

# Austin Energy Utility Oversight Committee Meeting Transcript – 04/23/2015

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[9:12:03 AM]

>> Good morning. I believe we have a quorum for the Austin energy council committee, and so I will call our committee to order. First on the agenda we have citizens communication, and I'm going to apologize ahead of time. I have a tendency to really butcher names, so please take my apologies if I do that. We have four people on the list as speakers, and if you would come forward and maybe sit in the first couple of seats so that -- so that you can come to the microphone fairly quickly. The first speaker is Eugene Preston. The next speaker will be Lenita Cooper. Joel or Joe -- Jou? Thank you. And David Cortez. So the first speaker, Eugene, if you'd come up to the -- thank you. And you will have three minutes, which is time. Thank you.

>> Honorable mayor and council, my name is Gene Preston. I'm retired from Austin Energy in 1998. I worked for planning for 26 years. I received a Ph.D. Degree and system reliability assessment in 1997. Currently I'm doing consulting transmitting studies for solar and wind clients. This summer I'll be reported to the expectation working group in Denver on my investigation of the ERCOT system as maximum levels of wind that can be pushed without storage and also assuming no transmission constraints. In this wind study, I'll be given solar -- there's two constraints that bound what we can do. One is too much power at times from renewables, and the other is long periods of time where there's not renewable power, such as this past month, cloudy weather here in Austin produced little solar energy. When there's a long period of no renewable power, then gas plants must fill in.

[9:14:11 AM]

Curriculum also indicates somewhere around 50% of energy penetration due to these upper and lower bounds. Why is there a limitation? Because renewables produce energy through a long time, dumping more than 5% of renewable energy will be a cut off in my study so we'll keep increasing solar until we reach that point had storage could allow energy to be shifted but today storage is too costly. Battery storage is only good one day at a time. We also need storage weeks and months. In spite of battery storage costs, I'll talk about its effectiveness. That's 500 megawatt gas plants, not just leaning on ERCOT. Decker plant is old and isn't able to keep up with the rapid ramping dispatch that wind and solar are causing on the ERCOT grid. Think. New gas plant as a new, more efficient car. Since storage is not an option at this time, new gas plants and ERCOT are needed to keep the lights on. When the ERCOT plant

bailed, there's a possibility for blackouts of the Austin system in the future. Why is this? Austin has an internal grid using 138-kv lines. The ERCOT grid is 345 kv. The Austin energy transformation of 345 to 138-kv interconnections are designed for the present system. Adding more generation and reducing 138-kv generation creates what's called an import power problem. Austin energy is trying to deal with this. The current system designed was produced for low cost in efficiency, but has a flaw that terrorists can exploit.

[9:16:12 AM]

Not building the gas plant just makes it easier for terrorists to exploit this weakness. I talked with Austin energy transmission planners yesterday. They are not really looking at this problem. But it should be looked at. Samsung located in Austin instead of California because our electric grid is more reliable than California's. I saw a memorandum from FERC asking California why the interruption load is thought of as a way to make the California grid more reliable. The standard measure of reliability or unreliability is a loss of load for customers. This was a very brief report. You can contact me by e-mail if you have additional questions.

>> Thank you, Mr. Preston. The next speaker, Lenita.

>> Excuse me, madam chair, could I ask him what FERC is and L-E-O-L-W-G? Sir, if you could tell me what, in bullet point 4, what all those alphabets mean, and bullet point 13.

>> Okay. IEEE is the institute of electrical and electronic engineers. LOLEWG is the loss of load expectation working group. ERCOT is the electric reliability council of Texas.

>> And F-E-R-C.

>> Federal energy regulatory commission.

>> Houston: Thank you so much.

>> Thank you.

>> Kitchen: Are there any other questions? Okay. Thank you. Lenita Cooper, please.

>> Yes, ma'am. Good morning. My name is Lenita Cooper and I'm here today to talk about the industrial rate tariff. Most are not all customers are not charged the tariffs that were set for them in the last rate case. They're on special contract rates.

[9:18:13 AM]

Rate cases are technically complex, involving the use of economic modeling, regulatory rate theory, auditing, and financial modeling, that are provided by experts. As in most complex proceedings, the final decision-maker in this case, you, the council, reviews different interpretations of the economic facts and projections, thereby creating a reasonable range of values for the outcome. In the case of the 2009 rate case, the last rate case we had, the economic model used to allocate the cost of power plants was one that favors the industrial rate payers. This allocation of cost has the most effect on residential rates, but even with the use of economic modeling that is most favorable to the strictly customers, the resulting cost to serve them and other large commercial customers on special contracts was \$20 million more than the revenues Austin energy would receive under the contract rates. These contract rates were set in 1996 and did not provide for any ability to increase the base rates, which is unreasonable and imprudent. Most long-term contracts will allow for increases or decreases of cost go beyond a reasonable range of values. Since 2009 there has been a rise of external costs that Austin energy does not control, such as the ERCOT cost and the regulatory cost of building the transmission grid in west Texas. As the handout shows, and you all have been provided a handout, Austin energy failed to recover \$10 million of just those costs alone in fiscal year 2013 and another 11.4 million of those costs from the strictly and large commercial customers with contracts. Now, the moral of this story is that without

reasonable deliberation, rushing into new long-term contracts with industrial and large commercial customers will, in all likelihood, increase the costs and, therefore, the rates of residential and small business customers who will have to pay for the subsidy.

[9:20:22 AM]

I'm urging you to do what was promised to residential and small business customers in the last rate case. Before new contracts are entered into, new rate case should be filed to determine what the costs are of Austin energy to serve these folks. Without that information, you will be making rates without any evidentiary foundation at the risk of further increasing residential and small business customer rates. If there is a concern that there will be a gap between the final decision and the rate case, and the expiration of the contract rates, you may, by ordinance, extend the ending dates of those contracts until the rate decision is made. When developing the contracts, please consider the possibility of increased cost caused by external events that weren't in consideration in making the contracts. Please include a stop cap measure if costs exceed a certain range of values. And please do not provide for 15-year contracts. Thank you so much.

>> Kitchen: Thank you. Are there any questions from the dais in thank you, Ms. Cooper. And Gus Peña is also added to the list of speakers. Jute Meyer, did I say any of that correctly?

>> Yes, very close. Thank you so. Thank you, chair, co-chair of this committee, mayor, mayor pro tem and councilmembers. My name is Meyer, I prepared a few slides, if you can pull those up. Today you'll be hearing a staff presentation on the generation plan, this item 4, and I have a little discussion on the new business model and I'd like to put a few words there. I'm going to show you two slides from Austin energy they used last year during the generation plan and I just want to show this to you, that you can look at these graphs and tell a different story. This is about framing it. This was a slide used by Austin energy to show why we need a new gas plant. What you see here in the dotted and red line is the demands that we're using in Austin.

[9:22:26 AM]

You see stacked different generation options, ranging from wind at the bottom to gas at the top. You see that the graph is below -- is above the line. Some people say, why is there a gap? Well, there is no gap. We're actually a generation heavy, you could put it that way. The first gap that will happen will happen in 2019 when you see the curve going down on top a little bit. When we're retiring decker, the oldest gas units. Next slide. The question is how to replace -- how can we fill that gap. This is a slide from Austin energy that represents the levelized cost of energy over a period 630 years, which is correct, because when you build a gas plant, they tend to last about 30 years, even longer, so a shorter time would not be good. What you see here are points for our different generation options. Next slide, please. What's good to know is that you see the first number, that is how much electricity costs from the existing decker gas plant. It's around \$90 per mega watt hour. If you look at the rfp that is being put out there, and hopefully it will come in favorable, Austin energy anticipates, or anticipated last year, that the west Texas would come in as \$50 million. The contract last year was below that, and the expectation this year is that the Numbers will even be lower than that. If you see new gas well, which is the second number, 6999, at about \$70. Let's compare those. Next slide, please. If you look at the existing decker gas plant, and I would build a new utilities solar west Texas, and come in at \$48 or \$40, which could the new rfp be, then knowing that decker produces about a million megawatt hours a year, every dollar difference is a million dollars difference in cost for making that energy. So if we use solar, it's going to cost us 48, \$40 million to make that minor output from decker, replacing it with solar would save us the difference between the \$90 today and the 40-\$50 for new solar tomorrow.

[9:24:48 AM]

So easy option for you. If you want to make \$40 million tomorrow, we should use solar in west Texas and retire decker tomorrow. Thank you for your time.

>> Okay. Thank you. Any questions?

>> Yes. I have a question. Thank you. You know, as I learn here about Austin energy and pricing and the like, I have a need to assemble everybody in the same room at the same time so I can ask everybody all the same questions. There's a presentation that's been prepared by Austin energy that we're going to be seeing this afternoon that relates to costs and things as well and as I look through this, we haven't had the presentation yet so this hasn't been explained to me, so I might be reading it wrong, but it's a chart that has not only what the cost of power is to make, but what the price of hour is at the same period of time. So we can -- we can make power and sell it into the system for a certain price, depending on -- and relative to where the price is going. So to get a complete picture, I need to know not only what it costs me to make any particular unit of power, but also what I'll be able to sell that unit of power for at the time that it's being produced.

>> Yes.

>> Mayor Adler: So I know you haven't probably had a chance to see this yet. My request is that you get a copy of that report, or the presentation that's being made, and at some point I would love to have your assessment of the -- of that presentation and those charts, in particular, once it's made.

>> Okay. Great.

>> Mayor Adler: Thank you.

>> We'll do that. Appreciate that.

>> Any other questions? Okay. Thank you very much.

>> Thank you.

>> The next speaker is David Cortez.

>> Thank you, madam chair, Mr. Mayor, mayor pro tem, and council. My name is Dave Cortez, and today I'm speaking on behalf of myself as a renter in montopolis, a neighborhood in district 3 that is inundated with good, hard-working folks, struggling to continue to afford living in our rapidly gentrifying city.

