

# HUSCH BLACKWELL

Webinar:

**On the Horizon: Solar Developments in Texas - Texas Legislative and Regulatory Preview**

**08/23/2016**

**Lacey Breeden and Cyrus Reed**

SPEAKER	TRANSCRIPTION
Breeden	<p>Hello everyone, and welcome to the Texas Legislative and Regulatory preview. I think we're ready to get started. And thank you so much for joining us today.</p> <p>We wanted to get started today by introducing ourselves. My name is Lacey Breeden. I'm a member of Husch Blackwell's Energy and Natural Resources Team located here in our Dallas office. My practice is mainly on project and finance transactions for power generation and other energy related projects with the focus on ERCOT and PUCT compliances issues and renewable energy development projects. I also serve on the Board of Directors for the Texas Renewable Energy Industry Alliance (otherwise known as "TREIA"). And my co-host renewable podcast for Husch Blackwell. A link to that webcast is located in the Resources tab if you're interested in checking it out. I'm also currently serving as an adjunct professor of Law at USC College of Law here in Dallas.</p> <p>So, joining me today is Cyrus Reed. And Cyrus is a Conservation Director of the Sierra Club, Lone Star Chapter in Austin. Prior to becoming Conservation Director, Cyrus served as a Sierra Club legalist (?) on energy and air quality issues during the 2005 and 2007 legislative sessions. He's presently working on energy issues under impact as well as serving with me on the TREIA Board of Directors so I've been fortunate to get to know him through that effort.</p> <p>We're excited to be talking with you today about the Texas Legislative and Regulatory issues effecting solar development during our first series of webinars focus on the Texas Solar Industries. Husch Blackwell has partnered with TREIA, and we're</p>

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	<p>excited about that partnership, to provide informational webinars series once a month. And that is going to be going on through the end of the year. So we hope you all will continue to tune in and you'll find today helpful as well. In addition to our program today, TREIA would like to connect with you at its upcoming conference, Greenac (?), that's going to be held in Georgetown, Texas, November 9<sup>th</sup> through the 11<sup>th</sup>. Greenac is focused on bringing together in TREIA leaders to tackle the challenges facing holistic integration. You can find more information on Greenac by visiting their resource web icon at the bottom of your screen and Husch Blackwell will also be participating as a sponsor in that event. And speaking from previous experience last year, that's a great conference that you won't want to miss so we hope you'll check it out.</p> <p>So before we begin I want to cover a few housekeeping items. You may have noticed the bottom of your audio console there's multiple application icons for your use during our program today. I'd like to take a minute to highlight a few of those PI icons for you so you can navigate through as we proceed. First of all, if you have any questions during the webcast, please type your questions into the question box. We will try to answer all your questions at the end of the webcast today, but before an answer is needed or we run out of time, Cyrus or myself will be sure to follow-up later on via e-mail. And our contact information will be provided at the end of this webinar. We definitely appreciate audience participation so we encourage you to go ahead and submit your questions and we'll make sure to get to them. There's also an icon to assist you with your viewing preferences. You can expand your slide area by clicking on the maximize icon on the top right of the slide area or by dragging the bottom right corner of the slide area down. If you have any technical difficulties during the webinar, please click the icon on – the yellow help icon with a questions mark there that you see at the bottom left and that has all kinds of information regarding common technical issues that you troubleshoot during this webcast. A copy of this webcast is also going to be available in the resource list icon that looks like a green folder at the bottom of your screen. And additionally, and probably most importantly, this program has been approved for CLE credit in California, Illinois, Iowa, Missouri, Nebraska, Tennessee, Texas and Wisconsin. And Colorado is pending. Lastly, a recording of the webcast will be available tomorrow for</p>

