Florida Energy Policy Forums--1996
(Executive Summary)

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The Florida Public Service Commission (FPSC) selected the Public Utility Research Center (PURC) at the University of Florida to organize three one-day Energy Forums in the last half of 1996. By bringing in a set of experts, we hoped to provide diverse perspectives on emerging energy market issues--focusing on electricity. The sessions provided an opportunity for FPSC staff to consider a wide spectrum of viewpoints and to interact with speakers. Staff also benefitted in that the Florida Bar certified the Forum for Continuing Legal Education Credits and the Florida Board of Accountancy certified the sessions for Continuing Professional Educational Credits. The main purpose of this series of Forums was to provide background information and technical training for FPSC staff. In addition, we hoped to encourage dialogues among the participants, enabling us to identify areas in need of further research. Various stakeholders helped clarify the issues by commenting on presentations and asking questions. The Energy Forums were announced in the *Florida Administrative Weekly*, so attendees came from a wide range of organizations besides the FPSC: other state agencies, the legislature, incumbent utilities, potential entrants, environmental groups, consumer advocates, large industrial customers, and law firms. Attendance averaged about seventy from the FPSC and ninety from other organizations.

The electric utility industry is in the process of adjusting to the 1992 Energy Policy Act, recent Federal Energy Commission Orders, and other developments in energy markets. Structural and regulatory proposals are being considered (or have been adopted) in a number of states. At the federal level, the Federal Energy Regulatory Commission (FERC) continues to examine the implications of alternative regulatory scenarios for the efficiency and reliability of electricity supply to our nations's residences and industries. The three Energy Forums described below represent a useful step in monitoring developments outside Florida and identifying lessons that can be learned from the experiences of others. This overview cannot capture the full scope of the presentations and related discussions. However, it provides a mechanism for summarizing some of the key points raised by speakers and other participants.

Forum 1: Catalysts for Change in the Electric Industry (July 26)

The purpose of the first forum was not to seek consensus on all the issues addressed in the series, but to raise FPSC staff awareness as to the sources of policy disagreements. Differences in policy prescriptions by various parties can arise from differences in three areas: understandings of structural developments in the industry, analyses of the impacts of alternative policies, and weights placed on various economic and social objectives. Speakers were asked to be explicit about emerging basic conditions (which determine the optimal configuration of the industry), the analyses from which policy implications are drawn (including key assumptions about behavior under alternative regimes), and priorities placed on performance objectives.

One of the groups advocating rapid change was represented by *John Anderson* (Executive Director of the Electricity Consumers Resource Council). He supported movement toward retail competition and customer choice, arguing that market forces could provide lower electricity prices without compromising reliability. From this perspective, competition in wholesale markets still leaves captive customers as convenient sources of funds for compensating suppliers for mistakes of the past. In addition, the pricing of access to (monopoly) transmission and distribution facilities should reflect "actual" costs. Elcon's position is that

> The costs of assets that were uneconomical in the existing regulatory regime are not transition costs. . . . Costs associated with uneconomic assets which are legitimately and verifiably associated with the transition

should be recovered equitably between current and former utility consumers, shareholders and taxpayers. (Testimony of Jon T. Prendergast before the House Energy and Power Subcommittee, May 15, 1996).

The question and answer period raised a number of concerns. One attendee supporting change noted that those using the term "stranded costs" should replace those words with "uneconomic assets," where competition would force the re-valuation of high (average) cost generating capacity. One discussant asked about the implications of retail competition for local government tax revenues based on property taxes. Another concern with Elcon's recommendations was a perceived potential for cost-shifting. Would only one group of customers benefit from competitive prices reflecting today's relatively low marginal costs? One suggestion involved regulatory specification of a transition time-period, during which incumbent suppliers would have an opportunity to get the book value of generation assets closer to the market value. Supporters of rapid change viewed such delays as denying consumers the benefits of competition.

