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1 P R O C E E D I N G S

2 CHAIRMAN CLARK: All right. Well, we will go
3 ahead and get started. It's good to see everyone
4 this morning. I would like to call the workshop to
5 order. Welcome, everyone to the 2021 Ten-Year Site
6 Plan.

7 I am going to ask staff, if they would, to
8 please read the notice.

9 MR. TRIERWEILER: Walt Trierweiler on behalf
10 of Commission Staff.

11 By notice issued on August 4th, 2021. This
12 time and place was set for a Commission Workshop to
13 review the 2021 ten-year site plans of Florida's
14 electric utilities. The purpose of the workshop is
15 more fully laid out in the notice.

16 CHAIRMAN CLARK: All right. Thank you very
17 much.

18 Commissioner La Rosa and Graham, can you both
19 here us? I am sorry, I didn't do a mic check early
20 on with you guys. Are y'all both -- give me a
21 thumb-up there.

22 COMMISSIONER LA ROSA: Yeah, hear you -- hear
23 you great.

24 COMMISSIONER GRAHAM: I can hear you just
25 fine.

1 CHAIRMAN CLARK: All right. Great.

2 All right. Our first presenter at this year's
3 workshop is the Florida Reliability Coordinating
4 Council to discuss the 2021 load and resource plan.
5 Ms. Dochoda, can you hear us?

6 MS. DOCHODA: Yes, I can.

7 CHAIRMAN CLARK: All right. You are
8 recognized.

9 MS. DOCHODA: Thank you. Good morning,
10 Chairman Clark. Good morning, Commissioners. My
11 name is Stacy Dochoda. I am the President and CEO
12 of the Florida Reliability Coordinating Council. I
13 know that my last name is a little difficult to
14 pronounce so I like to give people a helpful hint.
15 The C in my last name is completely silent, so it
16 is pronounced Dochoda. Thank you, Chairman Clark.
17 You nailed it. Of course, please feel free to call
18 me Stacy, too.

19 Today I will be presenting the results of
20 FRCC's analysis of the aggregated 2021 ten-year
21 site plans that were filed with the Commission by
22 the utilities in Florida. But first I would like
23 to discuss a little bit about FRCC.

24 We are a nonprofit corporation that was formed
25 in the 1970s. Our vision is to be the premier

1 organization for grid reliability and security in
2 North America. Our mission is to coordinate a
3 safe, reliable and secure bulk power system with
4 our members. We have 20 members who are utilities
5 in Florida, and these include -- oops, if we could
6 go back to Slide 2. I am sorry. Thank you. And
7 these include the investor-owned utilities,
8 municipals and cooperatives.

9 FRCC carries out our activities on behalf of
10 our members, and that includes being the
11 reliability coordinator for Florida. Now, I think
12 like to think of the reliability coordinator as
13 being similar to the air traffic controller of the
14 high voltage electric grid.

15 FRCC is also a planning authority, and we
16 coordinate transmission planning with our members
17 in Florida. We have an authorized staff of 27 and
18 a budget of \$15 million annually.

19 Next slide, please.

20 The topics that I will cover today include
21 emerging trends in utility responses, how the Gulf
22 Power integration into FPL is treated in the
23 workshop materials, the utilities' integrated
24 resource planning processes, and the load forecast
25 reserve margins, generation additions and fuel mix

1 in the ten-year site plans.

2 I will also discuss the reliability
3 considerations of both solar additions and the
4 natural gas infrastructure in Florida.

5 Next slide, please.

6 The FRCC gathers the load forecast and the
7 generation plans from the utilities and looks at
8 the aggregate information over the 10 years. And
9 we do calculate the reserve margins, and that
10 calculation is the expected generation less the
11 load as a percentage of the load.

12 The reserve margin is really similar to a
13 safety margin. The margin allows for variation
14 from the load forecast or the generation plant.
15 Sitting here today, none of us can know exactly
16 what those will be 10 years out, and that's where
17 the reserve margin comes in. It provides room so
18 that if the actual load is above the load forecast,
19 or the actual generation available is less than the
20 plan, the utility can still reliably serve load
21 because it is the reserve margin. And on this
22 Slide 4 I just summarize the results of the
23 aggregate 2021 plans.

24 First on the load forecast, we are seeing that
25 demand and energy forecasts are growing at about

1 one percent a year, a little bit less, but very
2 similar to last year's ten-year site plan, and the
3 utilities are planning over 12,000 megawatts of new
4 firm generation. Looking at the load forecast and
5 the availability capacity together, we calculate a
6 planned reserve margin that is above 20 percent in
7 each of the 10 years.

