netic interlock" and "commingling" theories render such tracing unnecessary. Perhaps the best illustration of the difference can be developed by comparing the *Jersey Central*[4] case, which was before the U.S. Supreme Court in 1943, with the recent decision of the Commission in the *Florida Power & Light Company* case.[5] I have prepared a wall chart (fig. 4) to depict the essential facts involved in these two cases. At the top of the chart, I have illustrated the Jersey Central facts and have used a water trough because its functioning would be exactly like the interconnected electric systems involved and is much easier for me to understand and diagram. These two systems at the left—Jersey Central and Public Service Electric and Gas Company—were both situated in the State of New Jersey. The system at the right, Staten Island Edison Corporation, was situated in the State of New York and served Staten Island. Ordinarily, both Jersey Central and Public Service had generation and the Staten Island system often took power from Public Service. The Supreme Court found that at times Public Service generators were not in operation when Staten Island was taking power. Thus, by analogy, at such times Jersey Central was feeding water into the trough but the Public Service tank was not. Since the only source of supply for the Staten Island system at such times was from the trough being fed by Jersey Central, it was apparent to the Court—and we certainly agree—that the energy received by Staten Island was coming from Jersey Central. Thus, we had a classic application of the language of Section 201c of the Power Act itself—that energy "transmitted from a State" was "*consumed* at any point outside thereof." Because Jersey Central's facilities were found to be so transmitting they were found to be subject to the jurisdiction of the Commission.

On the other hand, if we contrast the Jersey Central facts with those involved in the Florida situation, which are illustrated on the lower half of the chart, we see that the Florida situation involves an entirely different set of facts. The Florida Power Corporation system, which stretches nearly 180 miles from the Georgia line to its nearest point of interconnection with the Florida Power & Light Company system, has numerous generators, most of which at all times feed power into the Florida Power Corporation system. It has not been demonstrated by the Commission, and we do not believe it can be demonstrated, that energy introduced into the Florida Power Corporation system at the Georgia line could reach the Florida Power & Light Company system 180 miles away. Neither has it been shown that energy from the Florida Power & Light Company system could reach the Georgia line. The Commission has gotten around this factual obstacle by arguing and by ruling that the small amounts of energy introduced at the Georgia line become "commingled" with the large mass of power generated by Florida Power Corporation and that, therefore, any energy withdrawn from the Florida Power Corporation System by Florida Power & Light Company must consist, in part, of energy from Georgia. This was not a factual finding but a theory.

The Commission has also placed great reliance upon its theory that the generators in Georgia and in Florida all operate in synchronization or "in parallel" or whatever different words engineers may choose to describe the electrical phenomenon involved in interconnected operations. A Commission staff expert has often referred to this phenomenon as "magnetic interlock," or the simultaneous pulsing of all of the connected generators.

The fact that systems are in "magnetic interlock" when connected proves nothing. The fact that "commingling" occurs also proves nothing. These concepts are not new. Connected systems were in "magnetic interlock" and "commingling" occurred when Part II was enacted in 1935. However, Congress deliberately required *something more* in 1935, because it deleted a provision in the original draft which would have made jurisdiction depend on connection alone and required instead that energy transmitted from one state be *consumed* in another. It is apparent that the process by which companies which were non-jurisdictional then have become jurisdictional now, when the Act has remained unchanged for 32 years, is by the FPC writing its own laws.

As Commissioner Carver noted in his dissent, although Congress was careful to provide that connection alone meant nothing, the Commission has now ruled in such a manner that connection alone determines everything.

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[4] *Jersey Central Power & Light Co.* v. *Federal Power Commission*, 319 U.S. 61 (1943).
[5] *FPC Opinion No. 517*, Docket No. E–7210, March 20, 1967.