



NRDC Support for Moving Up the Effective Date of the ENERGY STAR Version 5 Specification and Development of Version 6 for New Televisions

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On behalf of the Natural Resources Defense Council, a leading environmental advocacy organization dedicated to protecting public health and the environment, we submit these comments in response to the Environmental Protection Agency's November 23, 2010 request for input on the agency's plans to modify the ENERGY STAR specifications for new televisions. **NRDC strongly supports EPA's proposal to move up the effective date of its Version 5 specification and to initiate specification development for a follow-up specification, Version 6.**

Background

During the specification development process for creating Version's 4 and 5 of the ENERGY STAR specification, the TV manufacturers (with a few exceptions): a) underrepresented their capabilities to cost effectively produce TVs that would soon be able to meet ENERGY STAR Version 4, and b) asked EPA to delay setting Version 5 and/or claimed that it was too stringent/unachievable, especially for very large models.

Since the specifications were finalized and went into effect, we have seen a rapid and dramatic qualification rate of models that meet Version 4. As of November, 2010, there were more than 700 models that met Version 4, less than a ½ year after the specification's effective date. These qualifying models represent a broad cross section of models:

- All manufacturers represented both major brands and lower cost house brands.
- All types of technologies – LCD (conventional and LED backlights), plasma and DLP
- All screen sizes – very small all the way to 60 plus inches in diagonal

- All the leading features – low and high resolution, internet ready, 3D, high refresh rates, etc

In addition today, a year and half before its effective date, there are already more than 200 models that meet Version 5.

Below we provide a breakdown on the models that already meet Versions 4 and 5.

List of Energy Star Qualifying Models as of November 15, 2010

Brand	Energy Star 4.1	Energy Star 5.1
AOC	6	4
APEX DIGITAL	1	0
Crosley	2	0
Dynex	6	1
Emerson	10	0
Haier	9	8
HANNspree	8	2
Hisense	5	1
Hitachi	11	2
IMATION	3	1
Insignia	21	5
JVC	14	4
KTC	2	2
LG	82	25
MAGNAVOX	11	0
Mitsubishi	27	0
Panasonic	50	6
Phillips	40	4
Samsung	139	45
Sansui	16	8
Sanyo	17	0
Sharp	40	17
Sony	74	27
Sylvania	10	0
SYNNEX	1	1
TCL	9	5
TEAC	2	0
Toshiba	35	4
ViewSonic	2	1
VIORE	15	1
VIZIO	65	28
Westinghouse	5	4
Grand Total	738	206

Screen Type	Energy Star 4.1	Energy Star 5.1
DLP	21	0
LCD	648	203
OLED	4	3
Plasma	65	0
Grand Total	738	206

At the end of this memo we provide more detailed information on the models that already meet ENERGY STAR 5.1 sorted by screen size. Most notably, there are over fifty models greater than 50 inches in diameter that already meet the 108W power limit EPA established for very large TVs. This supports EPA’s prior decision to incorporate a “progressive” specification that helps limit the overall energy use of the product category.

Conversations we have had with component makers, TV manufacturers and retailers have universally shown that the ENERGY STAR levels, both today’s and the future one have served as design targets for the industry. Today manufacturers are now designing new models to meet/beat the future ENERGY STAR level, Version 5.0. Utility rebates have also served as a catalyst towards the design and purchase of models that meet ESTAR Versions 4 and 5.

NRDC Recommendations

NRDC strongly supports EPA's proposal to:

1. *Move up the effective date of ENERGY STAR Version 5 by one year to July 1, 2011.*

This move is justified by the very high rates of ESTAR qualified models (currently 60 to 90% today according to EPA estimates). The ENERGY STAR labelling program has effectively helped transform the majority of this market. To preserve its reputation as a leadership brand, representing the most efficient models on the market, the EPA needs to accelerate the date which it sunsets its ENERGY STAR Version 4 specification and shift to more stringent eligibility requirements.

