

MINUTES OF THE SENATE UTILITIES COMMITTEE.

The joint meeting of the House and Senate Utilities Committees was called to order by Chairperson Senator Stan Clark at 9:30 a.m. on January 23, 2002 in Room 526-S of the Capitol.

All members were present except: Senator Barone

Committee staff present: Raney Gilliland, Legislative Research  
Ann McMorris, Secretary

Conferees appearing before the committee: none

Others attending: see attached list on House Utilities Committee  
minutes of same date

Representative Carl Holmes (Chairman of House Utilities Committee) reported on an Advisory Committee on Energy meeting held in Tampa, Florida for the National Conference of State Legislatures energy staff. He described a tour of the Energy Technology Resource Center in Tampa, Florida owned by Tampa Electric Company. The center is segmented into three interactive areas: (1) Advanced Technology Center; (2) Foodservice Center; and (3) Lighting Display Center and provides businesses an opportunity to research and test energy efficient electric and natural gas technologies for industrial, commercial and retail applications (Attachment 1)

Infrastructure risk assessment concerning security risk information and the vulnerability of energy infrastructure to terrorist threats was discussed. A major problem is state "open meeting laws" or "right to know" whereby the federal government refuses to provide most classified and intelligence information to the states because of open access.

The group toured a state of the art "Integrated coal gasification combined-cycle power plant". Chairman Holmes suggested Kansas needs to look at this technology in detail as it could reopen Kansas coal mines. (Attachment 2)

FERC asked for input from state commissions and legislatures concerning transmission issues.

The committees were provided with several documents which are on file in the State Library.

1. California's Power Crises-What Happened?-What Can we Learn
2. Restructuring in Retrospect
3. The Electric Industry - State and Federal Jurisdiction.
4. Transmission Planning for a Restructuring U.S. Electricity Industry  
by Eric Hirst and Brendan Kirby.
5. Expanding U.S. Transmission Capacity by Eric Hirst.

Adjournment.

Respectfully submitted,

Ann McMorris  
Secretary

Attachments - 2

## ACE Meeting

Thank You Stan

Last summer, I was approved as a member of the ACE committee which is the Advisory Committee on Energy for NSCL energy staff. The stakeholders consists of approximately 25 members divided between legislators, legislative staff, NSCL staff, Department of Energy staff, and electric utility industry representatives. The committee selects energy topics of state legislative concern for presentations, discussion and recommendations. The NCSL's staff work assignments are guided from our recommendations. We look at emerging issues, issues of legislative concern, topics for Institutes and Seminars, in addition to the ASI-AFI meetings, the annual meetings, work products in the way of studies for publication, and ways to distribute the produced information.

This meeting report is for the Tampa, Florida meeting the first week in January. At times, the information is in the form of meeting notes and indicate areas presented and discussed without detail.

Thursday

Thursday afternoon, we had a tour of the Energy Technology Resource Center in Tampa owned by Tampa Electric Company.

The Energy Technology Resources Center was opened in 1995 to introduce energy-efficient electric technologies to small and mid size businesses.

The Center includes more than 10,000 square feet dedicated to hands on equipment demonstrations, training and certification seminars and business meeting facilities. Equipment is furnished by many businesses nationwide.

Segmented into three interactive areas, the ETRC includes an:

- Advanced Technology Center with emerging commercial equipment including heating and ac equipment, water heating, etc
- Foodservice Center with a fully equipped commercial kitchen (Testing by small restaurants)
- Lighting Display Center with indoor light comparison booths (Light color and efficiency)

Businesses can use the ETRC at no charge to research and test energy efficient electric and natural gas technologies for industrial, commercial and retail applications.

Users have access to technical reports, trade journals, the Internet and an on-line link to the University of South Florida library for industry and technology news.

Also included were facilities with state of the art audio and visual equipment for business gatherings. They hold regular training sessions to educate small businesses in energy efficiency.

