

# Austin Energy Utility Oversight Committee Meeting

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[9:07:14 AM]

>> Gallo: Good morning. Everyone. It's a little bit after 9:00. As soon as we get a quorum we'll begin our Austin energy oversight committee. So if we have members watching, if they could make their way up, that would be great. Thank you.

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>> Gallo: To everyone that's here thank you for persian gulf patient. We are still waiting for enough councilmembers to come so that we'll have a quorum to be able to start the meeting.

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>> Gallo: Just to talk a little bit about the structure of this council committee meetings, it is a committee of the whole. I do want to announce that councilmember Garza will not be with us today. Evidently her mother has gone into the hospital and she has driven to San Antonio to be with her. We wish her prayers and good thoughts. Councilmember kitchen will possibly be here later. She had a conflict that she had to attend to, and the same with the mayor. So we may have a couple of people join us as the meeting progresses, but at this point I think this may be it. But we do have a quorum. We will have a hard stop at 12:00 so what we will do at this point is move the citizen general communication to the end of the agenda and we'll start with items for committee consideration. What you will see from now on on our agenda is that we will have large purchasing items come before the council committee and have the presentation and have the opportunity for discussion and questions so that as this hopefully and before this comes before the council for vote hopefully we will get all our questions addressed at this meeting and then possibly with support from this meeting moving it forward, it will be able to be consent item on the council agenda. So you will see now from now on several items that will be for -- excuse me, for committee consideration that are purchasing items. The first one is agenda item number 3. If staff would do their presentation on three and this will be an opportunity for questions. >> Pool: Excuse me, real quick. Chair, just a quick point of order and question. I know that a number of people are here today to speak with citizens communication and you just moved it to the end after

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saying we would have a hard stop at noon. So I wanted to assurances that we will have time to hear from the members of the community who are here today. >> Gallo: We should. We can stop our agenda at the point that we feel like we have -- we need to leave the room for the citizens communication. I thought that that would give the opportunity for the missing councilmembers to be present for those -- for that citizen communication since we are missing some people. So by moving it to the end hopefully we'll have a couple of the other councilmembers be here. The majority I think of the people that have signed up for citizen communication have also signed up for agenda item number 6, so they will have the opportunity as we pick up that agenda item to speak there and then hopefully once we get a couple of other councilmembers, then we can go back to the citizen communication so the full council can hear those comments from the community. >> Pool: Thank you. >> Good morning. This is Larry Weis, Austin energy. Moving on to item 3, if that's where we are, on to item 3, let me start out before I turn this over to Khalil to talk. The utilities across the country are entering into a new era of technologies and in our last generation plan approved by council there was some work into the storage arena. It's a very technical subject. We're doing a lot of research in it. This frankly is a research project, if you will, our first installation and more to come. So if council ever wants a more technical presentation on this subject, we can do that, but we certainly -- there's a lot of information out there. So I'll turn it over to Khalil for this purchase item. >> Good morning, everybody.

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Khalil shalibi, vice-president of research markets and resource planning. As part of the approved resource plan from the previous council one of our goals was to have 10 megawatts of storage of different types, mostly in our service territory. So this is the beginning of an attempt to start getting ourselves familiarized with this technology over time. The rca is really to purchase the batteries and the power electronics. The project will be sighted at the Kingsbury substation. We're pretty excited about this because this is also where we plan to site the community solar project. The two projects are really independent, but also co-exist and have some synergies with each other. So I know I've received some questions about whether the costs of this will be in the community solar or not. None of that is true. The rca and the cost of storage project will be independent and this project would have gone forward whether the community solar project was there or not. The fact that they're both co-located, they'll be on the same feeder, hooked up to the same feeder, offers us from an engineering standpoint a lot of study opportunity and we're excited about that. The battery storage project will be about 1.6 megawatts. It will be -- the battery manufacturer in this case will be tesla. That will not be the case in every project that we do on battery storage. We're trying to familiarize ourselves with different manufacturers of batteries and incident integrators. In order really to learn as much as possible about different use cases. And I'm ready really to answer any questions you may have about this project going forward. >> >> Gallo: Committee members, do we have any

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questions? >> Pool: Do you need a motion? >> Gallo: Any questions? No. Do we have a motion for approval to send this to the council? >> Pool: I move. >> Gallo: Vice-chair pool has moved that we send this item to the council for consideration. Is there a second? Seconded by councilmember Casar. All in favor -- yes. >> Pool: The question is on the execution of the contract. It would be helpful if you could send that back to us as soon as possible. We are including execution of the contract and we have had

concerns on different contracts about including execution in the direction, but we're including it in this one. So as you have information to share, if you could do that timely because we haven't allowed ourselves the ability to look at the negotiation before we approve the execution. And again, we have been doing that fairly regularly with other large contracts. >> Gallo: Thank you for bringing that up. Actually, as I was mentioning a little bit earlier, you'll begin to see agenda items placed on our Austin energy council committee agenda that will be brought up before the council the following month so we're trying to plan ahead on that timeline so as we see agenda items for the September meeting will actually be items that will come before the council in October. At our October Austin energy committee meeting you will see agenda items on our committee meeting that will appear before the council the following month. So I agree with you completely and I think that's a good point and that will give us the opportunity to talk and ask questions with enough time before it comes to the council meeting so we avoid those items hitting the council meeting without us having an opportunity to spend time to discuss. Thank you for bringing up

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that question. I meant to mention that earlier. >> Certainly we can. >> Gallo: Councilmember Zimmerman? >> Zimmerman: I do have a technical question. I'm kind of, I guess, excited to see this coming forward because storage is very interesting technology that needs to be developed. My big concern on it is I've expressed a lot of irritation from the dais about people telling me how solars and renewables pay for themselves and I argue that they absolutely do not. And this technology need that we have, right, for storage, because the renewables are non-dispatchable, it's really very, very important. So I just want to wrap my head around the finances of it and find out how the cost of this project and the on cost of technology gets credited to the non-dispatchable renewables. How do we make that happen where we can understand how expense is sieve this experiment it and how expensive the technology is in the context of the argument I keep hearing, oh, solar pays for itself, and I keep saying no it doesn't, no it doesn't. How do I wrap my head around that? >> Well, this is a capital project and will be funded from our capital budget. I would view it almost like a transformer, any other capital project that's on our transmission and distribution system. And that's where the costs are. The value of storage is not just renewables. We could have numerous cases for storage. In this case it really wasn't about finding out what the total cost of both projects are. This is really a pilot project. We -- this is our first attempt at [indiscernible] This technology and figuring out how it works, how to integrate. So more concerned about

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reliability in this case, how it works, how it integrates in our system, what are the different use cases we can use it for and at the end of the day I think some of those financial networks will come out of that. >> I might add while we're thinking about it from the perspective of storing energy that might be used for another time this also can be used for maintenance. If we need to take a line out of service, for example, we could potentially use the battery storage to keep a circuit energized while we have to work on the bus work inside the station. And if we did that that might prevent us from doing a lot of hot work with our crews so might save a lot of time. We need to look at other aspects of it and that's really what the industry is doing. It really gives us a lot of system flexibility in automation of our system distribution. >> Zimmerman: That's interesting, but that need to isolate systems and have some temporary energy storage while you take one part of the system offline for maintenance, that need has existed for, I don't know, probably at least 100 years. The idea of being able to take a piece of your little power grid offline to work on it is not a new concept. Still it's solar and wind that's driving this, right. It's not maintenance.

>> No, it's that, but it's the application of that, it's true, but it's really the battery technology and the ability to do this. 1.6 megawatts that you can deliver to a substation is a fairly significant piece of technology. Trying to figure out how to use this within our distribution system is really the key. We're with a group of other utilities, hence the acronym Mesa, the for electrical engineering folks to study what we're actually going to be doing with this technology, how do we protect it, how do we integrate it. So there's a lot of work on this. Like Khalil says this is our first one. Austin energy hasn't been an

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innovator for years without reason so this is one of them. So we will see what we can do with it. >> Zimmerman: How many other utilities will be collaborating with. >> I do not know the number today. But of the utilities that are members of Mesa I believe the last time I looked, maybe it was 10, 12, something like that. It's getting larger. >> >> Tovo: Councilmember Zimmerman, I believe you and I teach this from slightly different perspectives, but where we might agree is as we look at different energy sources we should look at our all in costs and I think that's something I've heard from the community as well when we talk about gas and nuclear and coal that we look at for example with our nuclear plant the cost of the very frequent repairs and how we consider that as we make choices going forward. I think we also should at each one of these times have discussions as we're having those discussions, think about what the impact is on the local economy because if we are able to -- if we have - if we're talking about solar energy, for example, and we have local folks in that industry that has good economic benefits in Austin for real austinites so that also I think should be part of the occasion that we consider with a fuller cost benefit analysis. >> Are there any other questions or comments? No? Okay. We have a motion and a second to refer this to the council. All in favor? Any opposed? So I show everyone on the dais in favor with councilmember Zimmerman opposed. So that would be a 6-1 vote. It passes and we'll forward to the council. With that recommendation.

[9:38:18 AM]

We do have one speaker signed up. This is an action item so we do have the ability for citizens to communicate with us on action items and that is David king. >> [Inaudible]. >> Gallo: Sorry about that, David, you got buried in here with all these Numbers. Thank you. As all in favor know our sign-up system for our committee meetings leaves a little to be desired and it's a little confusing when you get the sheet with Numbers and names and everything and not really the right order. So thank you for your patience on that and if I have missed you when we get to an item, please let us know that. Okay. We have two briefings and the first briefing is agenda item number 4 and that is a briefing on assumptions used by and a half Gantt consulting in the independent study of the Austin resource generation and climate protection plan to 2025. >> Thank you. Mark Dubose ski, chief financial officer for Austin energy. As you're aware council approved a contract for navigant to conduct an incident review of our resource plan in anticipation of the 600 megawatts of solar and we've compressed that timeline with the final report due October 22nd. So we've asked navigant to come to council and discuss their assumptions and methodologies with you. They also briefed the electric utility commission on Monday evening on, a very similar briefing. So this is the follow-up to that meeting. We have here today Mr. Dan Bradley of navigant who will be giving you the briefing. >> Good morning. I'll move to the next slide here. As mark introduced me, Dan Bradley with navigant consulting. I'm a director with them here in Austin. My role in this is project

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manager for this study. The purpose of the briefing today is to present this study methodology that we are -- we have designed and are implementing to conduct this study as well as to touch on some of the key input assumptions that the and a half Gantt team has developed for this independent assessment. Just to let you know all the parties involved, the navigant team does include the two subcontractors that were included with our proposal, local subcontractors, including quality power and the energy utility group. The scope of the -- of this independent assessment starts with Austin energy's approved generation plan and identifies -- the plan itself identifies potential additions to Austin energy's fleet. Where our independent study comes in is primarily on the impacts of the addition of the gas plant. We are assuming that all other elements of the approved generation plan remain and they're included in all of the different ways that we're looking at the study that we'll walk through. We're really looking at that gas plant or alternative resources that could be invested in lieu of the gas plan. From a methodology our methodology that we're using is an industry standard methodology using tools and models that are widely used and adopted within the industry. The assumptions we're using in the analysis are developed by and a half Gantt and our two -- by navigant and our two subcontractors as a team. An important point is to assess the impacts to Austin energy. We model not only Austin energy's load zone and generation, but in the context of all of ERCOT. So when we talk about our market model, our market model is pro mod, we model all of the loads and generating resources and

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transmission lines in all of ERCOT. We get so see what's happening with Austin energy's load and portfolio and also ERCOT as a whole. The analysis design we have set up for this analysis assesses the impact of Austin energy of what we call four different market scenarios. Those are applied to seven different resource portfolios. So what do we say when we mean a scenario. A scenario is something that happens in the marketplace that occurs outside of the control of Austin energy. And so to address and assess the risks that we see out there we focused in on two broad categories of scenarios, number one being natural gas. It is the biggest driver of risk and cost in Austin purchases from ERCOT. Natural gas, the price of natural gas is the primary driver between what sets the ERCOT wholesale market price. So to address that risk we have -- Navigant has addressed three gas price forecast. An expected forecast and a high and a low. Navigant has been developing gas price forecasts fitche of the pricing nodes across the country for the last 20 years, our reference price forecast that we're using in this is our current forecast for the ERCOT zone and we developed a high and a low forecast around that, actually going out to have a nice bandwidth of prices using the high and the low gas price forecast that the EIA comes up with and we translated them into our own forecast to be on either side of our reference price forecast. The other broad scenario we're looking at is uncertainty around grid tied solar. Grid tied solar, as the price of solar has come down

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drastically, we've seen more and more solar coming online and coming online in large utility scale grid tied developments. Recently inner rot there was the first merchant, oncontracted come online. At this point is earning its revenues solely by selling energy into the ERCOT market. So when you see something like that it opens up questions around uncertainty. So we are building out a scenario separate and apart from the gas price scenarios that looks at an ERCOT market which instead of in future yearser rot meets its growing demand by adding gas plants. It meets it by looking at gas tied solar. So what are we going to do with the four scenarios? We'll run seven different portfolios. These are portfolios within the decision making power of Austin energy and the city council, in other words, the generation plan intact is a portfolio. What we're doing here between the different different portfolios is we're either assuming

the gas plant or an alternative resource. And so we have constructed looks to see what would it look like if in lieu of 500 megawatts of a gas plant we put in grid tied solar or wind or looked at a portfolio that looked at market purchases, demand response, some additional solar. And wind. So we'll be looking at seven different portfolios against those four scenarios. I did want to make it clear that with e.p.a.'s clean power plan being enacted on August 3rd we have assumed in the model that there is a carbon price, a carbon

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allowance price that kicks into the market in the 2020 to 2022 time frame. In that time frame it comes in at a pretty low price and then it ramps up over time. The results from these different intersections between the scenarios and portfolios are going to be reported by Navigant, including with metrics that include costs, rate benchmark, renewable power percentage, water use. This isn't strictly a cost based look. We'll be reporting on a wide variety of metrics that allow us to get in to and really see what the drivers are between the different portfolios and how they perform against the scenarios to assess risk in both financial and how Austin Energy is performing against its metrics. And the last piece of my overview this morning is just the schedule. As Mark mentioned in the opening on September 21st earlier this week, we briefed the EUC. Today is the briefing that's taking place now. We are producing draft results in the first half of October and right now have planned to issue a report on October 15th. On October 19th the EUC will hear the final draft and a half Gantt results. In the course of the days following that briefing Austin Energy will provide feedback to Navigant and will develop a final plan update. And on October 22nd Austin Energy and Navigant will brief to the AEUC with a briefing of adoption or modification of the plan. So that concludes my briefing today and I'm happy to take any questions you may have.

