Discussion Following the Remarks of Mr. Mogel and Mr. Kaga
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AND MR. KAGA

QUESTION, MS. BRAID: Thank you. If you would like to ask a question, the microphone will be brought to you when you raise your hand. I would just like the start by asking Mister Mogel: if you were asked to give advice to a state that did not have an over-supply of electricity but wished to pursue the benefits of restructuring, what would be your advice?

ANSWER, MR. MOGEL: I thought you were going to ask me something easy, like what is going to happen to ANWR. I am dying to say this, I am going to say it anyway and then I will answer your question. I have been told that this group is very much in favor of drilling in ANWR, so I thought what I would say would be helpful in the dialogue. If you view ANWR as the size of a football field (I am not going to say whether it is Canadian or American), the drilling that is being proposed and will not happen would have taken place in the size of something that has the dimensions of a seat cushion. Does that change your minds?

COMMENT, AUDIENCE PARTICIPANT: That is a pretty big seat.

COMMENT, MR. MOGEL: Some of us think it is not big enough.

Electric restructuring is- and this is trying to be responsive to your question – obviously, a very difficult issue, because it has not resulted in the benefits that we had hoped. The reason is not because things were not done right, but rather, we are talking about a commodity that sells in the U.S. for about four cents per kilowatt-hour (kWh). From that four cents, it is very difficult for a seller to make significant discounts. In this climate, the seller can only afford to discount the electricity a half a cent or a few mils.

I would recommend that a state that had not engaged in restructuring as part of a state-wide and regional energy plan to move toward restructuring, because there are benefits to large consumers in that state, which are very important to a state’s economy. For example, in California, where the energy prices went from the four cents I was talking about to as high as 12 and 13 cents per kWh, we have seen large industrial plants move out of the state or are planning to do so and relocate into adjoining states such as Arizona and Nevada, where energy prices are cheaper. To date, we have not seen those kinds of benefits in the residential market – unless we consider those benefits that are tied to services that an energy utility already provides. For example, where I live, I now get a bill from the utility that compares our consumption with the same period last year. One of the things that is being considered is providing additional services under a restructured environment.

As a matter of philosophy (which should be no surprise to you all) I believe in a market-based system. I think that we want to encourage
companies to be competitive and that competition can be extremely positive. I think any state or any region that looks at restructuring must look at it as part of a larger program that goes beyond energy but looks at the economic base of the state, as well.

COMMENT, MS. BRAINT: Thank you.

QUESTION, MR. KING: I wanted to ask you about the competitiveness issue, Bill. As you may know, many of the states, including Ohio and Pennsylvania, have been restructured in terms of plant location. Has this proved to be an advantage from the standpoint of developing the competitiveness of Ohio, or has this been a disadvantage? I am looking at the concrete aspects of the restructuring. You said it primarily benefited business and large consumers of electricity. What is the effect on jobs?

ANSWER, MR. MOGEL: I alluded to the restructuring first in terms of California, wherein they are seeing large businesses leave the state. Certain businesses that are large, like a Wal-Mart, cannot leave the state, because that is their market.

With regard to Ohio, the law permitting restructuring just went into effect on the first of last year. Ohio has a very positive attitude to encourage the building of new generation capacity, which is a key for competition within the state. However, we have not seen great job growth in this state. First of all, the law is rather new, and it takes approximately three years to get a plant built. Permanent processing is not the longest part, as would be in a nuclear plant, but there is still a substantial lead-time. Second, and unfortunately for Ohio and other states (and particularly those in the Midwest), at the same time we encouraged restructuring, the economy went extremely soft, so we have not seen a lot of job movement in Ohio’s direction. Nevertheless, Ohio is situated in a terrific place, because Ohio can feed many adjacent states—Pennsylvania, West Virginia, Kentucky, Indiana, and Illinois—and is really the heartland of American industrial capacity. So Ohio is situated very well, but in the short term, we have not seen any of the advantages come our way.

QUESTION, MS. ODENBACH-SUTTON: You were talking about Texas and all of the new generation capacity that has been built there. Although it has excess capacity, it has no major transmission lines going outside of the state. I am assuming that if all of that excess capacity exists and no one wants it, the prices are dropping, right? What is going on? I have also heard that Texas as being one of the best states in terms of encouraging renewable energy, encouraging wind, and the state has a sizable renewable

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1 1999 Ohio Laws File 47 (S.B. 3). The law was designed to “to provide for competition in retail electric service, including provisions regarding market structure, consumer protection, and transition revenues.” See also OH REV. CODE ANN. § 4928.08 (West 2002) (requires Ohio Public Utilities Commission to establish rules for the certification of competitive retail electric service providers).
energy portfolio. What is happening if the state has no ability to sell the power and suppliers are building like mad? It strikes me that, in a market economy, the prices for electricity must be dropping, which is going to make the economics of these new plants very bad.

ANSWER, MR. MOGEL: When I speak of prices, I am talking only about the three components. The generation component is very low right now (the last time I looked, it was in the three-cent range). Keep in mind that even if you have the facility, you do not have to run it. Obviously, you earn no income.

