

States on November 9, 1965, when principal interconnecting transmission lines transmit electrical energy by direct current as versus alternating current.

We have followed with interest recent developments in DC transmission, and at this time it does not appear that DC transmission is economically feasible for peninsular Florida.

8. Any operating instructions or studies you have issued or made relative to the fail-safe limits of free spinning reserve.

A substantial loss in generation in peninsular Florida results in separation of the Florida group from the Georgia system. Since the group does not depend on out-of-state help for a loss of substantial generating capacity, it is prepared at all times to take care of its emergencies.

The spinning reserve requirement has always been a matter of continuing review by the Florida group. Members exchange daily information and a review is made at each meeting of the operating committee. Since the formation of the Florida Operating Committee, it has been recognized that the distribution of spinning reserve is extremely important and that a large number of units can increase generation simultaneously and supply a greater amount of power more quickly than a few units with the same amount of total reserve.

Spinning reserve is shared and maintained to protect the instantaneous loss of the largest generating unit in service. The reserve is distributed on enough operating units with proper governor characteristics, so that a frequency drop of less than five-tenths of a cycle will provide the full benefits of each member's share of assistance. The reserve must be available to all members and not restricted by limitation of transformers, lines or other equipment. In abnormal situations where the spinning reserve of a member is either unavailable or only partially available, the member notifies the others so that their spinning reserve may be increased or reallocated as required.

Every system disturbance is thoroughly analyzed by the operating committee to check the response of the generating units of each member in meeting the emergency.

The amount of spinning reserve required is constantly under review. At this time it is felt that it is not necessary to raise the minimum above the capability of the largest generating unit in service, because of the great internal-load shedding capability provided by underfrequency relays.

9. Your procedures for reducing loads and restoring service in the event of outages.

We have already discussed our underfrequency and manual devices for shedding load to match generation and load. Restoration of service is aided by supervisory or remote control of most of the substations on the several systems. This greatly reduces outage time since it is not necessary for a switchman to fight snarled traffic to get to the substation for switching.

The Florida group systems have long been subjected to the hazards of widespread damage from hurricanes, and for many years have had standing emergency procedures. It may be noted here that emergency procedures have continuously been stressed to prepare all personnel for abnormal operating conditions caused by hurricanes. The Florida Power & Light Company storm manual is attached to illustrate the planning for such emergencies. In the case of day-to-day emergencies involving loss of generating units, lines, etc., operating procedures are critically reviewed between and among the companies after disturbances in order to perfect recovery methods. As a result of the Northeast power failure, each member of the group is very carefully examining all standing instructions and emergency operating procedures.

I hope these comments will be helpful to your Committee. We assure you that our efforts to further improve our service will continue.

Sincerely yours,

ROBERT H. FIRE,

*President and General Manager.*

Mr. FIRE. I don't think really the subject of blackout has any connection with this proposed amendment per se, but there has been so much talk about it, I would like to say for the record, that the people who are most interested in protecting the customers against blackouts are the companies themselves.

We can't get any revenue if the connections are not being used and if the customers are not using electricity, so we are striving to our utmost to see that the service is the best it can possibly be.