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>> Gallo: Welcome to Councilmember Houston. Thank you. And I just want to say thank you so much for the timetable also. I think that's really grid and tried to assess with the lack of energy storage, have you tried to assess how much the ERCOT grid could handle in terms of percentage of non-dispatchable power of wind and solar. The reason is we have a Ph.D. electrical engineer who specialized in ERCOT modeling for many years and he's been working on this for quite a few years and he's come up with numbers of a theoretical maximum of how much non-dispatchable power that you could push in. Has Navigant worked on that question? >> Yeah, I would say I'm not aware that we've issued a study. That is actually a type of analysis that we do frequently. When you paint a picture of the future and you go out and use the models to assess what that would look like from market performance, market price, cost and risk perspective, you will see -- although we're not necessarily modeling up to a theoretical maximum, the impact of having large amounts of say non-dispatchable resources. Now, what you may see, in other words, right, is there may be a theoretical maximum, but then there are market reverberations that will come out of that. So you could say in the future as non-dispatchable renewables grow, and penetrate the newer ERCOT market, new mechanisms may come out of ERCOT to provide

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an opportunity for storage or other types of resources to accommodate the shifting and the balancing. >> Zimmerman: Let me just say this. Let me rephrase it another way. If you reduced the cost of non-dispatchable power to zero, so it's free, you would still be limited, right, in how much non-dispatchable power you could push into the grid at the various nodes where it's produced. >> I guess if you look at

solar even today the theoretical marginal price of solar is zero. So you do see that happening in ERCOT today. I suppose without some kind of a solar or -- excuse me, storage or load balancing or other types of resources, a portfolio of resources, right, you're not necessarily going to be able to serve 100% of load with solar. It requires a portfolio, which is something that I -- that looks like the generation plant or other portfolio effects you have in participate ERCOT. But it's a tug and push and pull that provides a variety of resources. >> Zimmerman: Final question. In one of your slides it mentioned carbon allowance, carbon allowance placing or pricing. What is that? >> Coming out of the clean power plant one of the ways that the clean power plant is looking to address and get to its goals is they have put out that they would anticipate the implementation of perhaps statewide or regional carbon markets. It's a way of using a price for carbon in a model like this. It doesn't necessarily have a major impact on the overall market, but it does reflect the anticipation that, you know, this E.P.A.

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CPP regulation will have the effect of winding up with some type of effect on carbon. That's the reason it's mentioned understand a study on this. >> Zimmerman: The reason I ask is because of the infamous bio most plant in east Texas, there is a presumption in the selling that there would be a carbon credit market and it never materialized. And that's one of the reasons why the bio mass plant sits idle for \$50 million a year for producing no power. So I don't want that to creep back into the next conversation. >> Yeah. Well, I'm not familiar with that situation. I can say from the carbon allowance perspective, the way this works in our model is that for every ton of CO<sub>2</sub> that's committed from my resource in ERCOT, that's a cost to that resource. Solar or wind or other renewables doesn't get a credit in that amount. This actually goes in and it works to somewhat adjust the wholesale market price in ERCOT as a whole. So it wouldn't be a credit that would be attributed to one resource versus another, it would be a cost to a resource that ultimately works its way into the average wholesale power prices. >> Gallo: Vice-chair pool, I think I saw your hand up earlier. >> Pool: Thank you. I just had a couple of questions. When you talk about 500 megawatts of gas and 500 megawatts of solar, do they perform the same? Do they yield the same amount of energy for each megawatt? >> Great question. They do not. They have different generation profiles. Just going back to the comment I made in the earlier part of my presentation on the importance of modeling Austin energy and ERCOT together is Austin energy purchases 100% of its power to serve its load from ERCOT. And the generation that it

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owns sells megawatt hours into the ERCOT market. If you look at the difference between the solar -- say a west Texas solar project that's tracking this on in a single access, it will produce 28, 30% of a capacity factor. In other words, the amount of capacity it generates over the course of a year and all the hours of a year, you look at a gas-fired combined cycle, given the economics and how it competes in ERCOT, it may produce far more energy, but we've lined it up on a megawatt to megawatt basis just to kind of show a bandwidth around it rather than trying to, say, measure up the amount of energy that one plant would produce, which changes over every year with another. >> Pool: Can we understand the differences in the different generation types, rather than megawatt you would line them up by megawatt hour? >> You will see a breakdown in the megawatt hours in the sources of Austin energy in the portfolio and in the general market. So that may give you a glimpse into what you're looking at. Does that answer your question or were you looking for something specific? >> Pool: What I'd like to see is a comparison in terms of megawatt hours and have them on a side by side comparison so that we can see what the true yield is so that the comparisons are equal, apples to apples as opposed to Oranges. I had two questions on the schedule and that's the slide that's still up on the monitor there. You have October 19, the

electric utility commission hears the final draft of

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navigant results. You may not know this because you weren't here for our last meetings, but Wead requested the euc, our citizens commission, have the time in this time line to be able to provide feedback and I don't see that listed here and while it may be the intention to do that, if it's not listed here it may very well be overlooked and we need to have a check box so that our stakeholders in the community have an opportunity and that we've put on the euc, have an opportunity to give you feedback which is going to be really important for this body here moving forward. I think it would be really valuable to navigant to have that feedback. And then down on October 22nd, which is three days later, again the euc is missing from that, but you are talking about a special called council meeting to adopt and I would be reluctant to move forward on the plans coming out of the study that we've hired you all to do if I can't also touch back with my appointee to the euc and the other smart folks who -- from our community are serving with distinction on that committee. Can we look at the -- at the time frame there? We have October 15 to 20 for Austin energy providing feedback to navigant and developing a final plan update. It would be great to enter -- to add in our citizens on this -- on this time line. Mr. Weis, do you think we can have that accomplished? >> I'm going to turn it over to mark who has really been managing this from -- >> Yes, it's a tight time line that we put together. The original time line was about a 90-day period. I'll get with Bab again and

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make sure we can have a meaningful discussion. I don't know where we would put that in at this time. >> Pool: I think it's very important to include the euc in the time line in order to give them the opportunity to provide some feedback. They have asked for that and I think they asked for it in their commission meetings and they have communicated the same to those of us on the dais here. >> We have it scheduled for the 18th of October, the euc. And what we've done in the past is that we have on some issues set aside the euc in kind of a spacial way or at a special meeting to really go into one subject deeper. We can work on something with the euc chair. >> Pool: I think Mr. Osborne is here and you can work out calendars before the end of the morning. And it's entirely possible that is contemplated in this lineup but I don't see it specifically so it would be helpful I think for everyone to know where those interactions will take place. >> Councilmember, I would add that we at the eue Monday evening they had put together a four-member task force to work with our marketing group and so we're arranging a meeting this Friday afternoon or next Wednesday afternoon. That four-member working group to come in and meet with navigant as well as our marketing folks to go over the assumptions and methodology in more detail than we were able to do Monday evening. I don't know if that's been scheduled but those are the two dates we've offered up to the task force. >> Pool: Well, that sounds great and that will be really helpful and as a result of that that's sufficient and we can keep moving forward especially if the euc feel like they need additional time

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we would be willing to entertain that. I have a couple other questions. Let's see, you are analyzing in the navigant study the water and carbon emissions that's part of your modeling methodology. I don't think it's in your scope, but would you please add at least a footnote or a column in the comparisons to indicate and remind us of other externalized costs. There's health impacts and water look from track -- pollution from fracking and social costs to our society. That would make on more robust report if you



could enthusiasm that. >> Okay. >> Pool: The one last question I had went to the solar ppa now. The grasp,

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but we are looking at the three 200-megawatt blocks purchased over time as set forth in the generation plan and then accelerating that to be all coming on line for 2017. >> Pool: Great. I know that there's a lot of interest in our community to have the 600 megawatts be in addition to the community solar that's already been purchased. Sounds like you are on top of that too. >> That's what we -- >> Pool: That's great. Thank you. Thank you, chair. >> Gallo: Are there any other questions from the committee? No? Is there anything else as part of the presentation on agenda item number 4? >> No. >> Gallo: Then if we can move to agenda item number 5, briefing and discussion regarding a proposed electric rate schedule for primary voltage customers where an average load of at least 20 megawatts. >> I'll start out and then turn it over to mark, but we have sent out a memo on September 8th that I believe is in your package so I just wanted to remind you that is pretty descriptive of what we're doing and we also have some slides that we thought mark would go through to kind of bring ups to date. Again as an overview, when we withdrew the long rate -- went through the long rate process in 2011 and 12, we ended up with new rates for our commercial and industrial customers much simplified. The S rates stand for secondary rates meaning that they do not own their own transformers and they receive multi power at different voltage. And then we have primary customers who own their own electric transformer

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when we did the cost of service in 2011, we had 18 customers who are served under long-term contracts. al year 2013 and at the direction of the council the intent was to move all of those customers off of contracts on to our approved tariffs. Those contracts ended mostly by may 2015. There are a few that had ended earlier, but by end of may all contracts would have been terminated. During that time the contract with state of Texas was granted a two-year extension so their contract now expires on may of 2017. And then in April of this year council took action to extend the contracts of the three largest industrial customers as well as two of the hospitals. On the former long-term contract customers have moved over to the published tariffs at this time. In June of this year we brought forward the high load transmission factor voltage tariff which is sort of the sister tariff to this and it's for customers who take voltage at the transmission level which we have one customer. That customer did move to the T 2, high demand transmission voltage. Since that time we've continued to work with the industrial customers that take primary service and try to develop for them a high load primary voltage tariff. We put in a forecast of that tariff with our budget this year that went forward and you had a hearing on that -- that tariff on August 20th of this year so it's already had its public hearing. During the budget process we were asked to remove that tariff from the document so we could have a separate discussion and that's what precipitated today's discussion.

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Some of the characteristics of the tariff, we currently have what's called the P 3 tariff which is the alternative to that tariff. That's where the customers would move to if we don't adopt this tariff and that's already been approved by council. I'll get into the characteristics of that tariff later. This is table to any customer who has primary voltage with demand of more than 20 megawatts and that's quite a large load and load factor of 85% and that's very efficient use of the power. It's based upon the same cost of service used for all our other current rates at this time and it's designed to recognize a unique risk with

large industrial customer. The term period ends on October 31, 2024. So regardless of when the cost would move to a P 4 tariff, it all ends at the same. It could be a nine-year tariff, an eight-year period to be on the tariff. The contract provides for a three-year lock period so their basic charges, their energy charges, demand and community benefits charge are all locked in for three-year periods. So when you sign on whatever rates are in effect you would lock in for three years and after that three-year period you -- you adjust those to whatever the adopted rates are at that time for the industrial customers and then again another lock. The regulatory charge gets reset any time we have more than 110% collected of what we need or gets adjusted if we have less than 90%. And that's the same way our regulatory charge now works with all other customers. Power supply adjustment gets adjusted just like we currently do. So that would be adjusted each year to costs of actually providing power. There's an option for

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customers if they want, we will go out and purchase for them on a forward basis a block of power at some percentage of their load so it can be from zero to 100%. They could lock that in up to five years along with the renewable energy premium on that and that would flow straight through to the customer. This would be structured as a take or pay contract so if they don't use the power they still pay for it. If for some reason the customer had to leave the system, it would be possible for us to negotiate and sell that block of power somewhere else that would relieve that commitment to the customer. I want to show a little chart here that compares the alternative, which is the P 3, which is currently adopted tariff to the P 4. Some of the characteristics, we have a minimum charge which we don't option of using

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the P 3 that's currently adopted. >> That's all we have as far as presentation on that. >> Gallo: Are there any questions, committee members? This was posted as a briefing and discussion item and not posted as an action item. Mayor pro tem tovo. >> Tovo: Thanks. Very much for the presentation and thanks to my colleagues for your support in making sure that we had this presentation before we take action on it. I have a series of questions. But the first thing I want to start with, there are a couple times in the presentation where you said it alliance with the cost of service or it gets closer to the cost of service. I think I heard two references to setting it close to the cost of service. I don't know if that was an intentional discussion but I do notice on this, on page 3 there are a few places where it says we're aligning with the cost of service, but there is a difference between setting it close to the cost of service and actually setting the rate to recover for the cost of service, which is what we do for our other customers. >> That's correct. We have a MIX of both fixed rates that we charge, a fixed charge and a variable charge. And so for those items probably about 60% or more of our costs are fixed. But we don't recover all those in a fixed charge. We base upon a usage kwh or kw. When I talk about moving closer to the cost of service is if we were to totally assess all of our fixed costs that would be pro cost of service. -- True cost of service. Otherwise rather than the \$10 residential customer charge we would have a 34-dollar monthly charge. Wee moving for of our fixed costs over to our fixed charges in order to better align the cost of service.

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The rates are designed to recover the total cost of providing service to that customer. >> Tovo: Okay. Thanks for that explanation. When we approved the tariff for the transmission, we had some discussions about how that was kind of a very unique situation and the rate structure really was relevant because

they are taking their energy at the transmission source or whatever your earlier explanation was. However, there are a few particular provisions that have been added into this tariff and you are saying they are consistent with, you know, the rationale is they are consistent with the T 2 designed for what we talked about was a very unique situation. In particular I'm interested in the community benefit charges, the lighting and the energy efficiency changes from our other large industrial customers. And I guess to ask that -- to really drill down into that I guess I need to be also clear on whether we can talk about who these two customers are or is that still privileged information? >> We cannot discuss who the names of those customers are in public. >> Tovo: Okay. Thank you. Between here and when we finally approve this, and I did ask staff for some of this information, but let me ask it in a public setting, we're eliminating the requirement that these two customers contribute to energy efficiency and they also won't be able to receive rebates. I would like to know between here and our final approval how much they've received in energy efficiency rebates in previous years. I think I've got that information for one customer but I'd like it for both, but also how that compares to their contribution for energy efficiency in previous years. I know in my discussion with Austin energy staff I think that latter part is a little tough apparently to tease out how much they've contributed,

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but if we're contemplating a tariff for these two customers going forward that doesn't require them to participate in energy efficiency and at least one of the two has drawn pretty significantly on energy efficiency for past work that's something I want to factor into my consideration. >> We'll get that. >> Tovo: And I guess I would like to hear a rationale for why their community benefit charges are proposed to be capped when we've not done that for any other large industrial customers, other than the transmission rate -- I mean the T 2 which we were -- had a fair amount of discussion about in executive session and determined that really was a runoff, there weren't really any other industrial customers like it. In my mind I thought that meant we weren't going to have to apply those provisions to the other large industrials. Again, we haven't done it with the other commercial customers. Help me understand what the rationale is for doing it in this case. Why are they being -- why are they being allowed to opt out of participating in that at the same -- where the same ratio that other customers are. >> The quick answer is is that the ratio which they use the amount of energy relative to the load is very, very high as well. Let me explain that. These -- this group of customers is a unique load as we call it in our industry. In other words, very unique load shaped to these customers. Their power consumption is absolutely almost flat around the clock. So they use a lot of volume of electricity. So the difference between instantaneous demand of energy and the use over time is the energy. So we have demand and energy. These customers are unprecedented really in our industry on the level of load factor we call it that they put on our system. So when you have volumetric charges, which is what some of these charges are, they are paying considerably more than a customer would be that has a

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50% load factor that's [inaudible] Of a large industry, for example. Let's say a steel mill or some other type of industry. Their load factors wouldn't be up at this 90% range. So by virtue of that because they are unique in their shape when you do cost of service to large customers, you end up with customers with that behavior are, well, they are great to have as customers, they don't fit kind of squarely into your rate design. They just don't fit in there because they are so unique in their portfolio. It just so happens that these three largest customers happen to be the same type of customers in the same type of technology of what they are doing. That's very unique. I think if we would have some -- a customer come along some day, an aluminum smelter or a large newspaper producer or something like that, then

you have another set of issues in how you price that purposely for that customer. I can't speak to all the history with Austin energy way back when, but it sure strikes me at the time that some of these customers knocked on the door that something should have been done specifically around an ideally designed cost of service just for that customer because that's how unique they are. Across the world these are unique customers. So when I sent mark down and we sat down with these customers to try to figure out a solution in the near term before we do the next cost of service study, in the near term this was the fairest way we could get to where they are overpaying into the system and not and hence the relationship to making it attractive from our standpoint and attractive to them. >> Tovo: Thank you Mr. Weis. I thought I heard in our earlier explaining, though, that between one element of the tariff and the other we are recovering our full cost of service for these customers. >> Yeah, I didn't say that we

