

# SuperGrid 2 Workshop



University of Illinois at Urbana-Champaign  
October 25-27, 2004

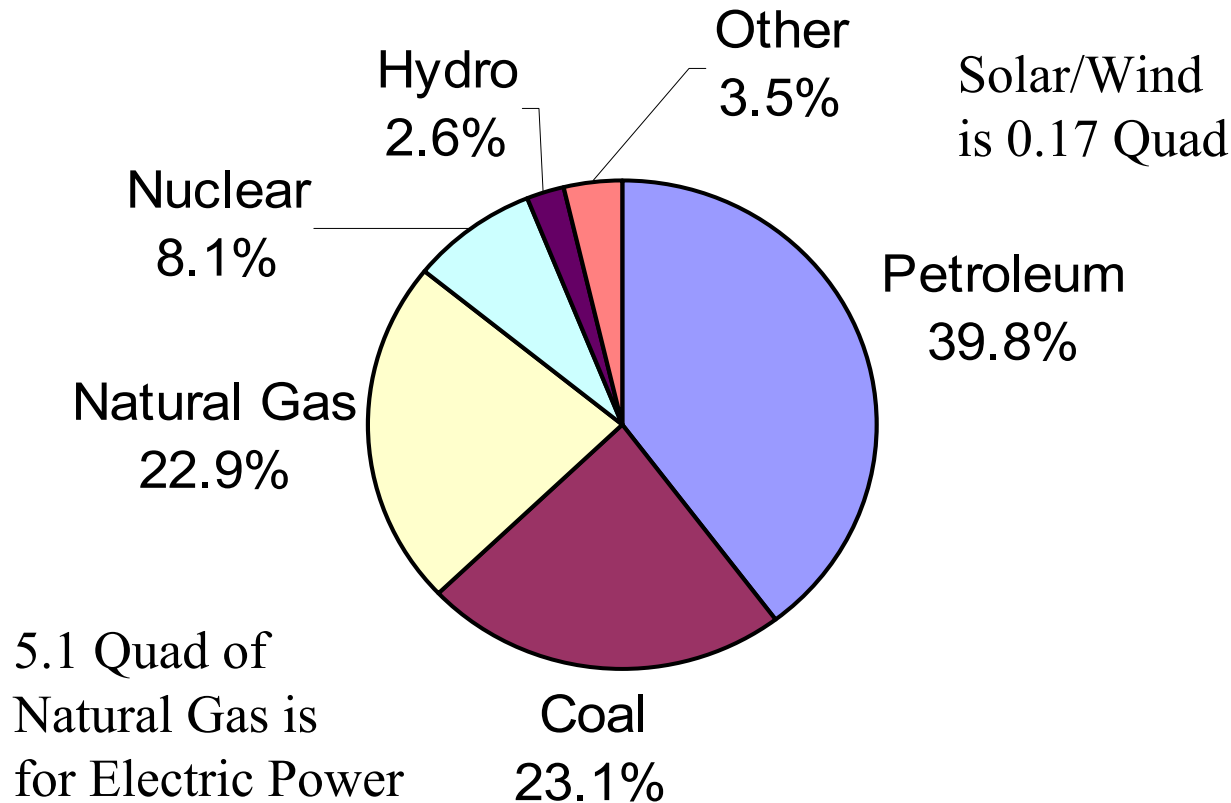
With Special Thanks to  
Richard Lounsbery Foundation & EPRI



**ILLINOIS**  
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN



# U.S. Current Energy Usage by Source



Solar/Wind  
is 0.17 Quad

Petroleum  
39.8%

Total for 2003 was 98.2 Quad (Quadrillion Btu), of which 38.3 Quad was consumed as electricity and 26.8 Quad for transportation

Total Annual US Energy Expenditures are about \$700 Billion

# Agenda – Monday, Oct 25



- 8:45 – 9:30 AM Supergrid Vision – Chauncey Starr, EPRI
- 9:30 – 10:00 AM Supercable – Paul Grant (W2AGC Technologies)
- 10:00 – 10:30 AM Power Control – Bob Lassester (Univ. Wisconsin)
- 10:30 – 11:00 AM Break
- 11:00 – 11:30 AM Power System Integration – Bob Thomas (Cornell)
- 11:30 – 12:00 Hydrogen – Robert Schainker (EPRI)
- 12:00 – 1:00 PM Lunch on Levis Third Floor
- 1:00 – 1:30 PM Nuclear – Wes Myers (Los Alamos National Lab)
- 1:30 – 2:00 PM Underground – Ed Cording (UIUC)
- 2:00 – 2:30 PM Environmental Engineering – Wayland Eheart, UIUC)
- 2:30 – 3:00 PM Break

# Agenda – Monday, Oct 25 cont.



- 3:00 – 5:00 PM Parallel breakout sessions by disciplines, with each breakout group charged with developing list discipline specific research topics. The focus of these breakout sessions is on the scientific/technical challenges to implementing the supergrid (i.e., the what question?)
  - **Supercable** (Paul Grant)
  - **Power control** (Phil Krein)
  - **Power system integration** (Pete Sauer)
  - **Hydrogen** (Robert Schainker)
  - **Nuclear** (Jim Stubbins)
  - **Underground construction/tunneling** (Ed Cording)
  - **Environmental engineering** (Ed Herricks)
- 5:00 – 5:45 PM Return to Hampton Inn via bus/vans (optional)
- 5:45 PM Bus/vans leave the Hampton Inn and Levis for Kennedy's
- 6:00 – 9:00 PM Reception at Kennedy's followed by dinner



