



The Solutions Network

Rochester, New York

Welcome to
**SOLAR ENERGY: A SUNNY
FUTURE**



The Solutions Network

Rochester, New York

Solar Technology Implementation

Troy Strand

Independent Energy Solutions

San Marcos, CA



What Is It?

- ❖ Solar Technologies
 - Here and Now
 - "Tomorrow"
 - "Next Year"

August 8-11, 2004

www.energy2004.ee.doe.gov



What Is It?

- ❖ Solar Technologies – Here and Now
 - Photovoltaics (PV)
 - Solar Thermal
 - Solar Vent/Transpired Collectors
 - Daylighting



Photovoltaics (PV)

- ❖ Photovoltaics (PV)
 - Produces electricity from sunlight
 - Several technologies
 - Crystalline & polycrystalline silicon
 - Amorphous
 - Silicon
 - CdTe, GaAs, multi-junction





Solar Thermal

❖ Solar Thermal

- Produces heat from sunlight
- Hot Water
 - Domestic
 - Central systems and Individual systems
 - Swimming Pool Heating





Solar Vent/Transpired Collectors

- ❖ Solar Vent/Transpired Collectors
 - Produces heating & cooling from sunlight
 - Space conditioning/Air preheat



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Daylighting

- ❖ Daylighting
 - Produces light from sunlight
 - Large area lighting



August 8-11, 2004

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Summary

- ❖ The sun has been around a long time
- ❖ Solar technologies are available now
- ❖ Power, heat, and light