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	<p>watching and sharing in case one of your colleagues missed and want to check it out. Once available, a link to the recording will be e-mailed to you along with a certificate of attendance as well for your CLE. So with all of the fun logistics stuff out of the way, I want to go ahead and turn it over to Cyrus to get us started.</p>
<p>Reed</p>	<p>Thanks. This is Cyrus Reed – um – uh – with the Lone Star Chapter honored to present to all of you today. Um – okay, I’m kind of – for some reason I’m not seeing the little arrow that’s supposed to – uh – take me to the next slide. Oh hit F5 button, okay. Mmm. Um – apparently I’ve done something to this. So, Lacey if there – yeah, why don’t you move the slide – uh.</p>
<p>Breeden</p>	<p>It’s okay, Cyrus. I just pushed you over. Yeah. Sounds good.</p>
<p>Reed</p>	<p>Okay. It’s come up. It’s come up. It’s now working. Can everyone see the first slide okay? Quick review. We’re going to do a quick review – sorry about that delay folks – um – do a quick review about utility scale in Texas today. Um, some of the future – uh – future solar that’s on the way – uh – some of the discussions that’s going on and ERCOT, I’m a member of the reliability operations self-committee over there. Um, and then turn it back to Lacey for some discussions of the PUCMM and come back to me for some discussions on – um – some legislative perspective on solar. So, start with what’s been happening in the ERCOT market and – uh – this is a complicated slide and all its showing you are proposed projects through the years. Um, and the light blue at the top is solar and the basic point is, until recently, utility scales solar was pretty slow in terms of project development. But something’s been happening in the last couple years as many of you know. Um, and so the next slide – this is information from ERCOT. And what it shows is both this year, 2016, and going 2017, we’ve got several thousands of megawatts that are expected to come online – um – and some of you are solar developers so you know this, but – um. What’s exciting is the cost of solar has come down so significantly – um – and the commitments that are being made primarily made by public entities, like CPS Energy, Austin Energy, but even increasingly – uh – folks like Liniment are signing contracts. Or as you know – uh – solar, at least for a while – uh – had their project – um – as a merchant – uh – plant, from my understanding if their now signing PPA. So, we’ve had a lot of development – um – this year and going into next year going to</p>

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	<p>come online and that's a significant change. After two years and not much utility scales development. And what's really encouraging from – from – those who are excited about solar like scenario is what the future looks like according to ERCOT projections. And, of course, these are just projections folks, but – um – ERCOT does a long-term assessment – um – and they've been – they haven't come out with their final version but they've been – the only thing – um – different scenarios – um – and this is just – uh – a snapshot of their businesses usual scenarios. So this is their scenario if they look at natural gas prices over the next 15 years if they look at – you know – the same environmental regulations that are expected to go into effect. Um, what will happen? And what they're showing is that the primary addition in the ERCOT market will be solar. Um, and they're projecting, again, in their usual scenarios that up to 20 gigots of solar would be installed by 2031. And that will be combined with retirement of some older fossil fuel – um – uh – power project from Texas, primarily cold, but some older gasoline units as well. And if you put that all together – uh – what they're showing is that sometime in the 20-30 period, about somewhere around – um – 15-18% of our energy will come from utility scale solars. That's only utility scale solars. So that's – uh – pretty – uh remarkable – uh – projection to essentially go from – um – basically nothing in about 2010 to somewhere 15-18% of our energy coming from solar if these projections are right. Um, so with those projections – um – there's been a lot of discussion at ERCOT about the lows of solar and what to do about the fact that we're having a lot of solar come online, which is good. Um, but also – um – ERCOT has – um – issues – uh – that they need to deal with as part of that. And – so one of the issues they've discussed really as a – a future concern is – um – as California has their duck codes or speak about – are we going to have an armadillo curve? Um, so the Texas armadillo curve and this is again, an ERCOT slide from one of their projections as part of their long-term assessment. Um, and the armadillo is sort of the red curve which is showing the demand – um – minus the amount of – uh – that served by renewable resources. And they're concerned of the ear of the armadillo. Sort of that period in the – um – other redline where you might have some unserved energy. Kind of in the evening hours as the sun goes down before the wind has picked up. And so this has been identified, not as a concern today obviously, when we all may have a couple hundred megawatts online, but as well move more and</p>

