NRDC Comments on ENERGY STAR Program Requirements for Residential Light Fixtures Draft 1 Eligibility Criteria – Version 4.0

The Natural Resources Defense Council (NRDC) is pleased to have this opportunity to comment on the Environmental Protection Agency's (EPA) current draft of its Residential Lighting Fixture Specification (Draft 1, Version 4.0). NRDC is an environmental advocacy group with over 600,000 members dedicated to protecting public health and the environment. Over the past 20 years, NRDC has actively worked to improve the quality, availability, and saturation of energy efficient lighting.

NRDC is a member of the Consortium for Energy Efficiency (CEE) residential lighting committee. With a few minor exceptions, which are discussed below, NRDC strongly supports the revisions made by ENERGY STAR in its proposed draft and the comments provided by CEE under separate cover.

In our comments, I will address what we believe to be two critical consumer issues that still remain – replacement lamps, and replacement ballasts.

Replacement lamps – While the development of the ANSI standardized lamp bases has helped reduce the myriad number of lamp socket and base combinations, consumers are still faced with the challenge of finding the right replacement lamp when they go to buy one. We support the suggestions made by CEE on how to make the labeling/coding system for replacement lamps more consumer friendly.

NRDC supports ENERGY STAR's proposed prohibition of magnetic ballasts for indoor fixtures. One way to cut in half the number of lamp varieties is to eliminate the use of magnetic ballasts in new indoor fixtures. This will help prevent a consumer from coming home from the store with the wrong 13 W CFL lamp (while it looked the same, one had 2 pins and one had 4 pins.). This market consolidation, should further drive demand for electronic ballasts and compatible lamps, and eventually result in lower price points for these components due to economies of scale.

Replacement Ballasts – At some point in the future, the ballast provided with the fixture will eventually fail. Currently it is very difficult to remove the ballast and even when the ballast can be removed, it is virtually impossible for a consumer to find the replacement ballast at a hardware or DIY store. (Replacement ballasts for linear tube fixtures are much more widely available.)

When a ballast fails, the consumer will likely first try to replace the lamp. Once that doesn't work they are faced with the choices of a) throwing out the lamp and having it replaced, or b) calling in an electrician. The electrician will then replace the ballast if he can easily remove it and find the replacement, or recommend removing the current

fixture and replacing it with a new one. These scenarios are not very appealing as the consumer will in many times opt to throw out the fixture, an undesirable outcome from an environmental point of view, and has had to call in an electrician which can easily cost $100 each time a ballast fails. This is extremely expensive for a product that might have cost $50 or less, and is very inconvenient especially for new energy efficient homes which could conceivably have 20 or more hard-wired pin based fixtures inside.

The preferred world would include fixtures that have easily removable ballasts that are essentially "plug and play" and are as easy to remove as a battery in a consumer electronics product such as a flash light, camera, or cell phone. We therefore would like to see the specification language for replaceable ballasts expanded and to include "the ballast must be easily removable and replaceable. The replacement ballast shall be installable by simply snapping or screwing into place and must not require soldering or rewiring the fixture."

The other component needed toward moving to a plug and play world of removable/replaceable universal ballasts is to ensure that the industry standardizes the geometry of how one connects the replacement ballast to the fixture. While NRDC is very supportive of the recent products introduced by companies like TCP, Viva and others, the replaceable ballast prototypes we have seen use differing connecting systems. One system uses two narrow pins and snaps in, the other uses wider pins and twists into place.

These non-compatible ballasts systems have the potential to further frustrate consumers with energy saving pin-based fixtures. Lets not make the same mistakes that were made 20 years ago regarding lamp/socket compatibility. Instead we must standardize on a universal ballast geometry now, while the efficient fixture industry is still in its infancy.

Timing permitting, we urge EPA to explicitly specify the characteristics for the ballast base (i.e. how it connects to the fixture) directly in its specification. The earlier we can achieve this standardization the better. We applaud EPA's ongoing project with LRC and ALA on this topic and urge you to incorporate the project's findings into this or future versions of the ENERGY STAR fixture specification.

In closing, we want to acknowledge EPA's long-standing commitment to the energy efficient fixture program and applaud the direction of the changes you have proposed to further improve the specification. We remain committed to working with all stakeholders on improving the quality and increasing consumer purchases of efficient lighting fixtures.