Introduction

MEGS is Clean Energy

Global Climate Disruption, Renewable Energy and You

Clean Energy, Research and new Jobs

Replacing the burning of fossil fuels and creating new clean energy producing companies with good jobs requires INNOVATION.

How does INNOVATION do that?

Where to Find Knowledge?

MEGS is Clean Energy

- Consider the drying process:
  - The real problem is not removing moisture.
  - The underlying objective is to unbind one substance (liquid) from another (solid) & transport the liquid away.
- How many ways can you think of to move a liquid?

How Many Ways Are There to Move a Liquid?

MEGS is Clean Energy

Acoustic Cavitation
Acoustic Vibrations
Archimedes' Principle
Bernoulli's Theorem
Boiling
Brush Constructions
Capillary Condensation
Capillary Evaporation
Capillary Pressure
Coanda Effect
Condensation
Coulomb's Law
Deformation
Electrocapillary Effect
Electroosmosis
Electrophoresis
Electrostatic Induction
Ellipse
Evaporation
Ferromagnetism
Forced Oscillations
Funnel Effect
Inertia
Ionic Exchange
Jet Flow
Lorentz Force
Magnetostriction
Mechanocaloric Effect
Osmosis
Pascal Law
Resonance
Shock Wave
Spiral
Super Thermal Conductivity
Superfluidity
Surface Tension
Thermal Expansion of Subst.
Thermocapillary Effect
Thermomechanical Effect
Ultrasonic Capillary Effect
Ultrasonic Vibrations
Use of foam
Wetting

What do these three have to do with the solution to energy problems?

MEGS is Clean Energy

Teams of Innovative Problem Solvers

MEGS is Clean Energy

1) University of Nevada, Reno
2) University of California, Berkeley
3) École de technologie supérieure
4) California Polytechnic State University, San Luis Obispo
5) University of Florida
6) University of Wisconsin - Madison
7) Clemson University
8) Michigan Technological University
9) University of California, Los Angeles
10) University of Wisconsin – Platteville
11) Polytechnic University
12) Drexel University
13) Florida Institute of Technology
14) University of Houston
15) Youngstown State University
16) University of Maine
17) University of Washington
18) United States Air Force Academy
19) Southern Illinios University Edwardsville
20) Fairmont State University
21) Louisiana Tech University

Innovation Power from College Campuses

MEGS is Clean Energy

U-M wins North American Solar Challenge for the fifth time

ANN ARBOR, Mich.—The University of Michigan's Solar Car Team won the North American Solar Challenge, crossing the finish line in Alberta, Canada on Tuesday after more than 50 hours of racing over nine days.

Continuum crosses the finish line. Credit: University of Calgary

Teams of Innovative Problem Solvers

MEGS is Clean Energy

Final Results

1	***University of Michigan***	***51:41:53***
2	***Principia College***	***61:38:45***
3	***FH Bochum Solar Car Team***	***63:47:55***
4	***University of Waterloo***	***64:00:06***
5	***University of Minnesota***	***65:41:48***
6	***University of Calgary***	***75:42:53***
7	***Missouri University of S and T***	***81:20:36***
8	***Iowa State University***	***91:12:59***
9	***Red River College***	***92:15:02***
10	***University of Arizona***	***98:26:12***
11	***University of Kentucky***	***100:33:24***
12	***Queen's University***	***106:36:20***
12	***Northwestern University***	***113:58:11***
14	***Durham University***	***134:07:06***
14	***Oregon State University***	***145:20:00***

Why not all expressways asenergy generators, and building surfarces too?

ScienceDaily®
Your source for the latest research news

Science News ... from universities, journals, and other research organizations

Liquid Solar Cells Can Be Painted Onto Surfaces

Apr. 25, 2012 — Scientists at USC have developed a potential pathway to cheap, stable solar cells made from nanocrystals so small they can exist as a liquid ink and be painted or printed onto clear surfaces.

The solar nanocrystals are about four nanometers in size -- meaning you could fit more than 250,000,000,000 on the head of a pin -- and float them in a liquid solution, so "like you print a newspaper, you can print solar cells," said Richard L. Brutchey, assistant professor of chemistry at the USC Dornsife College of Letters, Arts and Sciences.