Joe Cresse (former FPSC Commissioner and Consultant, Messer, Caparello, Madsen, Goldman, Metz, P.A.) presented some reasons for going slowly. Currently, Florida's prices are less than the national average, despite rapid growth. He credited the regulatory regime with not making the mistakes of many other (high cost) states. Cresse raised thirteen questions that he thought required answers before taking precipitous action. For example, (1) If the cost per kWh from new combined cycle natural gas plants is less than the embedded cost from existing plants, should all or only some customers benefit from lower prices? (2) What is the fair way to deal with existing regulated utility assets built prudently under regulation if they are not fully recoverable in a market environment? (3) What party (if any) retains a residual obligation to serve? (4) Given the diverse set of current suppliers (investor-owned, municipal, and rural electric), do the tax laws need to be reviewed to assure a level playing field for all participants? This point brought forth several comments about tax exemptions, tax subsidies, and deferred taxes.

Discussants noted that "The devil is in the details." Those advocating change tended to focus on quickly achieving lower prices. Competitive markets provide powerful incentives for lowering costs and price. Those who view the system as moving in the right direction (eg., cost containment, improved selection of generation assets, competitive wholesale market for bulk power) are not interested in dramatic changes without answers to the kinds of questions raised by Cresse.

After serving as Ohio's first Consumers' Counsel (1977-1993), *William Spratley* is now Director of the Legislative Energy Advisory Program. He pointed out that the debate needs to recognize "stranded benefits" achieved under monopoly electric utility regulation: fuel diversity, investments in environmental protection, promotion of energy efficiency (including demand side management programs), rate designs that facilitate price stability, fairness, economic development, and access by low income customers. Regulators could develop non-bypassable system benefits charges to support these objectives. Spratley supported the principles of consumer choice--so long as all customer classes shared in the benefits. He acknowledged the power of competitive forces in inducing lower costs. He noted that the antitrust considerations of recent merger activity and of vertical control raised concerns for ultimate sustainability of competitive outcomes. In the case of transmission access, the cleanest method would be corporate divestiture, though he noted that many view functional separation as providing safeguards protecting against the exercise of market power. Spratley concluded by summarizing the activities in California, New York, and Massachusetts. These state restructuring initiatives are attempting to ensure that residential customers share in any benefits from competition and that conservation activity continues.

Barry Huddleston (Destec Energy Inc.) equated (an estimated $250 billion in) stranded costs with the cost of regulation. He outlined the position of supply aggregators and independent power producers:

> . . . to truly achieve the benefits of a competitive market, Legislatures and Commissions must act to disaggregate utility functions which involve the ability to exercise monopoly/monopsony power from those that due not. Further, Destec believes that direct access by customer to power markets (not via pools, or around pools) is the cornerstone of a more competitive approach to providing electric services.

He sees the Independent System Operator (ISO) as

> . . . a completely independent entity, having no corporate relationship with any market participant . . . [acting] in accordance with engineering criteria and operational protocols established by organizations such as [the North American Electric Reliability Councils] and its various regional coordinating councils and with good utility practice.

In this view of the future,

> Aggregators will act as intermediaries between customers or customer groups and suppliers. Supply aggregators (such as power marketers) take title to power and resell it on the wholesale market. Load aggregators will group customers to increase buying power, optimize load factors, and otherwise capitalize on retail opportunities.

Eugene Peters (National Independent Energy Producers, or NIEP) presented a cogenerator/IPP perspective on a reconfigured industry. Cogenerators and independent power producers have put in place half of the new electricity generating capacity since 1990--representing nearly ten percent of all capacity. He identified three scenarios: regulated monopolies, full and fair competition, or unregulated monopolies. While endorsing the virtues of competition, he emphasized that obliterating current contracts would not create an environment conducive to the development of new electricity contracts (which are the tariffs of the future). NIEP sees stranded cost recovery as a transition issue that is manageable and compatible with competition. Its goals for regulatory and legislative action include choice for retail customers, development of truly regional markets, additional remedies to prevent market power, and the prevention of competitive advantage due to uneven environmental regulation. FERC Order 888 was seen as creating a national pro-competitive framework.

The discussion following these two talks underscored the different visions of the optimal industry configuration. The efficacy of non-structural reform was questioned by those supporting fully independent ISOs. In addition, placing "blame" for past investments raises tough questions regarding what decision-makers could have been expected to know at specific points in the past and the extent to which the Florida power plant siting process does (or does not) constitute regulatory approval of past decisions. Calculations of stranded assets depend on assumptions about input prices, electricity demand growth, and capacity additions. Furthermore, some transmission and distribution assets have replacement costs which exceed book value. The pricing of transmission services, including a capacity reservation tariff, raises complex issues.