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	<p>more towards renewable power – um – will there be some periods in the day where there might be some unserved energy and what do we do about it? So, this is really just part of the overall discussion that add ERCOT – um – and what ERCOT has done to their credit, they're trying to get better at predicting – um – solar. And they've done two major things: one is they've started to incorporate solar into their bi-annual, ten year look into their future (known as the CDR). Um, and their now measuring the top twenty hours of solar development from existing solar resources and incorporating that into their CDR. They look at future demand and future supplies. So that's one positive step that's been made. Um, they made – uh – a similar effort, I think as many of you know with wind, whereas in the past, they based wind on – um – a very generic 8.5% of the Ecoman when provided – um – a bunch of the state colors that this wasn't really accurate and so they actually began to use actual figures for wind. And it – uh – came up with the result that we now have much better projections of how much wind is actually occurring at peak time. So they've done the same with solar. The other thing they did is – uh – starting a couple of years ago is as they saw solar development coming online they tried to get a better handle on predicting – um – solar output – uh - in the state. Um, sort of short-term output of solar – um – and then as a part of – uh – a part of 615, they started acquiring that solar developers either used that – those ERCOT short-term predictions as part of their operating plans and started part of the bidding process. Um, or actually something lower – um – and they didn't want a – they wanted a quote tab on actual solar output and there are actually another solar vision – um – that uh – in making its way through CAC and the board. That's going to make that tool of predicting even better for both ERCOT and the operators so we can get more accurate – um – projections of solar – um – in the operating plans of the people purchasing in the market. So those are both – both are CDR and this short-term forecasting (<i>inaudible</i>) real positive development to better incorporate solar, I think. Um, then there's another discussion which isn't directed to solar, but talk to our need in ERCOT to have a more flexible – um – flexible services to keep – you know – to keep the system reliable, to keep frequency in the right bandwidth. Um, and there was a proposal form ERCOT staff known as future inventory services, which failed frankly. It hasn't moved forward – um – and part of that proposal, ERCOT was talking about creating a primary frequency and fast frequency response service, as well as a more contingency</p>

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	<p>reserve – ten minute contingency reserve service. Um, there were a lot of disagreements among state holders so that proposal did not go forward, but since that time separately, there are a number of state holders working on particular aspects of that and there's also an interest working on inertial response. Now, it doesn't necessarily mean that – uh – solar plants by themselves will – will provide these ancillary services – um, but I think ultimately it will be good for our market if those services are provided – uh, which I think will allow more solar development, um, and meet the concerns about, you know, the armadillo here and, and, other reliability issues. Um – and there is a sense that solar particularly to the extent that it's combined with battery storage could also provide a number of these services so that could be another market for solar developers. And, some of you are more technically adapt than I am but – um – I think in general there is a need of ERCOT to look at more flexible ancillary service and I think Solar can be part of that market. The other discussion that has been going on at ERCOT has to do with the extent, and this isn't really for utility scale solar but for other types of solar, onsite or distributed solar. The way that we can incorporate distributed energy into our markets and so there is a task force that came up with a lot of white papers and a lot of discussion but was ultimately disbanded. But some of those ideas have been incorporated into a separate protocol put forward by Shell Energy and I don't think Shell Energy is necessarily doing this for solar, they're doing it for, you know, other natural gas and diesel generators and demand response. But it also applies to solar and let's say NPR to create a new distributive resource that could participate should they want to in the real time market and it's a long protocol and it's complicated but my guess is that something will come out of that protocol – something similar to that that would allow either a distributive resource by themselves or as part of an aggregation to contribute more directly to price formation in the market. So those are exciting developments – more of a 2017 play probably.</p> <p>The other discussions that's happening at ERCOT right now is as ERCOT is somewhat concerned with some of these larger, older fossil fuel units, primarily coal, potentially retiring in the next 3 to 5 years, they have an existing process known as RN MARS reliably must run contracts but allows them to contract with any large fossil fuel entity that's planning to retire if ERCOT feels that</p>

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	<p>retiring would put reliability or other issues in play. And so we have an existing process for giving contracts and paying someone to stay open and operate even if they don't want to and this has lead actually to a lot of stakeholder meetings and input about is the process we had set up the right one for this future market we're entering into. And the answer for a lot of people is no, we need to reform that process. And part of that reform is looking at alternatives so that if an older plant wants to retire we can look at things like storage, like distributed solar, like demand response as a way to keep the lights on in that local area should those plants retire and so that's an ongoing discussion as well. There are a number of proposed protocol revisions but further discussions on the way in a variety of the ERCOT committees. And so I think that will be – again, I don't think it's an issue that's going to be resolved this year but I think it will lead to action in 2017 and it's one where solar might play a role as an alternative to keeping older plants online and operating passed their economic ability to operate.</p> <p>And I believe – I think we're doing questions at the end so I think I'll turn it over to Lacey at this point.</p>
Breedon	<p>Great, thanks Byron. So for purposes of this portion of the presentation, I'm going to be discussing the solar issues that are ongoing right now at the Public Utility Commission of Texas. I'm going to be focusing mainly on Project 45078 which is a project related to Distributed Generation Interconnection Agreement and who the appropriate signatory to those agreements should be, how (<i>inaudible</i>) a new customer and Mia Hutchinson is very involved with that process with our client source city and so I'll be going into a good bit of detail on that issue and then I'll be also touching on the El Paso Electric Rate case that just wrapped up last week at the commission because it's not only timely but has been and could potentially have some implications for solar sort of moving forward.</p> <p>So for a little bit of historical background, Project 45078 has been in the works for a couple of years now. It was originally listed under 42532 and in that project the commission was looking at not only who the appropriate signatories to distribute a generation interconnection agreement might be but also assignment provisions and indemnification provisions in ways which the existing base form that is promulgated by the PC might be revised</p>