8 On the load forecast side, there are a couple
9 of items that do reduce what the load forecast is.
10 First, demand response is reducing the summer peak
11 by 6.1 percent by 2030, and then energy efficiency
12 codes and standards are projected to reduce peak by
13 3.5 percent by 2030.

14 On the generation capacity side, we are seeing
15 a change in fuel mix, with renewables increasing
16 from five percent of generation this year to an
17 estimated 15 percent of generation in 2030 on an
18 energy basis.

19 Next slide, please.

20 There are several emerging trends in the
21 electric industry that are important to acknowledge
22 and to study. We are seeing a change in resource
23 mix, as I just mentioned, where we are showing this
24 year that we expect to have five percent of energy
25 generated from renewables, and growing to 15

1 percent by 2030.

2 Now, to get a feel for just how much that has
3 changed over the years, in 2012, when I joined FRCC
4 and made my first ever ten-year site plan
5 presentation, we were standing in 2012 and looking
6 out 10 years to 2021. And at that time, we were
7 showing one percent from renewables in 2012, and
8 estimating that that would hold steady at one
9 percent out to 2021. Yet here we are in 2021, and
10 we are estimating five percent this year and
11 growing to 15 percent in 2030.

12 Another trend to note is the increasing
13 interdependency between the natural gas industry
14 and the electric industry. Each of these
15 industries relies on the other for full operation.
16 A disruption in either the natural gas industry or
17 the electric industry would likely lead to
18 disruption in the other.

19 And then finally, we have seen recent extreme
20 weather events, where utilities in other parts of
21 the United States have been forced to shed firm
22 load to maintain grid reliability. FRCC and our
23 members are studying the lessons learned from these
24 events.

25 Next slide, please.

1 I would like to go into those in a little bit
2 more detail.

3 In August of 2020 and February of 2021, this
4 year, utilities in California, ERCOT, SPP and MISO,
5 were forced to shed load in order to reliably
6 serve -- in order to keep the grid reliable.

7 When there is an imbalance between supply and
8 demand, it can lead to a catastrophic failure of
9 the grid. All grid operators have procedures in
10 place to order the proactive shedding of load in
11 order to preserve the grid and avoid a more
12 widespread prolonged grid outage.

13 In the August California event, CAISO, in the
14 midst of a westwide heatwave, ordered California
15 utilities on August 14th and 15th to institute
16 rotating outages. Now, after the event, the CAISO
17 issued a report looking at the root causes of the
18 outages, and it cited three major factors: First
19 the extreme weather. Second, failures in its
20 resource adequacy and planning processes. And
21 third, failures in its market processes.

22 In the February event this year, ERCOT, SPP
23 and MISO all ordered their utilities to shed load
24 during the very extreme cold weather event. ERCOT
25 was by far the hardest hit, and required shedding

1 load of 20,000 megawatts. The outages were so
2 widespread that the Texas utilities were unable to
3 rotate the outages, and many customers were without
4 power for several days.

5 Both NERC and FERC have instituted an inquiry
6 into the cold weather event this year, and we are
7 expecting that a preliminary report to come out
8 this fall.

9 The FRCC board has also reviewed both the
10 California event and the cold weather event this
11 year, and looked for lessons learned to enhance
12 reliability in Florida. In addition, the
13 individual utilities are doing their own reviews as
14 well.

15 Next slide, please.

16 The FRCC utilities and members response to the
17 extreme weather event is an example of how the
18 members collaborate and work together to enhance
19 reliability in Florida. The members are committed
20 to learn from one another and from other areas of
21 the country.

22 Some activities at FRCC continue to safeguard
23 reliability in Florida. These include the
24 coordinated transmission planning, and FRCC serving
25 as the reliability coordinator for Florida.

1 In addition, annually, FRCC works with the
2 members to update their winter facility ratings and
3 review their list of critical customers. This
4 review is important so that they can be
5 appropriately prioritized if load shedding or
6 restoration were needing to occur.

7 Also, FRCC conducts an annual drill with
8 members where we exercise the generation capacity
9 shortage plan, and we invite the Commission staff
10 and the natural gas pipeline representatives to
11 participate in these drills.

12 Next slide, please.

13 I am going to describe how the FPL/Gulf
14 integration is included in the data that I will
15 present.

16 FPL is expecting to integrate Gulf in a single
17 electric operating system by June 30th of 2022.
18 This will bring about 3,500 megawatts of additional
19 capacity, and 2,500 megawatts of summer peak demand
20 into the FRCC reliability area.

21 When you see some of the charts that I will
22 show later, in 2021, the data is shown without Gulf
23 in the FRCC area, and then in 2022, we have
24 included the Gulf data.