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wouldn't be. What I'm really saying in these two categories about why they are not paying as much is because frankly as we look at it relative to shape of other types of customers with these loads, they are overpaying into these loads if you want to look at it that way. >> Tovo: I'm trying to make sense of those two different comments and I can't. Are they recovering -- are we recovering our full cost of service or are they overpaying in some areas and I guess I need to get back to why if we have a rate structure that is a volumetric charge for the community benefit, why are we capping it for two of our customers and not for anyone else. >> Because they have a higher load factor and they are very large. >> Tovo: But what does that mean in -- from a policy perspective to make that decision because the amount they would have to pay in terms of a community benefit charge would be higher, but why from a policy perspective is that -- should that be of concern? If we have a rate structure and it's volumetrically based for the community benefit charge. >> I would add that -- >> Tovo: Isn't it fair to apply it first across the measure, across the companies. >> Let me say it another way, when you do cost of service on rate design for utilities, it's never perfect. You cannot get it to where it needs to go. Like right now we presented recovering fixed costs, we don't come close to that so we have to put everything in volumetric and that's what we did. So as you put everything in volumetric, meaning you collect it by the energy, then your cost of service gets further away from accuracy depending on the profiles of certain types of customers. And so what I'm trying to describe is we have an anomaly with these certain types of customers that are very difficult to fit into our existing cost of service model and make sense of it. And we really didn't have to worry about it when we did the rates, you know, and you were

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there, because we had these folks on contract. So the issue really don't come up as much then, frankly. And I think the next cost of service study that the customers and us, we want to be more discreet about this class of customer and their characteristics and then we'll do a more complete job then. But for now, this is the best way that we can approach a relationship with these customers giving them and having the mutual benefits and having them not pay outside of cost of service bounds as close as we can get it. >> Tovo: I'm glad you mentioned this because we've talked about this since the rate case, but one of the reasons we weren't able to talk about them during the rate case is because they were on long-term contracts, but those long-term contracts meant that the city was -- was losing, as I recall, about \$20 million a year compared to the cost of service. And I sure want to -- I want to make sure we are not approving tariffs for these industrial customers that are costing other ratepayers. That we're asking our other ratepayers to subsidize the energy that's going on at our largest customers. >> That was our goal. Our goal was to not do any shifting of costs around so that's when mark talks about trying to get as close to cost of service for that customer, that's what we're trying to do. You know, frankly when smaller

utilities like public ones like Austin energy, the boards of those or the council's of those, the policy decision comes down to at some point in time that you just set aside the unique nature of these giant customers and you negotiate something completely separate. Because it doesn't really fit within the model with all the rates of all the customers, if that makes sense. And, you know, I don't know that we're there yet, but certainly if one of these larger customers was to double in size or something like that, we would probably have to think about that.

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>> Tovo: I appreciate that these are unique customers. I guess I still haven't quite nailed down why we are setting a cap on the customer benefit charge. So if you have a comment, I don't want to monopolize the dais anymore. I'm sure my colleagues have questions, but I'm still unclear on why from a policy perspective we would -- >> We looked at how much does any -- the \$200,000 per capped. So some of these customers have one or two accounts. Most have a single account. But it's \$200,000 per account. So we looked at currently what is the most any single account is paying towards the customer assistance program and that was \$148,000. So it's not as if we're -- this \$200,000 limited places a reduction on that customer's system, it places an upper limit on it. If this customer goes from 90 to 95% load factor they are assured their costs are going to have sort of an upper limit on it. >> Tovo: Thank you. I think that's helpful to know that you looked at what the charge is volumetric, based on a volumetric charge and maybe we could get some more information from you outside the meeting on that. Thanks. >> Gallo: I think councilmember Casar has a question. >> Casar: Just a followup question on that point and I may be confused. I thought under the special contracts that we've extended that customers weren't contributing as much to the customer assistance program, but you are saying -- are you saying that they would contribute 150,000 if they didn't have that exemption or are you saying they are currently making that size of a yearly contribution? >> They are currently not contributing towards the customer assistance program because under those extended contracts there is not [inaudible] Charge. However, if they were contributing, they would pay \$148,000. So this upper limit is above what we expect them to pay,

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but again because they can use so much load for such a sustained time, we don't want to penalize them for being an efficient customer. >> Just as a reminder for the entire council that as councilmember tovo and I were talking about, when we approved the rate package in 2011-12, all of these customers were under contract so we really didn't address anything to do with those customers. So the community benefits charge and the way that we line item all of these items now, that came new with the new rate design. Prior to that there was no individual line items other than partial pay adjustment charge on bills. >> Casar: I understand so I'm going to rephrase my question and you may give the same answer but it's for clarity for me. So if we -- if the cap on cap was not a part of this tariff, we would expect that it would be -- that the contribution would still be about 140,000 or 150,000, but what the cap does do if as Mr. Weis mentioned all of a sudden these customers were to double in size or change the way they used their power such that they unexpectedly should be contributing 200 or 300 -- 250,000 or 300,000, then that cap on cap would come into place and so that just provides that little predictability over a nine-year period? >> That's correct. Once they hit that 200,000 per year, it would be limited at that point. I don't know, you would have to talk to an engineer about how much can you double on an account versus, you know, specific feeder. It may be if they have to add another account or substation, once they have a new account, you would have a new \$200,000 limit on that cap on that account number. >> Gallo: Okay. Thank you. Any other questions? Vice chair pool. >> Pool: I'm looking at the

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demand charge here and it looks like under P 4 it would be leveled at \$11.10. And that takes out the seasonality in recognition of the large load factor. Summer would be \$12, nonsummer would be 11. Can you explain the ten cents? Is that trying to capture the proportionality of hotter months? >> No. We looked at the entire year, the 12-month period. Right now we have four summer months, June, July, August and September, and the other eight are called nonsummer months. If you look at the amount of energy they use summer versus nonsummer on a weighted basis, the majority of energy is in nonsummer months so that's why you get a weighted average difference between the summer and nonsummer. >> Pool: Actually that was my question was the weighted -- it looks like it's lighter on summer because I think a lot of people in Austin actually would disagree that we have more than four months of summer, but if those are the months that -- that the costs are higher in this regime, then that's still a third of the year, so why, for example, if you were trying to capture that in this model wouldn't you reflect the actual proportion of the year that you have the summer months? >> Well, for the demand there is -- there's no seasonality in the demand. It's structured for the size of the system. And so it's the same size that serves the customer in summer versus nonsummer. But what we try to do is encourage customers through rate design to send a price signal during those summer months to use less energy. For these customers, they have an 85% load factor throughout the course of the whole year.

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They are not going to be able to shift their load to nonsummer months. It's designed to recover the same amount of money; however, it's using more equal number of billing determinants per kilowatt. >> Pool: Okay. I'd be kind of interested then in seeing if we couldn't use that model for our customers, our residential customers. >> The demand charge? >> Pool: Yeah. >> That is -- >> Pool: Levelize that throughout the whole year so that summertime, assuming that they are using the same amount of energy, the same number of hours that they are at home, maybe our residential customers should have access to that kind of -- to that calculation and that model. >> Well, we provide that data for customers, but the -- what you've brought up is a very philosophical discussion of rate design within the industry that a lot of utilities have feared to do, frankly, and that is to begin having a demand charge as well as an energy charge for residential customers. That's a policy area that we don't want to open today, but at the time we do rates down the road, that could be looked at. And the way we do rate design every time we do cost of service study, that's the time when we retain consultants to do the models, actually we'll be doing a lot of modeling, those are the directions that we need as a policy discussion of what should we look at differently and how should we look at pricing differently. A lot across the country, a lot of utilities are looking at demand charges to address the solar issue that customers have. So there's this argument about who is recovering the true costs of solar and where is the benefit and this demand issue, which is the highest

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rolling 15 minutes of maximum power usage in a month. And a meter keeps track of that. All of our meters do it now. All the technology we have to do it. So it's not about putting something new out there to do it, it's a matter of philosophically saying we're going to measure it that way. There's a few brave utilities that have taken that step, but not around Texas. So -- >> Pool: Just a couple other questions and thank you for that answer. Might be interesting to dig into that. I don't know what can of worms

that would open up, but sounds like -- >> It is definitely a chapter in utility -- utility -- >> Pool: Cutting edge information. I'm curious if we don't take the full cost of service from our two top customers, I agree with some of the comments my colleagues have offered. I thought during our conversations during the legislative session we were being directed to do that and that was something that we had agreed to do was capture 100% of cost of service for all our customers. How will we make up for the estimate -- do we know how much less revenue we'll have by capping those assistance programs in the lighting and customer benefit, and if we know what that number is -- >> Well, it actually goes up because we weren't collecting it before. So that's -- >> Pool: I think I'm -- so on the lighting area, the areas that the mayor pro tem was talking about. >> That's correct. We're not currently collecting it and so our return costs suffers. We collect that from all of our customers now so that will be a loss margin for the utility for that small segment. On energy efficiency, I think we have to answer councilmember tovo's questions about how much they've used versus if they've paid very little into the energy efficiency because they are not on that rate currently. So it would be the cost of the area street lighting. But again, they haven't paid

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that for the last 19 years they've been under contracts. I'm not sure I consider it a loss of revenue. But I would state that the P 4 rate is designed to recover cost of service to the utility. And so we're not covering -- we're not recovering less costs, we are recovering what it costs to provide service to customers. >> I wanted to be clear that going on to these rates, on to these tariffs by these customers increases our revenue from these areas, does not decrease them. Because we are not currently collecting that. >> Pool: On energy efficiency, they are not paying into energy efficiency, they are not paying into lighting now so there's no lost revenues because you are also not going to collect that? >> No, we're going to collect that but what we're discussing we've discussed with councilmember tovo we're not collecting ought of the amount of energy efficiency or all of the amount of cbc that we could collect because their load factor is so high that that they basically overperform within the cost of service model. >> Pool: And that's my question, how much are we not collecting by putting the cap on that. >> We would be collecting more that we haven't been collecting, so -- >> Pool: So what is the delta between more collecting now from if it were true cost of service? >> We could get that back to you. >> I would have to calculate what that is. If they went on the P 3 rate how much would [inaudible] Versus on the P 4 rate. >> Pool: One last question. How did c-care, did they have a response to this proposal? >> We've been in communication with them but I do not know if they are talking about it today or not. But -- >> Pool: I see Mr. Salinas here so possibly he plans to. >> Yeah, and this was just a briefing today so I don't know. >> Pool: Thank you. >> Gallo: I see mayor

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pro tem tovo's hand up. >> Tovo: Thanks. I think -- this may be related to the information that you are providing for councilmember pool, but I would like to know for street lighting, for energy efficiency, how do you plan to cover that margin and make up those costs? Particularly where regard to street lighting, are those costs going to be passed on to other customers as a result of not assessing these customers. We know they haven't been paying some of these charges but what we were supposed to effect through the new contract is making sure everybody is paying their fair share. >> Well, I this I what we're trying to -- what we're communicating is that we weren't collecting for this and to collect 100% of it under the P 3 tariff, the concern was they frankly would be overpaying into that because of the type of profile they have as a customer. So the negotiation was to get to a place where there's a fair amount that they are paying into these areas, and their own investment in energy efficiency which they have

made huge investments in energy efficiency of their own capital, discussing that just kind of got us to the place where we won't even put you in our programs and you can do it yourself. And so that's kind of where that thought came down. And then the -- like I said, the other parts of the cbc, the community assistance program and that. The other part is just the regulatory charge. From a cost of service standpoint from other customers impacts, that one is really important because they weren't paying that. So under this rate design they will be paying that. And that's been probably one of the larger -- larger makeup pieces in the rate because they will continue to pay the power supply adjustment just as they do today, which is about 30% of the bill. Frankly. So -- >> Tovo: Okay.

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Thanks. >> So it's really a pickup in revenue but it isn't a pickup all the way. We can get you what all the way means. >> Tovo: That would be interesting just for comparison and we may all agree this is the fairest rate for these particular customers. I would like to better understand -- I understand the discussion you had that they won't participate in energy efficiency and thus they won't contribute, but the reality is we ask customers to contribute to the energy efficiency program because we believe it is in the best interest financial and otherwise of all ratepayers that those programs exist. And particularly I guess I am just really struggling with a customer who has benefited from those rebates and benefited -- and certainly has made investments and we need to applaud them for the investments they've made with their company's dollars and energy efficiency, that the fact they have received some pretty significant high dollar rebates in energy efficiency, but as we set these new rates, we're asking them -- we're giving them a pass on contributing which is not something we do for any other customers within the Austin energy system with the exception of the transmission. >> I would draw your attention to the fact, though, that -- and to the old rate design. We did not have a breakout for energy efficiency charges. So it was in the budget. And it was in the budget and spread amongst all the customers and we had volumetric charges for all the customers. So it would be very difficult for us to go back and forensically take it part and figure out how much they paid, but this class of customer is about 30% of our sales go into this a very small group of what I call large industrial customers. So based on volume -- volumetric sales they have been paying something. >> Tovo: But so have the other customers. We're trying to come up with a rate structure that's consistent among all classes and we're making an exception on one important value.

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But -- >> And we'll get to take another bite at it when we go through the cost of service in a couple years. Then we can look at this again. >> Tovo: But won't they have a contract for nine years? I guess I need to understand which elements are variable within that nine-year period and which are not. >> That's in the power side of it so that's not just something -- that's not [inaudible]. >> The power supply adjustment would get adjusted each year and the regulatory charge would get adjusted any time we've collected more than 110% of what we need or less than 90 that we would adjust our regulatory and that's the same basis we use for our other kiss Americas. By adding a P 4, we will not increase anyone's rates for energy efficiency or area street lights. You had asked it's not a loss of revenue it's just we're not going to increase anyone else's rates. It's true for any customer in any of the charges if our costs that we recover through our rates does not completely cover the cost of our expense, that comes out of the operating margins of the utility. And so that's true for anything. For example, when we limited our regulatory charge the last two years, we've continued to pay those bills, but that cash has come out of the operating margin of the utility. That's true for any item. >> Tovo: Right, but as the board of directors we need to be concerned if we're taking money out of operating revenue to cover costs that are not



being passed on to one of the customers that's participating in our utility. >> We're now doing our cost of service every five years so we're able to keep our rates more in line with our actual costs as opposed to I think we went 18 years without a cost of service. >> Tovo: But given they are going to is a nine-year contract, how soon could we go back and visit this energy. If you have a contract that says you don't have to contribute to energy efficiency is the revisiting of the cost of service going

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to impact that or not? >> We would reset their rates every three years. And so there are between now and October 24th, there are pre-defined three-year periods. So if they waited two years to get on the P 4, they would have those rates for one year, then it would be reset. So no matter what time you join the P 4 tariff, your rates are reset at the cost of service every three years based upon that milestone. And the last of the contract ends on October 31, 2024. >> Tovo: Could we at the end of those three years decide that actually we are increasing the cap from 200,000 to 400,000 based on their usage in those years and we are going to require them to participate in energy efficiency? Railroad are those elements that are -- or are those elements that are commitments for nine years on part of the utility? >> I would have to get with the city attorney since that would be in the tariff about what -- >> Tovo: I have some other particular questions about the tariff so maybe we can talk about that between here and the decision, but I think I want to understand really well before we vote what we're looked into for nine years and what is something that the council could evaluate and change more -- at an early interval. >> I might suggest, Andy, if we couldn't have a memorandum that went out under attorney-client privilege and kind of explain some of that. >> Was the question the ability of the council to determine rates during the period of the contract? >> I think what she's asking, we have it structured now so the actual rate changes based upon the cost of service. The question then becomes whether elements that are excluded in the tariff could be added in the future in one of those rate determination period of time -- that's where

