Eighteenth Plenary Session: Retail Competition in Theory and Practice
Harvard Electricity Policy Group
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Rapporteur's Summary[*]

Session One: Is Retail Competition Working? A Report from the States

While there remains much debate about the efficacy of retail competition, several states have forged ahead in allowing it. Their approaches have been diverse. The three major states that have led the way on retail competition in electricity have been Massachusetts, California, and Pennsylvania. In natural gas, Ohio has had retail competition since the 1970s for large users, and has recently opened up the market for all consumers. What have been the results to date? Have customers benefited from lower prices and/or better products and services? Are the markets really being contested? Are there market sectors that are not being contested? What types of marketing and/or load aggregation has occurred? Who are the key actors who are fighting for business? Who has what market share? Has the power of incumbents been weakened? What implications, if any, have there been for energy service providers? What inroads have niche providers, such as "green" marketers, made? How can the results to date be explained? What have been the critical policy decisions that have affected the market? What policy changes, if any, are needed?

Speaker One

Currently, approximately 10 million customers are served in California by a competitive, fully functional, wholesale power exchange. There are approximately 110,000 customers who have direct access retail contracts with energy service providers to meet their specific needs, and we have a fully functional ISO. To my mind, customers have clearly benefited from lower prices and better products and services. Lower prices in the power exchange are providing head room necessary to recover stranded costs, and the direct access provisions of the law are providing customers with

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services tailored to their specific needs and desires.

Are markets really being contested? We do have new producers and marketers selling in both the power exchange and the direct access markets. And I find it interesting that six power plant siting applications are pending before the California Energy Commission for plants about 500 megawatts each. And 11 more applications are anticipated. These power plants no longer have to meet a needs test. They are merchant plants where investors bear all of the risk.

But there clearly are market sectors that are not being well-contested after a year-plus of operation. Real-time pricing for small customers is not yet very active, but hopefully the introduction of metering competition this year should provide a major impetus to contesting some of those markets. Residential customers are not heavily targeted except by those energy service providers selling green electrons. Enhanced bundled services, including demand-side management and energy efficiency, have not yet been strongly developed. Some marketing and load aggregation has occurred. The California League of Cities has a large load aggregation and procurement program. I understand it is fully subscribed. Cities like San Jose are aggregating their load and entering into direct access service agreements.

Some key actors are fighting for business: New Energy Ventures, Enron, and the affiliates of California's LDCs (local distribution companies) are actively fighting for business. But who has what market share? At the present time, market share data are confidential. PX (Power Exchange) market data is also confidential in terms of the identity of buyers and sellers, but it is widely known that a very high percentage of the PX load comes from LDCs as a part of the PUC/FERC mandatory buy-sell arrangement. Has the market power of the incumbents been weakened? I think so. Has it been dramatically weakened? That's the question that I think is open for debate. But with a more fully-developed PX, I think that you will see the power of incumbents weakened. Divestiture has been effective.

What implications, if any, have there been for energy service providers (ESPs)? This is probably the weakest part of restructuring in California to date. Aside from green, clean energy, there has been very little activity. There is an extremely low PX price, so the margins are very, very thin. There's very little opportunity for arbitrage. People have to be willing to pay the premium for green energy. If I were to give a grade at the current time, it would be not an A, not even a B, maybe a B-. But we have a long way to go, and the market only opened up less than a year ago. With the first year of real activity, we've come a long way.

One correct decision made by the Commission and the state legislature was adoption of a two-prong market with wholesale energy competition in the PX and customer-specific competition with direct access. The second correct policy decision was to avoid instituting new regulatory programs that might artificially stimulate competition through credits and subsidies. A good balance was struck between consumer protections for residential and small consumers, and allowing large consumers and their providers to be unfettered. However, if you talk to the utilities, they will say that the affiliate transaction rules are too inhibiting. If you talk to the ESPs, the new guys on the street, they will tell you just the opposite.