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	<p>accordingly. So it was closed in 2015 and reopened in 45078 which is where we are now. And this project is primarily focused on who should be a signatory to a distributed generation interconnection agreement. Right now the existing protocol is that any new customer – so for example, a homeowner and a utility can enter into that agreement and the commission stop and looking at expanding that to sort of adapt to what’s happening actually in the marketplace and I’ll go into what some of those additional options might be in the next few slides.</p> <p>So to bring you kind of up to where we are now, south issues has proposed rule in October of 2015. There was a (<i>inaudible</i>) period, a workshop held in Austin with all the different market participants. And then on south issues, a proposal for publication which is basically just a proposed rule in June of 2016, so a couple of months back. And the goal of that PSP, or Proposal for Publication, was again to amend the existing base form agreement that is used in Texas for interconnection of onsite distributed generation which includes retox solar. And the commission is considering whether, you know, to allow more than just be a new customer to enter into VIA.</p> <p>And so as a little bit of additional context, when we’re talking about Routalk(?) is the word Texas we’re actually talking about what design is distributed renewable generation and then there’s the Public Utility Regulatory Act. That’s actually defined in the electric generation with a capacity of not more than 2,000 kwh provided by a renewable energy technology. And of course the renewable energy technology under Pura includes an energy source that is derived directly from the sun. So under these definitions you have small scale with top solar installations fitting into the category of the GRG.</p> <p>So in its June 2016 proposal for publication, staff actually decided to take a more flexible approach and actually allowed more than just a new customer to be allowed to sign an IA with the utility. The other parties that were included beyond just a new customer was of course an owner of a GRG facility or a generator. An example of that would be like a solar city for example or another solar company that actually owns and installs and operates the facility. The second option would be the owner of the premises where the facility is located. So this could be an apartment, owner or a landlord, somebody who owns the actual physical site where</p>

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	<p>the (<i>inaudible</i>) be located. And then third an entity, sort of a capsule entity device who has defined ownership rights (<i>inaudible</i>) so maybe a nearby business or it's going to define rights to be energy is also included in staff proposal for publication.</p> <p>So because of all the different comments that have been previously received from stakeholders, staff knew that they could not just, you know, include these new options without also beginning some additional and new customer protection. And consumer protections for those new customers and so in the draft itself it included language that basically allows the new customer to sign off on the IA. You effectively have a tri-party agreement where you have the party such as the premises owner taking on the role as the counterparty with the utility but you've also got the existing and new customer signing an acknowledgment saying I'm allowing you to enter into this agreement, I acknowledge it and you're taking on the responsibilities under this agreement on my behalf. And that was because there was a lot of concern over wanting to be sure that any new customer is aware of what's happening with that arrangement. Additionally there is language in the draft that would allow the new customer to approve the design and (<i>inaudible</i>) location of the facilities and request information from the utility and the utility would be authorized to provide that. So, again, just allowing a new customer to stay in a loop and making sure that all of the different parties are on the same page in terms of what's happening with the interconnection agreement.</p> <p>So after the PSP was issued, there were several comments from various stakeholders. I'm going to talk about the two main groups that submitted comments in this presentation because they sort of represent the majority thought process. The first biggest opponent group was considered the joint utilities and this group was led by Oncor and of course you had AEP, Centerpoint, Apostle, Electric Energy, Oncor Sharilynn left the power company SPS in Texas and New Mexico and they all work together to file a joint comment basically against the flexible approach that Jack had proposed in the PSP.</p> <p>And the reason for their basic sort of dislike of the PSP in wanting to maintain sort of a status quo was for several reasons and I'll go over those here. The main thing – the main legal argument is that under PURA the legislature intended that a customer really be</p>