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I'm unsure. >> It's been a while since I looked hard at the tariff, but I can give you a opinion on what the tariff as currently proposed -- >> Tovo: That would be helpful. I have other questions to submit prior to thatten a maybe those could be addressed as well. >> Gallo: Councilmember Casar. >> Casar: I think from the questions mayor pro tem asked are similar to what I had and I would propose you could explain this to a way I think would hopefully capture some of the concerns. Let me ask a really quick question to make sure my proposal makes sense. If we were to not pass this tariff, if we were to leave this alone, they would go to P 3; is that correct? >> Correct case -- >> Casar: What I'm hearing on the dais was the understanding P 3 is cost of service and P 4 is not but what I'm hearing from you all is in fact you believe that P 3 in some places would be above the cost of service and that P 4 you are trying to get your best -- in some places are trying to get best to what cost of service is but it may not align perfectly. Let me see if I can get this out and see if it makes sense to you. If we could see and understand what -- if they stayed on the special contracts sort of what -- what level of -- of cost and subsidy, where they are close to cost of service and where we are not, then obviously on P 4 a lot of things are just a game. Us a say to councilmember pool, they aren't paying for energy efficiency now. To understand where P 4 is relative to cost of service in different areas, and where you think cost of service really might be and, of course, where P 3 is above that. I think sort of getting those

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comparisons and the margins between where we are now with the special contracts where P 4 is, where you think the cost of service is in different areas and what P 3 is. So we aren't just comparing to the status quo now, but we also aren't just assuming P 3 cost of service but we get into those scenarios and I'm sure there's a nice way to chart that out so we understand which portions get us to cost of service below we think we are, above, and we can understand what parts are attractive to customers and why it is that we want to lock them into that and what places we've -- you know, where are we sort of winning and losing on the margin from P 3 and why and where it is we're sort of above or below the margin on cost of service and why I think is the heart of our questions because the assumption what I'm hearing is the assumption P 3 is that cost of service and P 4 is where there's some places coming in below actually may not be true and I hear y'all explaining that but I think there's so many pieces if you could lay that out in a chart that that would be helpful. >> We can try that. I think -- >> Casar: It may be an impossible task I'm asking you to do. >> The reason for P 4, the outcome was because as the contracts came [inaudible] Customers that described as even unique characteristics would fall on to P 3 and their increases were substantial. As we sat down to work something out with those customers, it became to us because of their low profile they would be overpaying in our opinion in some of those areas. We sat down to work something out that is fair as possible, close to cost of service as possible to get us to where we are. And that's kind of how we can describe that. But yeah, we can -- we can go back and extract the margins of what would be the number if they were on there, what would be -- >> Casar: It's not just the

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margins between 3 and 4 but also between cost of service. >> I understand. >> Casar: Because I understand that we're trying to be fair in our best estimation on street lighting, if we aren't charging for it, as the mayor pro tem noted, you are going to be -- it seems to me below charging cost -- there may be other places where you are saying we're kind of getting a little more over here so it comes out as a wash or whatever it is. Understand how all the different components interact. >> We as staff are as worried about shifting costs from one group of customers to another as anybody. So that's what we try to prevent. And so this is all with that in mind. So typically we have three groups of customers, residential, commercial and residential, residential, commercial and industrial. A shift of costs of people in apartments and houses. So the deeper you go, the more complexity gets. It really does. And so we're - we'll do our best to show you how we came up with everything here. We may have to do -- we'll work with Andy and may have to do some of this in the closed session. >> It's not only a cost of service issue, by designing the P 4 we designed it as a nine-year obligation is sharing of risk which we have with no other customer. The only customers it's on month to month contracts. So it doesn't come across in the cost estimate, but there is that obligation on both sides when you sign the contract. And so that's unique in the P 4 perspective that won't show up in simply looking at the costs. >> Casar: Great. And then the second piece of information that it sounds like you all are communicating in bits as we ask questions, but maybe needs to be laid out in one member more-time line -- memo or time line, at which points we can adapt and change rates and then also

[10:52:01 AM]

exclusions, sort of over that nine-year time line. You know, if ERCOT decides to up transmission fees that affects us as which point are they -- are people that sign on to this tariff insulated from that. Sounds to me there should be some level of attractiveness for them to have some predictability. I'm not saying I'm against that, but just an understanding when are they insulated from changes other folks aren't insulated from, how long might they be insulated and when can Austin energy administratively change

those charges and planning to do that versus when does the council interact in that sort of time lean I think would be helpful for us to understand that yes, if something changes we might -- the rest of us might have to weather that for a year but when we hit that three-year mark that's something that's adjusted. Reading through it, it just doesn't comb really clear to me at which points in that nine-year time like is energy or council making the adjustments. And I think that that seems to be sort of the heart of the other set of questions. >> Do a time line with the elements we've designed in p4. I think the memo that the city attorney has been asked to prepare on those other elements of how they can change within that period will address your other concerns. >> Casar: I think one piece is the things we're excluding folks from in initiation of the contract and do we have ability to include them is one question, but the other question that every year we're going to relook at the [inaudible] Charge and every three years we can readjust that cost of -- just including that would also be helpful for us to understand. >> Gallo: Councilmember troxclair. >> Troxclair: So in the discussion between what the cost of service is and what the total charge would be if we brought them all the way on

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these -- the community benefits charge and the other couple of categories, it seems to me it would also be helpful to include with that information that you all are going to get back to us with like the percentage of the total bill that would be devoted to those costs for these particular customers, versus the percentage of the total bill that is devoted to those costs under a regular customer. If I'm hearing you correctly, they are outliers in what they would -- the amount of money they would be paying that would be going towards this program. So to mayor pro tem tovo's question about how that fits into a policy, if we have data that shows that they are -- that maybe we wouldn't have to design a policy in a way that would create two significant outliers. >> Uh-huh, uh-huh. I follow what you are talking about. I'll give an example of an idea that I gave staff. We have to take this really the answers we have to take this forward on our next cost of service study and try to incorporate those changes into a new rate design. You might design a rate that does not recover any more energy efficiency or street lighting charges or anything associated with a load factor greater than 50%. And that way everybody is calculated fairly. The person that has the -- the company that has a very high load factor, uses a lot of energy and the company that uses a very small amount of energy. You know, there's an issue there about how much they contribute to the societal costs of the programs that we have out there, for example. >> Troxclair: Sure. >> That's kind of what you are getting at. And it's all about fairness and policy. So I think we'll have another chance at that at the next cost of service briefings. >> Troxclair: One more question, sort of a general question. As far as the energy efficiency charge, do you know what just generally what percentage of that money goes

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to residential incentives and what percentage of that money goes to commercial incentives? >> We have a breakdown and we could send it to the offices. We can get that out to you. >> Troxclair: Is it 50/50? Okay. I'm curious if the amount of money that those two classes pay in is roughly proportional to the amount of money that they receive back. Because it seems to me the incentives that come through - that come through council are very large and are always for commercial. >> Right. Right. Well, remember, you are only seeing the ones greater than \$55,000 too. >> Troxclair: That's true. >> But we can get that. That's related to councilmember tovo's question too. We can get you that breakout. >> Gallo: Vice chair pool. >> Pool: Thank you, and actually the last question from councilmember troxclair took care of my last question on this item. Thanks. >> Gallo: Any other questions from the committee? Okay. Thank you, staff. The next item on the agenda is discussion and possible action, number 6,

briefing, discussion and possible committee recommendations on purchases of utility scale solar. We have -- this is an action item, possible action item so we have nine citizens scheduled or signed up to speak on this. I'm going to call the first three so that you can be ready to follow each other pretty quickly. I have Karen Hayden. And Karen, I believe is pat Buehler here? It's my understanding pat, you are going to donate your three minutes to Karen, so Karen you have six minutes. The next speaker to do Davie and Cyrus reed. Is Karen not here any longer? Okay. Todd, if you would like to come up and begin. Following him is Cyrus reed. Are you here? If you'll be ready to follow

[10:58:06 AM]

Todd and after Cyrus if Karen is back we'll go to her. You each have three minutes. >> Hello, my name is Todd Davie and I'm here on behalf of coalition for clean, affordable and reliable energy otherwise known as c-care. Would you be willing to sign a 20-year contract for a new iPhone 6? Long-term contracts on evolving technologies are generally not a good business decision. When the iPhone 9 is released, you will find you didn't have 14 years left on your iPhone 6 contract. A purchase this large for a term this long will limit Austin's ability to participate in future renewable innovation. New investments in renewable energy rose from \$9 billion in the first quarter of 14 to the first -- according to Bloomberg new energy finance. The cost of wind and solar is declining and expected to continue to decline according to international renewable energy agency and energy's own staff's forecast. Renewable energy will become more efficient and cost effective. Innovations like tesla's home battery this year creates new opportunities for local solar. The local solar advisory committee unanimously adopted a strategic solar plan in 2012 that was affordable and results in net economic and environmental benefits for the community that included both local and utility scale solar. The diverse committee understood and unanimously recommended a flexible approach to solar that ramps up over time. C-care supports prudent investment of renewables in the city of Austin and Austin energy's generation plan however we're concerned with the speed the council is proposing to move forward with the purchase of 600 megawatts of solar despite objections

[11:00:08 AM]

from its staff. We do not believe with renewable energy prices continue to fall that making a purchase this large for such a long-term is wise. There's a reason staff is only recommending a purchase of between 200 and 275 megawatts of solar at this time. There's still a lot of questions as to how this impacts affordability. Will Austin be able to stay in the lower 50% of benchmark cities? Is this has this been compared to the procurement of other areas of power of 10 megawatts or greater. And shouldn't we understand the navigant study results to be present understand mid October prior to making a decision of this scale? The economic viability of Austin energy needs to be factored in as well. Uneconomic renewable agreements are not dispatched by ERCOT so the result is Austin customers are paying a premium on a renewable rate to cover the cost of these agreements while their homes are being powered by fossil fuels. C-care has worked closely with Austin energy to support additional wind and solar to reach renewable energy goals. Because renewable energy is the future but we like the community also like affordability and its potential decision that risk affordability in the future opportunities. [Buzzer sounds] The future of renewable is innovative and exciting. We are asking that you slow down on this purchase, don't sign a 15 to 25 year contract for 600 megawatts of solar. That would be like signing a 20 year contract for an iPhone 6. >> Pool: Thank you. >> Zimmerman: I have a question. Could you please send those remarks to my email? Because I didn't see that in my email yet. >> Pool: Thank you. Has Karen Hayden come back? Hi. Karen. And I think pat Buehler, did you donate three minutes to Karen? You have six minutes. Welcome.

[11:02:28 AM]

>> Good morning, councilmembers. I'm glad to be here. I'm Karen Heyden. I am vice-chair of the electric utility commission and also part of the four-member working group that's looking into the gap study assumptions. I'm only speaking for myself today but I do want to say that since Monday's euc meeting [indiscernible] Pretty much around the clock to dive into the assumptions that were there to get technical expertise and I do have to say that on Monday I was shocked about what I heard about the navigant study. I had questions about the results they used and what it will generate. We'll try to give a broad overview for the moment on some of the concerns. You've already heard from Austin energy and navigant consulting argued the study they're doing about Austin energy decisions. And they're calling it the independent review of resource generation plan. Okay. Well, that is the first paragraph with this study. And -- that's the first problem with this study. And neither Austin energy or navigant consulting have been asked to do a review of the generation plan or authorized to do so as part of this 300,000-dollar study. The presentation to euc included several references to Austin energy's original 500 plus plan, which is not the plan that council adopted. So we're not on the same page here. They adopted the generation plan, which is what should be used as a basis throughout the study. And it should not be reviewed as a document or revised, but as a basis for the decisions. Council directed Austin energy to oversee a study

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that would analyze costs of a 400-megawatt gas plant and other alternatives including energy efficiency, solar or wind. Water, climate impacts and pollution impacts were to be included. Many of these items either are not included or are inadequately considered, and this is not surprising since the euc actually had to insist at one point on an addendum to the rfp to make sure they were included as it went to you vendors. -- It went out to vendors. The very first question that should be asked, number one in the study, is whether there is an energy gap. If so, how big is it? Office we follow our generation plan will we have an Austin energy gap? That needs to be asked. And furthermore so far that doesn't appear that that would be part of the analysis. So far Austin energy is really not doing what the city council, which is the board of the utility, has instructed them to do in December 2014 regarding this study. The intended result of the so-called gap or gas plant study was supposed to be a fair, unbiased, independent study. But from what we've seen so far in terms of assumptions, that is unlikely to be the result due to the questionable use of some assumptions which should be changed in order to be accurate and to comply with council directives, the study is likely to yield a report that is biased in favor of a gas plant and against renewable energy. There is a great deal of detail in looking at these assumptions and whether or not they're accurate. And it's euc's rule to review this and to provide comment. Our euc working group social working on this now, but the timeline is very short. The study is already several months late and now the

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timeline is being railroaded through. No public hearing has been scheduled and as mentioned by councilmember Leslie pool, there is no time point [indiscernible] For feedback from the euc in the proposed schedule and that was supposed to be in there according to council directive. Regarding the data assumptions, here's one example of the problem so far. The values being used for solar costs are based on national Numbers. This is highly inaccurate since the cost is roughly typically five cents a kilowatt hour in much of the country, while Texas rich in solar resources, now enjoys costs as low as 3.8

to four cents a kilowatt hour, significantly different. This local information is based on the hearty response to Austin energy's rfp. So why would data that is irrelevant here be used in place of real, known and local solar data? If they use the national data it would artificially prop up the expense and cost of solar. I'm concerned that this study with these assumptions might falsely characterize the gas plant as cheaper and cleaner than it would be and to take alternatives look more expensive. Full analysis of energy efficiency, climate impacts and pollution impacts on air quality and Austin's ability to stay in attainment or go into non-attainment should be included and thoroughly analyzed and it appears unlikely from what we've seen so far that that will be included in the study. We have asked for it to be. The scenarios for renewable options need to be reviewed and revised. For example, case number 6 is very arbitrary and not based on the most financially viable approach to options. It calls for 50 megawatts of energy storage instead of the 30 megawatts required in

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the gen plan. [Buzzer sounds] I'll wrap up real briefly. It's not needed in the long-term -- in the short-term and so storage is expensive and it's going to artificially prop up the cost. One brief comment, the state of the market report by ERCOT should be included because it says that a gas plant in today's market would actually not make money, it would produce about 45 to 52% of the revenues needed to recover costs. This is an ERCOT study that needs to be included as part of the analysis. So to sum up, we're not on a path right now that's likely to produce the fair, unbiased report that everyone has been wanting and so I think that we need to allow time to revisit these assumptions, to insist that they be accurate from the start because certainly you guys want the right report to come out, one that is fair and independent and not be wasting \$300,000. >> Gallo: Thank you. Cyrus. And following -- >> Pool: I have a question. >> Gallo: Excuse me. Yes, vice-chair pool? >> Pool: Thank you, councilmember. Ms. Heyden, you mentioned ERCOT's state of the market. Is that a study that that statement has already been published? >> Yes. It came out in June of this year. It's the 2014 report, state of the market report, and I will be glad to send all of you the exact data. Is pretty concerning. It doesn't make a gas plant look like a winning proposition. >> Pool: I see Dan Bradley the consultant from Navigant here. He made the presentation previously. Mr. Bradley, Ms. Heyden will also make sure that you and your team get a copy of ERCOT's state of the market report as it does appear that it has some relevant information that would more

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fully inform the work that you are doing. >> [Inaudible]. >> We're trying to get all of the pollute ants included too, not just a few. >> Pool: Thank you, chair. >> Zimmerman: Would you be okay with an election on both issues? The 600 megawatts of solar and then an election on the combined cycle gas plant? I'm kind of thinking we should have a public election on both of those issues. They're major decisions, right, that affect ratepayers for decades to come. >> I think those elections -- I would not have a problem with that concept, however I would urge that council act quickly by the solar in order to capture the benefits of the investment tax credit. >> Zimmerman: I'm okay with a quick election. I wish my other council colleagues would support that. >> I think an election would go well in Austin. >> Zimmerman: Thank you. >> Gallo: Any other questions? All right. Cyrus? >> This is Cyrus Reid and as usually I'm slightly confused. Sierra Club. I signed up to talk on two items, 4 and 6. Do you want me to speak very briefly on both? >> Four was a briefing so we don't take citizen comment on the briefing and six is an action item. >> First let me put my RMC hat on and say whatever you do on the 600, the RMC did carefully review the 200 to 275 megawatts. We looked at the cost and the prices. We don't think there's an issue with going ahead on that. I am also personally not as an RMC member looking at additional solar and seeing what it might cost. So having Austin Energy come forth with a plan in October 1st,

seeing what the actual Numbers are before you make a decision I think would be helpful. That being said we should also look at other options such as ownership.