Policy is going to evolve, but there won't be any major changes in the near term. Distributed generation and distribution competition will likely emerge within the existing market structure. New services will probably emerge at the PX—more auctions, additional services—and the PX will improve its functions. On the horizon is regulatory reform in California. There are now three institutions that have something to do with electricity regulation—the California PUC, the California Energy Commission, and the Electricity Oversight Board created by AB 1890. The new administration is going to carefully look at the functions of these three institutions. My only hope is that they don't change the regulatory structure until we see what the market structure is going to look like so that we build a regulatory structure consistent with the market structure that evolves.

Speaker Two

The state of Ohio is trying to pick up on the best thoughts and the best practices of the different states, and create legislation that zeroes in and specifically addresses issues of market power. I don't think this specificity is something that legislatures have spent a lot of time on. Hopefully, there will soon be legislation in Ohio in the area of electric restructuring.

One of the things driving Ohio are the results it has accomplished in the field of natural gas. Ohio is an industrial state and a coal state. Natural gas bills exceed electric bills for the average family. The state has underway the largest natural gas customer choice program in the nation. I'd like to discuss some of Ohio's experiences, which I hope will be helpful in the electric arena as well.

The Commission was extremely involved from the beginning. It functioned through a collaborative process, with a decision to drive the process and to get all the stakeholders in a room and move forward. The PUC set itself up as the source of information for the customer. Constant reinforcement of the customer is

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necessary to get customer movement with regard to making choices. The PUC developed two codes of conduct, beginning with pilot programs that gave it a lot of lessons as well.

Ohio has roughly 32,000 commercial customers, which represents about 40 percent of the eligible small business customers in the state and 26 percent of the residential customers. This program has only been statewide since August, following a pilot program in the winter if '97-'98. The results have been pretty positive. The program has meant substantial savings to customers, roughly $12 million in residential rates and $3 million in commercial rates.

There has been a mixed story with market share. The affiliate ha been allowed to play in this market. Ohio adopted the California rules of branding and identification, but didn't take the local distribution company affiliate's name away from it. Whether that should have been done or not is an interesting question. While it is a fairly healthy market, roughly 40 percent of residential customers are choosing the affiliate of the incumbent. Interestingly, when you get to small commercial customers, the situation flips. I'm not sure why that's happening, but it is not because these customers are any more sophisticated than residential customers. These are grocery stores, dry cleaners, flower shops, people that don't spend a lot more time than the average residential customer does in dealing with this issue. So with the flip-flops on the issue of market share, it is difficult to automatically conclude that you have to take the affiliate out or take its name away.

Two codes of conduct have been developed, the affiliate transactions code of conduct and a customer code of conduct involving review of all of the contracts and the promotional materials of the suppliers, with specific rules on refraining from misleading practices. All contracts are checked for code of conduct compliance, accuracy, and understandability. This is a very important part of what the PUC does; it has spent a great deal of time changing supplier contracts to make sure the terms were fair, clear and didn't have any hidden clauses. To jump start participation, there was a moratorium, a period of time when there was just education but no marketing. This helped customers to become comfortable with the program.

Two interesting things became clear during the transition: Customers don't want to do math, and they want apples to apples. They wanted a bottom line and they wanted somebody else to do it for them. The PUC quickly developed the concept of an apples-to-apples chart. Every two weeks, a chart is issued showing all of the marketers and all of the price options, and then actually doing the math for the customer and showing who has the bottom-line lowest price that day.

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Interesting questions do arise in comparing apples to apples. One supplier is providing a toaster and one is providing telephone service. How do you bring these things down to a bottom line?

It became clear that it was critical to constantly get that message out to the customer. The customer needs to know that they are saving money. Getting newspapers to print this, like they print mortgage rates or stock quotes, was very, very, important to achieving the success that the program has had so far.

The consumer who is most likely to participate is the one who hates their local distribution company, doesn't trust their local gas company and wants to make a switch as a result. Number two is somebody who has learned about the program. Generally, people making about $25,000 per year or more are the ones who would take the time and do this. People below that income level generally didn't take the time, and didn't make the switch, even though they hate the gas company as much as somebody else. The bottom line is to keep it simple and constantly reinforce that message.

