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# **Church Roof Installation - Asheboro, NC**



ENRG Blanket reduces utility bills by 50% in this innovative roof installation

### **Application Overview**

This Asheboro, NC church needed to improve the comfort and thermal performance of their multi-use Family Life Center.

The metal structure acted as a heat sync during extreme weather conditions

driving excessive utility consumption and reducing interior comfort.

## ENRG Blanket<sup>™</sup> installed between the old and new metal roofs reduced energy bill by more than 50%

#### **1. The Project**

This Asheboro, NC church needed to improve the comfort and thermal performance of their multi-use Family Life Center. The growing congregation couldn't get full utilization of the building due to temperature extremes. The church needed a way to regulate the temperature, provide building occupants with a comfortable space and reduce the energy costs.

#### 2. The Challenge



The metal construction of the building acted as a heat sync. The building was too hot in the summer and too cold in the winter. The church was in a growth mode and the thermal performance of the structure was a barrier to increasing the facility utilization. The renovation needed to include a solution to the thermal comfort and excessive utility costs while maintaining a reasonable cost.





#### **3. The Solution**

Phase Change Solutions designed a solution using Fabral's metal roofing technology. A simple riser, which provided space between the old existing roof and the new Fabral roof, created just the right amount of space for a thin layer of insulation coupled with ENRG Blanket phase change material.

#### 4. The Results

This creative design yielded immediate results. Space utilization doubled in a short period of time due to the improvement in thermal conditions. In addition, the building was able to maintain comfortable temperatures as occupancy loads increased. The utility bills in the space were reduced by more than 50% from previous levels while building utilization more than doubled.

To learn more or discuss your project, please call us at: 800-283-7887 or e-mail us @ info@phasechange.com