[9:27:10 AM]

I hear from you all and other leaders across town all the time that we have an affordability crisis, that you're going to do all you can to help struggling people. Struggling people. Think about that for a second. Picture the families and folks who embody the phrase "Struggling people." If you pictured the people profiting and making good money as Samsung, free scale, and other corporations that benefit from the sweetheart deals for electricity, I challenge you on that. I find it beyond unconscionable that Austin's wealthiest one percent are holding a gun in the form of the Texas legislature to the head of you, the council, our council, and to the struggling people of Austin, at a time when the poor, who are predominantly people of color, are being displaced all across this Progressive city, when the poverty gap continues to widen. I implore you to tie any renewal of handouts to Austin's one percent in the form of industrial rates, tie those to substantive -- substantive help, to the tens of thousands of people, struggling people, who already can't afford to pay their bills. You saw in the statesman not too long ago, that we have \$78 million in debt, mas O menos, due to people who can't pay their electric bills, some number around 40,000 plus. I see these people all the time, when I'm knocking on doors, when I'm doing cleanups in my neighborhood or just going for a walk. Near in do have springs, they're in montopolis, they're in St. John's, in colony park, all over this city. And when they hear what's going on,

as they're seeing in the paper, when I and my friends get out and spread the word about what's going down and what's going to happen on may 7th, we ask you and demand that you provide them help, if you're going to provide help, to these people who already get so much from our city and take so much from our city, whether it's the chapter 380 incentives, subsidized electricity, money from the technology and emerging technology fund or enterprise fund.

[9:29:32 AM]

We have to put a stop to this. This is, as I said, beyond unconscionable to witness this continue to happen in our city. Thank you.

>> Thank you. Any questions? Thank you very much. The next speaker is Gus peña.

>> Good morning, madam chair, and thank you for including me on it. You have to realize that some people are not familiar with the new process, so thank you very much for being access -- for me being allowed to speak. Madam chair, committee members, mayor and council, my name is Gus peña, proud native east austinite, 2327 east fifth street 78702, the deuce, and proud united States Marine Corps veteran. We talk about new contracts, we talk about the rate of utility. Let me tell you this much, that Mr. Cortez forgot to speak about. And first and foremost, let me say that I've been dealing with senator kicker Watson, I knew when I am when he was mayor, helped him in his campaign, but also had a heated discussion two months ago with senator Frasier. At the same day I was at the capitol. But I'm happy to see two or three days I had a better interaction with senator Frasier, I told him this, that everybody seems to forget, we used to call it the cash cow back in the 1990s, it used to be the electrical utility company, not Austin energy. Where do we get the money for social service contracts? Where do we got the money to pay for police, fire, ems? My priority, my priorities are the people, the poor, as Mr. Cortez alluded to, but I'll go further than that. The have-nots, people who are homeless, single women with children, they pay taxes also, they also have to pay an electrical bill. So we want to keep it affordable. Affordable, I cannot define affordable because this is mind boggling for me right now.

[9:31:34 AM]

I ran for city council? '96 and '97, I did a poor job, the justice of the peace, I was endorsed by all law enforcement agencies. I'm ashamed of my city. Mr. Cortez is right. It's gotten big, ugly. There's no more middle class. Don't give me that bull. It's just the poor, the have-nots, and the rich. What we need to do is remember -- and as I told senator Frasier and red workman, we don't need catastrophic changes. If you remember at the work session, and also my good friend mark -- he's a good friend and I'll say it, I think we can work together with the companies and corporations to make the more affordable that we do not have catastrophic changes at the capitol. I spoke to Greg -- I'm sorry, governor Abbott. I'm a democrat but I work for everybody. I want to thank Mr. Free scale who came to say hello, who was willing to speak with me, work together so we don't have a catastrophic change to hurt the people, the less fortunate. We talk about programs to pep people that fall back on their utility bills. We can't do that to them. Realready have a bad situation here, economicwise and other wise. Please work together. I told the governor, let us work together and don't make some catastrophic changes for the city of Austin. Thank you.

>> Thank you. That concludes our speakers. I wanted to say thank you to the speakers who took their time to come down and speak before us. Thank you. The next item on the agenda is the approval of the minutes from March 26, 2015. Do I hear a motion to approve? So, councilmember Houston made the motion. A second? Councilmember Renteria. All in favor?

>> Aye.

>> Any opposed? The motion passes unanimously on the dais. Second on the agenda, we have staff

briefings on several items, and the first one is a discussion regarding refinancing and issuance of the sale of city of Austin, Texas, electric utility revenue refunding bonds.

[9:33:46 AM]

>> Good morning. This is Larry Weese, general manager of Austin energy. The first of our items today, we are issuing some debt. We're issuing debt for new money for our capital expansion programs and for some refunding. Here to explain it today is mark del broke, our cfo, and the public management pfm, who provide services to the city.

>> Good morning, councilmembers. I'm chief financial officer for Austin energy. This morning we have two refunding bond issues for you. One is a taxable \$355 million, top value of \$425 million, which is the upper limit, and a taxable portion, which is \$85 million. The taxable portion is associated with our chilled water while our non-taxable piece is associated with both a commercial paper takeout, which we use to fund our capital program, and refunding of two previously issued bonds from savings. We have Dennis Whaley who will be able to walk you through that understand a answer any questions you may have.

>> Good morning. I'm Dennis Whaley with public financial management. We're the financial advisory to the city. I wanted to spend a few minutes talking about the bond sale. Elaine hart is passing out a brief presentation to talk about what we intend to do. On page 2 of the presentation, it goes through some of the highlights of the sale. These will be two negotiated sales. A bond counsel is Fulbright & Jaworski, bob trancefield who is here today. He's back there.

[9:35:47 AM]

The lead underwriter will be goldman-sacks, then six co-managers to assist with the sale. We conducted rating presentations on April 6th and 13th. We've received two of those ratings, both affirmations. Rudy's affirmed our saying the, and Fitch with a stable output. The S and P ratings should arrive later this week. Page 3, as mark said, the purpose is to refund commercial paper, as well as to refund some outstanding bonds for debt service savings. You will have two items on your counsel agenda this afternoon to approve us moving forward with parameter bond sales. Parameter sales are what the city has traditionally done. The reason for it is it provides flexibility to the sale date. If we did not do that, we would need to basically sell bonds on Thursdays and then come to council on Thursday afternoon, and Thursday may not always be the best day to sell bonds. So we'll have parameter bond sales. What that allows is no are the city manager or chief financial officer to complete the documents associated with the sale, and what the ordinance has is parameters, limits that we can't go over, such as the size of the bond sale. It also has a requirement for the savings that we must exceed the financial policy guideline of four and a quarter percent savings. Then it also sets a maximum interest rate on the bonds. Page 4. I guess the only things that are in addition on this page are the last bullet point under the 2005as, or 2015as, the tax exempt bonds, the refunding for savings portion should save about \$18 million, or 9.37%. And the 2015 B bonds, which are are taxable bonds, the estimated savings is 2.4 million, which is about 5.4%.

[9:37:55 AM]

Page 5, our timetable, council action this afternoon. Distribute the offering document on may 5th. Tentative pricing date is may 12th, and close on June 2nd. And then the last page is a five-year history of ten-year and 30-year treasury rates. And the only thing I wanted to show you here, is if you look up to the far right, you'll notice that although rates are ought all-time lows, we're still in a very attractive

market to be selling bonds. And with that, I'd be happy to answer any questions.

>> Are there any questions, councilmembers? Okay. Thank you. Zimmerman.

>> Zimmerman: Thank you. What are those rates? I think part of it, you're not supposed to spend the pay dates.

>> I can't give you the specific dates, I don't have it in front of me, but the average life of the refunding bonds for savings does not exceed the average life of the bonds we are refunding for savings. So just as you said, we are not extending the life of those bonds. The take-out --

>> Zimmerman: You don't have the dates in front of you?

>> The take-out of the commercial paper is -- is a refunding which will go out 30 years, which is what we have historically done, so the final maturity of that will be November 15 of 2045.

>> Zimmerman: Okay. Thanks.

>> Any other questions? Okay. Thank you. Yes, councilmember troxclair.

>> Troxclair: Was that the conclusion of the presentation on the bond issue? Or did you have more to present?

>> Yes, ma'am, that's the conclusion.

>> So I'm just trying to understand this funding mechanism here.

[9:40:00 AM]

So wish you all issue paper up to \$30,000, then you pay off up to 400 -- sorry -- \$400 million in commercial paper, bringing that balance back down to zero, but accruing more bond debt. Is that correct?

>> The commercial paper -- there's two commercial paper programs. There's a \$400 million commercial paper program that's used by both Austin energy and Austin water.

>> Troxclair: Uh-huh.

>> There's also a \$50 million taxable commercial paper program, which is used by Austin energy, and it is for projects that include private use, which, to avoid tax law problems, we need to do those bonds on a taxable basis. The commercial paper program serves a couple of purposes. One is -- and I think very importantly -- instead of borrowing, let's say, \$200 million for projects over the next three to five years, and paying long-term interest rates, borrowing for 30 years, instead of doing that and having money in the bank that we owe at four percent, let's say, and we're only earning 25 basis points, then that creates negative arbitrage. You're paying out and not making enough money to cover it because that money is just sitting around as those projects are being completed. So, instead, what we can do is use a commercial paper program. What that allows us to do is to borrow money as we need it, and borrowing in the short-term market, Austin energy is borrowing money at about ten basis points or less, next to nothing. And build that up over time, and then when we build it up to a certain level, in this case \$160 million, take it that long, and that frees up the capacity and the commercial paper program so Austin energy can go back and finance additional projects.

[9:42:18 AM]

>> Troxclair: Okay. So what is the difference between these kinds of bonds and the bonds that are outlined in the charter that require voter approval? >>

>> Councilmembers, mayors, I'm assistant city attorney, and we have bond counsel here, if you need to walk through more of the legal details, but in general, although the charter mentions revenue bonds as something that can go to the electorate, there are no procedures for taking those bonds to the voters. So the interpretation of that law, there is not authority under state law to take revenue bonds to the voters.

>> Okay. Thank you. So any -- are there any other major enterprises or departments that issue revenue bonds in this way?