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	<p>limited to a new customer and a solar BG interconnection agreement situation. So they argued that allowing this expansive approach goes outside with the legislature intended in terms of the agreement. They also argued that under PURA there is no sort of definition of the commission's actual jurisdiction over the argued owner of the third party participants in these agreements. And so there's no way for the commission in the utility's mind to enforce the provisions of the contracts against a third party signatory like a premises owner or a generator. Energy actually expect – is more concerned – in their comment they (<i>inaudible</i>) comment that were in between the two leader camps and they actually suggested that a retail electric provider should be the only other party besides a new customer that is allowed to enter into an interconnection agreement of this nature. The problem with that, of course, being that a retail provider can't (<i>inaudible</i>) and so a lot of the commenter kind of kicked back on that but they were definitely concerned with commission being able to establish jurisdiction over the third party.</p> <p>The joint utilities also raise the concern of third party signatories being able to bring complaint cases against a new customer. So for example if the new customer didn't pay their bill, you know, their concern that the third party signatory as the premises owner could go back after the new customer of PDC and that would create a headache for staff and for the commission in terms of how to regulate that dispute. Another argument that the joint utilities promulgated was that any new customer is ultimately responsible for all the equipment behind the meter and then all the compliance issues with relevant codes and city ordinances and so they have to be argued that that is really the appropriate party to be entering into an interconnection agreement. And under the PSP existing roles there is the ability for the new customer to sort of contract those obligations out to an agent and that the (<i>inaudible</i>) should say the same with that agent shouldn't be allowed to enter into the interconnection agreement.</p> <p>Further they argue that, you know, their need to ensure that the customer again consumer protection will be aware of anything to disconnection abuse. If you have a third party entering into an agreement who is having a liability issue or there's a safety issue they don't inform the new customer. The joint utilities raised concerns over wanting to be sure that process is handled and not having a lot of faith in the facts that that would occur with a third</p>

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	<p>party signatory.</p> <p>They also raise a joint there's no actual physical interconnection occurring between third parties and a facility because the actual interconnection itself in their mind takes place between that interconnection and the utility itself and so there's no room for a third party to enter into that arrangement.\</p> <p>And sort of in general in some, there are sort of policy arguments that the (<i>inaudible</i>) only approach is kind of the simplest way to move forward. It's kind of the if it isn't broke don't fix it. Mentality, I think there's a concern amongst the joint utilities that by doing this, the parties are opening up a Pandora's box of potential issues, you know, reliability issues and petition issues, system protection issues that we cannot anticipate at this time and so they prefer to leave the agreement the way it is and just allow those new customers to continue to use their agent to help them with these interconnection agreements.</p> <p>So on the other side of the camp right now you have basically the market – we'll call them the joint market participants which is toward the solar group. You had Opuff Arm, Team Sea, Sunstreet and Solar City and Solar City kind of led the charge in terms of filing comments in conjunction with Oncor. And this group was in favor of, of course, the more flexible approach, promulgated by staff and the proposal for publication and filed comments about a fact to reiterate their support.</p> <p>So on response to the joint utilities, the joint market participants basically stated that you know it's true that Pura and the legislature did not define what was intended to be a customer in terms of the GG interconnection agreement but the PC has defined customers in this instance and it's a broad definition that includes any entity interconnected to the company's utility system for the purpose of receiving or exporting much power. So based on that broader approach, the joint market participants argued that the definition of a DRGO under Pura is broad enough to sit under that umbrella because it includes an owner of the argued facilities, a retail of the customer or a person who by contract is assigned ownership rights. And so that was sort of their counterargument to the definition of customer approach that was taken by the joint utilities.</p> <p>Further, the joint market participants argued that there is under</p>

