

### State Energy Efficiency Standards Benefits - 2010 Model Bill

Massachusetts																
Summary of Benefits by Product		Effective Date	Annual Savings in 2020				Annual Savings in 2030				Economics			Cumulative Energy Savings through 2030		
Products	Year		Annual Savings per Unit <sup>1</sup>	Incremental Cost per Unit <sup>1</sup>	Electricity	Primary Energy	Summer Peak Capacity	Value of Bill Savings <sup>2</sup>	Electricity	Primary Energy	Summer Peak Capacity	Value of Bill Savings <sup>2</sup>	Pay Back Period <sup>3</sup>		Benefit / Cost Ratio <sup>4</sup>	Net Present Value <sup>5</sup>
		kWh	\$	GWh	BBtu	MW	\$Million	GWh	BBtu	MW	\$Million	Years	\$Million (2009\$)	TBtu		
Hot food holding cabinets	2013	1,815	\$453	1.7	17.4	0.5	\$ 0.3	3.3	33.5	1.1	\$ 0.5	1.6	6.7	\$ 3.1	0.4	
Pool pumps	2013	390	\$452	0.03	0.3	7.7	\$ 5.4	0.04	0.4	10.3	\$ 7.8	6.6	1.2	\$ 8.7	6.0	
Portable electric spas	2013	250	\$100	4.0	41.8	0.9	\$ 0.7	5.3	53.8	1.2	\$ 0.9	2.3	3.4	\$ 4.9	0.7	
Portable lighting fixtures	2013	22	\$2	64.5	672.6	9.6	\$ 10.4	81.7	821.9	12.2	\$ 14.3	0.4	19.3	\$ 102.7	11.3	
Televisions <sup>6</sup>	2013	167	\$0	358.2	3,733.8	7.5	\$ 57.5	477.6	4,802.7	10.0	\$ 83.6	NA	NA	\$ 625.1	64.7	
Water dispensers	2013	266	\$12	5.2	54.6	0.7	\$ 0.8	5.6	56.2	0.8	\$ 0.9	0.3	23.2	\$ 6.7	0.8	
<b>Total</b>				<b>434</b>	<b>4,521</b>	<b>27</b>	<b>\$ 75</b>	<b>574</b>	<b>5,769</b>	<b>36</b>	<b>\$ 108</b>			<b>\$ 751</b>	<b>84</b>	

Product	Emissions Reductions in 2020			Emissions Reductions in 2030		
	CO2 1000 MT	NOx Tons	SO2 Tons	CO2 1000 MT	NOx Metric Tons	SO2 Metric Tons
Hot food holding cabinets	0.9	1.0	4.5	2.2	1.9	9.0
Pool pumps	18.7	19.5	89.9	28.9	26.0	119.9
Portable electric spas	2.2	2.3	10.8	3.5	3.1	14.4
Portable lighting fixtures	36.0	37.7	173.6	53.0	47.7	219.9
Televisions	199.9	209.1	963.8	309.5	278.8	1,285.1
Water dispensers	2.9	3.1	14.1	3.6	3.3	15.0
<b>Total</b>	<b>261</b>	<b>273</b>	<b>1,257</b>	<b>401</b>	<b>361</b>	<b>1,663</b>

**Notes:**

- <sup>1</sup> Annual savings per unit and incremental cost per unit is the difference between basic, inefficient products and products meeting the proposed standard. Statewide energy savings estimate accounts for market share of products which are more efficient than basic, inefficient products.
- <sup>2</sup> Value of bill savings is based on energy savings in 2020 or 2030 and current average state energy prices. This value does not take account of the incremental cost of more efficient products.
- <sup>3</sup> Payback period is the length of time required to recoup any increase in product cost from advances in efficiency.
- <sup>4</sup> The benefit / cost ratio is a measure of the annual energy bill savings of an efficient product versus its incremental cost.
- <sup>5</sup> Net present value is the total monetary value of bill savings achieved by products sold under the standards between now and 2030 minus the total incremental product cost incurred by purchasers as a result of the standards over the same period expressed in current dollars. Both costs and savings are discounted using a 5% real discount rate.
- <sup>6</sup> The payback period and benefit/cost ratio were not calculated for televisions because the incremental cost for improvements in efficiency is estimated to be zero.