Fortunately ENERGY STAR has already developed the "successor" specification, and can smoothly shift to Version 5. As noted earlier, there are already over 200 models that meet Version 5. Given the progress already seen in the market and the new innovations that are being made, we can expect a qualification rate in excess of 25% shortly after the new effective date for Version 5.

2. *Initiate a specification development process in early 2011 to create Version 6.*

As qualification rates for Version 5 are likely to accelerate, a follow-on spec level needs to be developed. Prompt development and publication of a new specification more stringent than Version 5 will have many benefits. This new tier provides manufacturers with a design target to strive for and utilities with an advanced performance level to incorporate into their incentive programs.

ATTACHEMENT 1

NRDC List of Energy Efficient TVs (As of 11/1/10)

The following models are the most energy efficient TVs on the market today (Nov. 2010). All models meet the power use requirements in the future version of ENERGY STAR (Version 5) that is scheduled to go into effect in May 2012.

Annual energy use values are based on TV use of 5 hours per day. Estimated 10-year energy costs are based on the average national residential electricity costs in 2010 (\$0.1156/kWh). The screen sizes shown are the TV's reported diagonal measurement.

LESS THAN 20 INCHES					
Brand Name	Model	Screen Type	Screen Size (inches)	Estimated Annual Energy Consumption (kWh/ year)	Estimated 10-year Energy Costs (\$)
VIZIO	VMB070	LCD	7	17	\$20
VIZIO	M160MV	LCD	16	27	\$31
Toshiba	19C100U	LCD	18	45	\$52
Toshiba	19C10U	LCD	18	45	\$52
Dynex	DX-19LD150A11	LCD	19	46	\$53
Insignia	NS-19E450A11	LCD	19	39	\$45
Insignia	NS-19E450WA11	LCD	19	39	\$45
Hitachi	LE19S304	LCD	19	25	\$29
Hitachi	LE19S314	LCD	19	25	\$29
IMATION	MLT1931	LCD	19	51	\$59
JVC	LT19DM21	LCD	19	47	\$54
Sansui	HDLCD1912G	LCD	19	44	\$51
Sansui	HDLCD19WB	LCD	19	45	\$52
Sansui	HDLCD19WBA	LCD	19	45	\$52
Sansui	SLEDVD198	LCD	19	36	\$41
Sansui	HDLCD1955C	LCD	19	45	\$52
SYNNEX	NYLED1980N	OLED	19	25	\$29
Philips	19PFL4505D/F7	LCD	19	35	\$41
Haier	HL19SL2	LCD	19	39	\$46
Haier	HL19SLW2	LCD	19	39	\$46
Samsung	933HD	LCD	19	50	\$58
Samsung	LN19C350D1	LCD	19	46	\$53
Samsung	LN19C350D1D	LCD	19	46	\$53
Samsung	LN19C450E1	LCD	19	46	\$54
Samsung	LN19C450E1D	LCD	19	47	\$55
Samsung	LN19C450E1H	LCD	19	51	\$59
Samsung	UN19C4000PD	LCD	19	47	\$55
Sanyo	DP19640	LCD	19	48	\$55
KTC	19L**A,W9021S5,W9023S5	OLED	19	29	\$34
Toshiba	19SL400U	LCD	19	37	\$43

ViewSonic	VS13231-1M	LCD	19	45	\$52
VIZIO	M190MV	LCD	19	40	\$47
VIZIO	M190VA	LCD	19	40	\$46
VIZIO	M190VA-CA	LCD	19	40	\$46
VIZIO	M190VA-W	LCD	19	40	\$46

