Coalition for the Commercial Application of Superconductors

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CCAS Mission

• Broad dissemination of the applications and benefits of superconductivity and related technologies

• Represent the industry by speaking with a united voice on public policy issues

• Enable members to communicate and collaborate, nationally and internationally, to collectively develop and demonstrate multi-disciplinary technology, to educate policy makers, and to advocate priorities for adequate government support for superconductor based programs from research to pre-commercial demonstrations

For More Information

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CCAS Functions

- Quarterly meetings
- Guest speakers
- Capitol Hill visits
- Endorsement of relevant Government legislation
- White papers
- Superconductivity applications booklet
- International Superconductivity Industry Summit (ISIS) Members: U.S.A., Japan, Europe, New Zealand, South Korea, Russian Federation
The U.S. Power Grid

- The grid is aging and at capacity
- Transmission investment has declined since the early 1970s
- Demand continues to increase
- Economic growth (GDP) and electricity consumption have been tightly correlated for decades

Sources: Energy Information Administration’s Annual Energy Outlook and Federal Reserve Bank

Chart from “High Temperature Superconducting Direct Current Cable” presentation at ISIS-18, Wellington, New Zealand, 2010
World Energy Consumption 1960-2012

World energy consumption

Energy, 1,000 TWh per year

Year


Oil
Coal
Gas
Hydro
Nuclear
Other renewable
Electric Power Generation Forecast

Figure 6. World net electricity generation by energy source, 2010-2040 (trillion kilowatthours)

- Coal
- Natural gas
- Nuclear
- Hydropower
- Nonhydropower renewables
- Liquids
Conclusions

Energy consumption is increasing worldwide and in the U.S.
There will be continued growth in electric power demand and generation.
The U.S. grid is close to capacity, has many bottlenecks, and is vulnerable.
A crisis is coming.
Implementation of new technology solutions is required.
Superconductivity is one of the answers.
The electric power industry is justifiably pragmatic.
Major demonstrations need to get underway now.