## Friday

The first morning session concerned infrastructure risk assessment. Since this session concerned security risk information, quite a bit of the information presented cannot be discussed in an open meeting. The presenters indicated there is an important need to focus not only on response, but also on detection and prevention. The energy infrastructure is very venerable to terrorist threats, but the level of risk is probably manageable. The existing system cannot be made completely invulnerable. States probably are not ready to properly respond to real threats. The majority of state emergency plans are poor and out of date. State governments must work with the federal government and industry or State's could do more harm than good. The private sector is not and should not be providing intelligence and military type security. There is a big question as to who should pay for security--federal, state or the utility industry. We have the issue of open democracy vs a perfect security system. Security will become a cost factor in energy costs. Terrorists will go after economic infrastructure to cause greatest damage as economic impact is the strongest message as our country runs on energy. The grid system of all utilities and plans like drilling in ANWR only increase our vulnerabilities--highly concentrated energy flows and coordination of large communications systems. Distributed generation increases security of the electric grid compared to large base load plants. We need to be looking at the vulnerability of the overall energy system and taking into account the following features for a secure energy system: diversity, optional interconnections, decentralization, simplicity, and efficiency.

They indicated a major problem is state "Open meeting laws" or "Right to Know". As a result of the ability for terrorist to get public information, much of it is in public libraries or available thru information requests. The federal government is refusing to provide most classified information and intelligence information to the states because of open access.

The next presenter was Jim McDonnell, Director, Energy Assurance Section of the US Department of Energy. Jim has just been moved to this subject area from his previous job of protecting nuclear weapons and nuclear weapons storage areas as well as working to protect nuclear operations from terrorist activities. This indicates the importance being placed on our energy supplies by the Federal Government. Jim stated terrorists often attack soft targets with the purpose of affecting the economy. It is important to define the system and map it to see the

interdependencies. He indicated we need to focus on low-cost, simple measures to influence when and where terrorism occurs. Governments cannot regulate or legislate a response to every terrorist act. Skilled, quality personnel must be allowed to act and respond to attacks. One of Jim's biggest challenges will be deciding whether information can be shared with state legislators. We need to examine the problems caused by security classification of information that some states may need. Often States also don't get pertinent information from industry because of the fear the information will go public (Freedom of Information Act). Also, industry is reluctant to share information with competitors. There should be a balance between the public needing to know type information and 'worst case scenario' confidential security information. It is necessary to explore the direct link between energy efficiency and security. Sandia Laboratory is modeling the nation's energy infrastructure to assist states with drawing on national resources. DOE will provide training to states and will visit each state, learning what the states need and want from DOE. The DOE Energy Assurance Section, led by Jim, will be drafting model security standards due by March 31.

From the information presented on security, the ACE committee recommended the following:

- NSCL will write a background document on critical energy infrastructure protection.
- NCSL will hold sessions at the annual meeting on security
- NCSL will publish periodic alerts describing major issues states should be addressing. These will be distributed by e-mail to state utility committee leadership. The information will be general, idea type information.

#### Afternoon

Friday afternoon, we toured Polk Power Station, a state of the art "Integrated coal gasification combined-cycle power plant" which began operation in 1996. This plant was built with the assistance of a \$140 million grant from DOE for the development of clean coal technology. The plant has a gross electric production of 320 megawatts and a net electric production of 250 megawatts. The gasification portion of the plant produces a clean coal gas which fuels the combustion turbine. Coal is combined with oxygen in the gasifier to produce the gaseous fuel. The gas is then cleaned by a "gas cleanup" process. This cleanup process removes 95% of the sulfur in the coal gas. The sulfur is converted to sulfuric acid and used in the fertilizer industry. Existing "mine cuts" from phosphate mining were modified to become the plant's cooling reservoir. The plants storm water is diverted to the plant cooling reservoir. This plant has burned over twenty different fuels to date including high sulfur coal and petroleum

coke from oil refinery waste products. The coal used is transported from the eastern coal fields or from South America to Tampa and then trucked to this plant after processing. In response to one of my questions, the higher the sulfur content in the coal, the more sulfuric acid produced. The normal sulfur content of the coal used is 3.5%. There is a plant in, I believe Ohio, that is using 5.5% sulfur coal using this same clean coal technology. With today's technology, the new construction cost for this type of plant is about \$1200 per KW--well in line with new coal fired plant costs.

After touring the plant, I feel we need to look at this technology in detail as it could reopen the Kansas coal mines.

Go over handout!!

