Alternative energy source: Solar energy
Stakeholder: scientist

My name is Shannon Fields and I am a researcher at The University of Delaware's Institute of Energy Conversion. We have developed new technology for the manufacture of flexible solar cells, which could reduce the costs associated with the use of photovoltaic energy. The system enables the more efficient manufacture of the flexible solar cells in long sheets and it allows us to make lightweight and flexible solar cell panels. By being flexible, the solar cells can conform to different surfaces. The solar cell sheets are created by depositing copper-indium-gallium-diselinide on a 10-inch wide polymer web, which is then processed into the flexible solar cells. The Institute is the only thin-film photovoltaic laboratory in the world currently conducting basic research and development on a broad range of thin-film solar cell materials. The center is one of two U.S. Department of Energy Centers of Excellence for photovoltaic research and education. We have hit the record for energy production in a solar cell – 42.8%. If this technology is made available to the public, it will provide inexpensive electricity to homes throughout the country.