



GOVERNOR'S OFFICE OF ENERGY
MINUTES
Committee on Energy Choice's
Technical Working Group on Open Energy Market Design & Policy:
Commercial & Residential

July 10, 2017

The Technical Working Group on Open Energy Market Design & Policy: Residential & Commercial held a public meeting on July 10, 2017, beginning at 1:00 P.M. at the following location:

Legislative Counsel Bureau
401 S. Carson Street, Room 2135
Carson City, NV 89701

The meeting was also available via videoconference at:

Grant Sawyer State Building
555 East Washington Avenue, Room 4412
Las Vegas, NV 89101

- 1. Call to order and Roll Call:** The meeting was called to order at 1:00 PM by Chair Jeremy Susac. Chair Susac thanked all for attending the first meeting of the working group. The agenda item was opened up for roll call and a quorum was confirmed.

The following Technical Working Group members were present/absent:

Working Group Members Present

Jeremy Susac
Andrew Abboud
Adam Laxalt
Kevin Sagara (Via Telephone)

Working Group Members Absent

Christopher Brooks

- 2. Public Comment and Discussion:** Chair Susac opened Agenda Item No. 2 and asked if anyone from the public sought to make a comment on the matter in both Carson City and Las Vegas locations. No public comment was provided.

Chair Susac closed agenda item No. 2.

- 3. Election of Vice Chair:** Chair Susac opened agenda item No. 3 and stated that it would be great if a decision could be made or it could be deferred to a later time. He further stated that the role of the vice chair is to be present in the event the Chair cannot be present. Attorney General Adam Laxalt agreed to elect a vice chair. Chair Susac proceeded to ask Attorney General Adam Laxalt if he would be willing to serve as vice chair, he agreed. The Senior Deputy Attorney General present interjected to advise that they first ask for a motion, then have it seconded, call for a vote, and have Attorney General Laxalt recuse himself. Mr. Abboud made a motion to elect Attorney General Adam Laxalt as vice chair and Chair Susac seconded the motion, the motion carried with none opposed.

Chair Susac closed agenda item No. 3

- 4. Presentation – Maura Yates, Co-CEO & Founder, Mothership Energy Group:** Chair Susac opened this agenda item and welcomed Ms. Yates. Ms. Yates proceeded with her presentation, Mothership Energy Group is an energy solutions company providing renewable consulting, advisory and analytic services for energy management to a wide range of clients in the energy space. Our company was founded by former energy traders, wholesale commodity merchants, finance professionals, retail energy specialists and renewable technology veterans with a combined 30+ years' experience in the energy industry. Our team has distinguished experience working on strategies, structuring and execution of innovative new market solutions across the country.

For my presentation I would like to focus more on the retail market restructuring and ERCOT to examine opportunities and some of the risks. I believe in restructured markets because it is a pure and transparent transaction, a marketplace where customers are able to identify what their value is and make decisions accordingly. They get to choose where and what they procure. ERCOT covers a large part of Texas and serves about 90% of the state's load. It is not FERC regulated because there is no transmission of electricity state to state, it is confined within the state lines. There are four primary participants: wholesale market, transmission/distribution, load serving entities, and end users. ERCOT is an energy only market, we don't have a capacity market and it is not just a financial market, the power must be delivered so it is a unique space. There's a generous distributed generation threshold of 10 MW which allows for a lot of opportunity. We are wind heavy and are deploying more and more solar in the state, there are about 7 million smart meters in the state. We are a very weather sensitive market which drives a lot of the value similar to the Nevada market. When ERCOT prices things it is based on serving load when the load peaks, essentially pricing for the risk.

TDSPs are the only regulated body in the market, they still go before the Texas PUC. TDSPs are essentially the lines and poles companies, the utilities. They are responsible for solar interconnection and passing through their charges via the load serving entity, they are not responsible for directly billing the customer, rather they bill through the retail electricity provider. When you look at the fixed charges, they are roughly \$5.25 per month, the volumetric charges are around \$0.035 per kWh.

The Retail Supplier is responsible for buying power for the customer, including energy and ancillary services, and RECs. There are three types of REPs within the REP market, Option1,

Option 2, and Option 3. They vary based on the loads and the registration processes are different as well. REPs wear the responsibility of behind the meter distributed generation.

