



VIA EMAIL

July 03, 2009

Mr. Steve Ryan  
 U.S. Environment Protection Agency  
 Ariel Rios Bldg, SW, MS 6202J  
 1200 Pennsylvania Avenue, NW  
 Washington, D.C. 20460

RE: ENERGY STAR Program Requirements for Light Commercial HVAC: Version 2.0

Dear Mr. Ryan,

Thank you for the opportunity to provide input on the Version 2.0 program requirements for light commercial HVAC. Our comments by equipment category are inserted into the table below.

Table 1: Criteria for ENERGY STAR Qualified Light Commercial Air Conditioners

Equip. Type	Size Category	Minimum Energy Efficiency Criteria	Rheem Comments
Air Source A/C (3-Phase – Single Package)	< 65,000 Btu/h	Tier 1 (Jan. 1, 2010): 14 SEER / 11 EER  Tier 2 (Jan. 1, 2012): TBD	We concur with the Tier 1 proposal and recommend no increase in January 2012 as the volume of these products is very low.
Air Source A/C 3-Phase – Split System	< 65,000 Btu/h	Tier 1 (Jan 1, 2010): 14 SEER / 12 EER  Tier 2 (Jan 1, 2012): 14.5 SEER / 12 EER	Rheem does not agree with the 12 EER criteria. These standard should be harmonized with the package criteria shown above: 14 SEER/11 EER
Air Source A/C	≥ 65,000 Btu/h - <135,000 Btu/h	Tier 1 (Jan 1, 2010): 11.5 EER / 11.6 IEER  Tier 2 (Jan 1, 2012): TBD	Rheem agrees with efficiency criteria, for electric resistance, but NOT for units with gas heat. A .2 deduct (both EER and IEER) should be allowed for units with gas heat due to the pressure drop from the heat exchanger
Air Source A/C	≥ 135,000 Btu/h - <240,000	Tier 1 (Jan 1, 2010): 11.7 EER / 11.8 IEER  Tier 2 (Jan 1, 2012): TBD	Larger capacity units are tested at higher external static pressures which will have a negative effect on efficiency levels. This is reflected in federal minimum efficiency levels from ASHRAE and DOE. Rheem does not understand why EPA

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			would propose a higher efficiency level for these larger units. Rheem recommends the EER/IEER efficiency levels be set at 11.3/11.4 with a .2 deduct for units with gas heat.
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Table 2: Criteria for ENERGY STAR Qualified Light Commercial Heat Pumps

Equip. Type	Size Category	Minimum Energy Efficiency Criteria	Comments
Air Source Heat Pump (3-Phase – Single Package)	< 65,000 Btu/h	Tier 1 (Jan. 1, 2010): 14 SEER / 11 EER / 8.0 HSPF  Tier 2 (Jan. 1, 2010): TBD	See comments in respective category above.
Air Source Heat Pump 3-Phase – Split System	< 65,000 Btu/h	Tier 1 (Jan 1, 2010): 14 SEER / 12 EER / 8.2 HSPF  Tier 2 (Jan 1, 2012): 14.5 SEER / 12 EER / 8.2 HSPF	See comments in respective category above
Air Source Heat Pump	≥ 65,000 Btu/h - <135,000 Btu/h	Tier 1 (Jan 1, 2010): 11.5 EER / 11.6 IEER / 3.35 COP  Tier 2 (Jan 1, 2012): TBD	Efficiencies for heat pumps should be set at a lower level than a/c only units due to design efforts required to achieve the EER/IEER efficiency criteria as well as the COP minimum efficiency level. This effort becomes more complex in larger tonnage equipment. As a result, Rheem recommends that the EER/IEER be set at 11.3 and 11.4 respectively.
Air Source Heat Pump	≥ 135,000 Btu/h - <240,000	Tier 1 (Jan 1, 2010): 10.9 EER / 11 IEER / 3.25 COP  Tier 2 (Jan 1, 2012): TBD	Rheem supports this recommendation.

Rheem does not agree with the January 1, 2010 start date as it does not comply with the 9-month lead time afforded to manufacturers by Congress. In addition, this is the same date we are preparing to meet new federal minimum energy efficiency standards.

Thank you for opportunity to provide comments for the ENERGY STAR light commercial HVAC specification. Please let me know if I can provide further information, and we look forward to a favorable reply from EPA so we can continue to build and sell high efficiency HVAC units!

Regards,

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C: Mr. Erich Bauman

