	57.55	59.04
2012	56.00	57.26	56.00	57.32	57.55	59.04
2013	65.00	65.00	65.00	65.00	65.00	65.00
2014	65.00	65.00	65.00	65.00	65.00	65.00
2015	65.00	65.00	65.00	65.00	65.00	65.00
2016	65.00	65.00	65.00	65.00	65.00	65.00
2017	65.00	65.00	65.00	65.00	65.00	65.00
2018	65.00	65.00	65.00	65.00	65.00	65.00
2019	65.00	65.00	65.00	65.00	65.00	65.00
2020	65.00	65.00	65.00	65.00	65.00	65.00
2021	65.00	65.00	65.00	65.00	65.00	65.00
2022	65.00	65.00	65.00	65.00	65.00	65.00
2023	65.00	65.00	65.00	65.00	65.00	65.00
2024	65.00	65.00	65.00	65.00	65.00	65.00
2025	65.00	65.00	65.00	65.00	65.00	65.00
2026	65.00	65.00	65.00	65.00	65.00	65.00
2027	65.00	65.00	65.00	65.00	65.00	65.00
2028	65.00	65.00	65.00	65.00	65.00	65.00
2029	65.00	65.00	65.00	65.00	65.00	65.00
2030	65.00	65.00	65.00	65.00	65.00	65.00

Table 21 – Domestic Heating Products / Alternative Technology Government Standards Average Specific Efficiency (%) – Policy Scenario

MARKET TRANSFORMATION PROGRAMME

Developing evidence for Government and business on energy using products



	Alternative technology		
	Electric	Gas	Biomass
2010	1.60	1.10	0.70
2011	1.60	1.10	0.70
2012	1.60	1.10	0.70
2013	1.60	1.10	0.70
2014	1.60	1.10	0.70
2015	1.60	1.10	0.70
2016	1.60	1.10	0.70
2017	1.60	1.10	0.70
2018	1.60	1.10	0.70
2019	1.60	1.10	0.70
2020	1.60	1.10	0.70
2021	1.60	1.10	0.70
2022	1.60	1.10	0.70
2023	1.60	1.10	0.70
2024	1.60	1.10	0.70
2025	1.60	1.10	0.70
2026	1.60	1.10	0.70
2027	1.60	1.10	0.70
2028	1.60	1.10	0.70
2029	1.60	1.10	0.70
2030	1.60	1.10	0.70

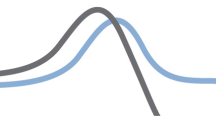


Table 19 – Domestic Heating Products / Water Heaters Government Standard Average Specific Efficiency (%)

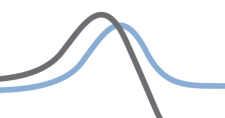
Year	Electric Storage (ES)						Electric Showers (EIH)			Electronic Instant (EI)				
	5-10l	10-15l	15-30l	80l	120l	150l	<6.3kW	6.3kW	12.5kW	5-10kW	10-15kW	15-30kW	80kW	120kW
2000	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2001	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2002	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2003	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2004	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2005	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2006	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2007	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2008	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2009	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2010	25%	25%	22%	27%	27%	29%	30%	30%	34%	34%	34%	34%	34%	38%
2011	32%	32%	32%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	38%
2012	32%	32%	32%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	38%
2013	32%	32%	32%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	38%
2014	32%	32%	32%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	38%
2015	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2016	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2017	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2018	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2019	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2020	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2021	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2022	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2023	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2024	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2025	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2026	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2027	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2028	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2029	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%
2030	32%	34%	34%	27%	27%	29%	32%	32%	34%	34%	34%	34%	34%	41%

Version: 1.1

First created: 29/06/2009

Updated: 17/06/2010

Last reviewed: 17/06/2010



Related MTP information

- BNDH B01: Domestic Central Heating Government Standards Evidence Base 2009: Key Inputs
- BNDH B02: Domestic Central Heating Government Standards Evidence Base 2009: Reference Scenario
- BNDH B03: Domestic Central Heating Government Standards Evidence Base 2009: Policy Scenario
- BNDH B04: Domestic Central Heating Government Standards Evidence Base 2009: Best Available Technology Scenario
- BNDH EWH01: Domestic Electric Water Heaters Government Standards Evidence Base 2009: Key Inputs
- BNDH EWH02: Domestic Electric Water Heaters Government Standards Evidence Base 2009: Reference Scenario
- BNDH EWH03: Domestic Electric Water Heaters Government Standards Evidence Base 2009: Policy Scenario
- BNDH EWH04: Domestic Electric Water Heaters Government Standards Evidence Base 2009: Best Available Technology Scenario

Changes from Version 1.0

- None. This is the first published version.

Consultation and further information

Stakeholders are encouraged to review this document and provide suggestions that may improve the quality of information provided, email info@mtprog.com quoting the document reference, or call the MTP enquiry line on +44 (0) 845 600 8951.

For further information on related issues visit <http://efficient-products.defra.gov.uk>