>> There are not any that are identical that have this sort of commercial paper program. We have other, like the hotel occupancy tax or the car rental tax, which are debt streams that have specific authority for issuing those, but they're based on revenues, and those are also considered to be revenue bonds. They're payable from the revenues of the taxes, or in this case, from the utilities.

>> Okay. I think I've seen in previous presentations that the current total debt of Austin energy is 1.2 billion, so are these bonds included in that total debt number?

>> That's a better question for your finance folks.

[9:44:24 AM]

>> Yesterday we showed you our forecast, our financial forecast, that shows the debt stream, debt payment, so I think it's 120 million per year now and goes up to 152 million over the next five years. That's reflective of any borrowing that we do forward. So as we grow our system and our assets, you'll continue to see that number get larger, depending on the growth.

>> Okay. So they are included in that total.

>> Yes.

>> Okay. Okay. Are there any other questions? Okay. We're going to move on to the next briefing agenda item, which is briefing and discussion regarding the large industrial customer tariff.

>> Yes. Thank you. On our long-term contracts, a little bit of background. As I spoke before at a previous committee meeting, we are negotiating with our very largest customers. But 13 long-term contracts expire may 31st of 2015. Two of the contracts already expired, in January and April of 2015. And the state and the university of Texas will expire in may of 2017. That expiration, customers would pay current tariffs that were not in effect when contracts were executed. Those be tariffs include regulatory charge and part supply adjustment charge. They currently pay what's called a facility access charge if they see that reflects different costs at the time those contracts were constructed. We've had discussions with customers over the last six months, and at today's council meeting, the purpose of what I'm up here for today is to do some next steps. And those next steps are, April 23rd, today, we want to set a public hearing, that will be on your agenda today. And on may 7th, we would have our first public hearing, first reading of what we're proposing to do.

[9:46:26 AM]

And I'm prepared to answer any questions you might have.

>> Are there any -- I apologize -- are there any questions from the dais? Did you have a question? Mayor pro tem tovo?

>> Tovo: What do you contemplate in terms of a timeline for those contracts, beyond an extent of time? Earlier, Ms. Cooper talked about, as I understood it, the difference between extending them and actually entering into a new contract, based on a new rate structure, which would require probably looking at the cost of service again, so do you have a sense at this point of what those contracts would be in terms of the length?

>> Well, what we're contemplating is -- is, we have some -- as you know, some time we need to spend in closed session with council on all of the details, but --

>> Tovo: I'm happy to talk about them there if that's more appropriate.

>> That would be better.

>> Tovo: Okay. Mayor?

>> Mayor Adler: I guess to put it into context, we have an executive session that's set for our council

meeting. The city council meeting gets called at 11:00. We could, depending on how people want to work schedule for the council meeting, we could start at 11:00 with an executive session on this issue if that's what council wanted to do. But when we go into exec session, I think it's item number 49 and 50 that relate to these contracts. I think generally we have a public hearing that's going to be held on may 7th, and at the may 7th meeting, prior to that point we need to post whatever the recommendation is that will be up for first reading on may 7th. We obviously have contracts that are expiring at the end of may, so there is -- we have to work something -- we have to work something out.

[9:48:29 AM]

The framework generally for that takes into account that the large users that we have in the city are good for the city economically, they're good partners, they do a lot of things that benefit the community; at the same time, the community does a lot of things that benefit them. This is a wonderful place to live. And the conversations that I've had with these, as I'm sure you've had with these same folks, these folks are willing to pay a people in order to live in Austin and be in Austin and participate in the values that the city has as reflected in how we operate our own owned utility. We have been in conversations, not only us with our voters, as we went through the last election, but as you know, more recently with the legislators up at the legislature, concerning some challenges that they have raised. And that would include senator Frasier, also representative workman, but concerns as well raised by senator Watson and senator zaffirini, all part of our Austin delegation. And as part of our Austin delegation and with shared constituents and voters and residents, they all recognize the difficult challenges and trade-offs that we face as we govern the Austin energy, and they recognize those challenges, but have been pushing us to deal head-on with some of the challenges that have been lingering and have been coming back in conversations. Those include working out some kind of deal with the big users, and certainly available to us is the opportunity with some to do a short extension while we do the kind of work that mayor pro tem just mentioned, or to have a larger conversation.

[9:50:34 AM]

But it also includes us dealing with head-on, not in this short time frame, but us not -- pushing down the road but actually dealing with how we do, for example, transfers. You know, there's some support for us taking a look at a cps type model. Cps is the power company in San Antonio. I don't know what the initials stand for. But the cps in San Antonio, where they handle their transfers in two parts. Now, the first part is as the owner of the power company, which we are, we're entitled to a passive investment return, by way of a dividend or whatever you would call that payment, just because we own the company. The taxpayers and the citizens of Austin own that asset and are entitled to a return because we have that. And that's without regard to us doing anything or providing any services. We're just entitled to that because we own the company. And then there's the second kind of payment that we could get from Austin energy that cps does where there's a recovery of direct expenses. These would be for expenses that the power company, Austin energy, that department would incur, whether it incurred those expenses with other departments in the city of Austin or whether it went out to the open market and contracted third parties in order to be able to obtain that. And I think the suggestion to us, as we look at this, not only from the legislators but also from -- I'm sure you all had the same questions I had and concerns, when we were campaigning over the last year, is to bring more in line the expenses that we're paying in that second category to direct expenses that are being incurred that would otherwise need to be paid. So we need to take a look at moving, I think, toward that kind of system where we have those two buckets of revenue that would be coming to the taxpayers, to the citizens of the city of Austin.

[9:52:42 AM]

And we can discuss those in relation to these contract negotiations, and then -- and then thereafter. And I think what's set for our executive session is the most immediate question of what do we need to do in order to be able to move past the end of the month when the contracts -- when all the contracts have expired, but for us then to begin the broader conversation because they all relate.

>> Thank you, mayor. Any other questions? No? Okay. Thank you.

>> Okay. I'm going to turn this over now to a presentation on our energy markets and resource plan review, and Cleo she will be will be doing that.

>> Thank you. This is item 5 on our agenda, it's a briefing and discussion regarding energy market fundamentals and resource planning, including the Austin energy resource generation and climate protection plan to 2025.

>> As Cleo is stepping up here, I just wanted to have a couple of members. I'm the chief operating officer of Austin energy. We're going to review the fundamentals of the wholesale energy market, operated by the electric reliability of Texas, or ERCOT, and our 2025 generation resource plan. It's essential that we provide you this information, and you need to know about these two issues because it represents one-third to one-half of our customers' bills. Each month, they pay for the energy portion of cost in the PSA, and that's the power supply adjustment for most of our customers. Some of our customers pay that through their fuel or their fuel adjustment clause, and those are the customers currently on the long-term contract. But how well we do in that wholesale energy market really reflects the costs that customers see.

[9:54:49 AM]

So at Austin energy, our job in this market is twofold. First of all, it's to secure for our customers the most affordable outcomes for energy that we can. But, second, we also have a goal to provide about twice as much renewable energy into that market as the market itself has. So our renewable energy exceeds 20%, the ERCOT market, about half of that. Historically, public power and Austin energy have been successful in providing predictable and fair prices to customers. We've owned and operated diverse portfolios that help manage the prediction presented by fuel costs, regulatory requirements, and operating capabilities of different generation technologies. Today, Austin energy still does that. But in addition, we have to factor in the market, and the vagaries of that market, a market where prices in the course of an hour can vary from \$27 per megawatt hour, to \$9,000 per megawatt hour, and return to \$27 a megawatt hour, all in a 60-minute span. That can happen in our market. We're going to provide a lot of graphs and data, but you need to keep in mind, the more revenue Austin can earn from the market, the less revenue or less cost we have to collect from our customers. That means that being there to serve the market when the market needs power is important, especially when prices are at a premium. Earning revenue above our operating costs keeps our PSA in check with others in the deregulated markets. Those revenues enable us to reduce the premium of our current renewable portfolio. We strongly exposures taking care to maintain a portfolio that meets both renewable and affordable goals at one time. So we're looking forward to the guidance that council can offer us to make sure that we maintain affordability and flexibility for the customers of Austin energy. Cleo is going to present to you.

[9:56:50 AM]

We're all available for questions.

>> Good morning, council. My I'm the vice president of energy market operations resource planning. Included in my duties is the market portion, but also strategic planning for the company and looking at technologies long-term for Austin energy, such as storage and whatnot. And today I have a presentation that the good staff of Austin energy put together. It focuses mostly on energy markets, and then dovetails into our resource plan. Understanding the energy markets provides us with a basis for why we make decisions in the resource plan. And I look forward to coming back with a more detailed presentation at some point, to simply focus on the resource plan and how we came up with these decisions. This slide is really for your reference, so we start with a broader market and call it the ercot market. So this is a market we operate in. The ercot market covers 90% of Texas, and I'm not going to go through all the statistics, but I will say that in the United States, there are several markets, the largest one is called pjm, it's Pennsylvania, Maryland, and a few other states. New York is a single state market as well. It's called New York iso, then new England has a market as well, and California. The only place that really doesn't have any sort of market trading is really in the southeast. That's where the traditional utility model still exists, and costs of service rate-making still exist. Okay. So what's happened in what we call the ercot market? Before 2010, there was a market, but it was different. It was based on what we call Zones, zone zonal market.

[9:58:55 AM]

There's price transparency, but it wasn't at the fidelity we see right now. In 2010, this changed. The ercot market went to something akin more to what the other markets in the northeast have, and that's called a nodal market. And the reason we call it a nodal market is now the pricing is at every single electrical -- major electrical bus in the Texas, or in the ercot market. It wasn't by these big Zones. Another change that was made, and that was just a little bit before 2010, is, utilities were no longer responsible for what we call resource adequacy. What that means is, you're no longer responsible to provide the load within your load-serving area. So prior to 2010, Austin energy operated and made decisions for long-term capital, really based on our load curve. Right? So if we -- we thought our peak was going to be 3,000 megawatts, then we planned to have that gap done, 3,000 megawatts, plus some reserves. The reserves are typically about 15% of peak load. That is no longer the case. As a matter of fact, right now we don't have enough generation to meet our peak load. We are short right now, from a capacity standpoint. And our Uc commissioner showed a graph that showed us actually above our load curve. And the reason that graph is above our load curve is because it's an energy graph, not a capacity graph. Okay? So we get into some -- some technicalities here. But if you -- if you don't take a single hour where you have to meet that load, that's capacity. But if you take all the energy you produce and just average it out, yeah, we're long from an energy standpoint. And that's, from our eyes, a little bit of a risky model. Right? And the reason that happens is because we have, right now, a lot of renewables. Mostly wind. And when wind blows on the off peak, we're long, we're above our load curve.