There are some things that weren't done completely right. In the zeal to get the program underway, neither the PUC nor the gas company nor the consumer advocate really came up with a strategy for the LDC to exit the merchant business. As a result, the PUC finds itself in the anomalous situation of setting the regulated rate every quarter for the cost of gas, and that is having an effect on the market. In fact, people are using the regulated price as opposed to the market price, and that's great when the regulated price is higher than the market. But because of the workings of the gas cost pass-through mechanism, sometimes refunds get passed through, and the regulated rate isn't always an indicator of the market. As a result of the workings of that particular gas cost recovery, people can't save a lot of money and marketers can't make enough spread, so in fact there has been very little interest in that program.

The bottom line is that it is essential to address obligation to serve up front; to come up with an exit strategy; and, since this is a game about margin, to do everything possible to build some margin into that system, including linking stranded cost recovery to margin. Without that margin, no program is going to work.

Question: Were low-income customers bid out?

Response: Yes, the low-income customers who are on the percentage-of-income plan were bid out. It is an interesting situation, where the low-income customers are actually receiving greater benefits because of aggregation than the regular customer who switches. But there is sort of the

great middle group of default customers, and they are remaining with the incumbent, and that's frankly something that wasn't dealt with enough.

Speaker Three

Billing and metering is a very important issue to energy service providers (ESPs). In Pennsylvania, customers have a choice as to whether they receive one bill or two. In Massachusetts, under a very constrained system, you can send out a supplier bill and a utility bill. New York is a two-bill situation. Meter ownership varies state by state.

From an ESP perspective, the standards of conduct in Pennsylvania are relatively weak. They were developed in settlement. In Massachusetts, they haven't been put to the test because of divestiture. From an ESP perspective, they're stronger. In New York, there are no standards of conduct right now.

On stranded costs, we have found, for example in the PECO service territory, that there has been a large advertising campaign by the incumbent utility to keep its customers on the system. On divestiture, Massachusetts leads the nation in being a good model that can work and be effective. New York is in the process of divestiture.

Another issue is the structure of decisionmaking. In Pennsylvania, we saw legislation, then settlements on a utility-by-utility basis. In Massachusetts, we saw the process of settlements. The legislation essentially codified the settlements, but what is good about Massachusetts from an ESP perspective is that there are state-wide rules. And this has made a tremendous difference in the ability of the ESPs to do business, whereas in New York State, every ESP and every utility has a different backout rate. Every set of rules is different. An ESP finds itself having to master a whole set of nuances. So my plea to regulators, as they go forward, is to try to go on a state-wide basis. It will make market rules and entry a lot easier.

Another piece of the ESP approach to the marketplace is the notion of margin. The savings should come from the market, not from rate cuts. I think of California and the residential market experience, that if you take the savings out of the rate cuts, you're really going to kill the incentive of people to change. An important issue is the ability to get access to data and information, and certain utilities have better-developed systems.

The issue of the wholesale/retail interface is important—people believe that restructuring is finished because one has gone through a lot of wholesale market issues. For example, if you are going to do locational market-based pricing and you need firm transmission rights, and you don't

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have it, you can't get to them because you don't own capacity. You find yourself very much at the vagaries, and in a difficult situation. ESPs are not at the table during whole portions of the discussion, and it is very difficult to catch up. Finally, you have to competitively build default and standard offer service as well.

The issue of standards of conduct is highly controversial. Often, unless standards of conduct are strong, ESPs find themselves in an after-the-fact situation. It is very costly to go through the regulatory process. The abuses will continue, but you are going to end up going forward before you're in a position where you have either the money or the time to fight it.

Pennsylvania has some of the most meaningful backout rates in the East. It has potential future problems with standards of conduct between the generation affiliate. But it is good that an ESP can send one bill, and they are on the right track with billing and metering.

