

October 8, 2004

Mr. Richard H. Karney, P.E.  
US Department of Energy  
Forrestal Building  
1000 Independence Avenue, SW  
Washington, DC 20585 -0121

Dear Mr. Karney:

**Re: Position of Natural Resources Canada on Energy Star Clothes Washers Criteria for 2007**

Natural Resources Canada would like to thank you for the opportunity to comment on the new proposed changes in clothes washers criteria for 2007.

The *Office of Energy Efficiency of Natural Resources Canada* agrees that the MEF qualifying level should be raised for the *Energy Star* qualified clothes washers (CW) from 1.42 to a value, that will be feasible for industry and customers to achieve good market penetration and good savings in terms of energy consumption. In addition, the proposed introduction of water factor (WF) is expected to use the *Energy Star* program as a way to promote the conservation of all resources.

The Canadian marketplace and consumers provide a major market niche for the US manufacturers and suppliers of CWs. Consequently, any substantial changes to the qualifying criteria for *Energy Star* products would have a significant impact on the Canadian consumers, the US manufacturers and suppliers as well as their Canadian competitors. Any considered changes to these criteria should take into account the consumer choice and preference, financial impact on the industry and government policy.

In our opinion, the level proposed by some advocates to the CEE *Tier 3A* ( $MEF = 1.80$  and  $WF = 7.5$ ) would exclude a large number of presently qualified models and will impose restrictions on the new models introduced to the market.

*Table 1* summarizes the information on *Energy Star* products that are available in the Canadian database as of September 14, 2004:

**Table 1 - Canadian Database\***

	<i>Number of Products</i>
<b>Total</b>	622
<b>Energy Star Products</b>	211
<i>capacity ≥ 45 liters</i>	211
<i>loading: front</i>	110
<i>top</i>	101
<i>Average WF (gallons/ft<sup>3</sup>/cycle)</i>	7.54
<i>Average MEF (ft<sup>3</sup>/kWh/cycle)</i>	1.98

\*As of September 14, 2004

Table 2 illustrates the impact of the proposed Tiers (provided during the meeting, August 31, 2004) on the qualified Energy Star products available in the Canadian database. This table provides a comparison of the CEE and the Canadian database showing a significant drop in the number of qualified Energy Star CW's in the Canadian market. It should also be noted that the proposed Tier 3A (and B) completely eliminate the currently qualified top-loading products.

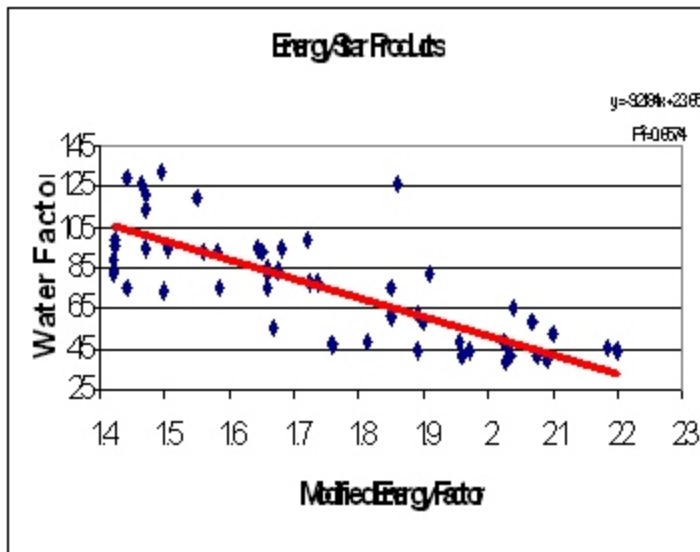
**Table 2 - Energy Star Qualified Products**

Tier	Number of Qualified Products		
	CEE* Database	Canadian Database**	
		#	Loading
Tier 1: MEF = 1.42 and WF = 9.5	52	21	33%TLS
Tier 2: MEF = 1.60 and WF = 8.5	32	30	30%TLS
Tier 3A: MEF = 1.80 and WF = 7.5	23	3	100%FLS
Tier 3B: MEF = 1.80 and WF = 5.5	41	26	100%FLS

