1077-60-1103 **Steven A Bleiler*** (bleilers@pdx.edu), Fariborz Maseeh Dept. Of Math and Stat, Portland State University, P.O. Box 751, Portland, OR 97207-0751, and **Thomas R Fielden**. *The NW Power Conservation Council's Regional Portfolio Model and the R-tic PHOX computation environment – Overview.* Preliminary report.

The R-tic PHOX computation environment was developed as an alternative to sampling based methods for uncertainty, sensitivity, and risk analysis of certain models. At the time, these were models of regulatory regimes for carbon abatement under consideration by the California Air Resources Board under California AB32. While limited to a certain class of models, the environment is independent of application, and is now being put to use regarding the NW Power Conservation Council's Regional Portfolio Model. This model describes the behavior of the power generation, transmission, and conservation for the states of Oregon, Washington, Idaho, and Montana and uses statistical distributions to describe hourly behavior over a multi-year time frame. In an effort to address both the "clusters and gaps" of randomly sampled inputs and "histogram binning problem" over the outputs of sampling based methods, this model is in the process of being incorporated into the R-tic PHOX environment. This talk will overview some of the mathematical issues involved. (Received September 16, 2011)