

My name is Dennis Phillips. I am a retired Engineer and have worked in PP&L's coal fired power plants and for 28 years I worked for the Bonneville Power Administration (BPA) as an engineer writing computer code that simulated the least cost economic operation of the western electric system for the next 20 years. New capital & hourly operating expenses were factored into all the decision making.

I am very familiar with our regional energy and capacity planning process. I led BPA's analysis of the WNP-3 and Trojan shutdowns. I learned what every power system engineer knows: that system firm energy and peak load cannot be met solely by hydro, wind and solar resources, not today and probably for a very long time to come.

Dispatchable thermal generation will still be needed. The question before us today, is really dependent on type of generation we want built, either gas turbines or Small Modular Reactors?

Is CO2 a hard "binding constraint" or is the nuclear fuel waste more binding?

This doesn't need to be an "all or nothing" decision. One or both constraints can be relaxed when they are non-binding. But the answer to this question will determine the fate of SMRs in general.

SMRs are inevitable if CO2 is made the binding constraint. SMRs will be required to at least replace our system's aging coal and gas-turbine fleet. So the question comes down to "how" binding is the CO2 constraint. As the constraint is relaxed and made less binding, more gas turbines will be built and the need for SMRs diminishes.