ABSTRACT

TITLE:	Thermal Electric Generators: A Versatile Power Source
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ABSTRACT: As small personal devices become more durable, compact, and accessible, cellular technology is quickly becoming the global standard for communication and information dispersion. Efficient production has made these devices affordable to people who have never had access to such technologies, bringing poor communities new opportunity for more efficient means of communication and education, thus increasing quality of life. The issue of charging these devices, however, renders them useless for many remote communities who remain without electric power and have little hope for electricity in the foreseeable future. The TEG senior design team's goal was to provide a solution to this problem by creating a thermoelectric generator (TEG) capable of charging a cellular device using thermal energy sources available within these communities. A device was designed to implement the TEGs to convert solar and stovetop waste heat into energy that can charge a cell phone.