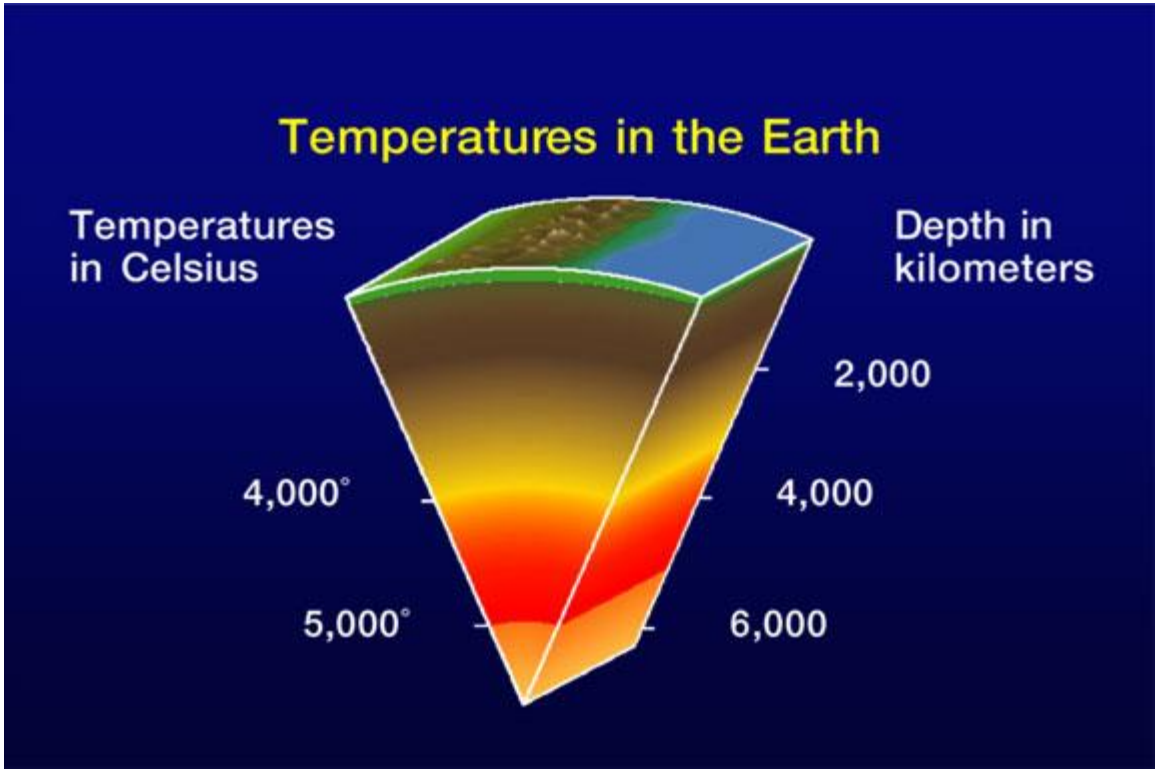
Brutchey and USC postdoctoral researcher David H. Webber developed a new surface coating for the nanocrystals, which are

enlarge

The liquid solar cells applied to a glass slide. (Credit: Dietmar Quistorf/USC)

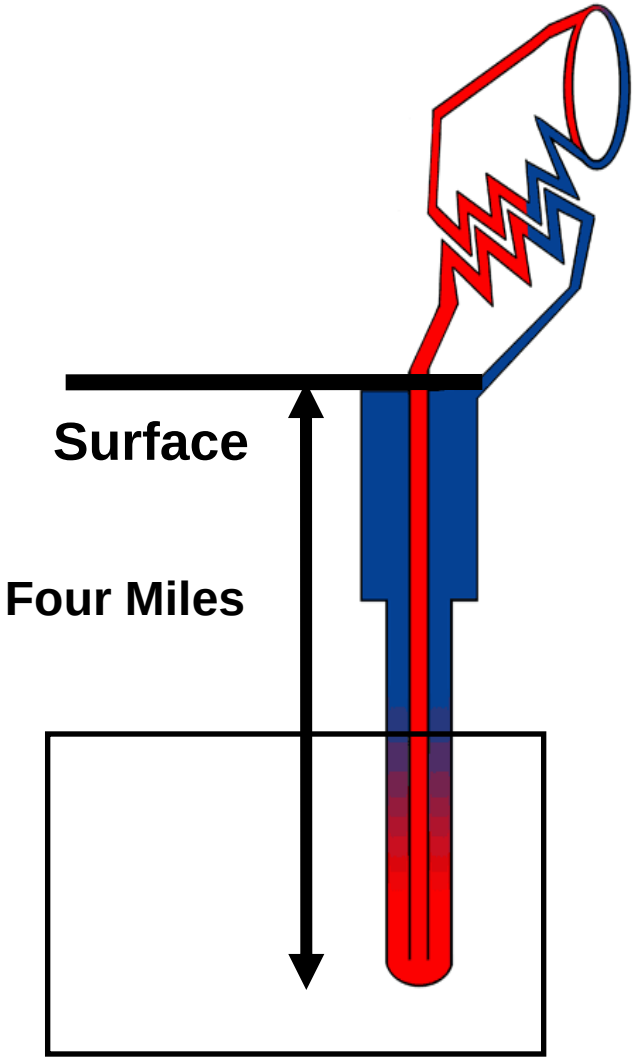
Lots of heat down below!

MEGS is Clean Energy



Why Not In Michigan?