There are four load zones in ERCOT – North, South, West and Houston. Based on where a retail load is located, that is where it needs to be sold. The power is bought at a trade hub but the retail supplier has to sell power from the load zone, and then they can serve the customer. All the generators are aggregated into a trade hub which presents a single price. The REPs will buy power from here but it can only sell to the load zone. This provides a load weighted average reflecting whether there is congestion in that zone.

Not all businesses want to buy the cheapest energy, they may have different drivers when it comes to choosing their energy provider. Many companies want full requirements which is very similar to what a utility provides, essentially a fixed price. The process for residential customers is much more simplified.

There are risks in the market such as basis which has to be considered and it is difficult to predict far into the future, therefore, there must be a basis procurement strategy. Excess generation is settled at the load zone price which is a really big value. There are also risks in the actual rate generation, TDSP charges cannot be hedged and make up 30-40% of customers' bills.

Mr. Abboud asked, how do companies judge the ability to hedge the market?

Ms. Yates continued, commercial and industrial companies hire a third party broker to help represent them in the market and handles the procurement.

Another area of risk is consumer protection. The Texas PUC still tightly regulates elements of the residential customer acquisition. The PUC developed two key tools, Power to Choose and the Electricity Fact Label.

We have many opportunities to innovate such as the project at Fort Hood which is the first of its kind. Although net metering is not mandated in the state it is used in regulated markets. We have a fully restructured market with voluntary net metering. The customer experience has improved greatly and they are informed. Gridify is a good example with a digital platform which will benefit the customer and engages with them therefore giving the customer a different experience.

Risk and customer choice are what drive the customer's value proposition which in turn brings value and competition in the market.

Mr. Abboud asked about the data centers which are all over the country. He asked how many states mandated green energy use by a certain year.

Ms. Yates responded, Texas has an aggressive RPS which was satisfied by a heavy wind deployment and some solar.

Mr. Sagara added, across the country approximately 30 states have an RPS for renewable energy. Mr. Abboud continued, how does a restructured market help enable the PUC to make decisions more quickly.

Ms. Yates answered, the conversations weren't necessarily expeditious. The efficiency and regulatory approval comes later, once the markets are operating. There is no longer a need to go to the PUC to sign a PPA so you are able to move and transact much more quickly.

Mr. Abboud then asked, how long did it take for companies to become active and competitive? I make energy choices every day and energy is one of them.

Ms. Yates continued, from 2002 to 2007 the PUC had something called the Price to Beat. The incumbent utilities were actually given a floor that they couldn't offer prices below but the competitive companies were able to offer prices below. The floor was phased out in 2007.

Steve Berberich then added, a key difference is that they allowed the incumbent utility to have an affiliate that is a retailer. It took several years and a lot of customer education.

Mr. Abboud asked, it has been 15 years, have many in Texas migrated back to one company of choice?

Ms. Yates answered, I may be biased but I think the market is pretty happy. She stated she would be happy to serve as a resource in the future should she be needed.

Mr. Susac thanked Ms. Yates for her presentation and closed agenda Item No. 4

5. Presentation – Steve Berberich, CEO, CAISO: Chair Susac opened agenda item No 5 and welcomed the presenter.

Mr. Berberich stated, the ISO was part of a restructuring in California in the 90's. We are the only open market in the West and we are very happy to work with you in any way we can. We also operate the Energy Imbalance Market and Valley Electric is also part of our market. There are many models internationally that will work and you can choose from. The principle issue here in Nevada is the hedging of the commodities. In an open market you can lay that off on someone.

If you are planning on opening the market you will need an ISO or some kind of operator because there needs to be a platform for buying and selling power. I will note that even when you move to a wholesale open market, you will have significantly bilateral procured power, this is a good way to be able to hedge your power. When you deregulate the market operator takes over much of the responsibility. The utility is responsible for transmission ownership and maintenance and load interconnection and metering.

Mr. Berberich walked everyone through a typical competitive market model. Competition needs to be created among generating resources but decisions will need to be made. The book value generation of NV Energy is far more than the market value. Transmission and distribution are assumed to remain monopoly, regulated elements of the system. The PUC would maintain regulatory jurisdiction over these element. Load serving entities will be the primary procurer of power and will interface with the end-use customers. They are key players in the market and they are no longer regulated. The question becomes who owns the customer and there needs to be an institution that tracks that. A market operator is required to provide an independent platform for trading. Creating your own ISO will cost about half a billion dollars and the market

rules are very complicated and your market will be FERC jurisdictional. The California ISO follows a general FERC standard market design and is governed by a board appointed by the Governor.