### Saturday

The Saturday morning session began with Nora Mead Brownell, a FERC commissioner and state commissioner's from 5 different states. Nora said it is time to question the entrenched rhetoric of state vs. Federal, corporate vs environmental interests. She feels there are areas that all interests should work together. The driver should be economic development. FERC did a study of transmission constraints and found that underinvestment costs in transmission in New York state alone cost \$700 million in the summer of 2000. Energy investment and growth must bring certainty and reliability to markets or there will be a restraint on new capital investment. She said "Regional markets are currently in "ugly adolescence". As of September 2001, FERC has created a plan of where it is going, when, and how. Nora indicated the need to create a viable and reliable wholesale market and encourage the right investments. She indicated the need for comprehensive energy policies and plans at both the state and federal levels. State panels concerning RTO discussions have had almost unanimous recommendations. FERC is establishing an Office of State Relations to focus on RTO issues. They want input from state commissions and legislatures concerning transmission issues. They do not, at least at this time, want jurisdiction over siting of transmission lines, but for this authority to stay in state control. FERC is trying to get away from litigation, and intends to make more use of Alternative Dispute Resolution. They are doing market design workshops and regional meetings on interconnection standards. FERC is also on a task force with DOE, FBI, and EPA for infrastructure security. She indicated state commissions and state legislatures need to be involved in FERC meetings. They are looking at RTO rulemaking at the end of the first quarter and the beginning of the second quarter.

The committee spent a considerable amount of time discussing the transmission issue and other FERC related issues with Nora and the State Utility

Commissioners present.

From information presented on transmission, the ACE committee recommends:

- NCSL will discuss with NARUC staff the best means for letting legislators know about NARUC publications as well as periodic NARUC briefs on utility issues to state legislatures.
- NCSL will write and research a document on different models for regional collaboration, lessons from those models, and the applicability of regional collaboration in energy. This document will look at existing interstate compacts and interstate collaborative organizations. Completion of this effort is dependent on NCSL staff securing funding.
- NCSL will investigate the feasibility of developing an interactive map on the web showing regional energy institutions.

This concluded the meeting.

Three documents completed at the request of ACE the past few months include:

- California's Power Crisis-What Happened?-What Can We Learn?
- Restructuring in Retrospect
- The Electric Industry-State and Federal Jurisdiction

This last document is an excellent information source for legislators as we prepare for debate on electric utility issues. Scott Hempling, who the KCC brought to Topeka to inform the commission and staff, helped develop this last document.