20 TO 29 INCHES

Brand Name	Model	Screen Type	Screen Size (inches)	Estimated Annual Energy Consumption (kWh/ year)	Estimated 10-year Energy Costs (\$)
Insignia	NS-22E450A11	LCD	22	50	\$58
Insignia	NS-22E455C11	LCD	22	49	\$57
AOC	LE22H067	LCD	22	49	\$57
JVC	LT-22E710	LCD	22	53	\$61
JVC	LT22AM21	LCD	22	46	\$53
JVC	LT22EM21	LCD	22	32	\$36
Sansui	LT22DM21	LCD	22	51	\$59
Sansui	HDLCDVD225	LCD	22	52	\$60
Sansui	HDLCD2212C	LCD	22	46	\$53
Panasonic	TC-L22X2	LCD	22	56	\$65
Philips	22PFL4505D/F7	LCD	22	39	\$45
Haier	HL22XLE2	LCD	22	55	\$63
Haier	HL22XLT2	LCD	22	55	\$63
Haier	HL22XLTW2	LCD	22	55	\$63
Haier	HL22XSL2	LCD	22	53	\$61
Sharp	LC22LS510UT	LCD	22	64	\$74
KTC	22L**A,W2221S5,W2223S5	OLED	22	47	\$54
Sony	KDL-22EX308	LCD	22	67	\$78
VIZIO	M220MV	LCD	22	51	\$59
VIZIO	M220NV	LCD	22	51	\$59
VIZIO	M220VA	LCD	22	43	\$50
VIZIO	M220VA-CA	LCD	22	45	\$53
VIZIO	M220VA-W	LCD	22	45	\$53
VIZIO	M221NV	LCD	22	51	\$59
VIORE	LED22VH65D	LCD	22	58	\$67
AOC	LE23H062	LCD	23	51	\$59
VIZIO	VM230XVT	LCD	23	44	\$51
AOC	LE24H060	LCD	24	48	\$56
AOC	LE24H067	LCD	24	50	\$58
Haier	HL24XLE2	LCD	24	55	\$63
Haier	HL24XSL2	LCD	24	61	\$71
Samsung	FX2490HD	LCD	24	56	\$65
TCL	LE24FHDP21TA	LCD	24	41	\$48
LG	26LE5300-UE	LCD	26	74	\$85
Samsung	UN26C4000PD	LCD	26	70	\$81
Toshiba	26SL400U	LCD	26	80	\$92
TCL	LE26HDP21TA	LCD	26	52	\$60
VIZIO	M260MV	LCD	26	67	\$78
VIZIO	M260VA	LCD	26	67	\$77

VIZIO	M260VA-CA	LCD	26	67	\$77
VIZIO	M260VA-W	LCD	26	67	\$77
VIZIO	M260VP	LCD	26	70	\$81
VIZIO	M261VP	LCD	26	76	\$88
Westinghouse	LD-2655VX	LCD	26	82	\$95
Westinghouse	LD-2657DF	LCD	26	82	\$95
Westinghouse	LD-2685VX	LCD	26	81	\$94
HANNspree	HSG1130	LCD	28	78	\$90

30 TO 39 INCHES

Brand Name	Model	Screen Type	Screen Size (inches)	Estimated Annual Energy Consumption (kWh/ year)	Estimated 10-year Energy Costs (\$)
HANNspree	HSG1131	LCD	32	89	\$102
Panasonic	TC-32LX24	LCD	32	93	\$108
Panasonic	TC-L32C22	LCD	32	93	\$108
Panasonic	TC-L32U22	LCD	32	95	\$110
Panasonic	TC-L32X2	LCD	32	101	\$116
Samsung	UN32C4000PD	LCD	32	94	\$108
Samsung	UN32C5000QF	LCD	32	77	\$89
Samsung	UN32C5100QF	LCD	32	77	\$89
Sharp	LC32LE700UN	LCD	32	102	\$118
Sony	KDL-32EX600	LCD	32	98	\$113
Sony	KDL-32EX710	LCD	32	88	\$102
TCL	LE32HDP21TA	LCD	32	79	\$91
VIZIO	E320VP	LCD	32	70	\$81
VIZIO	M320NV	LCD	32	97	\$112
Westinghouse	LD-3255VX	LCD	32	103	\$120
Insignia	NS-37L550A11	LCD	37	165	\$191
LG	37LE5300-UC	LCD	37	114	\$132
Samsung	UN37C5000QF	LCD	37	83	\$96
Samsung	UN37C5100QF	LCD	37	83	\$96
Samsung	UN37C6300SF	LCD	37	110	\$127
VIZIO	M370NV	LCD	37	111	\$128
VIZIO	M370VT	LCD	37	104	\$120