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	<p>Pura an interconnection for the (<i>inaudible</i>) this year is defined as a right of a DRDR just physically connect their DRG facility to an electricity distribution system. So as a result, their argument is that the new customer is not the only party or customer with that direct physical connection like the utilities would suggest and so it would be discriminatory not to allow a DRDO or other third party signatory to enter into an IA.</p> <p>They also argued as a general matter that the commission has inherent jurisdiction over a third party signatory because the base form IA that's in question is actually a part of the electric utilities commission approved Pura under the rules and so that creates a level of inherent jurisdiction over the parties that are signing. They argued further that kind of as a practical matter, the third party signatories that enter into these interconnection agreements submit to the governing law of the State of Texas based on Section 8 of that form. So they're expressly stating that you're entering into this agreement and subjecting ourselves to regulation by the commission. And if that kind of didn't do the trick, the joint market participants sort of further layered on their comment that, you know, we're willing to provide language that we are expressly submitting to the jurisdiction of the commission for the limited purposes of this interaction agreement. They included other sort of customer protection language releasing the new customer from liability, waiving third party's right to file a claim against the new customer and then notification language to the new customer. And all of those proposed edits were basically, you know, an attempt to appease and sooth the concerns that were laid out in the comments by the joint utilities. And in some in their policy argument, the joint market participants basically say that, you know, staff more flexible approach really is in line with the reality of today's market. So oftentimes you have a new customer who are purchasing energy generated by onsite rooftop facilities that are owned, installed and operated by third parties or they're leasing such facilities from third parties owning and operating them. So in those instances it's really more appropriate that the third party is the one that's contractually responsible for the interconnection agreement. And further there are actually agreements like this already happening in Texas where you're seeing third parties who have entered into interconnection agreements with utilities and so it's something that's already kind of taking place and that's something that the joint market</p>

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	<p>participants wanted to point out that, you know, it's happening without any kind of catastrophic implications at least thus far.</p> <p>So the outcome of this issue is obviously important for the future of your energy interconnection agreements in Texas. It really remains to be seen how it's going to play out of the commission. At the last open meeting where it was discussed, Commissioner Nelson kind of threw a curve ball and mentioned that she's not convinced that the more flexible approach is really the way to go. She didn't give any kind of indication on why that was but we'll have to wait and see. And there's been some rumblings about the legislature taking on these issues in terms of clarifying the intent of customer and Pura during the session so we'll have to also kind of wait and see how that plays out as well.</p> <p>And then lastly I wanted to touch on the El Paso electric rate case. This just concluded last week at the commission and it was important for Solar because EPE in that rate case had actually proposed adding a demand charge and a \$15 a month customer charge for customers who have rooftop solar. And solar proponents were of course opposed the demand charges because they're based off the single period during a month when the customers use the most energy and so they argued that it's impossible for customers to project when they will serve any charges. And then once the peak demand has been hit a customer has no ability to lower that charge with a hater change throughout the rest of the month. So on the other hand you had EPE with, of course, in favor of it because like other utilities El Paso Electric divides its customers into different rate classes and there are 15 of them in all. Though EPE says the problem with that approach is that some customer classes don't actually pay what it costs the utility to provide them with power and that means other customer classes are effectively kind of picking up the stuff denied the others and it becomes sort of a picking up the slack scenario so they want to end the subsidies so that everybody kind of pays their fair share. So on August 18 the commission approved the settlement between EPE and (<i>inaudible</i>) electric stakeholders and they actually dropped in that settlement the proposal to apply these demand charges that would target, you know, rooftop solar customers.</p> <p>And then the alliance for solar choice came out after that decision last week and basically noted that this is kind of a national trend</p>

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	<p>that we're seeing – that over the past few years across 10 states all proposals of the future have been basically shot down. And there's a couple recently in Tennessee and Oklahoma that have been going through the same issue. And so Cyrus is going to pick up next to talk about the legislative implications but there may be something to (<i>inaudible</i>) the legislature in the next session wants to explore because it is becoming sort of a national trend. And with that I'll turn it back over to Cyrus.</p>
Reed	<p>Thanks Lacey – was gonna give a quick to wrap up legislative perspective on solar and of course these are just my own perspective – I'm sure there are many others but I've kind of divided it into issues that I think will be primarily positive for solar and then some potential issue where those who advocate for solar might be on the defense a bit. And so going more to the positive view, I do think one potential area that the legislature – that I would expect to see some legislations filed and perhaps acted upon would be in the area of financing. I think many of you know there have been a couple of bills passed over the legislature having to do property assessed clean energy district. The latest, more successful one was focused on commercial pace and for those of you, probably most of you know PACE is a financing mechanism to allow people to take out loans on their property to do energy efficiency, water efficiency, solar and then pay it back through their property taxes. That legislation passed in 2013 and a number of counties or cities have gone forward at the local level to establish these districts here in the Austin area but also in Houston, Dallas, Willacy County down in the valley. I just heard that El Paso County is potentially going forward even as soon as next week on establishing a PACE district. So these have gone forward and the reason the legislature could potentially get involved again in 2017 is first we've had a recent good ruling from the Federal Housing Authority and HUD that allows some residential PACE projects to go forward that had some issues and so we've had a positive ruling out of FHA. We're still, however, waiting for another federal agency involved in housing to get onboard with PACE for residential. But if that happens in the next few months, I would imagine we'd have some legislation go forward to add residential PACE to commercial PACE. So that's one thing that could happen at the legislature.</p> <p>The other is there has been talk about allowing the state potentially</p>

