Project Title: Thermostatic Program

**Project overview:** Facilitate the implementation of thermostat technologies in campus infrastructure to save energy usage by installing power saving cords in predominately student cars. The power saver cord reduces the cost of heating the engine coolant by using power only when the engine coolant temperature drops below the target temperature.

**Product overview and function:** The power saver cord (PSC) was manufactured by Tempo Industries. This PSC is a thermostatically controlled device that monitors engine coolant temperature and provides power to a vehicles engine block heater only when needed.

The primary function of the PSC is to act as a short extension cord between the male plug of a vehicle's engine block heater and the female source of electrical power. The PSC looks like a standard 3-prong (grounded) electrical extension cord except that the “female” end is larger. The bottom of this female end is curved to fit over an engine heater inlet hose. In the curve is a metal disk thermometer sensor. The sensor measures the temperature of the fluid in the hose. When the temperature drops below the desired factory set temperature range (20 to 40 degrees Fahrenheit) the power saver cord will allow electrical current to pass through to the engine block heater. When the temperature reaches the desired level, the temperature sensor will have the power cord open the circuit to discontinue the flow of current to the engine block heater. Heating an engine block is desirable for assisting starting a vehicle on cold days. The power saver cord reduces the cost of heating the engine coolant by using power only when the engine coolant temperature drops below the target temperature.

**Where will the thermostats come from?** GVEA the local electrical utility had a members energy saving program many several years ago distributing Power Saver Cords (Thermostatic) for cars. GVEA member services (Todd Horner, point of contact) donated 6 dozen cords to the UAF RISE Board.

**Where on campus will you perform installation?** The PSC cords will be install on campus property and not at private residences off campus. In warmer weather this can be conducted outside near safety equipment, i.e. eye wash, etc (see safety plan below). In colder weather other UAF properties will have to be identified and agreements for workspace developed. Two potential locations include the UAF Facilities Services and CTC Industrial Automotive shops. Both of these locations would have good lighting, safety equipment and tools for raising vehicles.

**Who will perform installation?** A student employee of the Office of Sustainability and RISE Board will be installing the PSC. Brandon Hoover has been hired for that position.
**How is this individual qualified?** Brandon has complete all the UAF On line Safety Trainings and had two years of auto training in high school which included automotive electrical systems.

**Do you plan to ask for the vehicle owner to sign a release?** Yes and would like Risk Management’s help in developing an appropriate release form by providing examples.

**How many thermostats will you have for installation?** 6 dozen initially.

**Safety plan** (Brandon will develop this will John from EHS RS help and to include: We need to develop well-defined guidelines for inspecting cords, and when and when not to install.)