# SuperGrid Vision – Chauncey Starr



# Agenda – Tuesday, Oct 26



- 7:45-8:15 AM Vans leave Hampton Inn for Levis
- 8:00 – 8:30 AM Continental Breakfast
- 8:30 – 8:40 AM Campus Welcome, David Daniel
- 8:40 – 10:15 AM Reports by each of the breakout groups; chaired by Tom Overbye
- 10:15 – 10:45 AM Break
- 10:45 – 12:00 General Q&A and discussion with a focus on integration issues and challenges; chaired by Paul Grant.
- 12:00 – 1:00 PM Lunch on Levis Third Floor

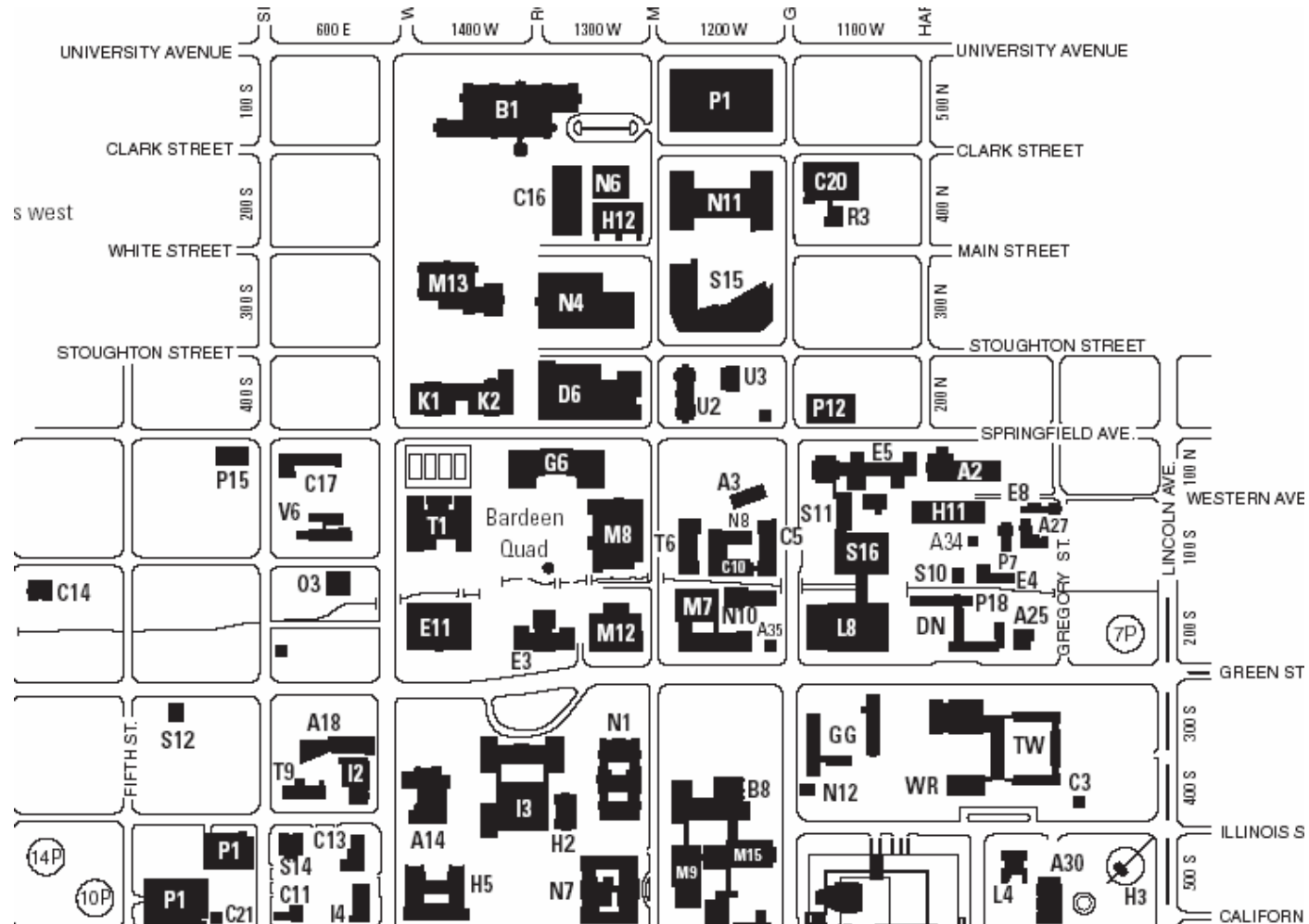
# Agenda – Tuesday, Oct 26 cont.



- 1:00 – 1:45 PM            Talk by Craig Smith (DMJM) “Supergrid Construction Challenges”
- 1:45 – 4:30 PM            Reconvene **breakout sessions** with the same moderators. However, the focus of the breakout sessions on Tuesday switches from being purely technical to addressing the more practical challenges to implementing the supergrid. Questions for discussion include who does what, where, when, how much will it cost, and what are the organizational and institutional challenges that need to be overcome to get the research done.
- 2:30 to 3:00 PM            Break Refreshments available in 407
- 4:30 – 5:00 PM            Return to Hampton Inn via vans
- 5:45 PM            Vans leave the Hampton for Grainger Library
- 6:00 PM            Reception/dinner at Grainger Engineering Library



# Grainger Library





# Agenda, Wednesday Oct 27



- 7:45 – 8:15 AM Vans Leave Hampton Inn for Levis Faculty Center
- 8:00 – 8:30 AM Continental Breakfast
- 8:30 – 10:00 AM Reports by each of the breakout groups; chaired by Jesse Ausubel
- 10:00 – 10:30 AM Refreshment Break
- 10:30 – 11:30 AM Workshop wrap-up & “Where do we go from here”, Jesse Ausubel
- 11:30 AM Adjourn & Lunch (box lunches available to eat at Levis or to take with you)