[10:01:05 AM]

So [lapse in audio] To 300 megawatts. And even though we don't try and meet our load, our load curve serves as sort of a pricing rule of thumb. Right? From a pricing standpoint, anytime we're longer than our load curve, then we may be selling at prices where we won't make money. Right? And when we're short, typically we're going to be in the money. So it just serves as a rule of thumb, but we don't meet it. We don't meet it right now. And the resource plan actually doesn't make any decisions, the resource plan that was presented, that has to do with meeting our load. And we will be short actually over the long-term from a capacity standpoint, and we will be very long from an energy standpoint. Okay. So now that we have a nodal market, we're not responsible for reliability, why do we want a new gas plant?

Why do we want deacker? It's purely economic. Right? The only reason we have generation right now is to sell that generation back in the market and make money, because the way we get energy for our customers is purely financial transaction. We go in the market and we buy the electricity, and if we didn't have any generation, we would still do that, we'd just buy a hundred percent of our electricity in what's called the realtime market today. We have the option to buy in day-ahead market tomorrow. But for the most part, we buy it off, a hundred percent. And all the renewal contracts we have, all the generation that we produce, nuclear, coal, gas, biomass, that's just sold for revenue. So it's almost like accounting now. That's what generation is. So in the future, if we make decisions about generation, whether renewable or fossil-based or renewable, it's purely economic in nature. The way we operate our plants right now is purely economic in nature. I'll give you an example. We used to run deacker plant to follow our load.

[10:03:07 AM]

Not long ago. Maybe ten years ago. So on many occasions, we'd be out of the money. We'd be losing money from a marginal standpoint on deacker because we're following our loads. We never do that now. Right? We only fire up deacker when it's going to make money for us, from a marginal standpoint. And as a matter of fact, sometimes we just sell it forward. We don't have it available. We have right now a 200 meg megawattcontract. Itwon'tbeavailabletousif price itwon'tbeavailabletousifpric itwon'tbeavailabletousifpriceswentonwemakethosekindofris kdecisionsonadailybasis. Wehaveabout eight years and economists, that's all they do. They run the model on a daily basis, they run the long-term model on a monthly basis, we have meetings and sit down and figure out what are we going to do with our assets, on a monthly basis, a yearly basis, then there's a resource plan which we involve all of you on, where we make these decisions on a ten-year basis. Okay? So that's what these folks do. So we have a couple of pictures here, kind of simplified pictures of what was and what is now. So this is what was. And by the way, nothing changed physically. This is just from a financial standpoint. So the financial standpoint kind of looked like this, you generate, transmit, and load. And those how reoperated our plants, that's how we made decisions to build our plants. Now it looks like this. So we buy everything from the market, big seed, we buy everything from the market and sell everything back into the market. It's P and L. That variable charge that you see on the bill, that's exactly that, that's what the variable charge is. It's the cost of power that we buy from the market, and we net out our profits and losses of our generation, both renewable and fossil out of that. And what you see in the bill in the variable charge is that, is the net of that.

[10:05:09 AM]

Okay. Let's go on to a few more concepts. And I know there's been a lot of words kind of put around, levellized cost, this and that. So I try to distill down four concepts that seem to keep coming up. One is cost and revenue. So how do we figure out the cost of our resources and how do we get revenue? Now, when we do have resources, we have options. We can either rent it or we can own it. Where we are in the ERCOT market matters. Location does matter. So the closer you are to what we call our load zone -- I have some charts later to show that -- the more value that generation has. And also, how the generator reacts in the market is important; can you control it or is it intermittent? Okay? So let's start with the first concept, which is cost. And, you know, this concept of levellized cost, it's actually not a very complicated idea. Levellized cost is just the rolled-in cost of everything, capital, o&m, so if everything that would cost you to own a resource were all rolled up, and you were to pay it over 30 years, that's your levellized cost. And as the mayor said, there's another component to that, in that there's revenue as well. So when we talk about levellized costs we can't divorce that from the concept of revenue. Okay?

So I have a chart up here. On the left-hand side, dispatchable technologies, on the right-hand side, non-dispatchable technologies. Right? The red part is your levelized costs. That's what's going to cost us. As you can see, some dispatchable technologies are much more costly than the non-dispatchable technologies. That's what a lot of our stakeholders say. It's just cheaper. It's cheaper to buy renewables. Right? On the flip side, from a revenue standpoint, you see that's a little bit different. For the most part.

[10:07:09 AM]

Dispatchable technologies right now make more. In the future, as markets change, as technologies change, who knows? But from what we see right now there's a lot more valuable in being able to dispatch from a revenue standpoint, dispatch your asset and make money. So what's the true value now of a resource? And let's compare the two that we've been comparing really in our portfolio --

>> Mayor Adler: Can you stop for just one second?

>> Sure.

>> Mayor Adler: Why does some make more money than others?

>> Sir, I have charts that shows why after this. Okay? So let's compare two resources, and these are the two resources we're sort of struggling with right now as a group. Right? The new combined -- gas combined cycle that we're proposing at Decker, and the utility scale will take the type of resource that we contracted for in west Texas last year, and we propose to have an additional 600 of that over the next ten years in the resource plan. So if you were to compare the two, over 30 years, right now, if you net out the green from the red, the gas combined cycle is expected to make \$9.40 -- 47 cents, and the utility scale solar is expected to lose a moderate amount of money, \$2.75. And that could change over time. Okay. Why? So mostly the reason why is that you can control the output of dispatchable technologies. That's the reason why. So this graph is busy, so the blue bars are production. They're megawatts. This is just how much output this -- and this is solar. Right? So the production models, Weberville, which is the so -- the solar plant close by here, this is how much output we're getting from that plant.

[10:09:10 AM]

The red bar is pricing. So all we're trying to do here is show the matching of output to price. As you can see here from a peak standpoint -- and this is actual data, this is summer peak in August 7th, 2013 -- from a peak standpoint, you know, it matched up pretty well, actually. It's on a decline by 4 o'clock, 5 o'clock in the afternoon, but that's when peak prices came up. So it matched up pretty well. But it also, earlier in the day, it wasn't matching up at all. So if you look at the price, and we have the price of the utility scale solar that we signed around \$50, that's the blue line up there, anytime that blue line is above the red line, we're losing money by that margin. So about 40 bucks, or \$35 there. Anytime the red line is above the blue line, we're making money, and that's that little hump right there during peak hours. So from that standpoint, we made money on peak, but there were a lot of hours where we were losing money as well. Okay. So I have several of these slides, just so you can sort of see. This is a winter peak. Right? Peaks don't only happen in the summer anymore. And this is sort of a thing in the ERCOT market. It's a very volatile pricing market because it's only driven by energy prices. There's other markets in the northeast that stabilize their prices a little bit through capacity. There's a capacity market too so people recover their capital costs for a different type of market. So our pricing here is quite volatile. So this is an actual winter peak. Right? So it got really cold on January 6, 2014, and some resources got caught off guard, some fossil dispatched resources were out, wind wasn't blowing that day. Because wind affects a lot of pricing in ERCOT, and that's where the peak happened. Our Weberville plant was cloudy, it wasn't producing anything. Right?

[10:11:10 AM]

So the pricing that day went up to 4,20. That day, we were able to fire up some of our generation and from a load standpoint, we didn't pay that price. We netted out against that price with the revenue we made from our plants. Let's look at wind. Kind of the same thing. Right? So wind blows mostly on the off peak. Early in the morning, that's when the megawatts are. If you look at the latest contracts, the blue line, we have contracts that are at the green line, but the latest contracts -- you know, even on the off peak, they're doing fairly well. So in those contracts for wind are for the most part profitable these days. The older contracts, that's what you see in the psa, in the 8 \$0 million loss we show from time to time, that's mostly older contracts for wind. But newer contracts, for the most part, we're illusion a little bit on the off peak, but not making too much on peak. It's not really blowing on peak at that point. Again, that's a story of revenue, another -- this is a winter peak for wind. Again, you can see that the production and the pricing doesn't really match up. Here's a little kind of cartoon that we show. So we took a 600-megawatt solar plant and 600-megawatt gas combined plant, so that's the next slide I'm going to show. We just kind of want to show what happens throughout the day from a research standpoint. So production begins around 7 o'clock in the morning. It's going to peak right around here, starts to taper off, and as the sun goes down, you're pretty much done. Then you have to wait all night until the production starts again. From a daily standpoint, you made about \$14,000.

[10:13:11 AM]

As prices go up, this is price driven, not driven by the sun, as prices go up, production ramps up, the production stays high all the way through 5 o'clock in the afternoon. Prices moderate at night so you start to see production tapering off at night. Still pretty high after 7:00. Then we start the cycle all over again. Net revenue, \$115,000 on that date. So let's take those two plants, back-cast them against real pricing, 2011, 2012, 2013, and when we did this chart, we only had some of 2014. And these are in millions of dollars. So let's look at the columns. We have the net operating revenue -- right? -- For solar, and net operating revenue for the gas combined cycle. We have the debt service and o&m -- for solar, it's zero because it's rolled into the contract. It's rolled into that ppa, so we don't pay anything more than the price. For the gas combined cycle, we're assuming ownership here so there's a debt service payment and fixed o&m that we have to pay as well. Right? So if you go down, 2011 was an unusually hot year, so both plants made quite a bit of money, \$64 million for solar, \$132 million for gas combined cycle. That motors in 2012, 2013, and 2014. For the most part, the solar plant is losing money at that point, and it got hotter as it went along so it lost less and less money as it went along. The gas combined cycle made money, not \$132 million, but made in the 20s right there. Add all that up, and the solar plant over that four years made \$19 million. The gas combined cycle made \$206 million, net affixed cost, \$148 million. So the gas combined cycle made 58, versus 19. Now, a lot of folks have said 2011, abhorrent year, take it out.