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I'm urging you not to delay on the contract that's actually before you that has an rca that they have approved and everyone supports. And I would urge you to look at other contracts and then make a decision based on the Numbers, the actual Numbers on those contracts. So that's what it says. So I'm not allowed to speak on the navigant study? >> Gallo: We generally don't take citizen communication on briefings. Are you signed up? >> I signed up for four and six. I was just going to say I'll partially agree with Karen and partially disagree with her. I'll agree with her that I think more time is needed and more analysis of the portfolio cases that were chosen. I don't need the navigant study as completely reviewing the whole generation plan because they're taking the Numbers in the generation plan and only reviewing should we do the gas plant or other alternatives. So I think they're doing their job, but I do agree with her that some of the cases that they've chosen should be carefully reviewed and some of the assumptions on cost, for example, costs for solar or storage, maybe a little high and should be reviewed. I would be in support of taking your time on this independent study and having a process to carefully review the Numbers and the cases in those in there. So I don't know if I did something illegal. >> Gallo: No. Thank you very much. We stay confused up here so we probably didn't even notice. So next speaker I have -- >> Troxclair: Can I ask a question real quick. Quick question. You were speaking to the solar issues and the timeline. I think the resolution that we passed -- that was passed recently regarding the 600 megawatts is supposed to come back to us on October 1st. But the additional information about the gen plan reports aren't coming to us until October 22nd. So you made a comment about

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making sure we had all the information before we made any decisions. Do you think that we could then shouldn't make a decision on the 600 megawatts of solar until we have all the information that will be presented to us on October 22nd? >> Not necessarily. What I was saying is to make a decision on the gas plant or alternatives. We really need to carefully review that assumptions in that. In terms of the contract before you today, I really don't think there's an issue with it because we have the actual Numbers. We know what the rate impacts are. We know that over time it's going to earn us money and I think similarly if Austin energy were to also present another rca you could at least assess that. I'm not ready to endorse it without seeing actual Numbers. I think that could be done. I think the study does need time. I think councilmember pool had a good question about the megawatt hours. Are we actually doing apples to apples comparisons? For example, in the gen plant itself, we had a goal of 900 megawatts of energy efficiency by 2025, but we also suggested looking at getting to a thousand or higher number. Around it seems like one of the cases should look at more than 50 megawatts of additional Dr. So I don't know what the contract is with navigant. But to the extent that we can after they come out with the final report, the community or council could add other factors or look at other cost estimates, I think they would be real useful. So when when we make a final decision it's based on the best Numbers available. >> Troxclair: But based on the timeline we have before us now we're supposed to make a decision or we could make a decision on October 1st about the solar piece of it. So why would we not wait until October 22nd where we could have the decision -- >> Maybe we view it

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differently. I view the solar as already in the gen plan, already approved and we're just making a decision

do we get it all now or over time? And frankly I could make an argument either way because I'm that kind of person which gets me in trouble sometimes. But the gas plant and the alternatives is the subject of the study. And my point is don't rush on October 22nd to make a decision. Let's make sure we have the Numbers right. I don't know what the study is going to say. I haven't seen it. But it seems to me there are some serious concerns about some of the Numbers being used, so let's get the Numbers right so we can make a decision based on best Numbers. So I view those as two separate decisions that can go on their own time lines. >> Pool: Chair? Just one last question for Mr. Reid. Just to be really clear, you support us voting on October 1st to purchase 600 megawatts of solar energy, is that correct? >> I support you right now going ahead and doing the first contract for 200, 275. I support another contract to get to 600. I'm having a hard time telling you right now you should do that without knowing what the actual Numbers are because until they negotiate and know if the price is going to be \$38 or \$45 and what the rate impacts are, it's hard for me to right here say you can do it. The white paper I did suggested that if you can get those prices at \$38, which I don't know what the contracts look like, that probably the rate impact is going to be less than one%. So-- >> Pool: My understanding is the rate is down to 38 cents currently. >> For the 275. Until you know the contact Numbers it's hard to make a recommendation. >> Pool: Are you saying we couldn't go to the market and buy up to 600 megawatts or more knowing that we have

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a 38-cent deal for 270 we couldn't get it for the larger purchase? >> I don't know that because I don't have copies of the answers to the rfp. But -- >> Pool: But if the answer to that was yes, you would say -- >> If the answer was yes, then I would be supportive, but I don't know that. >> Pool: So it's a matter whether you believe that the number could be expanded to the larger purchase agreement. >> Yeah. >> Pool: And that this issue is completely separate from the gap study that is also /being/( ing)abouted Teed up. >> I believe it is. I believe one is a solar decision on how quickly you get there and the other is a decision on if you are going to retire decker and retire fayette you will need replacement power and what should that replacement power be? >> Thank you, Mr. Reid. Any other questions of him? All right. The next speaker will be job. And after him Becky and Richard, if y'all would be ready to speak. And I want to welcome to the dais councilmember kitchen. >> Good morning, council, council committee members. I want to talk about the solar deal and affordability and bring something up that hasn't been discussed so far. We have six hundred megawatts around us so far at marginal rate impact today at a cost of 20 to 25% lower than the cost of generation Austin energy currently has. If you do that at such a scale what will happen? Rates will go down. It's that simple. One thing we haven't discussed is what is the impact of a decision like this? Between now and 2017 Austin energy will be adding a lot of renewable energy power, which adds up to about 30% of total generation that we have today. Which will make us a net seller so we'll have lots of energy available through this generation. And what happens when we have done that before? We've signed wind contracts before. That are currently running and the last five years if you look at the psa, renewables going up, gas is

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going down. So what will happen by adding more renewables is gas will go down even more. And gas happens to be our most expensive generation resource we have on the books. And my calculation show that for every 100 megawatts of solar you put online you will see a reduction of gas units to a total savings of at least \$10 million a year extra that we're not discussing because we're not discussing portfolio impacts and decisions that will change out Austin energy operates. So for every 100 megawatts of solar you buy you get a 10-million-dollar bonus because of portfolio impacts and nobody is talking



about that. So if the psa goes down the total cost of generation goes down, the rates will go down and I'm happy to sit down and talk with you about how that will work. Austin energy refusing to talk about portfolio impacts but their history, our history speaks volumes. We've done this before. We know exactly what's going to happen. The last point is about the slides they're about to show you, Austin energy doesn't feel moved by the council last week to bring forward the plans as you requested. They want you to take formal action only because you ask them nicely on the dais. So you have to ask it a bit more forcefully. Please do that today. Thank you. >> Gallo: Becky, you will be next and then Richard after you. >> Good morning. I guess it's still morning. I'm Becky hall pin. So I would like to go back an talk about the big article that was in the paper yesterday, but being in compliance here in town. We're talking a lot of nickels and dimes about how much our rate would go up a tiny bit. If we fall out of compliance we're talking about billions of dollars. So what we have is a gas plant that sits in our city limits, decker, that runs two percent of the time.

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We're talking about replacing it with the more efficient gas plant that will run 70% of the time. That gas plant probably create 40% less of the things that make smog that throw us out of compliance which is nox and sox. And if we're running two percent of the time and we're nervous about being in compliance and we have something that will run 70 percent of the time that can throw us out of compliance why aren't we talking about that? That should be a big piece of the picture that you should look at when we think about whether or not we're going to put a gas plant in the city limits, and run it a lot. What will happen 10 years from now if we have to make a decision during the heat of the summer when we really like to run gas that we really shouldn't run it because it will throw us out of compliance? We're in a new day for thinking about how we use energy and how we create energy. Another thing is that the back Jerusalem material if -- backup material, the gas plant could become a stranded asset. The previous gentleman asked you if you would finance an iPhone 6 for 30 years but would you finance a Ford focus for 30 years? Because that's what you're going to do with the gas plant basically. It's like decker. Decker's old. 30 years from now we'll have the gas plant. 30 years from now if we have the gas plant will we be using a gas plant? There's tremendous pressure building against fossil fuels. We all know that, we all feel that. We don't need the pope to tell us, but he came to say it. So 30 years from now will we have one that won't run for a variety of reasons, one is that it will be putting

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pollutants in our eye at a much higher rate than decker does today? Thank you very much. >> Pool: And after Mr. Hallpin will be Mr. King and then Ms. White, please. >> Zimmerman: Chair Gallo, I need to make another comment about our east Texas bio mass gas plant. That is a one billion, one billion dollar liability sitting in east Texas that produces virtually no energy and it was sold to us as a way to save the planet. So those arguments run very, very thin because the truth of the matter is decker is still producing power, but the so-called green power plant, we're on the hook for over a billion dollars for no energy. >> Gallo: Thank you. If you would like to start. >> Thank you, madam chair. Good morning, Austin energy board chair Gallo and board members. I speak to you today as myself. I'm speaking to you about three examples concerning the navigant study. The navigant study was presented to the electric utility commission this past Monday night. Euc chairman Michael os born questioned this number, \$1,130 of kilowatt installed solar costs. Mr.s on borne said that this was many times the real value. This was on page 14 of the study. Chairman owes born also pointed out that the wind and storage values seemed' high while the gas value Numbers seemed the opposite. If this is true how about this get by the Austin internal review? How far along is the study? Regarding the methodology questioned -- regarding

the method has questioned solar,

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storage and gas values already shaped the navigant study? Does this make the study work so far invalid? I believe the study was supposed to look at the particulate concerns as addressed in the study. The university of Texas has a research particulate expert in Dr. Elkins here in Austin. I was surprise when had an euc member asked about the research and they said they didn't know who to ask to help them with this study a as critical study aspect. The slides in the study reference the 500 plus plan, which the previous council voted down. When asked the navigant staff said that it and in the study repeatedly as an oversight. I have been informed that an Austin energy representative presented the 500 plus plan at a recent del valle school district board meeting. You may remember there was testimony to you at the council meeting last week about the school district's concern regarding the high incidence of asthma in their district close to our gas-fired power plants. There are several other concerns I don't have time to go into. And some, madam chair, I'm concerned about this 300,000-dollar study and it's gotten so far without these obvious methodology errors or discrepancies being caught. When is in charge of the study and will you ask them these questions? Also I'm asking you to question if erroneous study assumptions have been made, do they undermine the study efficacy. And what methodology errors will threaten its ability to be finished? And what should be done about that? Thank you so much. >> Gallo: Thank you.

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Mr. King? >> Pool: Chair? I had a question for Mr. Halpin. >> Yes, ma'am. >> Pool: Thank you, Richard. You raised some good questions and I appreciate that. And I also appreciate the work that you do and your connections with parts of our community who are not able to come here during the day and speak for themselves. Austin interfaith does a really good job. Do you have any other questions that you think should be raised about any other proposed Austin energy contracts? >> Well, I think you made some comments earlier, madam co-chair, about the rate case. And I believe there was a contract proposed at the last euc meeting Monday night about a rate case consultant and the euc voted down that request for rca. Because it came out in the testimony that this was the same rate case consultant used previously. And that several -- a couple of euc members remembered the nightmare of six months of rate case drama that went on so they said why are we using the same consultant to do the same thing and have the same staff with the same recommendation? So as you said earlier, we should have cutting edge consultants on the rate case review. And the people we've had don't seem to fit that bill. So your capable and professional enough to say we want the best rate case consultants in the country. We want to streamline this so it's fair and equitable for everybody and we don't want to work with people who repeat the same mistakes. >> Pool: I just had one last question. We were talking earlier today about some of the really high users, the utility customers that use the bulk of the energy that we produce. Is it possible that if we shift more fully to renewables that the costs

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that they pay will do down? >> I think they will. I'm sensitive to brother Zimmerman's concerns but I think they will go down as we bring more low cost renewables. 3-point will cents a kilowatt hour is astounding. I think best prices in the country, and you got a chance to get those. So I think everybody wins when you buy energy at that low price. >> Pool: Thank you so much. >> Gallo: Thank you. Mr. King? And following Mr. King will be Ms. White. I think she's still in here. >> Thank you, chair and councilmembers. My name is David king. I live in the zilker neighborhood. I'm here to really cheer you

on for being here, even discussing making a significant investment in solar energy. We're in a leadership role here and it just reminds me of back in the 50's when we're trying to be a leadership in space technology and moving forward, despite all the risks and uncertainty that we had there. But we took those risks and look how they paid off in dividends. Millions of jobs and technologies and patents and inventions from that. So I see this in lots of parallels with that in our venture here forward. So I applaud you for being here and pushing the envelope forward and taking some risk. Everything we do has some level of risk with it. This does too, but this is the right thing to do. I'm here to continue to urge you moving moving. It is good for us in the long run, but also good for us in the short run. When we look at the total picture and the fossil fuels and the impact on the environment and our water and our infrastructure, I drive to south Texas, so I drive through all of that development. I see those flares burning 24 hours a day, 365 days a year. 20 of them I counted on my way down there. 20 of them. Just along the highway. And I see the trucks, the huge trucks carrying in and out all of that sludge and

[11:32:40 AM]

material from the fracking. And I hear ranchers talking about their water now. It's changed. It's been impacted by the injection of these chemicals and fluids, despite what you might have heard. When we look at the totality of the fossil fuels, the whole life cycle and compare that with solar it's hands down solar is the right thing to do. And look at the impact on the pope is here today to encourage us and to do something about it, not just for today, but for generations in the future and I think that's what we're doing here. I applaud you for looking at the short-term where it is a good-bye. It is a good value for us but it is good for us in our country and the citizens here. I hope you proof forward in all due haste with 600 megawatts of solar energy as soon as possible. >> Thank you for opportunity to speak. I'm Kayla white here as a public citizen. I'm not going to stand here and tell you not to approve the rca that's before you today, but I do think that there is a serious problem with the fact that this is the rca that is before you today. And I think this is becoming evident that there's a governance issue here. And I don't mean that to say that you all are not doing your job. I just think that the interaction between this body which is established as the board of directors of our most valuable asset in this city, the directions coming from you all are not necessarily being given their proper weight by staff. The euc made a recommendation for the megawatts and just last week