COMMENT, MS. ODENBACH-SUTTON: You do not get any revenue if you do not run it.

COMMENT, MR. MOGEL: The price of power has gone way down in Texas, and there has been a slow-down in Texas and in other states that have moved toward restructuring in the building of new power plants. I can tell you from our own experience as counsel in Ohio, we have two projects in this state that have been terminated, not so much because of competition among sellers but because the economy has gone very soft. So, not many companies are building plants, and those who do may not be running them at the level they would hope to be running them in Texas or in other places. That is what a free market is about. If, however, there was no free market and the utility had built a plant that was not running because there was no demand for it, the ratepayers would be paying the loan on that $600-$700 million piece of machinery. That is the difference. The risk is upon the developer and the merchant company that builds that power plant, and if they make a mistake, it is the same as if Wal-Mart makes a mistake by not being able to sell off those blue sneakers in its inventory.

QUESTION, MS. ODENBACH-SUTTON: Can I ask a follow-up question? It is about wind generation that I am most interested in, and I have heard that Texas is one of the best examples of a ways to encourage wind. I agree with you that the person who built the plant should take the risk. Who is building the wind turbines in Texas?

ANSWER, MR. MOGEL: Enron.

QUESTION, MS. ODENBACH-SUTTON: One of the things that you see, for example, in Alberta, is there has been some wind farm development. Alberta is a deregulated market. Last year, the average power pool price was about $.07/kWh. This year it is $.03. It is pretty hard for wind to compete in a three-cent market, and many long-term contracts have been sold. I am trying to figure out what in the world the people who built those wind farms in Texas are doing. True, they are getting a production tax credit from the federal government, but if they are not producing anything, they are not generating any revenue, and any production tax credit for which they may otherwise be eligible is not very valuable.
I am curious about how you are merging electricity restructuring with the desire to promote renewable energy, and what happens when you have an economic situation such that you cannot generate renewable energy at a competitive prices?

ANSWER, MR. MOGEL: Wind is a very, very small percentage in the Lower 48 energy mix. There is a major wind farm near Palm Springs, California that has been operational for quite some time; our Department of Energy has sponsored that farm for many years.\(^2\) PG&E, the utility of Northern California, is presently developing a major wind farm in the northern part of the state.

Wind is not highly competitive on a pricing basis; I could be wrong. You may know the exact number. My impression is wind is double-digit-per-kWh costs.

COMMENT, MS. ODENBACH-SUTTON: I have heard seven cents.

COMMENT, MR. MOGEL: I was thinking of something in the ten- or eleven-cent range.\(^3\) It is more expensive than conventional forms of energy in the United States. Further, you need good conditions; you need winds that average about fourteen miles an hour to sustain a viable wind farm. So wind has not been something we have looked at very hard in the Lower 48 because of the cost and the limited applicability. Some environmentalists do not like wind farms because they say it affects the migratory patterns of birds when they fly into the structures and get injured.\(^4\)

There simply have not been many highly-motivated entrepreneurs who want to go into the wind business. Part of that reason is because of the volatile pricing of energy, and if I showed you charts that compared milk, gasoline and electricity, the most volatile price is electricity.

Electricity is a commodity that has volatile pricing before restructuring. Natural gas pricing is also quite volatile. In the recent past, however, the price of natural gas, the fuel of choice for electricity, has been extremely low in the United States. With natural gas prices being so low, the desire to engage or invest in a wind farm is not there. Gas is easier to transport; it is available 24 hours a day, seven days a week, and wind is not. Furthermore, it is more desirable from an environmental standpoint. All of those factors combined, therefore, discourage investment on something like wind.


\(^4\) See id.
COMMENT, MR. KAGA: Perhaps I can just comment on Alberta’s experience with wind because there was a comment made on that. The wind power that was developed in Alberta was part of a program that ended in the early 1990s, where not just wind but other alternative sources of energy were being investigated, including biomass and other renewables. This was all under the aegis of the Small Power Research and Development Act, \(^5\) where an incentive rate was provided to the people who put these projects together. \(^5\)

Obviously, they were long-term contracts with utilities that were behind these sensitive rates. The utilities were then able to pass those costs on to consumers. Although Alberta does have some experience with renewables and wind, it is not something that has developed as a large aspect of the energy market.

COMMENT, MR. GAINES: Just a little follow-up on the Texas situation. I am a resident of Houston. I do not claim to be an expert on the Texas state statute on restructuring, but as I understand it, the state statute does have a renewable energy component built into it – a requirement to develop a proportion of renewable energy \(^7\) – and on that basis, the bill received substantial environmental support in going through the state legislature.

Texas is well-situated in terms of wind energy potential, \(^8\) and the state has an economic development interest in promoting wind energy. There has been quite a bit of development in the western part of the state, both in the Great Plains and the Panhandle, and also down in the southern and southwestern parts of the state.