Massachusetts is on a slow road to competition. The standard offer is too slow to escalate. There was an interesting aggregation—the Health Education Finance Authority, made up of non-profits, hospitals, museums and small social service agencies, aggregated—and a supplier was willing to give them a below-market price. What message has that sent to the rest of the marketplace, and other customers looking for similar deals that are not there? Because it is a slow road to aggregation, there is a whole group of customers being picked off.

In Massachusetts, it is unclear how many customers are poised to leave the utilities. A big issue is the length of the contract term, because of the low standard offer price. Customers want short-term deals. You cannot serve them below this standard offer unless you get a longer-term deal, so the marketplace is somewhat uncertain.

On the question of the attractiveness of the residential and the small commercial market, ESPs are getting their feet in the water. There is a viable total marketplace where margins are extremely tight in serving these residential and small commercial customers, and ESPs will be slow to jump in. The next question is who will be the first customers to be jettisoned. From a policy perspective, that is something that needs to be thought about.

Another issue for ESPs is the commitment of policymakers to the prospect of competition. It was disheartening to realize that in New York there was a commitment to lower energy costs, yet it was in strong conflict with a tax loophole. The utilities have deeper pockets for going through the regulatory proceedings and for legislative lobbying. It is much more difficult for ESPs, as non-incumbents. At times it seems that the

burden of proof is on the newcomer to make its point, and much less on the incumbent.

A supplier chooses a new market because of the opportunity for profitability. There has to be an opportunity for margins. There also needs to be a positive and stable regulatory environment. Suppliers are making decisions about what investments to make in-house and what to contract out. Should it do trading floors? Should it contract out billing? What kind of infrastructure investment should the supplier make? What kind of offices should it have in various states? What type of customers does it want to acquire? Therefore, it becomes very important to have an environment in which it can make these decisions.

Customer acquisition is an educational process. The non-residential customer goes over his or her bill with a fine-toothed comb. The hassle factor will tend to be an impediment, at least in the beginning. We need to make sure that there is not a huge burden on ESPs that adds to the cost of market entry. It will pull ESPs out of markets.

Speaker Four

Pennsylvania is pretty close to full-blown retail competition. Residential rates in Pennsylvania went up between 1970 and 1990 from 2.32 cents to 9.08 cents on average. In 1970, all of Pennsylvania's major utilities were charging practically the same amount, all within less than 1/2 of a cent of each other. By 1990, all of them had gone up, but with a vast disparity having developed between the lowest- and highest-priced utilities. The disparity had to do with generation choices. If generation is not a natural monopoly, one way to avoid this problem in the future is to try to bring in competition in the generation portion of the industry.

A major concern with Pennsylvania's legislation was cost-shifting—that competition would benefit the large customers who would then proceed to leave the system and leave costs behind so that residential ratepayers would not only be paying 100, but even 150 percent of the costs of the system. The statute contains specific prohibitions against cost-shifting, with requirements that all customers pay stranded costs whether they leave or stay. Competition was open to everyone on the same schedule, not just to industrials. But most important was that the statute contained a series of rate caps, both on the regulated side and on the generation side. For a period of several years into the future, the utility is not allowed to charge more than the price that was in effect when this statute went into effect.

Another important factor was protection for low-income customers. The statute requires that low-income services be maintained, and in fact, they have been expanded in

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Pennsylvania.

The first thing the state had to deal with was stranded costs. The statute defines stranded costs as an electric utility's known and measurable net generation-related costs determined on a net present value basis, compared to what they would get in the market versus the regulator rate. What that meant was an attempt had to be made to determine what these plants would be worth over their lives. You start off with the assumption that a utility's embedded costs are higher than the market value of its assets, but that the market value will increase over time while the costs, those embedded costs of those assets either stay constant or decline over time. Then you would expect there to be a crossover point at some point in the future. The area between those two lines on the left of the crossover point is your stranded costs.

What you see on the right side of the crossover point is what are projected to be benefits, because at that point in a fully unregulated competition generation market, the company charges the market price even if its costs are lower at that time. You take the present value of all those dollars way out in the future and you come up with a single number. Of course, there are endless variables that go into the determination as to what the slopes of those lines should be. I would guess that the stranded costs for each of the utilities were substantially overestimated. If you want to get the number right, you're probably better off going the divestiture route. A caveat is that it is very hard to value a nuclear plant if all you are looking at is their production costs and market value over time versus what you can sell it for in a market.