[10:15:15 AM]

I would argue that's not a construct -- why did we go back to 2011? That's when nodal started. We would have gone back further. I would argue, never take out a year. 2011 is around the corner. Right? It could be 2016, it could be 2017, but I don't see anybody arguing with me that we're not going to have another really hot year where we're going to be using all our resources in order to make money in the market. But let's take it out. Let's just look at -- so both resources struggled in the last three years. The solar plant was negative \$45 million, and the gas combined cycle was negative \$32 million. Okay? So

they both lost money in the last three years. Now, another -- and this is including fixed costs. So here's -- here's another issue we're struggling with. How do you compare costs? Is a ppa payment the same as a total rolled-in payment for an owned asset? Whether it's solar or gas combined cycle, it doesn't matter; is it the same? And I would argue, it's not. It's like renting an apartment versus owning a house. Okay? So you can pay over the long-term -- and this is a graph. This is net cash flow. So the higher up you are on the graph, the better. So the blue line is an owned asset. This is gas combined cycle. And as we showed in the levelized cost, it makes a little bit more money than solar. The ppa for, net cash flow is negative, and at some point as market prices go up 2024 or so, we expect the plant to start making money. Over 20 years, on a net basis, that utility scale solar plant is going to make money. Overall, it's a little bit less than the gas combined cycle. But here's the ppa versus ownership thing. Eventually in 30 years you retire the debt and net cash flow just jumps. Okay? Because I just own the asset now.

[10:17:17 AM]

And fixed costs really go down. So I would argue they're not comparable. It's something to look at, but it's not something where you go, okay, this is this much, this is this much, so I just take this. Let's talk a little bit more about ppas.

>> Excuse me. If we could just stop just for a second, I think councilmember pool had a question.

>> Should I go back on slide?

>> Pool: Go back to slide 8, if you might.

>> Go all the way. So on the cost that you have in here, it looks like you have the average cost for solar.

>> Yeah.

>> Pool: But the cost for gas is -- it looks like it's the lowest cost for gas.

>> This is -- so this is all kind of looking forward. This is our expectation over the next 30 years, of what the new technologies will cost.

>> Are you estimating --

>> It's also the lowest cost for solar that we expect over the long-term.

>> Pool: But where you're comparing the current cost for solar and gas, are you trying to find the same current cost or are you using averages for both of those?

>> These are 30-year averages.

>> Pool: Okay.

>> Levelized cost over 30 years.

>> Pool: And then on slide 15, just jump ahead to where you were previously, have you included the hedging costs in here?

>> We have not, and we'll talk about that a little bit later.

>> Pool: All right. Okay. Real quick, if you were to include the hedging costs in here, how would, for example, the solar at 19 and gas combined cycle at 58, how would that change?

>> I really cannot answer that question because hedging is extremely variable. There's no set number where you say I have a combined cycle plant and I'm going to spend this much money hedging. It all depends on the market that you have, what kind of gas contracts that you have, and so on. So maybe if we wait till that slide on hedging looks clean, our philosophy on hedging, which is pretty much in line with the utility industry, and why we hedge.

[10:19:26 AM]

>> Pool: Okay. But is it fair to say that that does insert an element of unpredictability into that -- that 58 figure?

>> Okay. So why don't we discuss hedging now.

>> Pool: Okay.

>> Because I think it's unfair to answer that --

>> Just a second. Before we jump into that, since that sounds like that's future -- I mean that's some of your presentation that's going to happen in just a bit, are there any other questions in what we've talked about so far?

>> This kind of ties into what councilmember pool asked about the hedging. It's a very interesting and collection subject, but hear me out on this. When we build solar plants, we make presumptions about weather patterns and cloud coverage that goes with data that could go back decades in time. So if you want to be fair about hedging, and a lot of people are suspecting we could have climate change, you might have to introduce hedging for how much cloud cover you're going to have in a solar plant in the next 10, 20, 30 years. Right? You could hedge on how much available sunshine you're going to have, because when those -- when the cloud coverage comes, you have a very dramatic drop in current produced by solar cell. Correct?

>> Correct. So when we hedge, we hedge every single resource that we have. Now, with a solar plant, it's hard to hedge the sun. There's no counterpart that we can pay. But the way we hedge solar is on the market side. Right? Because we have to sell it back into the market, and even though we have a fixed price, the market is volatile. Right? So for us, the risk of that solar contract, or any contract, is the net from the market. And if the market is always changing, that net is always change. So we hedge on the market side. So what I will talk about when we get to the hedging slide is, if we didn't own even one resource -- right? -- If we were more, you know, like an iou that is not allowed to own resources, our hedging costs would likely go up, not down. The reason for that is, we're still subject to the market, and at that point we would be hedging the market and we wouldn't be hedging gas for the resources that we use as a way to hedge the market.

[10:21:32 AM]

Right? So taking away gas plants isn't taking away all our dispatch able plants, isn't going to reduce hedging costs. The utility I did come from, they hedge about half of the portfolio, a huge amount. And it's a big deal. They have to go to the public service commission and justify their hedging costs. They didn't own any plants. Right? But they hedged the market because the market is volatile. So that's why we say, hedging is risk management. I would make the most money on the gas plan, theoretically, from a hedging standpoint, if I didn't hedge at all. Right? But my customers would not accept that because prices for gas can be volatile as well, and prices on the market can be volatile. So we accept a little bit of cost, our hedging costs are down to about five and a half percent of our portfolio, we accept that cost in order to moderate prices over the long-term, whether on the market side, gas side, or whatnot. I hope that answers the question.

>> So are there any other questions on what we've talked about so far? No?

>> Okay. I think I made my point --

>> Excuse me, mayor pro tem tovo had a question.

>> Tovo: I do have a few questions in looking back at the slide of costs that you presented to last year's generation planned task force, the costs for gas were a little lower, and I'm just wondering what accounts for that discrepancy.

>> We're showing cost for gas now that are a little lower?

>> Tovo: That are a little higher.

>> Now we're showing them higher. We updated our analysis. We update this on a continuous basis so whatever inputs we use -- and I didn't do the analysis -- kind of changes that a little bit, going forward. So maybe market prices over the long-term are a little bit lower, or -- I don't know. I can get you the answer, but it's probably just an updated inputs. This was done recently and the analysis was --

>> Tovo: That was a 30-year levelized cost.  
>> The 30 year levelized cost will change from month to month, depending on your assumptions.  
>> Tovo: Looking back at that chart, it talks about high costs and low costs, for example the advanced combined cycle is low cost 61 a 53, high cost of 91.38.

[10:23:41 AM]

So is that just dependent on the variability of the market?

>> The gas plant you buy, where you put it in, lots of things. So the price of gas. So we varied, in our analysis, we varied what we expect of the price of gas to be. So the levelized cross includes the revenue from the gas plant, that's affected by the market prices so could be as high as this and low as that.

>> Tovo: So in preparing the chart for us today -- well, you'll get us more information about how you arrived at that 64 --

>> Today we just showed an expected value. We didn't show ranges. Okay?

>> Tovo: And how did you determine an expected value? Just based on sort of where the market is right now and some assumptions about what kind of gas plant Austin energy would -- it seems like they're all -- there are lots of assumptions along the way, the gas plant, what the market is.

>> We do have statistical analysis and we'll get a profile and expect to value fiftieth percentile. All these Numbers can change either way. That's -- you know, that's the energy market.

>> Tovo: And then my question for you about the solar, you were talking a minute ago about solar costs. And is that -- and output. Were you referring to referring to weberville or other contractors. Contracts.

>> The only reason we say weberville, we have those Numbers. Here's weberville. This is better. Here's the prices, weberville is the purpose line while our new contract that we expect to be coming in 2016 is that blue line.

>> Tovo: But the production is higher with our -- with west Texas solar so we could expect the production to be higher. Isn't that correct?

>> Yes. It's a 150-megawatt plant versus 130-megawatt plant so it would be higher, yes.

[10:25:43 AM]

We expect the profile to be about the same. That's why we're using it. We have the actual profile. It's easy for us to do the analysis. West Texas moves a little bit this way, shift over for an hour. But it's why the revenues are what they are when it comes to non-special technologies.

>> Tovo: All right. Thanks.

>> Sure.

>> Any other questions? Thank you. If you could continue.

>> Sure. So we talked about ownership versus ppas. Those decisions are made when we get to the point where we want to buy something. Right? When it comes to renewable contracts, it was a lot better for Austin energy to sign ppas because we had tax advantages within those contracts that we can take advantage of, because we're not a tax-paying entity. So over the length of the contract, we took advantage of those tax credits and we signed a lot of ppas. If you look at the resource plan when it comes to 600 megawatts of solar, we envisioned signing maybe one more contract, but after the taxes expire at the end of 2016, we envisioned actually building solar plants and owning them. Right? Over the long-term, because at that point, when you don't have a tax advantage, our low cost of capital, we would be better off building those plants. Now, when you sign a lot of ppas, you're signing commitments. Right? So the green line is our present commitments, what we expect over the long-term. And as you can see, we've been busy. Our yearly payments right now in 2015, are \$200 million. In 2016, they'll rise. By the way, we just went commercial with two wind plants this week for 500 megawatts.

Okay? So we'll be making that announcement. And then those -- as we sign on more wind contracts in 2017-2018, we expect -- and the solar plant, we expect those costs to rise even more to the 250 million mark.