In her wrap-up session, *Sally Hunt* (National Economic Research Associates, or NERA) provided an overview of regulatory developments in other states. She identified five fundamental issues in restructuring: (1) Who can sell what to whom? (Wholesale competition or retail competition). (2) What are the trading arrangements? (Open access, bid price pool, and/or bilateral trades). (3) Who can own what? (Potential divestiture because of organizational conflicts or the exercise of market power vs. continued vertical integration). (4) What form of regulation? (Performance-based ratemaking, traditional cost of service, or incentive regulation). (5) What are the transition issues? (Stranded costs and social programs--low income, renewables, environment, provider of last resort). She surveyed the answers to these questions, as reflected in PSC statements from New York, California, and Massachusetts. In a sense, these questions represent a research agenda for state regulatory commissions and for industry executives.

Hunt presented some charts relating state activity in the area of electricity restructuring to the average price of electricity in those states. A clear pattern emerges. Poor price performance has led to dramatic initiatives in high cost states such as California and New York. In some cases, those costs were partly due to poor regulatory decisions in the past. The conclusion is that "If it's broke, try to fix it." Some interpret this as meaning that Florida has a window of opportunity to learn lessons from these other states. We can take the time to let others make mistakes, resolve complex technical issues, and bear the costs of being first-movers. Others argue that the delays associated with that approach are luxuries that electricity customers cannot afford. Competition offers lower prices and improved

incentives for cost-containment. If incumbent electric utilities are insulated from such pressures, then continuing the status quo just drags out the delay. Furthermore, they argue that doing nothing increases the likelihood that new rules will be imposed from above (by Congress or FERC), ignoring unique features of a states that are inactive. According to Hunt, Florida has had what is generally perceived as "good" regulation. She leans in the direction of waiting for lessons to emerge, but concludes that wholesale competition is a way-station on the way to retail competition.

Thus, in the first Forum we heard from a wide variety of stakeholders whose positions on the benefits and costs of competition sometimes differed dramatically. Part of the debate hinged on the extent there are Win-Win opportunities for incumbents, customers, and potential entrants. When real savings can be achieved under a new industry structure, it is easier to reach agreement than when participants are just playing the game of "Hot Potato." No one wants to be left with burnt hands from that hot potato.

Some argued that large gains could be obtained from competition, while others counseled that Florida should not move precipitously. Descriptions of experiences in other states indicated that there is much activity in legislatures and commissions around the country. Other presentations described how new contractual arrangements and emerging spot and forward markets were changing the way business is conducted. Competition from IPPs and aggregators is clearly putting pressure on incumbents. Finally, Sally Hunt from NERA noted that the pressures for change are greatest where prices are the highest.

Forum 2: Impact of Federal Initiatives in Florida (September 27)

The Second Forum put some of the controversy aside and dealt with more technical issues. Our goal was not the avoidance of controversy, since disagreements are endemic to this area. Since different stakeholders have different visions of the evolution of industry structure, there will be differences of opinion. However, it is important to understand that these differences often stem from different weights given economic objectives. This forum emphasized jurisdictional issues arising from FERC activity in this area. Many of the summaries presented below draw directly from outlines prepared by the speakers.

Debate can be joined without becoming acrimonious. In an October 1, 1996 *Public Utilities Fortnightly* article entitled "Four Olive Branches: What the FERC Bestowed on PUC's in Order 888," Pennsylvania PUC Commissioner John Hanger stated,

> For cooperative federalism to become reality, cooperation must flow in two directions. States cannot expect deference from the federal government if they act like protectionists intent on impeding interstate commerce. The federal government cannot expect teamwork from the states if it preempts state authority even when states act in a manner that promotes the interstate commerce of electricity and competition in generation.

Such collaboration on issues of industry structure and competition requires that jurisdictional issues be resolved through cooperation. Other state regulators might not view FERC's actions as olive branches which represent peace offerings. Hanger noted that some states see these as brittle twigs at most: ". . . no more than fig leaves to cover the preemptive heart that beats deep within the supposedly imperialist FERC." However, he describes FERC's concessions as reflecting a genuine appreciation for states' rights in Order 888.