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this body voted to request an rca to be brought forward and some of you enumerated that very clearly from the dais that that is what you're expecting, an rca for 600 megawatts to be brought on October 1st. And here we are and we can see that that is clearly not what is happening. Instead there is the lesser amount that Austin energy has pushed for. And I would have no objection to them bringing this reduced amount for your consideration, but it should have come along with the 600 megawatts that was already voted on. That would not force anybody here to make a decision one way or the other. It would simply put the Numbers before you and you heard Cyrus speaking that it is very difficult to make a recommendation or for you all to start thinking about how you would want to make your decision on 600 megawatts, not being able to see the Numbers. So I think that there needs to be a meeting of minds, a telling of truth. It needs to be reestablished that this body is making the decisions and that of course staff is making recommendations, but when a decision has been made and when a directive has been made by this body, this elected body, that that is what stands. And I do think this goes back to the issue of the navigant study. It does look to me like they are reevaluating some of the generation plan and that is not what was directed by council. And that was also not what was stated in the generation plan that that's what would happen. And I do just want to note that these cases that they have put

forward make absolutely no sense to me. I understand the 500 megawatts of gas, but why is that being compared to 500 megawatts of solar and 500 megawatts of wind? Those should be compared to

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the amount of wind or solar or some combination that would provide a similar energy output. And then look at how the finances compare. [Buzzer sounds] Thank you. >> Gallo: Thank you. Thank you very much. That concludes the nine speakers that were signed up for agenda item number 6. And so we do have a staff presentation. >> Tovo: Chair? I'm sorry to interrupt. >> Gallo: And I might presentation we have four -- I might mention we have four speakers signed up for the citizen communication general and I mentioned at the beginning of this meeting that since we were missing councilmembers we have moved them to the bottom of the agenda. >> Tovo: Chair, before we move to the staff preparation, may I ask one of our attendees here who serves on the electric utility commission just to clarify a comment that was made earlier? There was a speaker who indicated -- who quoted about Osborne and I would like for him to come up and clarify if he's willing to come up and do that. Mr. Osborne, would you talk to us just a minute? There was a comment earlier about solar prices and a remark you made. >> Appreciate being quoted by Mr. Halpin but I think it's important to get the record straight and I talked to Dan with the consulting company. The 1,100-dollar price for solar is actually a pretty good price. What I was concerned about was that in the study they will use a number based on Austin energy owning all the rest of the solar. And if we own the solar at that price, that won't be \$40. That will be 55 or \$60. And so I was saying by taking the position that Austin energy would own all the rest of the solar we'll never get to that 30-dollar solar that Larry and the

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rest of them were talking about. But this is a tweak. And it can be fix and I believe we'll be able to make the tweaks in the working group. But \$11 for solar is interpret -- \$1,100 for solar is pretty good. >> Tovo: So in essence you're talking about the purchase power agreement and owning it out right as a utility? >> The price is pretty good, but if you do the Numbers on that it's going to be a great deal more than the \$40 we're looking at on the ppa's. And certainly not the \$30 that was spoken of in the presentation a couple of months ago. >> Tovo: I appreciate it. >> Pool: Chair? I would add on to what mayor pro tem tovo just said, we had conversations in previous meetings too about the fact that if we're going to build a new plant we need to include what the capital costs are for that plant so that we can't not include those sometimes, but then also include them in the solar if we're going to be talking about whether Austin energy entirely owns all of that energy. So please, we are imploring staff to give us direct comparisons. We talked earlier about not just megawatts, but megawatt hours so that we can level the comparison so that we can see them precisely. And the same thing if we're not going to include capital costs for building a new combined cycle gas plant, then we can't also say that we will include the full cost of owning all of the solar energy. So let's separate all of those items across the board. >> Gallo: Okay. Thank you. Let's move into the staff presentation and then all the councilmembers will have an opportunity after that to ask questions and have additional discussion. Thank you, staff.

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>> I want to get to the briefing without much comment here it in the beginning. >> Good morning. Khalil shalabi. In front of you today is a presentation where we'll try and accomplish three things to you. One is talk about the 200 to 300 megawatt rca and really this will be your first reading for that rca. And also a recommendation for you to procure the rest of the solar after the 2015 date as recommended in the

generation plan and also we'll give you the associated costs of comparing all the solar to be at 2017 as directed by you previously. Got first of all with the rca that is in front of you. 200 to 300-megawatt recommendation. The reason for the range is really based on the negotiations we're having with different developers. Different prices, different sizes, so we wanted to give ourselves some flexibility through the negotiations and that's why there's a range there. It provides a substantial increase of our solar portfolio, but we believe it bounces the risks that we're going to talk about in the balance of this presentation. It takes advantage of the current investment tax credit, which we do deal feel is valuable, but allows for different pricing in the future. All the indicators such as the solar costs will continue to improve and the tax credit will just be a temporary hike in price. The tax credit also could be extended at current levels and if it does get extended there will be even lower prices in the future and this is a good way to hedge what may happen from a regulatory point of view in congress. If the tax credit isn't extended at current levels, ae believes that EE veteran actually in a few years that we would be able to build,

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own and operate the solar plant at the prices that we're seeing right now or lower. So one of the things we wanted to show you were different cost impacts of both the 200, 300 solar megawatt recommendation and the of hundred megawatt recommendation and I think one of the most important impacts are what happens to the bill? And our cfo may chime in at different points here. He understands rates a lot better than I do. These are the dollar impacts vis-a-vis the rca you see in front of you. You have the annual increase and the range. Now, the first sentence says it's one percent on the psa. As you all know the psa is about a third of our bill to the bill impact is a little bit less. So on the percent range there you see that that number is less than one percent because that's the total bill. The range that you see reflects what we expect, like the expectation, the 50th percentile, but as I've said many times up here we can't predict the future so we tried to give you a range and what the down side range would be. So if we had even lower gas prices or really it's not just gas prices, it's energy market prices because there are other influences in the market beyond gas right now that are pushing the price down. So if we see that extending or even lower, these are sort of the ranges that we may see on the bill. So it's from expected to sort of the worst case on the bill right there. Impacts packets. We see that the price of our market energy to go up over time. Again we can't predict the future, but with that expectation we feel that this contract will be neutral and slightly positive over time just like we said with the recurrent contract that we signed last year. If we move on, any

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questions? Because now we're going to move on to the 600 megawatts of solar. Any questions on the rca? >> Are there any questions, council, on this particular portion of the briefing? Okay. Thank you. >> Sorry. I am moving a little bit quickly here and there aren't that many slides in this presentation. So what happens with the 600 megawatts? If we were to go from the 2 to three hundred megawatt range -- and the ranges that you saw were for about 250 megawatts. We split the difference. The rate impacts scale proportionally, maybe a little bit as you dive deeper into contracts the prices start to scale up a little bit, but for the most part we saw them as proportional and what we're seeing right now and we'll show a couple of slides that maybe you haven't seen before is the other part of our affordability metric which we call competitive. And as a reminder for us to be competitive, that metric that is one of our goals is for us to be in the lower half of rates for Texas utilities. And right now, we're seeing pretty much a shift where ae is starting to diverge and other municipalities as well away from the market. So we're not comparing favorably in the current very low market price environment. So any sort of discretionary

increase is just going to add to where we are compared to where the market is. The increasing costs, we'll use up a portion of the two percent affordability measure. So one of the things we really want y'all to look at is, yes, this may not push beyond the two percent affordability goal, but this is not the only potential price increase that we may have in the future. So there are many wants and needs that both Austin energy and council may want from the utility, and whatever we use on the solar contract, you know, that's your balance. That takes up the head room up to the two percent.

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The competitive gap that I talked about can be improved in a few ways. If the rest of the market starts to rise compared to Austin energy, then Austin energy will relative start to look better. If we reduce our operating expenses then we will start to look better because our rates will go down. If we find new sources of revenue, our rates will go down or we could potentially reduce our rates or a combination of above. And we look at all these three things on a continual basis. So again, this is a similar chart to the one you saw for two to three hundred and you see that it just scales up from there. So these are the bill impacts that you would see if we were to procure 600 megawatts of solar by 2017 through a ppa. This is our expectation. So again, expectation ranges from the 50th percentile where we expect these costs to be to the worst case and for example for an average residential that would be \$15 a year or in percent terms this is an increase in 1.15% of their bill. The impact in later years, again, is expected to be neutral or slightly positive because it's the same dynamic whether we buy 600 or 200, it's all about where is the market price going to be in the future. Typically these models always expect that market prices go up in the future. Here's another look at where we're going with the six hundred megawatts. We tried to give you various looks at the cost impact. If you look at the bars and colors, the load zone cost that comprises everything that we buy for our customers -- from the market is the black line. That is offset by the thermal net revenue and again, maybe head off some questions, this is just psa,

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so thermal generation does have a capital cost in our base rate. So this is just the offset for what's in a psa so that's a negative. And then we try to break out the net cost of all our contracts so that you can see how it sort of adds to the total cost of the psa to our customers. So we have our wind contracts. The bio mass contract is our most expensive contract right now. And it is about probably half of the incremental from the contracts. And we tried to break up the solar. The yellow is essentially what we have already. That's the weberville plant and the recurrent contract that we expect to come online in 2016 and the Orange is the 600 megawatts that would be added on top of our psa. So that's just another visual for you of a total cost impact. It's important to look at all these additions because when we look at the market many of them do not have the additions that we have in our psa. And mark, did you want to add anything? No? Because interrupt me if you want to. This is a new chart for you. And a lot of this has been showing up in some of the conferences for public power. But we're seeing the dynamic of a low cost market now. If you look at two lines, ae is in blue and the market is in red. And our model fares extremely well from the beginning of the 2000s all the way to about three years ago because we could use our generation to mitigate risk in high market, high gas environment. But repeatedly we're seeing this dynamic change. -- Recently we're seeing this dynamic change. We've had sustained three years now of very low gas prices since 2012. This year is even lower and we're also seeing commensurate with the low

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gas prices low electric prices. Now, the low electric prices are because of gas and they're also because

ercot has more and more renewables. Andrew Harris in particularly wind -- and in particularly wind. And this will change as more and more solar comes into ercot. We used to see sustained prices in the afternoon, prices would kind of rise up in the afternoon as load picked up with temperature and people kind of went home, businesses were still open and people turned the lights on. And we would see that. A lot of that is getting clipped earlier and earlier where we're seeing the price start to dive as soon as the wind picks up in west Texas and the coastal -- where the coastal farms are. So that sustained high price is changing in the afternoon and those opportunities for -- both our thermal generation and our contracts to make money in the afternoon, those opportunities are getting lower and lower. The increase of the amount of wind in ercot is sustained so we're seeing an interconnection queue that there will be more and more wind so we expect that kind of clipping to stay there and sustain itself. But we also expect in the future that that will become earlier and earlier as solar comes into the market and starts clipping prices more at peak. So again, we used to see sort of the mini model do well with high gas prices, high market prices, but we don't know what will happen in the future because of all the new dynamics with all the renewables in the market. So this may be something we have to chase down in order for us to stay in the lower half of the rates in the country. >> Pool: Chair, I have a quick question. Thank you, Khalil. Could you go back to pages -- slides four and six? You were talking about

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scaling. And just a quick calculation, average residential item there, you show from three to seven dollars, but then on two slides further you show 15 to 19 and the first one is for 200 to 300 megawatt and the next is six hundred. My calculations say this shouldn't be five times as much, it should be more like two to three times as much. I'm curious about why the three dollars is five times the amount. >> I think it's a couple of things. One is the range is over more and more years because we would -- they would come on a little bit later. And also because we start digging into more expensive contracts. >> Pool: The difference is 1.26 and four years versus five years and it may be that we can't hammer this out right here in this setting, but I -- this goes back to some of the other Numbers that have been on slides in the past. It's hard to kind of continue -- to follow in a linear fashion the Numbers that you put up because I don't see the relationship between it. >> The 'is the number from a staying -- >> Pool: The one percent to the two percent. >> The 1 to the 2.6%. And how it impacts different customers depends on really the different rate models we have for different residential customers. >> Pool: So if it were doubled or one and a half times it still would be much less than \$15. >> Right. But that's our expectation right now. >> Pool: So I don't understand how you get to that calculation, which gives it -- makes it more difficult for me to follow the rest of the calculations that you have here, which then makes it difficult for me to be able to make the

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kind of informed decision based on facts and Numbers and statistics that are really necessary for the work that we do here. Maybe we could have a meeting and set it up in my office and walk through it. >> If I could add a couple of comments because I think it's important. I believe when we look at slide four we're basing that on about 250 megawatts of solar at the prices that we're currently negotiated for that piece of the stack. As we go up to [indiscernible] Megawatt the price per megawatt hours goes up because the best deals are in that first recommendation that we're bringing forward. So it's a combined effect so it's not 300 or 200. We set the first prices in the 250 megawatts thinking that's where we'll end up but it is really those two components. So it shouldn't be three times because it's 250 versus 600. >> Pool: You're saying if we purchase it now it's cheaper than if we purchase it later? >> No, I'm saying that the prices for some projects are less than others. And so to come up to a total of 600 megawatts will

cost more on average than just the first 200 to 300 megawatts. >> Pool: And that's what I really want to see because we haven't been given information. I thought we didn't know what the prices were going to be going forward. They were estimates. And we don't have to debate it here, but that would be the conversation I'd like to have. >> These are based on the contract costs the best we have. The part we don't know is what the price of market energy will be in the future. We're forecasting that and that's the range. >> Pool: Thank you. >> Gallo: Are there any other -- mayor pro tem tovo? >> Tovo: Chair, just to talk about pricing here for a second. I understand the point that you're making that the price for certain projects is going to be less, but am I reading it correctly that

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you're assuming that the price for 600 could be as high as \$15 in terms of a bill impact? >> Yes, you're reading that correct. Based on the total contract prices that we would have and our comparison to what we think the market would be, it would be a premium of 15 to \$19, depending on the conditions of market, how accurate they are to expect it versus possible worst case outcome for the customers. >> Tovo: But with the pricing that you've got for the 200 to 300 megawatts, that shows about a bill impact owe the lowest bill impact of about three dollars. That range seems quite large even factoring in what you said. Can you help me understand the assumptions a little bit better and why you think they're sound ones for how widely that would vary. >> So we're scaling from 250 to 600. So it's a little bit more than double is the scaling factor, but the prices for the balance are just higher than the initial. >> Tovo: How much higher? What is your estimate on how much higher they are? >> I can't discuss pricing right now. >> I think that's the handicap to go into this further is that whenever we've done wind deals, whenever we've done solar deals, there isn't one project that is 600. It's -- there's different pieces, there's different parts of it. And what we know is that as we go into it for more of it, we -- the prices will go up. And we've experienced that with wind too, like we've gotten wind stuff before where we got 10 projects that were really good, but we took the top two because they were very inexpensive so we've taken that. That's kind of what's in these Numbers and so I don't think you need to take them for being so absolute. But these are estimates too for the market. Also keep in mind that when

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it compares to our rates and our market impacts, right now I just looked, ERCOT market is 1.9 cents per kilowatt hour, \$19 per hour. Every year you analyze these resource costs that's what we don't know. It's all against the got market and that's the -- the ERCOT market and that's the forecast. And that's what's really difficult for us to do estimates on. So just keep that in mind. And nobody in this room knows what the future ERCOT forecast is really going to be. >> Tovo: And for those reasons I also don't want to assume that it's going to be dramatically more to purchase beyond 200 to 300. Without having real solid evidence to suggest that that's a solid assumption. So if we need to have part of that conversation in executive session, that would sure be fine with me. I think there have been several questions about pricing on the dais and also in the community. So that might be appropriate. >> I anticipate that we would have to do that. Keep in mind today as policy makers that what you are really making a policy decision on isn't how much, it's how much risk, okay? That's really what it is. It's how much risk. Our ratepayers are the ones who have to bear the risk. And the risk is do you want to acquire more resources to go along -- and Austin Energy doesn't sit over here as against anything. We're trying to do the very best to meet the goals we put forward in the generation plan and the planning. We can meet those. But our sensitivity is to how does it impact ratepayers. And how this impacts ratepayers is future risks and that's really what we're trying to assess and really what's to difficult. As you look at this chart and