40 TO 49 INCHES

Brand Name	Model	Screen Type	Screen Size (inches)	Estimated Annual Energy Consumption (kWh/ year)	Estimated 10-year Energy Costs (\$)
Samsung	UN40C5000QF	LCD	40	81	\$94
Samsung	UN40C5100QF	LCD	40	81	\$94
Samsung	UN40C6300SF	LCD	40	134	\$155
Samsung	UN40C6400RF	LCD	40	134	\$155
Samsung	UN40C6400RH	LCD	40	135	\$156
Sharp	LC40LE700UN	LCD	40	111	\$128
Sharp	LC40LE810UN	LCD	40	131	\$152
Sharp	LC40LE820UN	LCD	40	131	\$152

Sony	KDL-40EX600	LCD	40	127	\$147
Sony	KDL-40EX700	LCD	40	145	\$167
Sony	KDL-40EX703	LCD	40	145	\$167
Sony	KDL-40EX710	LCD	40	132	\$153
Sony	KDL-40EX713	LCD	40	132	\$153
Sony	KDL-40NX700	LCD	40	154	\$178
TCL	LE40FHDP21TA	LCD	40	105	\$122
LG	42LD630-UC	LCD	42	132	\$153
LG	42LE5300-UC	LCD	42	128	\$148
LG	42LE530C-UC	LCD	42	103	\$119
LG	42LE5350-UB	LCD	42	138	\$159
LG	42LE5400-UC	LCD	42	138	\$159
LG	42LE5500-UA	LCD	42	136	\$157
LG	42LE7300-UA	LCD	42	128	\$148
LG	42LE7500-UC	LCD	42	136	\$157
Panasonic	TC-42LD24	LCD	42	137	\$159
Panasonic	TC-L42D2	LCD	42	144	\$167
Westinghouse	LD-4285VX	LCD	42	153	\$176
Philips	46PFL7505D/F7	LCD	46	155	\$179
Philips	46PFL7705D/F7	LCD	46	156	\$180
Samsung	UN46C5000QF	LCD	46	95	\$109
Samsung	UN46C6300SF	LCD	46	145	\$167
Samsung	UN46C6400RF	LCD	46	145	\$167
Samsung	UN46C6400RH	LCD	46	144	\$166
Samsung	UN46C6500VF	LCD	46	147	\$170
Samsung	UN46C6800UF	LCD	46	141	\$163
Samsung	UN46C6900VF	LCD	46	147	\$170
Samsung	UN46C7000WF	LCD	46	169	\$195
Samsung	UN46C8000XF	LCD	46	169	\$195
Sharp	LC46LE700UN	LCD	46	133	\$154
Sharp	LC46LE810UN	LCD	46	148	\$171
Sharp	LC46LE820UN	LCD	46	148	\$171
Sharp	LCC46700UN	LCD	46	133	\$154
Sony	KDL-46EX600	LCD	46	159	\$184
Sony	KDL-46EX700	LCD	46	162	\$187
Sony	KDL-46EX701	LCD	46	162	\$187
Sony	KDL-46EX703	LCD	46	162	\$187
Sony	KDL-46EX710	LCD	46	134	\$155
Sony	KDL-46EX711	LCD	46	134	\$155
Sony	KDL-46EX713	LCD	46	134	\$155
Sony	KDL-46HX800	LCD	46	181	\$210
Sony	KDL-46NX700	LCD	46	182	\$210
Sony	KDL-46NX710	LCD	46	194	\$224
Sony	KDL-46NX711	LCD	46	194	\$224
TCL	LE46FHDP21TA	LCD	46	161	\$186
LG	47LE5300-UC	LCD	47	138	\$159
LG	47LE530C-UC	LCD	47	132	\$153
LG	47LE5400-UC	LCD	47	152	\$176
LG	47LE5500-UA	LCD	47	147	\$170
LG	47LE7300-UA	LCD	47	138	\$159
LG	47LE7500-UC	LCD	47	147	\$170