In terms of participation in the restructured market, there is a firm called Green Mountain Energy, one of the electricity providers in Texas, which provides 100 percent wind-generated electricity, and I opted to go with them, even though their rate is roughly fifteen percent higher in terms of monthly charge for me as a residential user than the benchmark rate established by the existing utility. That benchmark rate, though, is a regulated rate for the existing utilities. Reliant Energy in Houston had to get state public utility commission approval of their benchmark rate \(^9\) because the state wanted to prevent them from taking advantage of the situation in a way wherein the


\(^6\) See id. s.4.

\(^7\) See Tex. Util. Code Ann. § 39.904 (Vernon 1999) (the Public Utility Commission is charged to adopt rules to establish a “minimum annual renewable energy requirement for each electric utility provider, municipally owned utility, and electric cooperative operating in this state”).


existing utilities might under-price their electricity in order to keep people from switching and then later raise their prices. The utilities had to thus justify the price in terms of their cost factors before it was approved by the state.

COMMENT, MR. MOGEL: I think that is correct, if I could just say one quick comment: from a consumer’s standpoint, “green” power has not been very successful in the United States, in the same way fuel-efficient cars have not been very successful. When you say you buy “green” power, I congratulate you, but I do not know how you know you are buying it. You are certainly paying for it, because it gets co-mingled with other power, and it has not really achieved the big consumer acceptance. I think you are somewhat of an exception, being willing to pay a premium, whereas most consumers although they say they are for “green” power, are not willing to pay for it.

COMMENT, MS. BRAID: We will come back to that.

QUESTION, MR. GARISTER: What is it going to take to establish a national electric grid, and what are the forces that are precluding that from taking place: states’ rights advocates?

ANSWER, MR. MOGEL: On one of my slides, I indicated that one of the impediments is that there are inadequate transmission facilities in the United States to have truly a national grid. As I indicated, the grid we do have in the United States, though interconnected but for the great State of Texas, is not interconnected for the purpose of moving power on a national-level marketplace. So, transmission must be built and funded. The incentives for doing that are very limited, because the regulatory authorities over transmission, if it is interstate, are the Federal Energy Regulatory Commission, or state commissions, if they fall within that jurisdiction, have been unwilling to encourage transmission by encouraging the investment on transmission and the return on that investment.

One of the impediments is existing regulation, which wants to keep the rates for transmission relatively low.

Moreover, the concept that I alluded to with the ISOs and the RTOs – which are going to be independent entities from the owners of the transmission and will operate those transmission lines – so there is a disincentive to investment when they say, look, we as a third party are going to operate your transmission lines.

Also, the states have varying views on transmission and open access, and that is an impediment, and the RTOs that the Federal Energy Regulatory Commission is mandating will probably be an initial impediment because they will have different market structures, different market pricing, and different rules. In any case, it is going to take a long time, a lot of intellectual capital, and a lot of capital to have a truly national grid in the United States.
QUESTION, MR. MICHAEL ROBINSON: A question for Martin. One of the maps that David Manning showed this morning illustrated no transmission lines south from Alberta. Alberta has been deregulated for quite some time, and TransAlta is an aggressive and smart modern company. Is there simply no market for TransAlta to send electric power south to the U.S., or is it just too expensive?

ANSWER, MR. KAGA: That is something that Alberta is looking into right now. I guess what that really represents is just that no private company has developed a project to actually take electricity directly south out of Alberta. There is plenty of electricity in Alberta, but there is a north/south transmission problem. Alberta does have lines that go out through British Columbia, so most of our electricity exports go there. I think that is one of the things that is of concern to the government. However, at the end of last year, Alberta did suffer an electricity crisis similar to what happened in California, although it was not to the same degree. There is a lot of power generation in the north but the demand is in the south, and even trying to get that electricity through B.C. became very difficult, because we were competing with California in terms of trying to buy that power. There is work that the Alberta government is doing to encourage private investors to increase transmission out of Alberta.

COMMENT, MS. BRAID: Thank you. We will take one more question.

QUESTION, MS. VAUGHN: Mister Kaga, I am curious about the experiments in Alberta, and you mentioned that one of those that had been done there, with some subsidy, was with biomass. I have heard that mentioned several times today, but it was all very quickly and in passing. I would like to know where that technology is going. I will tell my concern: while there seems to be a superficial plausibility to the idea of biomass, because it is renewable, it troubles me, as someone who is interested in agricultural law and farmland preservation, that we might be considering transferring arable land to production of energy rather than food. I just wondered what is really going on in that area, and if you could just give us a little information.

ANSWER, MR. KAGA: I think Alberta’s experience there has pretty much been limited to that one program and, aside from a few of the projects that were developed (which were all relatively smaller-scale projects, many of them under ten megawatts), there really has not been any significant interest in our deregulated environment in terms of people coming forward with other biomass-types of projects. I think if it was not for the incentive created by that one particular program that simply encouraging energy producers to look at and to try these alternative technologies, biomass would have not been tried at all. Biomass energy is not really a part of Alberta’s production at this point in time.
COMMENT, MS. BRAID: Both of these speakers have jumped in at the last moment to fill in for other people and I would like to say I feel they did a very good job, and we appreciate it. Thank you.