

outage of less than 100 mw on its system. In this connection it may be noted that 12 of FPL's 24 generating units generate 75 mw or less. An outage of any of these units would lead to almost instantaneous assistance to FPL. FPL, in turn, operates in synchronism with the 140 members of ISG and is ready to assist them in case of emergency. Thus, FPL contributed 8 mw to ISG to assist a midwestern utility which had sustained a 580-mw generator loss.

The testimony and evidence of record support the examiner's findings that the electric power on all the interconnected systems in which FPL, Corp, and Georgia participate is supplied as alternating current at a frequency of 60 cycles; that the frequency of each system is in synchronism with that of all the others in the interconnection; that there is a tie-line bias with frequency control on the interconnected systems which permits a free flow of power and energy throughout the networks in which FPL, Corp, and Georgia participate; that all 140 members of the ISG operate in parallel and are interlocked electromagnetically; and that FPL can receive from or contribute to ISG up to 100 mw. The record further supports the examiner's findings that FPL normally has no control over the actual transfers of electric power and energy with any particular electric system with which it is interconnected; that since electric energy can be delivered virtually instantaneously when needed on a system at a speed of 186,000 miles per second, such energy can be and is transmitted to FPL when needed from out-of-state generators, and in turn can be and is transmitted from FPL to help meet out-of-state demands; and finally, that there is a cause and effect relationship in electric energy occurring throughout every generator and point on the FPL, Corp, Georgia, and Southern systems which constitutes interstate transmission of electric energy by, to, and from FPL.

In its exceptions FPL argues that there is no substantial record support for the examiner's finding that it is engaged in the transmission of electric energy in interstate commerce. We find no merit in this argument. The examiner concluded that the operation of FPL in electromagnetic unity with the suppliers in and outside of Florida in and of itself demonstrated that it owned and operated facilities for the interstate transmission of electric energy. This finding is also supported by the evidence produced by staff at the hearing which convincingly establishes that electric energy is transmitted in interstate commerce to and from FPL's lines. The nature of staff's showing is fully consistent with, and satisfies the tests which we have established in numerous opinions issued in the last two years to support a finding that wholesale sales are in interstate commerce. See *Indiana & Michigan Electric Company*, Opinion No. 458, 33 FPC 739, affirmed *Indiana & Michigan Electric Company v. Federal Power Commission*, 365 F.2d 180 (CA7), certiorari denied 385 U.S. 972; *Arkansas Power & Light Company*, Opinion No. 473, 34 FPC 747 (1965), affirmed *Arkansas Power & Light Company v. Federal Power Commission*, 368 F.2d 376 (CA8); *Public Service Company of Indiana, Inc.*, Opinion No. 483, — FPC — (1965), affirmed in *Public Service Company of Indiana, Inc. v. Federal Power Commission*, — F.2d — (CA7, January 13, 1967); the *Cincinnati Gas & Electric Company*, Opinion No. 485, — FPC — (1966). Certainly it is reasonable to rely on the methodology used in the above cases to demonstrate that particular sales are in interstate commerce to establish in this proceeding that FPL itself is engaged in the interstate transmission of electric energy and is thus a "public utility" within the meaning of the Act.

Thus through the application of the same techniques here that it had utilized in those other cases staff demonstrated by its record exhibits the flow of energy from Georgia across the Georgia-Florida state line through Corp's system and into FPL's transmission lines, as well as a reverse flow from FPL's lines through Corp's system to Georgia. See Staff's Exhibit Nos. 18, 19, 32, and 33.³ For example, Staff's Exhibit No. 18, at page 6, graphically demonstrates that on September 28, 1964, at 7:00 o'clock p.m., there was a flow of 51,000 kw of interstate power from Georgia to Corp and an instantaneous flow of 50,000 kw of commingled interstate and intrastate power from Corp to FPL. We are not persuaded by FPL's exceptions that the examiner committed error in basing his findings on such staff exhibits rather than on FPL's own system studies which FPL contends show

³ Staff's Exhibit No. 18 shows the flow of energy from Georgia through Corp's system and into FPL transmission lines via the Jasper-Fort-White-Turner-Sanford interconnections on designated hours of 22 days out of a 4-month period in 1964. Staff Exhibit No. 19 indicates the presence of such flows during hours earlier than 7:00 a.m. on 20 of the 22 days listed in Exhibit No. 18. Staff Exhibit No. 32 further shows that energy transmitted from FPL's Sanford Plant flowed during 3 days of the same 4-month period over Corp lines into the Georgia Power System via the Turner-Fort-White-Jasper interconnections.