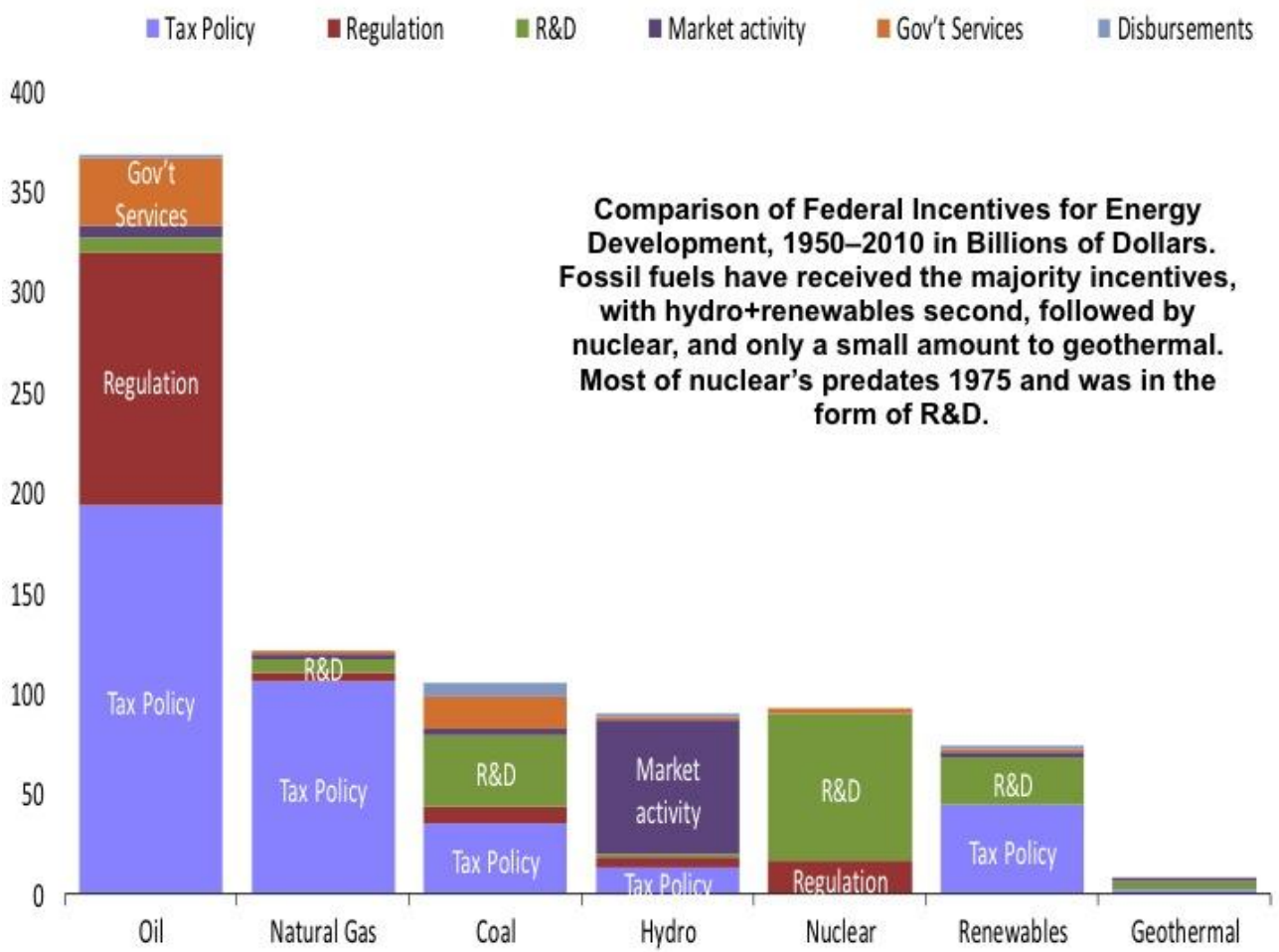
MEGS is Clean Energy



All the heat we need is only four miles away. Right below us.

Can we really not get it up here? - with all the bright minds we have in Michigan!!

Does this make sense?



Comparison of Federal Incentives for Energy Development, 1950–2010 in Billions of Dollars. Fossil fuels have received the majority incentives, with hydro+renewables second, followed by nuclear, and only a small amount to geothermal. Most of nuclear's predates 1975 and was in the form of R&D.

Michigan's Great Technical, Public Resources

MEGS is Clean Energy

University of Michigan

Michigan State University

Wayne State University

Michigan Technological University

Michigan's Great Technical, Private Resources

Manufacturing Auto Industry

Chemical Processing Industry

Drug and Medical Research Companies

Hundreds of smaller cutting edge Companies

State Policy for Clean Energy

As the State of Michigan move toward clean energy, it needs to:

- support its great research universities and facilitate the partnership between those universities and its historical manufacturing and chemical processing corporations.
- establish paths to clean energy that are consistent with preserving and improving the environment and the health and welfare of its citizens.