[10:27:50 AM]

If we were to take that 600-megawatt solar rfp that we put out and resign it, at whatever prices we expect, then our ppa costs would go up with the Orange line. So we'd be up above the \$300 million line. A long-term contract, lease payment, is akin to debt. Right? So what you can do is, you can take the net present value of that stream of payments, bring it back to the present, say I owe this, to a developer, and it's a contractual commitment. I cannot get out of that contractual commitment. And as a matter of fact, a lot of utilities, private utilities, do actually consolidate that as debt on their balance sheet. So if we look at the Normal value of the contracts we've signed, it's close to five billion dollars. If we bring it back to the present it's 2.2 billion. With the solar contract, it would go up to 2.893 to sign all meg Walmart I'm not saying we will do that, I'm just saying if we were, that's how much the equivalent debt would be from our standpoint. Somebody mentioned that our total debt -- I think councilmember troxclair, is about \$1.2 billion. That's what it is for Normal debt that we issue for wires and pipes and power plants. And last evaluation was about three billion, three and a half billion. So you can sort of add those Numbers you be, and as you can see, our debt and commitments right now outstrip our net asset value. Now, we don't think it's a problem right now, but it's something to look at. Right? We would much rather own assets, issue debt, have them on our balance sheet, and own them for the citizens of Austin, than have ppa commitments. And those ppa commitments are probably a model from the past, if they don't extend those tax advantages, if congress doesn't extend those tax advantages. Okay. Last concept, before we move into hedging, we said proximity is important, and we throw out this term called load zone.

[10:29:55 AM]

All load zone means is that's where our meter demand is. Right? So that's where we buy our energy for our customers and ercot meters are demand. For the most part, most of the energy that we buy in Austin is imported. Right? For the most part. And it's imported over transmission lines. Ten years ago, we used to produce a lot more. Decker used to run a lot more. But now, we import most of our energy. And transmission lines have a certain amount of capacity. And when the load in Austin goes up, and load in the rest of Texas goes up, there are points where Austin's load sort of outstrips the transmission capacity that we have internally in our area. When that happens, supply and demand, prices go up in Austin. And they'll go up relatively more than the rest of Texas. So we will -- austinites, when we have a lot of congestion, may be paying more for energy than anywhere else in Texas. The same thing happens down in Houston and Dallas, in these big load centers; right? You'll have this kind of congestion. Right now, if you look at your ercot app on your phone, you'll see -- any one of you, after this presentation, all you guys will be very interested in energy, you'll download your ercot app, and you'll see that the prices, when I last looked, were \$24.20, in every single part of ercot, or Texas. Right? You don't see that in any other market. That just doesn't happen, that you have not even a penny of congestion of price difference, anywhere in the market. And we see this all the time in Texas. The reason for that is, we enforced as a state in eight billion dollars in transmission, and then we socialize that, that part of our psa, that regulatory charge, is our share of the eight billion dollars. Now, that was really great for Austin energy because we invested in a lot of wind plants, and we can import that wind into Austin from a price standpoint with no congestion costs, most hours.

[10:32:03 AM]

Okay? So what happens when you have congestion and prices higher than some other areas of Texas? What we do, if the price is high enough, we fire up local generation. When we fire up local generation, like Decker and San Hill, I think we fired up -- prices are coming up, so we fired up San Hill today. It's coming up online. When we do that, supply and demand, we now moderate prices back in our area because now we injected more electricity in our area. So that value that we're talking about, that load zone value, doesn't show up on accounting statement for Decker and San Hill. It shows up on the bill for the customer. It shows up as a cost reduction for the customer. But Decker's load zone value is not on the P & L. All you see on the P & L for Decker is what it costs to run Decker, fix and own them, and the revenue it makes directly from the market. You don't see that load zone benefit on Decker's P and L, but all the customers benefit every time we put out Decker. Prices go down, even goes down a dollar, goes down a dollar for every single bill here in Austin. So if we were to look at the effect of this, if you were to keep Decker running over the long-term, we expect prices, in dollar per megawatt hour, to be that green line. We don't expect to run Decker that long, but if you were, that is where prices would be. Now, if you were to retire Decker without replacement, the red line is where prices will be, on the average. This is just averages. Right? So that value is about \$66 million a year. That doesn't appear on Decker's P & L, like I said. Now, if we were to take Decker and replace it with a combined cycle plant, we would come back to the green line. Right? That's a planned new ccgt. And that's why we talk about, you know, not only is it important to have a gas plant, it's important to have it in our load zone.

[10:34:06 AM]

Hedging. So re- -- so we hedge a lot of ways. Any questions?

>> I have one quick question. Can you go back to the map with Decker?

>> Sure.

>> Can you explain to us -- I know having it close to our load zone is important but does it matter if it's inside of it or just outside of it like in the case of Sand Hill?

>> It's really determined by how they constructed the transmission. Way back when, we constructed most of this transmission, it was sort of built around his power plants. That was the model, big power plants, big transmission. So if you go to the Decker point, not only do you see a big power plant, you also see a big substation, and that substation was designed because the power plant was there, and that's where most of the transmission comes in. So it's not coincidental that the boundary for the load zone happens to be sort of where the power plants are. So when you have transmission congestion, it just happens to be at the boundary of the power plants because that's where kind of the transmission was built. And congestion, for the most part, comes from transmission.

>> Casar: So does it matter for the economics of Austin energy whether Sand Hill is just on the edge of that boundary, inside or outside?

>> Well, Sand Hill already exists so it's not going to move, but does it -- so if it would move, the transmission would move with it, and I don't think that our congestion would change.

>> Hi. I'm Elainea Ball. I'm vice president of power production, I'm responsible for thermal assets. He perfectly described the electrical connection and how the load zone is constructed. When we did our modeling, we actually looked at access to transmission and the congestion differences between Sand Hill and Decker. We did see about -- I believe about seven million dollars as additional benefit at Decker. Really, it just comes down to how many transmission lines come in and out of those substations adjacent to the plant. So Decker has, by far, more transmission access than Sand Hill. So it is an advantageous site.

[10:36:09 AM]

However, both sites are beneficial, from a cost control perspective, being close to Austin.

>> Casar: Okay. Thank you.

>> I know there were some questions on this side, but this side has been really silent, so any questions? Anyone that hasn't asked? Councilmember Zimmerman?

>> Zimmerman: Thank you. I'll appreciate it if you put this up quickly, because I think this point needs to be emphasized a little bit more, about the fact that you have power production sites, right, all over the state of Texas in the ERCOT grid. But just because one of those plants has access capacity that it would like to put into the grid and sell to Austin, it can't get there. So this little simplistic diagram would kind of live with the impression, oh, well, I can have any power plant, anywhere in the state of Texas, turn it on, magically, power shows up in Austin, and that's not the way physics works. And it's complicated. You're constrained by the capacity of your electrical wires that comprise this grid. And it's just real hard to condense that idea in a simplistic form, but the idea of congestion, I can have power available somewhere in the state, and I simply cannot push it through the grid to get it where it's needed. Okay?

>> Thank you.

>> That's a good description.

>> Mayor pro tem Tovo I think had a question.

>> Tovo: I do. Thanks. Just to go back to the levelized crosses again, the levelized cost chart.

>> This one?

>> Tovo: I may have a lot more questions after today, too, but these are just the ones that are on my mind right now. Does that include costs for water use with the gas plants?

>> I don't think so, but the costs for water are a minimal part --

>> I think that it probably does because it includes all the O&M and fuel and capital costs. So water cost would be part of the O&M expense of the plant like it is at Decker and Sand Hill.

>> Okay. Thank you.

>> Any other questions at this point?

[10:38:09 AM]

Okay. Please.

>> Okay. So we'll go to hedging. Or we'll go to -- I like to call it risk management, not hedging. Okay. So we manage risks different ways. Portfolio diversity -- and I think by now you get an idea of what the diversity portfolio does for us. Right? It provides both assets that have possibly high cost, high benefits, low costs, high benefits or low benefits, but it's all different profiles of costs and benefits. And our job at Austin Energy is, from an operations standpoint, and a capital investment standpoint, to balance those risks for the best, you know, value for our customers. Another concept that we always take in mind is that when we're buying into a technology, how mature is it? Solar prices have been very, very exciting. Right? They've been going down, and Joup feels it's going to be \$40 a megawatt hour in the next contract. I hope he's right. I don't know what the prices are going to be. But the point is that what we feel we should be doing, when we're buying into a technology that's declining in price, you make graduated commitments. Right? Because you will end up with buyer's remorse, if you're buying something at \$50 and five years later it's \$30, when you could have just waited two years and accrued all that value back to your customers. Ownership offers long-term value. We talked about this PPA versus ownership, so that's part of our risk management as well. Our power plants aren't the only thing that provides moderate prices locally. DSM, distributor generation, local solar, all of that moderates prices, but it's -- moderates prices, but it's a matter of scale. A 500-megawatt plant is a big plant, can generate a lot of power quickly. That's the only difference. Then storage technologies continue to evolve. We're

heavily evolved in that. We're going to be in our budget proposing a couple of storage projects that we're going to be doing, very shortly, in the next couple.

[10:40:11 AM]

Years. So we're very excited about storage technology coming into the future. So let's look a little bit about why we manage risks. Here's a chart from last year. These are the prices in ERCOT last year. So this is market price. This has nothing to do with gas, has nothing to do with owning generation, these are the prices. As you can see, the prices are very volatile. Most of the time, the prices are below \$30. Right? Or below \$50, we show up there. And as the price goes up, there's fewer and fewer -- and these are 15-minute increments. That's why the Numbers are so high, because we buy energy in 15-minute increments. So as the price goes up, there's fewer and fewer intervals where the price hits those price markers. But as you can see, it's pretty volatile. Ignoring those phenomenal 5000-plus prices, if you look down at the thousand scale, there's quite a few intervals where the price, you know, went up both 500 bucks, a thousand bucks, pretty volatile market. If I told you that every single day you drive your car, it's going to cost you about two or three bucks a gallon, but some day -- I'm not going to tell you which day -- maybe one, maybe two, maybe three days, it's going to be a thousand dollars a gallon. And that's the day you're going to be on empty. Right? What would you do? I mean, I would carry a gas tank in my trunk. It's probably illegal, but that's probably what I would do if, you know, I knew that one day I'm going to have to pay \$2,000 or more for gas, just to get home. And that's what hedging is all about. So if I didn't hedge at all, my cost over the long-term would be lower than if I hedged. But then I would be subject, here and there, every now and then, to huge price spikes. And by the way, those price spikes, it's not just a matter of, okay, what's the long-term cost, it's a matter of cash flow for us.

