COMMONWEALTH OF VIRGINIA

JOHN C. WATKINS
10TH SENATORIAL DISTRICT
PART OF CHESTERFIELD AND HENRICO COUNTIES,
POWHATAN COUNTY,
PART OF THE CITY OF RICHMOND
POST OFFICE BOX 159
MIDLOTHIAN, VIRGINIA 23113

COMMITTEE ASSIGNMENTS:
AGRICULTURE, CONSERVATION AND
NATURAL RESOURCES
COMMERCE AND LABOR
LOCAL GOVERNMENT
TRANSPORTATION

SENATE

November 15, 2001

The Honorable William C. Wampler, Jr.
Chairman of the Virginia Coal and Energy Commission
510 Cumberland Street, Suite 308
Bristol, VA 24201

Dear Mr. Chairman:

I have attempted in the past couple of weeks to assess the needs of this Commission and of the Commonwealth of Virginia with regards to energy reliability in the future. This assessment is particularly needed at this time in light of the deregulation of the electric utility industry as well as the natural gas industry. This all has to be viewed in the context that both of these industries have already been deregulated at the wholesale level by the Federal government. In order to provide an adequate assessment we will likely be challenged with regard to jurisdiction in these matters. Nonetheless, without adequate baseline data there will be no means provided from which we can determine efficiencies in the reliability of these systems to deliver the energy needs of our citizens.

Included in this letter is a compilation of information regarding energy reliability that has been prepared in conjunction with the State Corporation Commission (SCC). I have requested that the Legislative Services staff provide copies of the information to all committee members so that it may be considered during our November 18th meeting in Richmond.

I look forward to seeing you Sunday evening

Sincerely,

John C. Watkins

cc: Coal and Energy Commission
Enclosure

In order to establish a benchmark database for Virginia's electric industry infrastructure, it is necessary to first focus on the generation facilities located within the respective control areas of each of our incumbent electric utilities and then determine the pro-rata share of that generation dedicated to Virginia during the benchmark period. The benchmark period should cover several years to remove the anomalies specific to a particular year. With respect to generation, the following information should be supplied or the following questions answered:

- An inventory of generating facilities located within the control areas of the incumbent electric utilities during the benchmark period.
- Data specific to each generating unit – size (summer/winter capabilities), location, fuel type, heat rates; and megawatts applicable (by law or regulation) to the provision of service in Virginia.
- Data relative to the historical generating capabilities of each unit compared to actual operating parameters:
  - Specific hours the unit was forced off line.
  - Specific hours the unit was off-line for planned maintenance.
  - Hourly forced curtailment levels (unit derates).
  - Hourly planned curtailment levels.
  - Hourly generation by unit for the benchmark period.
- Total hourly load (demand and energy) in the control area during the benchmark period; each utility's Virginia hourly load during the benchmark period.

With regard to electric transmission systems, the process of comparing the on-going operation of such systems to benchmark performance levels is more complex. At a minimum, the following data should be collected for a specific benchmark period:

- Individual line transfer capabilities at control area interfaces.
- Aggregate transfer capabilities across the control area interface on an hourly basis for the benchmark period, including the degree to which such capabilities were reserved and the actual use of such capabilities (actual load flows).
- Hours during which bulk transmission facilities were off line or operated at reduced levels for planned maintenance.
- Hours during which bulk transmission facilities were off-line or were operated at reduced levels because of equipment failure.
- Actions taken to relieve transmission loadings including:
  - A description of the action.
  - Duration of the action – start and end dates/times.
  - The critical facilities involved in the action.
- Hourly flows into and out of the control areas.

For gas transmission facilities, the following information should be collected for a specific benchmark period:

- A description (including maps) of the interstate and intra-state gas transmission lines and associated facilities located in Virginia by Company.
- The transmission capability (mcf/day) for each of these facilities on a specified date.

- The amount of that capability dedicated to Virginia.
- The amount dedicated to customers outside Virginia.
- Additional load each pipeline is capable of serving; aggregate additional load each company's facilities are capable of carrying.
- Actual flows (mcf) into Virginia during the benchmark period for each pipeline facility; the aggregate flows (mcf) on all the facilities of each transmission owner into Virginia during the benchmark period.
- Actual flows (mcf) out of Virginia during the benchmark period for each pipeline facility; the aggregate flows (mcf) on all facilities of a transmission owner out of Virginia during the benchmark period.
- Total gas storage capability located in Virginia; capability dedicated to Virginia load.
- Total gas storage capability located outside Virginia dedicated to Virginia load.
- Expansion projects planned; expected capacity enhancements into Virginia as a result of each project.
- Operational flow orders issued during benchmark period, reasons orders issued.
- Requests for curtailment (mcf/day) issued by Virginia LDCs to interruptible customers and a description of why such requests were issued.

Notes

1. The above represents a significant volume of data; however, in a competitive wholesale market, the hourly availability of facilities is critical to monitoring the maintenance of reliability because of the potential of the economic withholding of generation.

2. The preceding represents a "first-cut" at developing a series of questions to generate a benchmark database. The creation of this database and subsequent updates for comparison purpose represents a significant undertaking. These questions would likely be modified, perhaps significantly, in the process of generating such a database.

3. This document requests generation data by control area and attempts to identify units dedicated to Virginia during the benchmark period. For those utilities that are part of a pool; units that served Virginia via an interconnection agreement that dedication could diminish significantly as load grows outside Virginia grows and dedicated capacity is not added by the incumbent.

4. In terms of developing a database for the inventory and operation of generating units, there are currently several merchant plants in the Commonwealth, the output of which is dedicated to the wholesale market as opposed to the Virginia market.

5. With the ultimate control of transmission by an RTO and the provision of generation by a competitive market, the oversight of bulk power facilities from reliability and economic perspectives may be the purview of federal government with the states responsible for distribution reliability only.

- The oversight of interstate gas pipelines from certification, safety, and rate perspectives comes under the purview of the federal government.