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**Title** **Exceptional cost effectiveness of the Solarcrete construction system with hybrid solar for McCormick's piano showroom**

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**Description/ Abstract** A new building was designed to house Northeast Indiana's largest keyboard instrument showroom, offices, and warehouse. The 7653 SF building faces 8/sup 0/ east of south in a climate of 41/sup 0/ NL, 6717 DD, and 49% of possible sunshine during the heating season. The energy system may be described as hybrid using an integration of passive direct gain, water thermal storage with earth contact, evaporative cooling, and water source heat pump. The thermal envelope of the building employs the Solarcrete method devised to render improved thermal performance and reduce labor time, skill, and effort resulting in both initial and life-cycle savings. The initial cost savings on the building including the tax credit of \$11,076 was 33% or \$79,076 LESS

than a conventional building.^The owners have realized 84% energy savings on the annual usage for the first year of operation.

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