The next issue is how you unbundle the rates and set the shopping credit, i.e., the price that the people who stay with the utility pay for generation, as well as the price that marketers are going up against. You unbundle the rate into distribution, transmission, generation and transition costs. If you do nothing else, you are paying the same amount that you paid in the bundled rate.

Setting the rate was the critical determination made by the Pennsylvania Commission. There are a couple of other things that could have been done. They could have lowered the rate that the utility could charge from five cents to four cents, assuming that was the market price. Therefore everybody gets a rate cut of 10 percent. They also could have set the transition rate at three cents and thereby accelerated recovery of stranded costs. Instead, the Commission set the shopping credit at 5.5 cents, which will give the marketers an opportunity to come in. If they can sell for 4.5 cents, they can provide 10 percent savings, and that's where the benefits will come from.

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How has it gone? The big success story in Pennsylvania was the pilot. A million customers volunteered, but participation had to be limited to 230,000. The pilot was set up in such a way that if the marketers could sell power for residential customers for three cents a kilowatt hour, they could offer 10 percent savings. And that is exactly what happened. The pilot was oversubscribed. The program was then opened up for enrollment. I have seen estimates of close to 2 million customers that, as of January 1, had the opportunity to shop. As of January 2, the estimate is that 400 to 475,000 customers have shopped. That is a lot of customers, but is still only about 10 percent of the total number of customers who theoretically could shop.

A few problems have surfaced. Some marketers have not tried to serve residential customers, so the market for residential customers is much thinner than for others. The companies that have come in to serve residential customers are not charging three cents; they're charging closer to four cents, plus transmission. There are a number of reasons for this. The wholesale price is higher both on the energy and the capacity side. Transaction costs may also be higher than anticipated.

How have the utilities fared? All of the utilities in Pennsylvania, despite concerns about stranded costs, have done pretty well. The stock prices of all Pennsylvania utilities actually increased during the period of restructuring.

Discussion

Question: Are the costs of ancillary services embedded in the transmission slice? I am trying to get at whether competitors can improve their rates by securing ancillary services better.

Comment: We are struggling with the question of how to stimulate competition with a low-cost provider. If you slap caps on, you might as well continue with regulation, because you are not going to get any competition. One alternative is bidding out the default customers for a low-cost company. Doing that at least breaks up the horizontal market power of that company.

Question: In the apples to apples comparison, does the fully regulated price change month to month to reflect changes in the fuel cost adjustment, or is that strictly the price? And to the extent that an incumbent who has a regulated price sees an erosion of market share, do they have the ability under PUC rules to compete, or are they locked into charging that price for the period of the tariff agreement?

Response: The price of the incumbent reflects a purchased gas adjustment clause that changes every three months by commission rules. In terms of whether they can compete, remember

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that their unregulated affiliate is competing. They can lower their price, but have to do it uniformly, otherwise it would potentially run up against current statutes about predatory pricing. Generally, they have played the market through unregulated affiliates, which have done very well.

Question: Can they lower the price quickly, or do they have to go through some sort of proceeding with the PUC?

Response: We are talking about two different sets of rates. The first is the purchase gas adjustment clause, which is a straight dollar-for-dollar pass-through of the company's cost of purchasing gas for that quarter of the year. I suppose they could voluntarily take less, but it would be a direct one-for-one hit. The other cost is the distribution rate, and that is where their profit is in the distribution or the delivery of gas.

Question: The subsidy—say, if the market price for power is 3.5 cents and you give someone a five cent credit to shop—is effectively to be shared between the supplier and the customer in order to induce competition. Is there a disagreement over this issue?

Response: Using words such as subsidy are not correct, because we are adjusting the existing incumbent's tariff rates and are adding costs on top of those. Those two things are not particularly market-sensitive. So it is not as if we are playing with the market. What we are playing with are the holdovers from regulation that can have a real effect on the available margins in the market.