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	<p>through someone like SECO, the State Energy Conservation Office to have more of a state administered program so that counties that wanted to opt into PACE but didn't actually want to administer it themselves could have some big help in the administration part of it. So those are a couple of ideas that I've heard floating around and that you might expect to see some legislation on.</p> <p>Another area of financing is last legislative session there was legislation introduced but didn't make it over the final hurdle that would allow Texas to participate in a warehouse – a WHEEL – another financing mechanism called Warehouse For Energy Efficiency Loans which also can be used for solar and these tend to be smaller loans focused more at the residential level and the idea in the previous legislation was again to allow SECO to be the administrator and to help put these in force. And I would expect that you'll see legislation again that would potentially authorize WHEEL to occur in Texas as it has occurred in other states. It uses private financing – the state just helps get the rules in place and there is talk about utilizing some state funds that's sort of a backstop or a loan loss reserve account so that's a potential mechanism that could go forward as well. So I wouldn't be surprised if you saw some legislation on PACE and some legislation on WHEEL which I would say would be positive for onsite solar.</p> <p>We've had a discussion about reporting and getting better numbers on distributed generation and there is an ongoing discussion over at the PNC about improving their website. But again I wouldn't be surprised if there weren't legislation to get better reporting of distributed generation numbers but also for customers who are shopping for retail electric provider had better information on the websites about interconnection standards, about <i>(inaudible)</i> for any access generation, about any communicative solar offerings retail electric providers might have. So there may be legislation just increasing transparency for the public.</p> <p>The other area that we know there will be legislation on that might be positive for solar is Texas, beginning back in 2001 created the Texas Emissions Reduction Plan which primarily provides grants for cleaning up our transportation network in the areas that have problems with ozone with air pollution. Part of the current TERP legislation and statute allows a small amount of money to be used</p>

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	<p>for storage technologies that are connected to renewable energy and therefore help create cleaner air. And so over the past couple of years the Texas Commission of Environmental Quality has been giving grants. And Austin Energy a couple of years ago got a grant to add some battery storage to a solar farm they are building here in town in Austin and recently I learned that CPS Energy also is receiving some money through that account for some battery technology in their service area. And because some of the programs within TERP do expire in 2017 and other parts of that program expire in 2019, there will have to be legislation filed and hopefully acted upon this year to um – we authorize TERP and continue TERP as we struggle with clean air issues. And so, again, I would expect that storage technology, electric vehicles, and also potentially some solar programs could be discussed as part of that TERP legislation – can't promise that it will necessarily have money for solar but I think it will be part of the discussions. So I think that's another kind of positive discussion we can expect over the legislature.</p> <p>I put positive/neutral here. As Lacey mentioned, there could be legislation having to do with interconnection standards and who signs that along the lines of (<i>inaudible</i>) discussion. There could also be folks who want to open up third party ownership solar in electrical coops or uni's and probably people have different perspectives on whether that's a good idea or not, but I wouldn't be surprised if there's some discussion about that in the upcoming legislative session. So I put that as, you know, positive/neutral depending on your, you know, what hat you wear.</p> <p>And then on the defense I think there are three big categories. One is we know that the Texas Economic Development Act has been around for a while and it's helped a number of developers of different projects from natural gas plants to chemical plants. But also has helped wind and solar reduce their tax burden at least in the near term as a way to reduce initial costs and get wind and solar installed and used by some of you on the line I'm sure. And last legislative session there was a big discussion about it. Some tweaks were made but again I would expect that there will be some effort by some folks either to remove the program or limit it, and particularly with regards to renewable energy. And so I know that Tree and other associations will be watching it but I would expect it will be legislation filed to make changes to that development act and those property tax breaks from different folks with different</p>