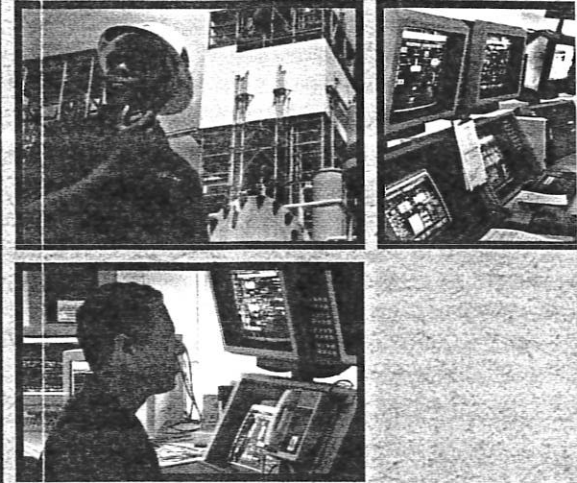
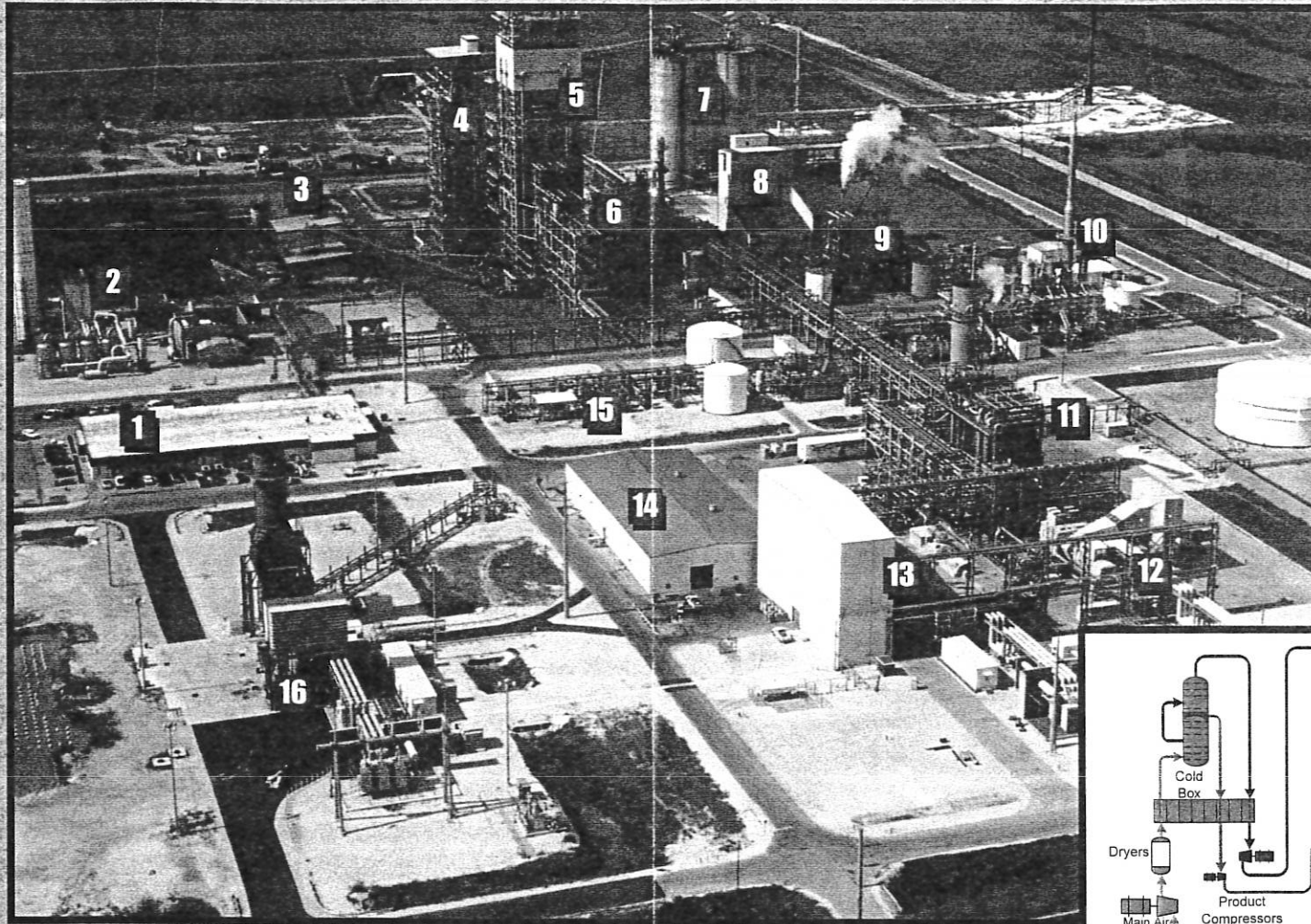
I will make available these three documents in the state library.

I also have a few background documents presented to ACE, by industry and others, and used in our research. The documents are for committee members to share. We will keep one copy in my office if you misplace yours or you do not get one of the industry documents. There is not enough for everyone.

I appreciate the opportunity to serve on ACE and hope the information I receive can be of use to the Kansas Legislature.

Are there any questions?

# Power *in* TEAMWORK



## IGCC - INTEGRATED GASIFICATION COMBINED-CYCLE FACILITY

### BUILDING KEY:

1. Control & Admin. Building 2. Air Separation Unit 3. Slag/Water Separation 4. Hot Gas Cleanup 5. Gasification & Gas Cooling 6. Sulfur Removal 7. Coal Silos (5 days) 8. Coal Grinding 9. Brine System 10. Sulfuric Acid Plant  
11. Heat Recovery Steam Generator 12. Combustion Turbine 13. Steam Turbine 14. Maintenance Shop  
15. Make-up Water Treating 16. Unit Two (Peaking Unit)