Mr. Abboud asked, are there any cases where the transmission is also open to the market?

Mr. Berberich responded, this does occur based on FERC order 1000. We put it out to bid and there is competition for the build and operation of transmission lines such as Harry-Allen El Dorado which did go out to competitive solicitation.

Mr. Laxalt asked, are you aware of any governance solutions or discussions?

Mr. Berberich stated, all I can say is that the Governor of California does prefer independent governance over the ISO. We think we may have solutions regarding procurement but it will require legislative action.

Mr. Laxalt then asked, are there other states that are looking at joining this ISO?

Mr. Berberich said, the need for a common system in the West is necessary. Our industry is changing very rapidly and you need to be able to have the renewables rely on each other's assets. The politics need to be sorted out but there is interest to join. Pacific Corp from Utah and Oregon has indicated they want to join our system but they require we change governance first.

Mr. Abboud asked, on the governance issue, is there specific legislative action that would be needed?

Mr. Berberich responded, yes it would require legislative action and the Governor has indicated support. We can't be sure that the legislature will do this but it is needed.

Mr. Laxalt followed up, what does a restructuring for governance look like?

Mr. Berberich said, Texas for example has an independent board and others have them as well. We are contemplating the same thing with a non-appointed board and that has been our proposal so far.

Mr. Abboud asked for an example of the benefits Nevada would reap from joining the ISO.

Mr. Berberich stated, all of Nevada's power will not be going to California. We offer a market platform for trading, if you have 50 MW across your facilities, you can aggregate those up and bid them in the market. It allows for innovation.

Mr. Susac asked, how would a retail market structure hybrid look like?

Mr. Berberich answered, we have limited direct access. The way the market is designed, the energy crisis can't happen again because it was all on the spot and didn't allow bilateral transactions which is now critical.

Mr. Abboud asked, when Texas restructured, what happened in the case of PPAs?

Mr. Berberich answered, Texas allowed affiliates of the incumbent utilities to exist so the PPAs went with the retail company. If you don't have affiliates those costs are going to go somewhere but there are markets that have handled this.

Chair Susac thanked Mr. Berberich for his time and closed item no 5.

6. Discussion of Issues Up for Future Consideration: Chair Susac opened Agenda Item No 6.

Chair Susac stated, this is a high level discussion item designed to go to the three following sections: policy considerations regarding wholesale market structure, policy considerations regarding retail market structure, and policy considerations regarding default and provider of last resort services. We will discuss hybrid markets and no utility default services as well as determining entities on day one such as creating a floor.

If you have suggestions the Lieutenant Governor's Office and any Committee member would be happy to take any of your input.

Chair Susac closed agenda item No. 6

7. Public Comments and Discussion: Chair Susac moved on to public comment and asked if anyone from the public sought to make a comment on the matter in both Carson City and Las Vegas locations.

Terry and Ned from RESA stated, we offer ourselves as resource. Ned Ross then continued, stranded costs is a misnomer, if you have power contracts that are out of the market you are already incurring that cost today they will just be shifted to another party. The ERCOT market is great because it is comprised largely by the consumer, the rules are responsive to the people who have to live with them. ERCOT responds to the consumer not the other way around. The PUC closely monitors everything my company does, so it is not deregulation but rather restructuring. The PUC is now an enforcement organization as opposed to a rate making authority. ERCOT is a quasi-governmental organization who answers to the PUC but is basically run by the stakeholders. It was formed by the legislature but it is a corporation that has worked extremely well. The entire system in ERCOT is driven by efficiency.

Mr. Abboud asked, how do you view stranded assets, is there really an issue with NV Energy and should we consider compensation?

Mr. Ross responded, I believe a deal is a deal. NV Energy is the only large utility in your state and they came in believing they would recover their investment. What we did in Texas was in a

way that the utilities not only survived but thrived. The utilities were more like partners of the larger industrial companies. Those costs were fairly trivial in the grand scheme of things.

No other members of the public came forward to provide comment.

Chair Susac closed agenda item No. 7

- 8. Adjournment:** Chair Susac thanked all for their participation and attendance and adjourned the meeting.