The Keynote presentation by *Kevin Kelly* (Deputy Director, FERC Office of Electric Power Regulation) surveyed FERC's role in electricity restructuring. The new FERC rules order all public utilities to provide non-discriminatory open access using a single *pro forma* tariff. Besides adopting a comparability standard, functional unbundling, and reciprocity, it provided for stranded cost recovery and established standards of conduct for utility wholesale power merchant and transmission functions. States retain the authority over the service of delivering electric energy to end users and are allowed to surcharge for retail stranded cost recovery (which requires that local distribution facilities be defined and identified). Furthermore, FERC adopted information requirements and technical standards for Open Access Same-time Information System (OASIS) and deadlines for modifying pooling agreements to become non-discriminatory. Also, it proposed a capacity reservation tariff (CRT) to replace the *pro forma* tariff in

a separate Notice of Proposed Rule-making (NOPR). The CRT would allow reserving capacity on the same basis for both network and point-to-point service. At issue is whether point-to-point pricing ought to be flow based, zonal, or involve congestion charges. It allows market participants to know how much transmission is available for electric power purchases and sales, and facilitates more flexible transmission pricing. The talk underscored the complexity of the issues facing state and federal regulators during this transition period.

Eric Hirst (Oak Ridge National Laboratory) examined two issues: estimating and recovering transition costs and defining and costing ancillary services. With regards to the first, these costs range between $100 to $200 billion, depending on a few key assumptions--especially the market price of power. These transition costs include four categories: (1) Utility-owned generation (assets); (2) Long-term obligations (liabilities); (3) Regulatory assets (phase-ins, deferred income taxes); and (4) Public policy programs (low-income, R&D, renewables, economic development). The large dollars at risk explain why there is so much controversy over calculation procedures and who pays. Hirst notes that utilities and regulators can offset some of these costs. For example, shortening the time to recover transition costs has a nonlinear effect on the fraction of transition costs not recovered.

The second topic involves the unbundling and pricing of ancillary service that support and make possible the provision of basic electrical services. Hirst estimates that nationwide, ancillary services cost about $12 billion per year, equivalent to $0.04/kWh. Beyond their cost, they are important because of their implications for system reliability (voltage control, frequency control, spinning and supplemental operating reserves, energy imbalances, and loss replacement). He points out that the optimal degree of unbundling depends on the costs and value of unbundling the service. Although unbundling increases customer choice, a number of unresolved issues remain. For example, load following has moment-to-moment fluctuations and hourly changes, as well as those associated with maintain scheduled interchange flows and frequency. Studies reveal that different units perform very differently, and therefore the pricing of these services requires careful identification of how units (and loads) interact to provide the services. Hirst suggests that transactions costs associated with unbundling and economies of scope due to the joint provision of ancillary services is likely to lead to some rebundling. The conceptual and measurement problems for promoting reliability are not insurmountable, but neither are they trivial.

Edward Flippen (Professor of Law, College of William and Mary, and Mays & Valentine) argued that everyone could not be better off under radical restructuring. Consumers in high cost states could benefit from access to low cost suppliers, but what about consumers in those low cost states? A similar issue arises within a state--if prices go from being uniform within some large service territory. How will rate de-averaging affect rural customers? Are the efficiency gains such that the outcome is win-win, or might the process primarily be win-lose, especially given the organizational costs of restructuring (let alone the stranded costs associated with a transition). Thus, he sees the potential for substantial wealth transfers arising from competitive pressures. He acknowledged the favorable incentive effects of competition, but concludes in his *Public Utilities Fortnightly* article (August 1996), "If we have a choice between deregulation under a 'federal coordinated policy' or 'piecemeal' state-by-state policies, [he would] choose the latter." On the other hand, others view the potential savings as offering win-win opportunities.

The investor-owned portion of the utility industry has expressed concern over attempts to municipalize or bypass the incumbent system through sham transactions. *Russell Tucker* and *Johannes Williams* (Edison Electric Institute) argued that when large industrial customers utilize political and economic leverage to get a city to take over their service, such bypass shifts costs to other customers. This issue has not arisen in Florida to date.

