**Pool Cover Workpaper Narrative Write UP**

Pool covers are protection and insulation products that slow the heat loss and the evaporation rate, which in turn also reduces heat loss. The energy saving for pool cover is calculated from the difference in energy consumption between an existing vinyl pool cover to a proposed insulated pool cover. The California Title 24 standard also requires that pool and spa heating systems with gas heaters for outdoor use must use a pool cover. However, there are no details on minimum specification requirement for the pool cover. A research done by the Pacific Northwest National Laboratory (Page 4.1-4.2, Payette Idaho Pool Energy Conservation Study, November 2011), the baseline pool cover was chosen to be a vinyl type cover with an R-value significantly less than 1. The baseline in the SCG’s workpaper was set as the default value of 0.1 based on the PNNL study and DOE’s Energy Smart Pools Software Manual on page 9. The proposed pool cover is based on research of the most common and efficient products available on the market. These covers have an 1/8" thick (L), high-density polyethylene foam of thermal conductivity (K) Factor 0.25 BTU/sq. ft.-Hr-°F/inch (ASTM D2326). The new pool cover has a minimum R-value of 0.5 ft2-hr-F/Btu (R=L/K).

The characteristics of the swimming pools including the operating hours are taken from the Pool Cover Tool workpaper and are based on information gathered from survey forms for pool cover applications in 2011-2013. The attachments are some examples of the surveys.