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where we've flipped over in terms of the deregulated market and where it's going since '12. To keep us in the lower 50% of Texas and no more than 2% rate increase per year. If there's other metrics we have to operate by policy, then we need those. These are the ones we're running by. So that's where the sensitivity to this is. It's how much risk do you want to take. Understanding that the way this market works right now if we would have had no generation, we would all be buying our power at 1.9 cents per hour from ERCOT and that's what we do. We are selling to ERCOT and getting 1.9 cents per kilowatt hour. That's how it works. It's as simple as that. But it's complex to know where does that 1.9 cents, what's it going to be annually every year for the next ten years. That's what we don't know. That's the challenge. So again, as we go through this, what we're trying to do is make a recommendation that mitigates risk more than it does anything else. To our ratepayers. So thanks for that. >> Gallo: Are there any other questions on this segment? Do you want -- councilmember Zimmerman. >> Zimmerman: I wanted to spend a couple minutes talking about the legislative scrutiny that we drew in the last session in 2015. And you've got a bullet point here that says any cost additions on AE's part risks further erosion of our competitive position and could invite legislative intervention. In fact, we've already seen some of that, but could you talk for a minute or two about what you see as risk in 2017, what new things might come in 2017 if we're not careful about controlling costs. >> Well, this pressure isn't

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just felt by Austin energy. This pressure is felt by all publicly owned utilities in the state because we're not opted into deregulation. And we know this to be historically a temporary situation. But having said that, you know, maybe this is not temporary. I don't know. The sustained availability of natural gas which drives the ERCOT market. Most of the generation is gas and that's what drives it. So even the coal producers have had to drop their prices because gas is too competitive so they want us to use coal and we use very little, but that's how the market is driven. So -- >> Zimmerman: Again, the two biggest monopolies are San Antonio and Austin, right? Aren't those the two biggest cities in Texas that are still municipal? >> In the ERCOT grid we're 4%, San Antonio 7, so 11% combined. >> Zimmerman: That are still municipal owned utilities that haven't broken up and gone -- >> There's several others, but in terms of adding up the load, I don't know what it is with the co-ops and LCRA, but I'm going to guess it's something around probably less than 20% of the entire ERCOT grid. That's not deregulated, right. >> Gallo: Are there any other questions? Okay. If you would continue, please. >> This is a form of what you just saw but basically it breaks out rates in 2013, 2014 and 2015. AEN the reason it says preliminary, this is based on monthly data for EI data and we'll be getting the annual data for 2014 fairly shortly and then we'll have to wait for about a year to get the 2015 data. We tried to forecast based on monthly data and these numbers work into the chart you saw

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before but it does it by rate class and then totals it up. One of the other risks that we've pointed out in several presentations is really the amount of debt service and PPA commitments that we have on our books. Really this is an argument for us to own the solar in the future. Looking at our commitments, the darker blue is our debt service and the lighter blue are PPA commitments. And this assumes we -- say we add the 600 megawatts of solar now. But again, it's an argument for a few things, but one is that we have debt service capacity. We would like as a utility to use our balance sheet to own our assets and depreciate them over time. That's the model that we're built on and we would like to do that expecting

that the itc will expire in 2017. The other argument here is that if the regulatory model does change, there's no guarantee that we could put these costs all on to our customers. So they may become assets for the city in the future. Did you want to add anything here, mark? >> I would just add that the blue bar is -- you'll see in our balance sheet we have an asset against that debt service and we are required to cover that two times. The lighter blue bar is -- it's not on our balance sheet but it is an obligation for us to pay in the future every time we sign a contract. And while we off set that bar by the amount of energy we sell into the market, if we don't recover that energy we sell on the market and our near term indications we won't, those are costs that we have to pick up through our power supply adjustment each year to the customers. And so in the future as that obligation rose, that is a commitment that Austin energy has made to those developers that we will pay that amount regardless of how much energy we sell or what we sell it

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for. >> Okay. Now, this is actually an important slide and we're coming to the end and this compares really the cost of taking all 600 now in 2017 or taking some now and some later. So if you look at -- npv is net present value, but it's a way to look at what the total costs are for a stream of payments in the future today. So it's a good way to compare investments that happen at different times in the future. So if we were to take all 600 megawatts now, the first bar is the total cost and we see that the net present value of that is about \$15 million. If we were to break it up where we take 200 to 300 megawatts now, but then build in the future, we expect that actually to be positive to our portfolio by the amount of about \$20 million. So if you look at the difference between those two decisions, the difference is \$35 million approximately. So really that's -- that's where I think for you to make a decision is \$35 million, is that worth taking on the risk of the itc now, having the itc now and having all megawatts or can we wait into the future with expectations of where market prices and where solar prices are going to be in the future. I'd like to invite any questions on this because I think this is really kind of where the rubber hits the road. >> Gallo: Councilmembers, any questions on this particular slide? So this is the discussion of basically leasing or owning. Is that correct? >> Correct. And the [inaudible] That goes down, we lease the first

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600 -- first 300, I'm sorry, or 250, and then we own the rest. At a later date. So that's all -- they are still both 600 megawatts, just the one that goes down is broken up in pieces with the ownership and the one that goes up is we lease everything now. >> Gallo: Okay. Any questions? You look like you have a question. >> Casar: When you said you -- one time you said we owe and another time we build. >> I'm using them interchangeably. We expect to build to own. >> Casar: So I would abouting ourselves means contracting with somebody to build the utility. >> Right. So we would own. >> I want to point out strategy he canly that Austin energy procured some land some years ago in west Texas, so we have a site and we have that -- always had that in our strategic plan at some point we would do that. As long as there's the tax credits out there, it works better the other way since we cannot take advantage of those tax credits, we'll let our partners do that. There's provisions put in all of our wind and solar agreements that when these tax periods run out, we can acquire those utilities and own them. There's three ways to do it when you think about it. >> Gallo: Councilmember kitchen, did you have a question? >> Kitchen: Well, I did. There's a lot of detail that we can get into off line, but so would you consider that these two options show sort of the extremes? >> No, because they are based on expectations so we're not showing variability here, but we're showing sort of the 50th percentile of owning -- leasing 600 megawatts now, I'm trying to choose my words carefully, and then our 50th percentile expectation for

leasing two to three hundred now and owning the balance in the future.

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>> Kitchen: I guess my question wasn't well stated. I apologize. I mean this is two options. >> Correct. >> Kitchen: Are there other options that we could consider that would show some -- not so much this -- >> There are -- there are -- >> Kitchen: And I know you don't want to show an in if I nature number of options, I'm just asking the second option here is, you know -- there's a wide range between these options is I guess what I'm saying. There are many other options, but you feel like these are the two that are worthing of bringing forward. >> What might be helpful to consider is the decision in front of us right now is purely driven by this itc issue. Itc expiration. That's why there's sort of a singular decision point as to do we take all of the 600 that was in the gen plan or do we defer some of it later, right? So we could defer all of the it later and that would be even cheaper, but we have committed to taking on some of it now in the gen plan and that's why we're bringing the rca so we sort of -- that commitment is in the bag. And then if we want to do more, it's up to you today to say yeah, brings us an a rca for the balance. This is driven by the itc issue, the singular decision issue that we're facing. >> Kitchen: Okay. >> Gallo: Councilmember troxclair. >> Troxclair: You mentioned that if we waited to purchase the entire 600 even further that it would be an even more significant cost savings. >> Potentially. We haven't done the math, but there are other options and we could potentially -- because we know if we take 200, 300 now, there is a cost and we're showing that on the bill right now. So posteriorly that may not even be a cost in the future. >> Troxclair: Okay. It seems like that would be

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one option that would be helpful to include. I know that we have already committed as a utility and as a city to make the decision to go forward with the -- I guess 250-megawatt purchase, but I -- I think one point that's getting lost in this conversation is that that in and of itself is already a significant commitment to solar. Having these two options next to each other, it seems like the conversation has turned into, well, we could only do a small amount of solar versus a large amount of solar and that's not what it is. It's that we are already commit to go a significant investment in solar and potentially increasing our customers' prices because of it. So -- and I guess the other thing that I wanted to point out, I mean you have no -- as our Austin energy upper management and staff, as you stayed, Mr. Weis, you have -- stated, you have a responsibility not just to your board but also to the ratepayers and to live within the means and to meet the benchmarks that have been put in front of you and to provide them the best value for their investment. So you have -- you have no incentive to skew the Numbers in a way that would -- that you don't believe are accurate. If you looked at the data and analyzed it and truly felt that investing in 600 megawatts of solar right now was the most financially responsible thing to do, you would -- you would absolutely recommend that we do that. >> Absolutely. Yeah, it's -- it's a perspective, okay? So from the perspective of the ratepayers and, you know, I've been in this business a long time and in public ones, it's always been our perspective is to do the very best we can by our ratepayers, service, reliability, but then it comes down to cost and power supply.

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Yet, at the same time I'm a true believer in solar energy and renewable energy and all of these new innovative power supply solutions in the industry. We have to whack through it very carefully particularly because every market in the country is different. In the ERCOT market the way it works, no longer does Austin energy dispatch its own generation to its load. We buy it all and sell it all. So the real

question is is that how much should our ratepayers be paying to up lift the solar industry in Texas versus what's the benefit. And while it's in our portfolio and we can say that we have this much solar, this much renewable, it's really going to the entire ERCOT grid. I don't know where the electrons go and nobody dollars. The steady state grid delivers the energy. On our bills our customers know their paying for that much of the renewable energy and we have a goal of moving it forward. But Texas is very unique in the industry in the United States because it -- there's no statewide mandate. There is in California, there is in Washington, Oregon, some of these other states where every utility must deliver so much percent of renewable energy to your customers. I wish that was the case because that chart we showed back a few, Austin energy would be a lot tighter and more competitive with the market if everybody in the state had to do it. We need to keep that in mind while the stakeholders and everybody wants us to push into this area and arena, unless we're at a level playing field with that type of portfolio going forward, we're always going to be disadvantaged from a price side because we're not -- you know, because the playing field is not level. There are other utilities around us that splash in the media and doing a little solar and wind, but relative to the size and what we're doing to our customer size, we're doing a lot. So that's where the cautiousness comes in by us is -- and you are absolutely right, we're not going to --

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we're the professionals, we're trying to do the very best job we can and do the very best forecasting we can and as far as navigating those, I just met Navigant today. They are supposed to be independent. They are supposed to be out there analyzing this -- >> Troxclair: That's the purpose of why we -- >> So -- anyway. But so I'll be quiet. >> Troxclair: Yeah, I mean I just wanted to point out, it seems like there is an implication from not only the Dais but also from a lot of members from the community that Austin energy is intentionally misleading or not being honest about the data. You all have no incentive to not give us the best, absolute best estimates we can and that's why we also hired Navigant to come in and give them give us their best estimates as well. So I just -- I appreciate you presenting us with the -- what I think is very real cost implications of this decision. And I know that we have a very active community of people who want to see heavy solar investment and I have a lot of constituents in my district who -- including some who are here today who agree with that, but I have to tell you the overwhelming correspondence that I receive about utilities bills is that they are too high. These are people who don't -- they are not at the council meetings, they don't know -- they are not involved in the intricate decisions we're making, they just know it gets harder and harder to pay their electric bills on top of the other cost of living increases we see in the city. This decision has very real cost implications for your customers and for our constituents. And I think it's something that we need to take very seriously. >> Gallo: Thank you. Could you address -- I know one of the concerns that was expressed that I've heard expressed is a concern about congestion in the transmission

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lines, that if we delay decisions that that will put us at a disadvantage. Could you address that? >> There's no first mover advantage when it comes to transmission. Transmission is open access in Texas so you can experience transmission if you've been built for 20 years or you can experience the same congestion if you get built now. The congestion is the congestion. Everybody experiences it at that moment. So there's no first mover advantage to that. That congestion can be hedged but it's like any hedge, we can buy hedges that fixes that cost of congestion and we play in that market quite actively, but that's a separate issue. There's no first mover advantage. >> Gallo: So that -- that's what you have explained to me and I just wanted to make sure because that does seem to be a concern from a lot of people that are very involved in this discussion so I think the clarity with that, that that is not an issue

with delaying to make the decision to build. >> Good question. >> Gallo: Councilmembers, do we have any other questions? Do we have more slides? >> A couple more slides. We tried to summarize for you on one slide what are the risk factors that we're seeing. And the risks go in both direction, right? So what is going to be the future price of gas and power and solar prices. And there's been a lot of discussion about that. You know, is this the best solar prices we're going to see, are we going to see better solar prices. I can't tell you that right now so it is a risk in both directions. Our competitive position, that is a risk. And that flows right into deregulation and the potential for stranded assets on our balance sheet. The balance sheet risks can also extend to credit rating. If we have too many commitments on our balance sheet and the rating agencies see some hesitancy in us being

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able to recover our costs, that can also degrade our rating. The status of the solar investment tax credit, it's been renewed before. It doesn't look like there's a lot of push to renewing it this time, but we're starting to see activity of people who do want to renew it in congress. What if it does get renewed? Then we would see really low prices in the future. We need to think about that as well as the risk. The loss of EPA clean power plan early action credits for renewable projects after 2017. Anything we build right now before 2017 won't take, again, any early action credit under this new regulation. So again, by deferring some of our build of solar, we can potentially take advantage because the rules aren't really set yet, potentially take advantage of the early action credits for renewable projects. And then we've said this before, but there is a risk here that we're basing this analysis purely on solar and we're not looking at the portfolio. The timing of how the navigant study worked, we're not going to see the results before we make a decision on the 600 megawatts from a portfolio basis. And the impact of decisions we make here could have an impact on other things we have in our portfolio. So in summary, our recommendation is really to approve this rca that you have in front of you and that we defer the decision to own the rest of the 600 -- or lease the rest of the 600 megawatts to a later date. And we will work very hard to bring it in as early as possible based on future market prices for power and future prices of solar. Now, if -- if council does want to proceed with the 600 megawatts, today's brief is really kind of the first step, but we could bring a rca to council on October 1st

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for the balance if you so choose for us to do. The latest opportunity really with the way we're working with these bidders is October 22nd is to sign the 600 megawatts. We would have to be done then. That really concludes my presentation. I'll take any questions. >> Gallo: Committee members, are there -- councilmember pool. >> I would like to add one more thing. I was texting while presenting, but I did confirm with staff that the reason for the range between the 250 and 600 is purely based on the stack. It just gets more expensive. We have some, you know, much cheaper in the first stack and it gets more expensive as it goes up. That's the reason for that variability. But we're happy to meet with you on that as well. >> Gallo: There's one last slide. Did you want to get to that? >> The next steps. I think councilmember pool pointed out in the navigant study that there was an error. Their slide is old, but by October 1 we will bring the 200 to 300 megawatts so that's the correct amount. And potentially for the balance for the 600 megawatts. And I think you've seen the rest of the schedule actually. It's the same as you saw in the navigant presentation. >> Gallo: Okay. Councilmembers, do we have any questions? Vice chair pool. >> Pool: Thanks. So I just wanted to refer back to some of the questions that my colleague next to me was talking about the Numbers and the projections. In August you gave us a presentation of progression of solar prices and you show them jumping up in 2017 and steadily increasing through 2025. But in today's presentation it's gone the other direction. That's why it's real difficult for us to really get a

sense of which way the market is going, and in fact what Austin energy is really recommending. It feels like it's a little

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bit too -- the ground keeps shifting. But I would like to advise my staff that I know are listening to set up a meeting with Austin energy's staff here. I think some of my colleagues but not more than four others can join me in the meeting, but we will have an opportunity to talk with staff and outside of this meeting here in the next few days so that when we get to October 1st we have a better handle on exactly what the projections are that Austin energy is in fact going to support because in August the Numbers were going a different direction than they are -- than they are today. So I thank you and my staff will be in touch with you all to get that set up. >> Gallo: And I thank you for that offer, vice chair pool and doing some coordinating on that. So other offices if you are interested in participating with that with her, please let her know. Are there any other questions, council? >> Tovo: Just to follow up on that point that councilmember pool mentioned, is there any information you can offer us now as to why that -- why that discrepancy from the August pricing trends to the discussion we're having here today? >> Okay, so the presentation that we showed in August was a resource generation plan presentation unadult rate that we had showed last year to the previous council which mayor pro tem you were a member of. That's what we knew back then. And I think us, the solar industry, everybody has learned a lot more with the 600-megawatt rfp that you directed us to issue. We didn't feel like back then, a year ago, that prices were going down. When we got the recurrent price it was ground breaking. Now it doesn't look so ground breaking only a year later and I don't think anybody expected prices would continue to decline that way.

