

Bill Bradbury
Chair
Oregon

Henry Lorenzen
Oregon

W. Bill Booth
Idaho

James A. Yost
Idaho



Jennifer Anders
Vice Chair
Montana

Pat Smith
Montana

Tom Karier
Washington

Phil Rockefeller
Washington

October 1, 2013

MEMORANDUM

TO: Power Committee

FROM: Charlie Grist

SUBJECT: Update on Health Benefits of Wood Smoke Reduction

This memo is an update on the process to take a first look at estimating the health impacts of reduction of wood smoke through energy efficiency. In August we briefed the Power Committee on the context for this work, namely that many residential electric energy efficiency measures produce significant reductions in supplemental wood heat use. Reductions in wood heat use produce both valuable reductions in cost of wood heating and reductions in wood smoke produced. The reductions in wood smoke may produce quantifiable health benefits specifically illness and death from respiratory diseases such as asthma and pulmonary disease. The Council has not included such health benefits in its analyses before. Whether, and how, to include health benefits in the economic analysis of efficiency measures is a Council decision. The RTF's work on the issue can provide the Council with the technical analysis necessary to make the appropriate policy decision.

The Regional Technical Forum (RTF) established a subcommittee to take a first look at quantifying the health benefits of reduced wood smoke. The subcommittee met in late August to discuss options to model health impacts. Representatives from the Environmental Protection Agency (EPA) and one of its consultants joined part of the meeting to discuss three modeling approaches and tools used by EPA in its regulatory impact analyses for emissions. After comparing the options, the pollutants covered, costs and timelines, the subcommittee recommended that the first step should be for the RTF to commission a study of impacts using a suite of simplified screening tools tailored to the Pacific Northwest. These tools, which are available from EPA, would produce estimates of health impacts at the county level for a single year (2017). These results would give a first indication of the order of magnitude of potential

health impacts for six air pollutants including the fine particulate (PM_{2.5}) that is a major emission of concern from for wood heating sources¹. The models can be used to estimate relative changes in health impacts from both reductions in wood heating sources and in power plant emissions.

The subcommittee was in general agreement about the approach to take and made suggestions on how to scope a request for proposals (RFP) to execute the work. An RFP is currently being drafted. Once a contract is awarded, we expect it will take about three months to do the analysis. At that point, we plan to come back to the Council to consider next steps. The initial purpose of this work is to help the RTF make appropriate cost-effective determinations for the various residential heating efficiency measures. Whether, and how, to include health benefits in the economic analysis of efficiency measures, and other aspects of a regional power plan, is a Council decision.

Staff will be available at the meeting in Helena to answer questions.

¹ The EPA's COBRA model produces output for SO_x, VOC, PM_{2.5}, PM₁₀, NO_x, and Hazardous Air Pollutants (HAP).