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	<p>perspectives. But I would expect an attack there.</p> <p>Another – I’ll call it attack – the last legislative session there was a bill that would have removed the renewable portfolio standard from Texas statutes – utility statutes as well as any ability to do any future competitive renewable energy zones. Of course the PUC in the meantime has sort of said, we’re not going to do anymore credit zones anyway and of course we’ve already met the renewable portfolios standard goals and targets that are in statute. That being said I wouldn’t be surprised if there’s legislation again to remove those references in statute. And while I don’t think there will be a huge practical effect, I think having the RPS and statute which at some time in the future we may want to expand and which does create renewable energy credits which aren’t worth a lot these days because we’ve got a lot of development but, you know, are worth something and also helps create a voluntary wreck market as part of that statute. So, again, I would expect to see an attack on the RPS.</p> <p>And then the final issue I think could come back is as Lacey mentioned as part of the El Paso case and throughout the country we’re seeing utilities make the argument that solar owners – owners of solar on roofs are in some sense costing them or being subsidized by other rate payors who don’t have solar and I don’t agree with that perspective but that’s a perspective that’s out there. So I think it’s possible that they’ll be legislation that would allow utilities to recover costs for solar or create additional customer charges or demand charges. I don’t know that to be true. I do know that the PNC just issued kind of an alternative rate making study that includes some actually good ideas but I can see legislators taking up this issue of solar power and what it costs utilities and allowing them to recover some of those costs. So I would just expect to see something in that arena.</p> <p>These are my conclusions. Expect some modest financing bills that will be helpful to solar and expect some attacks mainly on the Economic Development Act and potentially allowing utilities to recover costs through a solar tax. So that’s what I would expect to see.</p> <p>And I think we want to remind folks about the Grid next conference. Lacey, we did have a number of questions.</p>

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Breedon	Yeah, and I think we have a little bit of time for those. I've been trying to answer a few as we go through but I think the remaining questions are with regard to the ( <i>inaudible</i> ). So let's try to answer some of those if we can now.
Reed	Okay. Well I do have question – is there continent projections for DG and the answer is they really haven't. They're wrestling with, you know, because DG's complicated because some are registered, some are unregistered and there are discussions about better reporting of that data from the TBU's to ERCOT. But in terms of the long term assessment they haven't done scenarios with, you know, a big expansion of DG. So they have a number of scenarios they're looking at but at least from my memory that wasn't one of them. And most of the information by the way from ERCOT can be found through the Regional RPG Group – the Regional Planning Group. If you go to ERCOT's website and that RPG group, that's where most of the presentations on long term assessments are. And yes the ERCOT – to answer another question – the ERCOT projections are capacity not production.
Breedon	<p>Okay, I think that looks like we've answered all of those that are in the queue online. So thank you, Cyrus, as well and thanks for everyone – and thanks to everyone for joining us today. We really hope that you found this information to be helpful. If you haven't already there's a survey icon at the bottom of your screen so please take a moment to participate in that survey. It helps us to improve these webinars as we move forward.</p> <p>And as a quick reminder, our next webinar installment on Solar Development in Texas is going to be held on Tuesday, September 20 and so we hope that you'll be able to make time – that will also be around the noon lunch hour to join in for that.</p> <p>And so I think that concludes our webinar and we appreciate your time. Thank you (<i>inaudible</i>)</p>
Reed	And actually, Lacey, we have a question and I'm too stupid to know how to use all these technical gizmos but someone asked if they could get a copy of these flags and I believe we do make them available to the participants. Is that correct?
Breedon	Yes, a copy of the flags are in your resource list at the bottom of the pane there on your screen, so it's that green folder. There's a

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	<p>resource list that includes the flags and links to other information so it's all there. And if you have any trouble at all with any of that, our contact information is also located in this presentation – should be on your screen now so don't hesitate to reach out and just touch base with us and we can make sure you get what you need.</p> <p>Is there anything else? Cyrus?</p>
Reed	No, that's it.
Breedon	Okay, great. Well I think that concludes our webinar. Thanks again for everyone for joining in and we appreciate your time. See you next time.
Reed	Bye.