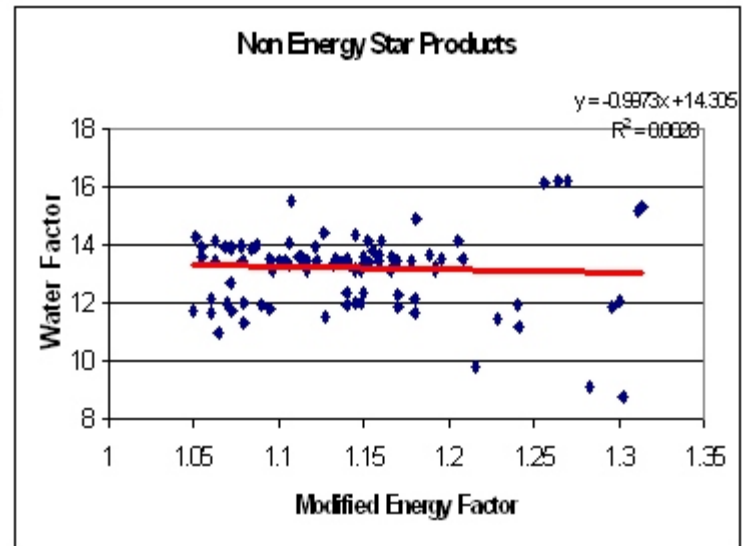
\* Based on information provided by CEE, August 31, 2004

\*\* As of September 14, 2004

Figure 1 shows a regression analysis of the available MEF and WF data based on the information available in the Canadian database for Energy Star qualified clothes washers. Comparison of this figure with the similar figure in the Market Impact Analysis of Potential Changes to the ENERGY STAR Criteria for Clothes Washers shows a stronger correlation ( $R^2 = 0.66$ ) between the Canadian MEF and WF data and yet, raising the MEF to reduce the water consumption is not an effective approach.



**Figure 1 - Correlation of WF and MEF for Energy Star Clothes Washers**



**Figure 2 - Correlation of WF and MEF for Non- Energy Star Clothes Washers**

Considering the MEF and WF data for the non *Energy Star* products available in the Canadian database, as seen in *Figure 2*, with increasing MEF values the WF lies within 11-14 values.

Based on the information provided, we suggest that the new proposed criteria be revised to: **MEF = 1.7 and WF = 9.5**. New value: 1.7 is based on approx. 21% increase in federal standards from 2004 to 2007. This revised new criteria will allow:

- more products to be qualified (*more than 60 rather than 29; Table 2*),
- good range of machine capacity (*Table 1*) and
- mix of products with front-load and top-load systems (*Table 2*);

This criteria also supports our objective of setting a WF such *Energy Star* qualified products do not use more water than non-*Energy Star* products. Canada would also support the immediate introduction of a fairly “loose” water factor requirement of 12 to eliminate very high water using products.

As per forecast by CAMA in *2004 Report* the sales of front-load machines will increase by 2% each year and reach approx. 30 % of total CW sales in Canada in 2006. Also, as per CAMA 2004 report, shipments of *Energy Star* qualified washing machines was between 20 to 30% of total sales in year 2003. This indicates the strong consumer preference for the top-load CW’s which would demonstrate the importance of setting criteria that would allow for the inclusion of top-load CW’s in the *Energy Star* qualified products.

Based on info provided by *California Urban Water Conservation Council*, average change in water use for a unit change in WF is **1,170 gallons/year**. Assuming water price of approx. \$1/1,000 gallons the saving would be approx. \$1.2/year. In comparison for MEF changing from 0.3-0.6 the saving in electrical cost is between \$10-\$21/year (*Table 3*). Savings related to electrical cost are much more significant than water savings.

**Table 3 - Comparison for Energy Savings**

<i>Model</i>	<i>MEF</i>	<i>Annual Electricity Cost*</i> \$
<i>Miele (W1918)</i>	1.42	30
<i>Frigidaire (GLTR1670A)</i>	1.51	35
<i>Whirlpool (GHW9200L)</i>	1.68	29
<i>Frigidaire (FTR630A)</i>	1.72	26
<i>Simplicity (SWM5500W-1)</i>	1.8	22
<i>Miele (W1113)</i>	2.03	19
<i>Bosch (WFMC6400UC)</i>	2.09	18

\* *EnerGuide Appliance Directory 2004*

We feel that the WF would only be a significant factor on a regional basis and that it will not be considered as universal criteria such as MEF for product selection by the consumers nor should ENERGY STAR try to address the regional requirements by setting a very stringent WF. Its inclusion on a one label will however, provide an additional criteria to assist the consumer for product selection.

Thank you for your consideration of our comments.

Best Regards,

**Renata Mortazavi, M.A.Sc.**

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Housing and Equipment

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