LG	47LE8500-UA	LCD	47	136	\$157
LG	47LX6500-UB	LCD	47	161	\$186
VIZIO	M470NV	LCD	47	171	\$198
VIZIO	M470VT	LCD	47	159	\$184
VIZIO	M470VT-CA	LCD	47	165	\$190

50 TO 59 INCHES

Brand Name	Model	Screen Type	Screen Size (inches)	Estimated Annual Energy Consumption (kWh/ year)	Estimated 10-year Energy Costs (\$)
Sharp	LC52LE700UN	LCD	52	149	\$173
Sharp	LC52LE810UN	LCD	52	160	\$185
Sharp	LC52LE820UN	LCD	52	162	\$188
Sharp	LC52LE920UN	LCD	52	159	\$183
Sharp	LC52LE925UN	LCD	52	173	\$200
Sharp	LCC52700UN	LCD	52	149	\$173
Sony	KDL-52EX700	LCD	52	182	\$210
Sony	KDL-52EX701	LCD	52	182	\$210
Sony	KDL-52EX703	LCD	52	182	\$210
LG	55LE5300-UC	LCD	55	154	\$178
LG	55LE530C-UC	LCD	55	154	\$178
LG	55LE5400-UC	LCD	55	167	\$193
LG	55LE5500-UA	LCD	55	169	\$195
LG	55LE7300-UA	LCD	55	154	\$178
LG	55LE7500-UC	LCD	55	169	\$195
LG	55LE8500-UA	LCD	55	180	\$208
Samsung	LN55C610N1F	LCD	55	188	\$217
Samsung	LN55C630K1F	LCD	55	188	\$217
Samsung	LN55C640N1F	LCD	55	188	\$217
Samsung	LN55C650L1F	LCD	55	191	\$221
Samsung	UN55C5000QF	LCD	55	170	\$197
Samsung	UN55C6300SF	LCD	55	170	\$197
Samsung	UN55C6400RF	LCD	55	170	\$197
Samsung	UN55C6400RH	LCD	55	172	\$199
Samsung	UN55C6500VF	LCD	55	172	\$199
Samsung	UN55C6800UF	LCD	55	167	\$193
Samsung	UN55C6900VF	LCD	55	172	\$199
Samsung	UN55C7000WF	LCD	55	189	\$218
Samsung	UN55C8000XF	LCD	55	185	\$214
Sony	KDL-55EX710	LCD	55	165	\$191
Sony	KDL-55EX711	LCD	55	165	\$191
Sony	KDL-55EX713	LCD	55	165	\$191
Sony	KDL-55HX800	LCD	55	198	\$229
Sony	KDL-55NX810	LCD	55	214	\$248
Sony	KDL-55NX811	LCD	55	214	\$248
VIZIO	M550NV	LCD	55	185	\$214

60 INCHES AND GREATER

Brand Name	Model	Screen Type	Screen Size (inches)	Estimated Annual Energy Consumption (kWh/ year)	Estimated 10-year Energy Costs (\$)
Samsung	UN60C6300SF	LCD	60	190	\$220
Samsung	UN60C6400RF	LCD	60	190	\$220
Samsung	UN60C6400SF	LCD	60	190	\$220
Sharp	LC60LE810UN	LCD	60	190	\$219
Sharp	LC60LE820UN	LCD	60	191	\$221
Sharp	LC60LE920UN	LCD	60	197	\$228
Sharp	LC60LE925UN	LCD	60	199	\$230