Response: We are dealing with a tremendous economic issue in a political arena. That does not necessarily lead to immediate, efficient, economic solutions. The question is, Is there a real opportunity after the transition period for real competition to break out? I don't know the answer because a lot will depend on the tinkering with the system during the transition.

Comment: We have been here before. When Congress passed PURPA, everyone thought it would be a great thing to induce a lot of new entry. We ended up subsidizing qualifying facilities. I wonder if we heading down that same road again just to induce competition.

Comment: The marketer’s perspective is that in California, what incumbents are selling to customers through the power exchange is the wholesale price of power, while the marketers are selling the retail price, which includes all of the elements of customer service, like billing, customer care, consumer protection, marketing profit. In Pennsylvania, that retail margin has been mimicked through the shopping credit. If there is no retail margin, competition will not come into the

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market.

Comment: The factor limiting competition in California is the rate freeze. California decided to put the shareholders at risk and give them a short period for stranded cost recovery. But I would expect that when the rate freeze is over and the stranded costs are off the books that California is going to have a very competitive market structure. It is the exposure of the market to the hourly price volatility of the most volatile commodity that creates a market for customers to go out to hedge their risks. For the low-cost utility, they are going to see the same risk as everybody else.

Comment: The difference between California and other states had more to do not with the price cap *per se*, but the floating CTC and the fact that any savings in generation is automatically eaten up by the CTC. That goes into the CTC rather than the customer's pocket. As they have done in Pennsylvania, you can have a rate freeze and still encourage competition by fixing the CTC amount and creating the so-called price-to-compare area where competition can really occur. This still accomplishes the Californian goal of insulating the customers from stranded cost recovery.

Question: What does the customer want? The apples-to-apples comparison is the right path. That explains the choice to the customer. Have you done any studies on what they are actually choosing?

Response: Those marketers that offer fixed prices on gas are getting killed, and, in many cases, have pulled those fixed market prices off the table because of the volatility. It gets back into the issue of rate caps and their artificiality. There are a lot of good political reasons to do rate caps, but rate caps and stranded costs are total anomalies in a competitive market.

Comment: Commercial and industrial customers like the notion of a fixed discount. Our customer service departments spend hours analyzing bills for our large customers. The shopping credit is a critical number because these are very expensive starter costs with huge investments. Customers want predictability and savings.

Comment: There will always be caps because you are always going to want to have a default service option to serve poor people. As long as you have that at a price that you guarantee service, that is what people will compete against.

Response: That is not a cap. If that service is bid out, then you're mimicking the competitive market and providing them the savings. That is different than a regulated fixed cap written into a statute or set by a regulatory commission.

Response: We are losing track of what

the ultimate goal is. People are confusing market share with market power. We have to really figure out what is the end game. How do we know when we have succeeded at what it is we are trying to do?

Comment: Good public policy is only determined if you're a winner after a policy has been adopted, and poor public policy is a *de facto* poor public policy when you're a loser. The bottom line has to be the opportunities for people to come into the market and make money, and the opportunity for consumers to be able to shop around and buy the value they want.

Response: The public policy is to ensure universal service for electricity. If we have universal service at something like affordable rates for all customers, and the way to get that is through regulation of those portions of the service that are still natural monopolies, then I have no problem with that. However, on the generation side, I have come to believe that competition for generation will produce more benefits. Therefore, I'd like to see ways to try and inject competition as a means, not as an end.

Comment: I would like to challenge the notion that the incumbent needs to be the provider of default service. I recognize that in some transition issues that might be convenient. But if the incumbent is the default provider, then you beg the question, what really is the true cost of default service?

Comment: A lot of people are looking at the franchise, which means the meters, the customer base, the rights-of-way, poles and wires, and thinking that there is more value there than the traditional regulatory system took advantage of. They also think there will be new value added, because people will be able to build new services into what used to be the customer base, the franchise, and the rights-of-way. If that is true, then maybe we ought to figure out a way to make the regulatory bargain take that into account.