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We thought it was just a point in time. It's not like over the past five years we've been issuing rfps every year to see some sort of pricing trend. We had the webberville contract, then the current contract a few years later and we were like oh, wow. And now oh, wow again. And a lot of solar manufacturers have come out and said we expect this decline to go farther and farther down. We didn't have that a year ago. It was no attempt by staff to sort of manipulate the Numbers or anything. It's just what we knew at the time. You know, the more -- as time marches on, you know a lot more about the future. >> Tovo: I understand that. If I could just say for the record I'm not -- I'm certainly by no means of accusing you of manipulating the information, I'm just trying to understand why the trends appear different because those trends and the information we're receiving from you about them will inform our decision making going forward so I want to be really clear about why those projections look different from one time to the next and I appreciate your last comment about knowing more about the future. I can't para phrase it back, but I like it. I'm going to use it. >> As you remember, we did a lot of work the first generation plan of fall '14 and I remember now that this year we showed what that report was again and it had those older prices in there. And they will change. I just wanted to add that there was a time when we had a closed session with the previous council on the now turns out the recurrent Canadian solar contract where at that discussion the question was maybe we should get more, this is a really good price. So now here we are again at the same place, you know, same issue. And so it's -- maybe it gets cheaper. >> And I think you referenced August so I think you were thinking of the briefing that

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caleo provided when we were talking about the solar pricing and I believe the chart you were thinking

off if I have it in my mind correctly showed the expiration of the itc and it jumped back up after that and a steady decline back. What we don't know is what's that year where we hit this pricing again based on the forecasting that we had. I think that may be the one you were researchs although it's also accurate our prior resource plan referenced a higher price. We were expecting that itc to go away. We're not sure if it will or will not go away and certainly that would play in if we moved forward with two to three hundred megawatts, how quickly we might be back in the market with another rfp if in fact it came back and might be a better pricing. >> That chart did show the bump in itc and just inflated the prices over time. It didn't hoe the decline. Now we're showing something completely different, a completely different dynamic and it's purely based on what we've learned. It's a good story, right? If we want the future to be based on solar, then we would want these prices in decline over time. >> Gallo: Do you know how much is easier all of our jobs would be in any industry, real estate, utility assets, the stock market if we all had crystal balls and, you know, it is an analysis that we try to predict the future and the future often refuses to be predicted. So thank you for the work on this. Do we have any other questions? Good morning. >> Renteria: Good morning. Thank you. This is the main reason why I feel like we ought to be cautious about, you know, taking our time and really getting the facts behind -- you know, I'm really looking out for my ratepayers because,

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you know, I live in a low-income neighborhood where, you know, we're struggling paying our bills. And if we rush into this 600-megawatt, which I'm not supporting, you know, I feel like a lot of our ratepayers are going to get hurt. And also that it's going to put us in a very uncomfortable position where we're not going to be competitive with these big industries. That's why we're ending up with where we're at now with these two big energy consuming companies that on their rates because we can't be competitive. You know, and we start losing these big energy, big companies to other -- because of the deregulation of the market, they are able to just leave and go anywhere and we're losing a lot of revenue and we'll be in very extreme, we'll be in trouble. I mean our rates will just skyrocket. And I feel like we should really just, you know, take this at a slower pace. I don't see why the rush is that we have to make a decision by October 1st, and I really don't feel like I can make a really good decision based on rushing this past, rushing it to and taking a vote by October 1st. So just that's my position. >> Gallo: As we get close to closing this agenda item, the discussion on -- councilmember Houston, you've been quiet. Do you want to say anything or ask any questions? >> Houston: No. >> Gallo: Thank you. Questions from anyone else? Councilmember troxclair. >> Troxclair: Can you explain -- I think I mentioned this earlier, but it doesn't make sense to me that we would be making a decision on October 1st about the solar issue when we won't have the rest of the information about our, I guess, plan until the 22nd. And I mentioned -- and I saw that in your slides you

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mention that as basically something that plays into our [inaudible]. Can you explain why -- it seems to me both decisions should be made on the 22nd. Can you explain to me what your thoughts on that? >> Yes. So I think we go back to what resource planning is about, right? So we're a company that owns a lot of big assets and what resource planning is about is what kind of decisions do you make with all these assets on a combined basis because it's a portfolio. We only have so much gunpowder when it comes to affordability. So decisions we make on solar also effects decisions we potentially make on a gas plant that may affect decisions we would make on other commitments in the resource plan which is retiring fayette and beginning that retirement in 2022. All of those have financial implications, and if we wanted to make a combined optimized decision about where all the money goes when it comes to our portfolio,

we need to look at that holistically. What we're showing you when it comes to 600 Milwaukee Gates is 600 megawatts in isolation and we tried to do that to make the decision easier for you. In there there's no movement when it comes to -- there's no money in there for the 500-megawatt gas plant. There's no money for the reserve funds for retiring Fayette. We said everything stays the same and here's the effect of getting 600 megawatts now versus breaking it up into chunks just to make the decision easier. The way resource planning should work we make the decision holistically on the portfolio and then start picking out assets and doing much deeper analysis. So we need to do a deep analysis about the gas plant as well. It's a big commitment for us. It's a lot of money that we're going to spend. Even if council says yes, go ahead, it's still going to take a lot of bringing stuff

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towards you and a big financial commitment that you may not be comfortable making as well. But then we would make it all as a portfolio. We would sort of divide up where all the money goes from a portfolio basis. We did that in the previous resource plan. Now we have the luxury of a new study from Navigant with updated prices. A lot changed in the market, a lot changed a lot more than in two years because technology seems to be advancing quicker. We know a lot more now, we have the luxury of the study, it's fresh, we could make a decision at that point. >> Troxclair: Do you mean October 1st or -- >> No, the report won't be out until October 15th. >> Troxclair: Would it be your recommendation we make a decision on the 600-megawatt decision on October 22 with the context of the report and the rest of the portfolio information provides? >> It's a tough question to answer because I'm not sure this council is ready to make a decision based on everything, on approving the resource plan. We may be stuck right now in the paradigm where we just look at this 600 cost and say are we comfortable with that increase, you know, just because that study now is kind of late in the making. But it's going to be very valuable for us making decisions going forward with the rest of our assets. >> Troxclair: You are saying because we won't be making a decision on the rest of the generation plan issues, it doesn't matter whether we make the decision on the 1st or 22nd? >> I think it's going to be tough for you all to digest the whole plans and make the decision on the 600. I think this is probably the best data right now with the deadlines that we have because the ITC requires the build by 2016 and the way the bidders are now we've held them for a long time. You know, that's sort of our deadline is that October 21st. I think it's really tough to come to you with a report on the 15th and for you to make the whole big decision and then make a decision on solar

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so I think you need to be comfortable with that \$35 million delta which could be more, could be less. And if you are comfortable with that, then we would bring an RAAC -- RCA. On October 1 for you to make that decision we would bring an RCA, you would get two readings by the 21st. It's not the last chance October 1st. >> Troxclair: Thanks. >> Gallo: Mayor pro tem Tovo. And just to mention to the audience as soon as we conclude the discussion on this agenda item, if there are still the four citizens that have signed up to speak under general communication, we'll see if they are there and then we'll move into that. >> Tovo: I just need to get some clarity on the time line. So you are coming forward on the 1st and it's not clear to me whether there's going to be RCAs totaling up to 600 megawatts on the 1st. I think you've left it as a question mark for us and I don't know if you need to answer that today. >> Because the resolution that you passed doesn't say bring an RCA, you can direct us right now, we'll bring an RCA on October 1. On October 1 will probably be your last chance to say, okay, bring us an RCA, we'll get two readings. >> Tovo: If on the 1st we made that decision, we would have something on the following week but that wouldn't afford us two hearings. >> There's a council committee on the 22nd and you could



have a special meeting right after because I think Austin energy is the only thing. >> Tovo: So I guess I would say the sponsor, the main sponsor of this resolution is not here today and I don't want to speak for her, but I would just harken back to the language in the resolution of which I was a co-sponsor and it asked for an actionable plan with 600 megawatts by

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October 1st. So I would suggest that based on our previous council action that we should be prepared with an actionable plan and it sounds like that's translating to rcas on October 1. I would just add if part of that isn't a briefing, I think it would be very helpful to have -- have that briefing posted with the regular agenda on the Friday before so that we can really review and evaluate and absorb that information between then and that Thursday. >> Just to be clear, what additional information would you be looking for that's not included in this briefing? >> Tovo: I'm just saying if there is additional information along the lines of what we've talked about here today, there were some additional questions, if you are planning on presenting that in any kind of presentation or briefing at the council meeting, I would just ask if there's a chance to get it in our Friday materials, I think that would be really helpful. I'm not specifically asking for any additional information, I'm just suggesting if there is some or a briefing, it would be great to have that by Friday when everything else post. >> Will do. >> Gallo: Thank you for the suggestions. Councilmember kitchen. >> Kitchen: I would just echo councilmember tovo's comments. Councilmember Garza was not able to be here today. >> Gallo: Vice chair pool? >> Pool: It would be great to have the mayor and the person the lead be here. The tax credits we're talking about making sure we get advantage of, that's tax credits for the city to purchase, right? For the large utility customers to be able to get advantage of the tax credits that's being offered. >> No. No. It's -- the tax credits we're

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discussing, those are for the developers of the projects to get the tax credits. >> Pool: Okay, but it's to benefit our community, right? >> Well, it's -- yes. Ultimately what happens is they are supposed to translate that into a cheaper price for the overall solar price. We don't get to look inside their books and see that, okay? It's so very difficult for us to know how they are valuing their whole structure. It's complicated. >> Pool: And if we delay or slow down, there's the chance that that price cut and the discount may go away. We know it's going away at the end of next year. >> There's such a push with the clean power plant and the administration and the solar industry is huge and it's a huge lobby and everything. My personal expectation is they continue. There will continue to be tax incentives for developing more renewable energy. I don't see how they could just stop it, you know. That's my personal view so that's always a timing issue, right? We get up under these budget cycles and we know what congress is in and what they are going to do. What they've been doing is extending them every year. >> Pool: We can hope that happens, but as you had said previously we don't know what's in the future so we have to work with the information we have now. >> Gallo: Councilmember Houston. Then also -- >> If I could just quickly -- >> Gallo: Councilmember Houston and we had talked about a hard stop at 12:00. We're now at 12:45. If we want to give citizens a chance to do the citizens communication, if we could quickly move into that. >> Houston: There's a couple of things and I'm not going to repeat them that might require an executive session so I just want people to be aware that might be something that needs

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to be posted as well. >> Gallo: Thank you for reminding us of that. Is there anyone else? Councilmember Zimmerman. >> Zimmerman: I'd like to hope that the subsidies end because the federal government is going bankrupt. 19 trillion-dollar in debt so here's my hope that we will end these crazy subsidies before the country goes bankrupt. >> Gallo: With that positive note -- [laughter] >> Do you mind if I get some clarity from the attorney as to the discussions that we've had with regard to two hearings? Of 600 megawatts and what direction the committee might give to staff to bring an item forward? >> I think that we talked about treating the briefing today as the initial hearing on the concept of 600 megawatts. So I think we've considered that today would qualify as basically the kickoff hearing. That it would be the first hearing for up to 600 megawatts of power so I think we would be okay. >> That's consistent with what we've done on the wind projects too. We've had up to X amount and as we've gotten to -- at the end and the decision point chosen the number. >> Gallo: Does that give you the clarification that you need? >> Yes. >> Gallo: Okay. With the end of that discussion on item number 6, we do have four people signed up for citizen communication. I have Karen Hayden, I have Cyrus reed, I have Richard Halpin and who am I missing? One, two, three. And Joe -- are any of you still here and do any of you wish to speak? >> I'm fine, thank you. >> Gallo: Thank you. Is anyone else here that signed up that would like to speak?

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Okay. If you could quickly come down to the dais. I want to say thank you to the people that have been here to -- taken their time to come before us to speak and those that spoke already on agenda item 6. Thank you. So it will be Karen. Is Cyrus still want to go speak also? >> No. >> Gallo: Two speakers, three minutes each. >> Hi, I'll be brief. I got to speak earlier. I want to thank you for digging in and diving in on this issue. I would ask your help in ensuring that after the working group has a chance with the euc to look at the assumptions and to meet with navigant and Austin energy that we have an opportunity to come back with different Numbers, both to the euc and to you. I also just want to say that in the world of affordability, the cost of these new projects for solar is less than the average price of generation that we have for the utility today. This is not a way to increase bills. They will increase slightly in the meantime, but not in a big way. And after that we're going to have benefits and benefits and I would also urge you to get some kind of estimation of how great those benefits are, what the savings are. Let's be fair and balanced here and in the world of affordability, this is

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[inaudible]. >> So if you look at the portfolio and I'm glad Austin energy brought that up as well, you'll see we are going to have a reduced psa so I'm looking forward to that conversation. I wanted to make a few points on the navigant study. We talked about the comparison unit there and the volume. If you want to make a real comparison, you look at why Austin energy wants a gas plant and what functionality do we want from the plant and how can you get to that functionality with different alternatives. And Austin energy has not made that case. So we're doing a study for a question that we don't know and so the results will be hard to interpret. What you also don't see is a result to the climate -- zero goals to reach that by 2030. The results need to be reported again, are we going to move away from those goals, meet those goals arrest accelerate because council said before if we can meet those goals early it would be desirable. I urge you to make sure that that happens. I've done a review of the assumptions so far shared by navigant. They haven't shared everything. If I'm blunt, I see a best case for the gas plant. They are nice and good Numbers, like the best in the market. And I see a -- sort of a worst case scenario for all the renewables. Jaws -- just bear in mind -- hope navigant to existing copy of the work, take existing policies into account, report back to you to see how you can get closer to those goals

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because this time line is so compressed, it's hard to do a good review. Thank you for your work.

[Applause] >> Gallo: Thank you very much. Before I ask for a motion to adjourn, I want to give an update about the employee we spoke about Tuesday morning that was injured. It was a meter shop employee, was pulling a meter for an accuracy testing Tuesday morning about 4:00 in the morning near Springdale and manor road, approached by a man in a ski mask, asked for money and when he indicated he had no money a shot was fired. Fortunately it was a minor injury and I know he was in our thoughts on Tuesday and seems like he's do okay. With that a motion to adjourn? >> Zimmerman: So moved. >> Gallo: Second? Councilmember Casar. All in favor? Opposed? Thank you committee.