[10:42:14 AM]

You know, if the prices go up to \$9,000 and hang there for a couple of hours, we're talking about a 16-million-dollar payment that day. Right? So it can be very expensive and we may be cut short on cash at that point.

>> I have a quick question.

>> Go ahead.

>> We had a presentation yesterday -- I'm just trying to understand concepts at this point.

>> Yeah.

>> Yesterday, it was an economic forecast, and we got Numbers and the volatility of some Numbers. And in his business, you smoothed those out so that you can have a better sense of trends, and that smoothing the spikes is part of the work that he does. Is that also a concept that is used in this industry? And if so, is that in order to smooth the spikes? Or is it that you still have to purchase at this high -- why would -- why would your continuum not be smoothed in the way that another economic forecast might be?

>> So, yeah, that's not the price we paid because we smooth our prices.

>> Okay.

>> So we have hedging contracts on both the market side and the gas side that wouldn't subject us to this kind of volatility. Right? And also, our power plants, when we see that prices go up, we just fire them up and we bring prices back down. Right? So we have several tools at our disposal in order to moderate our prices. This is just what the market looks like. I'm just showing -- this is the ERCOT market. This is what we're subject to on the buy side and what we're trying to manage on a daily basis. Okay. Same sort of chart. This is a different year, but this was the this is, I think, in 2011, but I think this is what you're talking about, councilmember pool. The market is the blue.

[10:44:14 AM]

Right? From a dollar standpoint. If we had paid the market without any hedging, that's what we would have been subject to. You know, it went up -- and this is over several months, \$250 million at that point. And those are averages. What we actually paid, because of our generation and because of our hedging, we paid the green. But if you did math, over many years, the green may be higher than the blue on the average. But from an instantaneous standpoint, we smooth out the prices and take that premium, the insurance, really, we take that premium in order to smooth out prices and cash payments back to ERCOT. I'm going to switch to resource planning, so if there's any more questions on sort of the market fundamentals that we've been talking about, I'll entertain them now before I move on. Okay. I guess not. So resource planning. First from a process point of view, simplified chart, we set general direction, and that's council telling us, you know, these are your renewable goals, these are your affordability goals. Work within those ditches. Okay? So we take those. Council gives us general direction, and we start a resource planning process. The resource planning I don't see involves stakeholders. We had public forums, people came and talked to us. We talked to people in private. We talked to all our survey basis. We survey our customers, do phone surveys and say what would you do? How much would you pay for renewables? So we take a lot of input, then we start doing a little bit of math or a lot of math, and come up with what we call a resource plan. The resource plan is a way to come up with decisions over the long-term. Right? It's not set in stone in any way. It's not -- and it's going to change year to year, as the market changes and as technology changes. So we are, right now, I would say in the second box, maybe the third box, depending on how much this council has, you know, digested and bought into our resource plan that was approved with the last council.

[10:46:24 AM]

We're somewhere between the second and third box. Right? So in the third box, we start pursuing generation. Right? So we issue the RFP for solar. That's a way to pursue generation. We have this study for the gas plant to ensure ourselves that we're making a good investment, but if that study comes back and the council approves the gas plant, we would go into development mode, and that would be the third box. Right? From there, we actually implement decisions. And the way we implement decisions is we bring an RCA to council. So what I'm trying to say is, you have many, many bites of the apple. Just because one thing is approved, it doesn't mean it's going to happen. There's, you know, many, many stopgaps which council has input and approval until we finally actually break ground on the project. Then we do it every two years. I just wanted to show, from a resource planning perspective, that it was very comprehensive. We actually took eight broad scenarios, which constituted about 30 plans, and we ran about 210 sensitivities. Right? And those sensitivities were statistical in nature, so we ran into 2000 different statistical analysis, a Monte Carlo analysis. It was a very thorough analysis. And these eight broad scenarios reflected what our council members and our stakeholders wanted. Okay? So, you know - - and we said at the beginning of the resource plan, we will study anything you'd like. Okay? That's what resource planning is about. So when we did that, when we did the eight broad scenarios, this is sort of a picture of the 30 different runs that we did. And each one of these runs has sensitivities around them. So let's look at what happened here. The zero mark is that dash line. So if we were to do nothing except continue with what we have as generation, and just meet our 20 -- our original goals, the 2020 goals, we would be at the zero point. So this is a relative analysis to the base case, which is just 2020.

[10:48:27 AM]

And as you go to the right, those are costs that you incur if you were to make decisions. And as you go to the left, those are plans that we actually make money for the city of Austin and for the utility if we were to make those decisions. Right? Now, the 500 plus plan, which has, you know, up to 950 megawatts of solar, another 400 megawatts of wind, the 500-megawatt plant is that green bar. We had plans that made even more money, but you would have to accept even more capital and operating risk. Okay? So we settled sort of on the green line -- on the green plan. If you were to go to the right, none of the ones on the right actually build new generation, and they all retire generation. There's one exception, which is those two yellow bars. We added just a little bit of generation, some simple cycles. Those were special runs that we ran for the club after the fact. But as you go to the right, those are the incremental decisions you would make. You would retire the fleet. Right? So you would incrementally start losing money from the base case, if you were to add storage, not local storage but a big storage plant out in west Texas, you would lose a little bit more money, then the dsm costs you would lose incrementally more money. Now, if you go to the left, and all the ones on the left have some sort of generation replacement, so it retires decker and also builds a 500-megawatt plant, and depending on what else you add in there, those make incrementally more money. So this is what we presented to council the last time, and maybe if we want to, we can go over this in more detail. But we just wanted to show that this was a very comprehensive analysis. It took into account many, many analyses and many, many questions that were answered. This is a 500 plus plan.

[10:50:28 AM]

This is a chart we showed the last council as sort of a marker of affordability. So this zero line is not zero, this is two percent. Right? So we wanted to see if we were to do the 500 plus plan, how far above or below the two percent increase in cost we would be over the long-term. Okay? And this is kind of -- and this is expected value. There's ranges to this, depending what happens in the market, but this is what we expect would happen. Initially, our capital costs, our capital dollars, in order to retire, decommission decker and build a plant, would violate the affordability metric a little bit. What we said at the time, if we do reach that decision, we would just defer other capital to stay under the two percent mark. But if we just take our plan as is, if we were to do what we were going to do our initial out lay of cash would be above two percent, but as the revenues from the 500-megawatt plan starts coming in, that's when we see ourselves going quite a bit below the two percent marker. Any questions on this? No? Okay. I just start to close out this presentation, I want to compare the 2020 plan to say 2025 plan. Then we did a little bit of benchmarking as to where we were. It was very important for the previous council, and probably for this council, to sort of be on the leading edge when it came to environmental awareness and conservation. So we did a little bit of benchmarking, of where does this 500 plus plan put us in 2025? So from percent renewable, we went from 35 percent to 55%, a very large increase. We're pretty much higher than any major country, state, city out there, at the 55% mark. From a solar perspective -- I don't know -- if you go back to that ERCOT chart, there's only about 180 megawatts of solar in all of ERCOT.

[10:52:28 AM]

Right? I mean, we would just be many multiples of that by 2025. If we were state, we would rank second to California when it comes to owning solar. Wind, we'd be at 1575. We'd have 14% of the share of the Texas wind market. We're only four percent in the market. DSM would go up to 900 megawatts. That extra hundred megawatts would cover three years of peak demand growth. We made commitments to retire fossil fuel plants that we didn't have in the 2020 plan; right? That was proposed by Austin energy on the first day that we did our public stakeholder meetings, that we were going to retire the decker

plant because it was getting to the plant where it was inefficient by 2019. That was a proposal by Austin energy. So the 2025 plan also envisions the beginning of retirement of fpp in 2022. We need cash to do that in order to pay off the debt. That's why it's 2022. Storage, we've committed to 30 megawatts. Maybe we'll get more, maybe we'll get less, but that's our initial proposal and we feel that's going to be very beneficial for our customers over the next ten years. So in closing, the Texas energy market is dynamic and competitive. You know, we're subject to that market. We don't operate just in the city of Austin, we operate in that market. We look for portfolio diversity. We look at whether we own or rent our resources. We look for graduated commitments, we want a flexible and adaptable type of portfolio, and we use revenues from sales to support our goals. We've used solar and gases complementary. This is not solar against gas or solar, not gas. We view them right now as gas as a bridge that enables us eventually to be a hundred percent renewable or however -- and that's carbon free. But right now, we don't see us getting away from gas. We see that as a bridge, and that is in line with the rest of the industry.

[10:54:29 AM]

The EPA plan, as a matter of fact, the clean power plan, is all dependent on gas. Right? It's replacing coal plants with gas plants. There's an increase in renewables in there, but really, the crux of the EPA plan is about gas being a bridge technology to reduce carbon. We -- you know, we've been the leader in demand site management, and we're going to foray don't storage. We're excited about that. But at the end of the day, we're trying to balance risk, competitiveness and affordability. That's what resource planning is all about. So with that, I'll entertain any questions that you may have.

>> Any questions? Councilmember Zimmerman.

>> Zimmerman: That's a fantastic job, it's the best I've ever seen of trying to get an incredibly complex subject pretty comprehensively discussed. Back on your -- one of the slides, there was no mention of nuclear, and we still are getting nuclear power. Is there reason why that was left off the chart there?

>> You mean going forward? Or levelized costs? The levelized costs of nuclear doesn't look good, going forward. Because new nuclear plants will cost between eight and twelve billion dollars, and with gas prices this low, it's a lot of risks for a utility like us to invest in nuclear so we wouldn't even consider that right now.

>> Zimmerman: But which nuclear technology are we talking about? If we're talking about Fukushima and Three Mile Island, yes, but we have newer technologies that are fail-safe.

>> From a safety standpoint, the nuclear industry is -- you know, is the leading industry, and gets safer every year. And by the way, down at STP, we're doing modifications to that plant that came from sort of a Fukushima issue. But every time there's a nuclear issue, they all learn from each other and they make those modifications.