James W. Brew (Brickfield, Burchette, and Ritts, P.C.) presented an overview of federal and state jurisdictional issues arising from transmission pricing, siting, and the use of facilities. Since states have jurisdiction over resource planning and facility siting, there can be jurisdictional conflicts over the efficient use of transmission networks (reflecting price signals), priority of use (especially native loads), and the need to expand or upgrade the network (involving decisions regarding who pays). In addition, the use of reserved but unutilized transmission capacity raises hoarding and market power concerns, particularly if secondary market in transmission rights do not operate efficiently. He concluded: "As Florida utilities and the PSC adapt to industry changes, the PSC will increasingly encounter FERC rules or actions that may have bearing on state related decision making, and particularly

with respect to resource planning and cost allocation. He argued that litigation among regulators over areas of primacy would hurt consumers." Accommodations need to be reached between FERC and state commissions on these matters for restructuring to proceed smoothly.

The concluding presentation for the Second Forum was delivered by *Kenneth Gordon* (currently with NERA, but former Chairman of the Massachusetts Department of Public Utilities and of the Maine Public Utilities Commission). After identifying the goals of regulation (involving the simulation of competitive-like outcomes), he outlined some principles for reconciling goals, given divergent interests and technological (and political) constraints. The long term principles included the following: (1) Provide the broadest possible choice for consumers; (2) Ensure that all customers have an opportunity to benefit from competition; (3) Ensure full and fair competition in generation markets; (4) Functionally separate generation, transmission and distribution; (5) Continued support for low income customers; (6) Continued support for certain environmental goals; and (7) Provide incentives for better utility performance. During the transition, he supported honoring existing commitments, unbundling customer bills, providing near term rate relief to the extent possible, maintaining conservation programs, and minimizing customer confusion through the provision of adequate information.

Gordon pointed out that markets do not respect tradition or positions of privilege. The stakeholders were going to have to adapt to competitive pressures, including market-driven rates. He concluded that there was no quick fix or simple recipe that could be followed in the transition period. He also noted that efficient outcomes might be politically unpalatable. In addition, antitrust would have to play a greater role in the future, if regulators were going to given market participants more freedom. The Second Forum concluded like the first one, on a note of caution. Regulatory micromanagement can yield severe inefficiencies, yet pulling back from regulation results in different types of regulation during the transition period.

Forum 3: Industry Structure: Additional Perspectives (November 15)

The first presentation on the concluding day was by *Skip Wilson* (Vice President of Energy Supply, Tampa Electric Company). He provided an overview of the effects of industry structure on Florida's electricity reliability, emphasizing that reliability should not be taken for granted. After describing generation load balance, transmission system security techniques, and emergency preparedness, he raised a number of questions about retail competition: (1) Load-shedding systems; (2) The implications of private (independent) generation construction strategies and information for long range transmission planning; (3) Fuel diversity; (4) Appropriate reserve margins; (5) Dependence on interstate transmission ties; (6) Prices to final users in situations of system shortage; (7) Responsibility for new transmission required by new market arrangements; (8) Implications for residential customers; (9) Incentives for transmission and distribution investments; and (10) Feasibility of unbundling operating components of the electric system, including ancillary services. The new Florida Reliability Coordinating Council represents the industry's response to changing economic conditions and because of Florida's unique characteristics.

Theresa Flaim (Vice President, Corporate Strategic Planning, Niagara Mohawk Power Corporation) outlined four personal views of developments:

> (1) Competition, *implemented correctly,* will greatly improve the efficiency of the industry (produce the right products and services at the right prices; (2) We should try to get the new competitive structure in place as quickly as possible; (3) Transition issues are important and should be dealt with in a way that is fair and minimizes adverse impact on the efficiency of the market; and (4) Social goals of regulation should be dealt with pragmatically but preferably shifted to government.

