## Statement

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## Concerning Transforming Forest Waste to Biofuels and the Renewable Fuels Standard

Thank you for the opportunity to discuss renewable woody biomass and the changes made to the Renewable Fuel Standard (RFS) by the Energy Independence and Security Act of 2007 (EISA). I'll also make a few remarks about dealing with forest waste as a byproduct of vegetation treatments for forest health on the Black Hills National Forest.

The Environmental Protection Agency (EPA) is responsible for issuing regulations to ensure that gasoline sold in the United States contains a minimum volume of renewable fuel — the RFS. The RFS program increases the volume of renewable fuel required to be blended into transportation fuels.

EISA divides renewable fuels into two categories-

- advanced biofuel, which is renewable fuel other than ethanol derived from corn starch that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline (gasoline or diesel) lifecycle greenhouse gas emissions; and
- conventional biofuel, which is renewable fuel that is ethanol derived from corn starch.

Within the total mandate of 36 billion gallons of renewable fuels by 2022, 21 billion gallons must qualify as advanced biofuels. Advanced biofuels include cellulosic biofuels, which would be derived from sources such as renewable woody biomass.

The definition of renewable biomass in EISA excludes most forest biomass materials from federal lands except those obtained from the immediate vicinity of buildings and other areas regularly occupied by people, and public infrastructure at risk from wildfire. Forest biomass removed from other National Forest System (NFS) land could not be counted towards meeting the RFS.

In addition to the limitations imposed by the definition of renewable biomass in EISA, different definitions of the same term could give rise to confusion about what materials qualify as renewable biomass. For example, the definition of renewable biomass in the Energy Title (Title IX) of the Farm Bill (P.L. 110-246) is more broadly inclusive, covering:

"...materials...from National Forest System lands and public lands that are byproducts of preventative treatments to... (1) reduce hazardous fuels, (2) reduce or contain disease or insect infestation, or to (3) restore ecosystem health ....and that are harvested in accordance with applicable law and land management plans, and the requirements for old-growth maintenance, restoration, and management under...the Healthy Forest Restoration Act of 2003."

## Interpreting the definition in P.L. 110-140

Because the definition of renewable biomass in EISA includes material obtained from the immediate vicinity of buildings and public infrastructure at risk of wildfire, Federal land managers are presented an issue regarding how to apply the EISA definition of "at-risk" areas, particularly as they relate to communities within the wildland-urban interface (WUI). The WUI is an area in which structures and other human developments meet or intermingle with wildland vegetation. These areas pose the biggest fire risk to life, property, and infrastructure in associated communities.

Material from hazardous fuels treatments in the WUI could serve as a feed stock to producers of eligible biomass. Over 19 million acres of hazardous fuel treatments have been completed by the Forest Service and the Department of the Interior since the National Fire Plan was established in 2001. More than 12 million of those acres are within the WUI.

How much of this material would qualify to meet the RFS depends on the regulations EPA develops to interpret the definition of renewable biomass contained in the statute. The Forest Service has participated with our sister agencies within USDA in technical information sessions with EPA and has provided to EPA our perspective and experience in defining and identifying areas and communities "at risk" from wildfire within the WUI.

However, the renewable biomass definition in EISA precludes the use of woody biomass from National Forest System lands outside of "at risk" areas, thereby excluding significant amounts of biomass that could be available for renewable energy. The definition could constrain the economic utility of this biomass and forego opportunities to make these treatments more cost effective. Absent markets for this biomass, this material will continue to be burned in place, or chipped and transported, to remove the fuel from the forest.

Development of additional markets for this material would help defray the cost of vegetation treatments and result in more revenue. Utilizing this material as a renewable energy source could help reduce our dependence on fossil fuels and would benefit our forests, our air, and our communities.

## **Biomass Production on the Black Hills and the Rocky Mountain Region**

The Black Hills National Forest illustrates the potential for woody biomass to support energy production. The ponderosa pine on the Forest has grown abundantly, and over time, much of the Forest has become overly dense and now requires thinning to maintain forest health. We thin trees to reduce the threat of severe wildfires to communities, improve forest health, and improve wildlife habitat. In most cases, a portion of the forest is removed for commercial sawtimber, while desirable large trees are maintained. This harvest activity also produces woody biomass residue in the form of tops, limbs and small-diameter trees.

Commercial timber harvest and pre-commercial thinning of dense, small-diameter stands produce approximately 207,000 green tons of biomass annually on the Black Hills National Forest. About ninety percent of this biomass is located in concentrations of large piles adjacent to forest roads.

Our opportunities to use this considerable resource of biomass are limited. Small quantities are removed by the public for home heating and posts and poles. We sent 180 truckloads of this material to the Lakota Indians via the National Guard during their recent training exercise in the Black Hills. Relatively small quantities of biomass are chipped in the forest and transported for use in cabinet manufacture and for emerging uses in public building heating systems and cellulosic ethanol. In total, all of these uses currently account for only about 10 to 20 percent of the available material. Most of it is burned to keep it from fueling large, hot fires in the summer. Burning releases carbon into the atmosphere and impacts the soil — and the material is wasted.

The situation in the Black Hills is much the same in other national forests. For example, in northern Colorado the bark beetle infestation has killed lodgepole pine trees across 1.5 million acres. Efforts to reduce fuels and remove hazard trees are creating vast amounts of biomass which could be used to produce renewable energy.

Thank you for the opportunity to address the subcommittee. I'll be pleased to answer any questions you may have.