[10:56:32 AM]

But the costs of new nuclear, those new plants, those new Westinghouse plants are very expensive. There's one being built in New York right now and it's in the \$12 billion range right now.

>> Any other questions? I just -- I have a question on page 22, which was the benefits of a diverse portfolio. And I was glad that councilmember Pool brought up the question about the concern in the spiking, and it looks like that certainly up to this point, that Austin Energy has done a good job of trying to make -- have a plan that motors that to the best ability. And so looking forward to the future, what are the best tools that you can have to continue to be able to do this? Because it certainly, I think, is one of the best things that we can be doing for customers, to try to keep bills low.

>> Yeah. And you hit it just right. I mean the reason we have this whole group that Pat Sweeney runs,

and there's about 50 folks in that group, the reason we have that group is only for this, and it's to manage our risks over the long-term. So we have our own what we call qfc, which we have our own traders and we trade on a daily basis in the market. Right? And we have our own hedging and risk managers there that look at -- we're always in the market looking at counter parties, looking to buy energy contracts over the short and long-term, and we're looking at our own resources that provide that value, that green line, and how we dispatch those resources over that short-term. The philosophy of risk management doesn't change. It's going to remain how much do you want to invest in capital for power plants that do this for you. Because every decision that you make is not free. Right? So the power plants provide value, but you have to pay money and hold the operating risk yourself. Right?

[10:58:32 AM]

So those -- how much you go into owning your own generation versus contractual obligations, all that is done almost on a daily basis and monthly basis going forward. And where the market goes determines how much of a lean on one side versus another. So the tools remain the same, but, you know, what you invest in changes over time.

>> So looking forward, if you were to recommend to this policy group a route that would best enable us to continue to moderate those spikes for the advantage of our customer, what would that recommendation be?

>> Group.

>> I mean the major decision in front of council is really this 500-megawatt plant from a risk mitigation standpoint. Do we want to accept the fact that this plant will provide value over the long-term for our customers from a risk management standpoint and allow us breathing room as we increase our renewable goals over time? And that's really the major decision. Everything else, you know, we kind of do in house, when it comes to contracts and hedging, you know, and from a programmatic basis you approve it but we make the decisions day by day. Really your big decision is about this gas plant coming up and we have the consultant that's going to come on board and help us with the decision.

>> Gallo: Any other questions? Councilmember Houston.

>> Houston: Yes, thank you so much. That was a fascinating explanation.

>> Sure.

>> Houston: Most of that I didn't know. Maybe some of my colleagues did, but I didn't know we were hedging our -- have a hedge fund over there. So thank you. And it was very well done. So it was simple enough for me to understand and complicated enough for my colleague, don, to understand. So that tells you you did a great job.

>> Thank you.

>> Houston: But I think one of the things I need to say is since we have so many commercial customers in the audience today, is that the people in our communities are hurting, and whatever y'all can work out to help with that, reduce that load on people who don't have a working -- are working two and three jobs, trying to think their utility bills, struggling, as Mr. Cortez says, we must not forget them.

[11:00:54 AM]

So whatever we can work out on either side, I would certainly appreciate that.

>> I didn't though if you had a question about that or not. But I will say that one of the metrics we have to focus on is our power supply adjustment charge that all customers pay. That has all of it in there, and so all of the -- all of the cost management we do around power supply all hits there. It's netted out cost. It has the revenues in it, and it has the costs in it. So internally that's what I March to, is trying to make sure that we levelize that number, keep that number down. That's important for affordability.

>> Gallo: Thank you. Are there any other questions? Councilmember troxclair.  
>> Troxclair: First, I want to echo the praise that my other councilmembers have stated. That was an incredibly thorough, but concise and clear presentation on a really complicated issue. Great overview. Thank you. I was wondering on slide number 26, if we can go back to that. So you said the initial -- to 2017 spike was decommissioning of decker and building a new plant.  
>> Correct.  
>> Troxclair: What is the spike in 2021.  
>> I used to know every single spike on that chart when I presented it last year. I believe it's the retirement of fpp or -- no, it's -- what that is is the -- we start building solar plants at that point so we inject capital in order to build solar plants and that's the capital cost.  
>> Troxclair: Ongoing. Thank you.  
>> You're welcome.  
>> Gallo: Any other questions? And echoing once again, thank you so much for a presentation.  
>> You're welcome.  
>> Gallo: -- Of really complicated information that I think you laid out very clearly.

[11:02:56 AM]

>> Thank you.  
>> Gallo: And enabled us to begin to understand all of these complicated issues.  
>> I appreciate it. Thank you.  
>> Gallo: So does that complete agenda item 5 or do we have additional presentations?  
>> We're done with that.  
>> Gallo: Okay. So number six on the agenda was a discussion of possible action and it's listed as discussion of the Austin business energy model, the mayor addressed that briefly previously. Did we want to have any other discussion on that?  
>> Zimmerman: Maybe a quick question. I'm looking at slide 27 but we were talking about ways to mitigate costs, and if you look at the difference between the 2020 plan and the 2025 plan, maybe it's as obvious as what's on the parents but a way to mitigate costs and risk is to go back to the 2020 plan. I mean, I think the prior councils -- we've had this discussion a lot, as to how much the current council is bound by or cannot possibly consider making changes to what prior councils did, but I wanted to bring that up in public and say, you know, I don't think the current council should be bound to the 2025 plan, simply put, and I wanted to notify my colleagues. I'd love to go back and is have that discussion on whether we should be doing or remain committed to the 2025 plan.  
>> Troxclair: I guess I have a question on that. Following up on that statement, do we have an estimate of what the cost difference is overall between the two plans?  
>> I'm sorry. The question is?  
>> Troxclair: Do we have -- councilmember Zimmerman said that a way to mitigate costs would be to go back to the 2020 plan.  
>> Yes, the --  
>> Troxclair: Do we have overall cost estimates that compare the two plans?  
>> We do. We do have that.

[11:04:56 AM]

What I was looking for is do we have it in slide 25.  
>> We have the annualized, but it's -- we expect over the long-term to make about \$500 million in the 2025 plan over and above the 2020 plan. Most of that is revenues from the new combined cycle. So with

that, you know, you invest in the technology and there's always risks associated with that, but that's our expectation, that we invest in that plant and we go through the whole 2025 plan with additional solar. We would make an extra \$500 million over the next 20 years.

>> Zimmerman: Okay. But the point is a lot of people are opposed to the gas plant and a lot of people are saying they want the 2025 plan without the gas plant, which is impossible, but the way to get rid of the gas plant, right, would be to go back to the 2020 plan, right?

>> Yes and no. We can get rid of decker if we go back to -- the 2020 plan didn't envision retiring decker so decker would have to remain in place. If you retire decker you start going to the right on that chart. So it's yes and no. And eventually decker will be retired, whether we have a replacement or not and loads on cost will go up because decker is just getting older and that technology is -- it's 1950s technology, right? So it's been a great plant and it runs really well, but it's -- you know, we need to update our fleet. The new combined cycle is more than twice as efficient be, the new technology is much, much different, uses much less water, emits less nitrous oxides, much less CO2 per unit of energy produced, about a tenth of CO2. It's a much different type of technology going forward but you are incurring capital and operating risks of investing in it and you get a return on that. Not a guaranteed return but our expectation is a return of \$500 million over 20 years.

[11:07:00 AM]

I would just add that this council hasn't had a chance to review the previous resource plan that was approved by council. So maybe that's the opportunity, is to go through a detailed resource planning presentation so y'all can have input on it.

>> Gallo: That's probably a really good suggestion. Thank you. Are there anymore questions? Did we have -- want to -- councilmember tovo is.

>> Tovo: Just a comment. I appreciate that, I think it would be appropriate to have a briefing about the resource plan. I want to point out that was not a council-created plan done in a vacuum. That was a task force that included many very experienced, very knowledgeable members of the community, and it was a very incidence, compressed but very intense process with a lot of very skilled individuals, and so I think the work of that -- the work that group produced is really very sound and provides us with a good framework for moving forward as a utility and community. I hope we'll have an opportunity to really revisit it, hot to revisit it, but to really get an update about it and have an opportunity to talk about some of the goals that are expressed within it.

>> Gallo: All right. Thank you. Any other questions? And I can't remember if beneed a motion to adjourn a committee meeting or not. No? Okay. We're learning slowly. Thank you to everyone. Thank you to the presenters. It was great information to those in the audience that came specifically for this. And we will stand adjourned.

>> Mayor Adler: So it is -- we're going to go ahead. We're posted for the city council meeting at 11:00. I want to have a conversation about schedule with everyone.

[11:09:03 AM]

Do we have -- it makes it easy because our invocation as a moment of silence this morning so we don't have a scheduling issue there. So the question is if we called the council meeting to order, what do we want to do? We could call it to order and immediately go into executive session to -- while we were talking about Austin energy and then deal with that issue and then reconvene back out on the dais immediately? We could reconvene back out on the dais at 1:00. I'm thinking in terms of gnats we give to other people. Do people have a preference for what we're doing now? Ms. Houston?

>> Houston: We have citizens communications at noon, right?

>> Mayor Adler: Oh, that's right.

>> Houston: So we would -- I don't know how long executive session would take, but I'd rather goad and at least get it started, pause it five minutes to 12:00, do citizens communication, and if we need to go back we can go back.

>> Mayor Adler: Okay. My sense is we won't be that long in executive session, but I've said that before.  
[Laughter]

>> Mayor Adler: Ms. Tovo.

>> Tovo: This may have been what councilmember Houston was suggesting. I couldn't follow one path of the details because I couldn't hear it that well, but the -- if we took up the consent agenda, if we started and took up the consent agenda we might dispense with some of the issues that would allow staff to go back to their work and eat over executive session. So if we broke about 12:30 and then had our executive session that would allow us an opportunity to eat while we're having our executive session and that might be an efficient way to move forward.

>> Mayor Adler: Only problem with that is we lose sherry at noon and executive session is primarily on the Austin energy issue, which is her committee. So my hope would be to not lose her on that. But it very well might be that we can do executive session and come out and do the consent agenda before the citizen communication at 12:00 so let's go ahead and do that.