



LEARN MORE AT
energystar.gov

ENERGY STAR®, a U.S. Environmental Protection Agency program, helps us all save money and protect our environment through energy efficient products and practices. For more information, visit www.energystar.gov.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF AIR AND
RADIATION

December 4, 2023,

Dear ENERGY STAR® Computer Monitors Partner,

The U.S. Environmental Protection Agency (EPA) has been made aware of an error in the ENERGY STAR Most Efficient 2024 recognition criteria for Computer Monitors. The value of the 'C' constant proposed resulted in a formula that was significantly less selective than intended and fails to differentiate the most efficient models. In response to this, EPA developed new values of the constant 'C' in the $E_{TEC_{MAX}}$ equation to accurately identify the most efficient models available in the market and achieve intended savings and pass rates. The corrected equation leads to 42 models out of 1,068 meeting the 2024 ENERGY STAR Most Efficient criteria which equates to 4% of the monitors in our dataset and an average savings of 31%. The equations and associated changes are recorded below:

Total Energy Consumption (E_{TEC}) in kilowatt-hours per year shall be calculated as follows:

$$E_{TEC} = 8.76 \times (0.35 \times P_{ON} + 0.65 \times P_{SLEEP})$$

Where:

P_{ON} = measured On Mode power in watts; P_{SLEEP} = measured Sleep Mode power in watts;

Total Energy Consumption (E_{TEC}) shall be less than or equal to Maximum allowable Total Energy Consumption in kilowatt-hours per year calculated as follows:

$$E_{TEC_{MAX}} = (1.9 + (0.12 \times A) + [3.1 \times (r + C)]) \times eff_{AC_{DC}}$$

Where:

$eff_{AC_{DC}} =$ 1.00 for AC-powered monitors
0.85 for DC-powered monitors

A = viewable screen area in square inches;

r = Total Native Resolution in megapixels;

Proposed ESME 2024 Constants			
Size Categories		New C	Old C
A<180insq	1	-0.84	4.07
180-A-220insq	2	-0.3	3.43
220insq<=A	3	-2.06	5.67

This clarification memo will be posted on the ENERGY STAR Most Efficient criteria development [website](#). This correction will be made prior to January 2024. If you have questions or concerns, please contact me at

Kwon.James@epa.gov or (202) 564-8538, John Clinger at ICF at John.Clinger@icf.com or (215) 967-9407 or mostefficient@energystar.gov no later than December 18, 2023. Thank you for your continued support of the ENERGY STAR program.

Please contact me, with any questions or concerns.

Best Regards,



James Kwon, EPA Product Manager
ENERGY STAR for Consumer Electronics

For more information, visit: www.energystar.gov

This message was sent to you on behalf of ENERGY STAR. To manage the types of emails you receive from ENERGY STAR, visit the [subscription center](#).



This email was sent by:
EPA (Climate Protection Partnerships Division) - ENERGY STAR
1200 Pennsylvania Ave NW, Washington, DC, 20460 US

**[Manage Email
Preferences](#)**