After briefly surveying restructuring activity around the U.S., she identified four issues which make change so difficult. First, who pays for strandable costs? Different groups have wildly conflicting expectations regarding monetary benefits. If this is a zero-sum game, some stakeholders are going to lose, which leads to particularly tough political in-fighting. In the case of California, conflicting promises were hardwired into legislation (despite the questionable compatibility of these promises). Second are the technical problems: the pricing of transmission services

and the role of the ISO. Since others had focused on this issue, she did not develop this topic in depth. The third set of issues are jurisdictional in nature: who will be in charge and who will lose control? There are tensions between state PSCs and FERC and among municipals, IOUs and REAs. In addition, no one appears to have the authority to order divestiture, and some states do not have the power to order retail access. Finally, there are the institutional issues involving how the above problems will be resolved in the context of organizational and institutional heterogeneity. In particular, there are significant differences between the UK and U.S. situations. She concluded that "The transition to a competitive market structure down to the retail level is inevitable, but the transition will take longer and be more painful than [she had] originally anticipated." States need to pay careful attention to these issues.

Kathleen Magruder (Director of State Regulatory Affairs for Enron Capital & Trade Resources Corp.) presented the case for dramatic restructuring, arguing that in order to achieve full competition, the utility must exit the merchant function. Marketing affiliates of the utility ought to adhere to standards of conduct similar to those promulgated in FERC Order No. 497. She concluded that

> Ultimately, all marketers of electricity should be unregulated merchants who operate with no inherent advantages by virtue of their affiliations . . . The obligation to serve should be redefined as an obligation to deliver and interested parties should confer to determine how best to provide the many services which are now part of the bundled utility package in a competitive fashion.

From the perspective of power marketers, restructuring is not a zero-sum game: the efficiencies associated with competition will be passed on to consumers in the form of lower prices and improved reliability.

Steve Hamm (Richardson, Plowden, Carpenter & Robinson, P.A.) had served as South Carolina's State Consumer Advocate from 1981-94, and expressed concern that small business and residential customers not be adversely affected by regulatory changes. He underscored the potential for cost-shifting in the industry restructuring process. Inflated expectations meant that some stakeholders were bound to be disappointed. He argued against precipitous changes without having answers to the economic and technical issues raised by some of this session's speakers.

The closing talk focused on jurisdictional issues. *J. Stephen Henderson* (Principal at Putnam, Hayes & Bartlett) had helped formulate Orders 888/889 while Associate Director of the Office of Economic Policy at FERC, so he was able to provide an authoritative overview of federal activities in this area. With regards to transmission pricing, he noted that two fundamental issues need to be addressed: (1) Who has priority during congested times, and (2) How to prevent free riders during uncongested times. He saw the Capacity Reservation Tariff NOPR as a positive step towards designing mechanisms promoting wholesale competition. However, the CRT approach has potential drawbacks as well--related to reliability, potential lost scale economies, and strategic behavior by stakeholders. Henderson emphasized the importance of improved market analysis (especially in the context of mergers which could increase market power).

Concluding Observations

It would be inappropriate and impossible to present a conclusion. Inappropriate--because coming up with "the answer" was not the purpose of this series of forums. Impossible--because there are many unanswered questions that warrant further attention. Some of these are quite technical in nature, while others relate to where the burden of proof ought to be placed when it comes to new regulatory initiatives. As an outside observer, I have been impressed with the serious way the different participants stated positions, explored issues, and kept lines of communication open. It is clear that there are strong differences of opinion regarding the pace and pattern of change that would be best for Florida and Floridians. Nevertheless, there is widespread agreement on a number of principles and on many of the facts related to industry developments. In my opinion, this initiative (funded by the Florida Public Service Commission) represented a productive use of state resources--allowing important issues to be addressed in a neutral setting.

I apologize for sins of omission and commission in this write-up. Surely some key points have gone unrecorded. Just as surely, I have misinterpreted something said (or written) by participants. The issues are too complex to be captured in a few pages. Interested parties are urged to read the material provided by speakers and distributed at the meetings (available from the FPSC Research and Regulatory Review Division). The bibliography appended to this report illustrates the scope of the recent literature that must be taken into account by private and public decision-makers.

Finally, I want to acknowledge the good ideas and thoughtful support of Dan Hoppe, FSPC Director of Research. His vision of a shared learning experience provided guidance in the development of the three programs. In addition, Pam Cuff (PURC Program Coordinator) quickly solved logistical and organizational problems as they arose. Most of all, to the FPSC staff and the other attendees goes my admiration and best wishes--in continuing the effort to maximize the net gains from new initiatives.

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