25 Next slide, please.

1 In Florida, each utility develops its own
2 integrated resource plan to look out to the future
3 to forecast customer demand and how to reliably
4 serve that demand. The utility will prepare
5 forecast of demand and energy usage considering
6 items such as customer growth, impacts of energy
7 efficiency and normal weather. Fuel and resource
8 price forecasts are also considered.

9 And then the utility will consider the demand
10 and energy that can be produced by its existing
11 resources, and it will look at possible upgrades to
12 those units, will consider retirements they may
13 have planned, and also expiration of purchase power
14 contracts.

15 And then the forecasted demand and energy
16 needs are compared with the available capacity, and
17 compared to a reserve margin criteria. Where there
18 is a gap or a shortfall, the utility will consider
19 options to meet that gap and meet the reserve
20 margin target. And these options include supply
21 side options, such as building generation or
22 purchase power, and demand-side options such as
23 direct load control. The cost and operating data
24 of these options are used to evaluate the
25 alternatives, and then the result of this analysis

1 is the utility's integrated resource plan.

2 Next slide, please.

3 The individual utility IRPs are brought
4 together by FRCC to create the FRCC load and
5 resource plan. And in addition, we use the load
6 and resource plan data to conduct reliability
7 assessments of generation adequacy and transmission
8 reliability.

9 Next slide, please.

10 Now I am going to turn to load forecast.

11 The firm summer peak demand in the 2021
12 ten-year site plans show a average annual growth
13 rate of just over one percent a year. And then the
14 forecasted energy sales growth is also forecast to
15 be just under one percent per year.

16 Demand response, as I mentioned before, is
17 reducing the summer peak by 6.1 percent in 2030.
18 And demand response would include direct load
19 control and interruptible customers. And direct
20 load control would be -- an example would be where
21 a customer signs up to have their appliances, like
22 an air conditioner or a pool pump, cycled off when
23 the utility needs the power in return for a credit
24 or lower rate. And the interruptible contracts
25 would be where the customer signs up to be

1 interrupted in turn for a lower rate.

2 Another reduction to the load forecast is
3 coming from energy efficiency, and we have two
4 types that we've highlighted here. First, the
5 mandated building codes and standards, which are
6 projected to be reduce the peak by 3.5 percent by
7 2030. And the utility's own sponsored energy
8 efficiency and energy conservation programs
9 projected to reduce peak by 1.2 percent.

10 Next slide, please.

11 Now I will cover some of the factors that
12 influence the load forecast.

13 The unemployment rates in Florida have
14 decreased from last year. Last year in June of
15 2021 -- 2020, the unemployment rate was 10 percent
16 and this June it's dropped to five percent.

17 Population growth is projected to remain
18 strong. However, wage and income growth have not
19 kept pace with employment growth. Energy codes and
20 standards, and to a lesser extent, distributed
21 solar, are dampening energy use growth. And in
22 addition, commercial customer forecasts are being
23 dampened by on-line commerce.

24 The impact of electric vehicles is forecast to
25 grow to about one gigawatt by 2030. Now, this is

1 actually double what we had forecasted in last
2 year's ten-year site plan. However, it is
3 important to keep in mind, it's still relatively
4 small for a system that is projected to be 64
5 gigawatts of generation by 2030.

6 Next slide, please.

7 This graph shows the 2020 and 2021 ten-year
8 site plan firm peak demand forecast. You can see
9 the red line is the 2021 ten-year site plan, and
10 the gray is 2020. And as you look across the X
11 axis from 2021 to 2022, and you see the lines jump
12 up, that's the addition of Gulf that I had
13 mentioned earlier.

14 These forecasts, as you can see, are quite
15 similar, and the growth rate is about one percent a
16 year.

17 Next slide, please.

18 Now we turn to the forecast of energy.

19 And here again, we show the 2021, and it's
20 shown in green, and the 2020 is shown in gray.
21 Again, we are showing once you move from 2022 to
22 the end, we are showing about a one-percent growth
23 rate.

24 Next slide, please.

25 On this graph, we are showing the actual

1 historical summer peak demand, which is shown in
2 the black solid line on the left of the chart,
3 going from 1992 to 2020.

4 And then on the right, the red, orange and
5 yellow lines, are the forecasts that are included
6 in this year's ten-year site plan. And I will
7 describe those more on the next slide.

8 Next slide, please.

9 So here on Slide 16, we are showing the 2021
10 forecasted summer peak demands, and we are
11 highlighting the impact of demand response and
12 utility energy efficiency programs.

13 So the yellow line on the top of the diagram
14 is what the load forecast would be if we didn't
15 have demand response programs for energy
16 efficiency.

17 The orange line that's just underneath that
18 shows the reduction in the forecast due to the
19 energy efficiency programs. And then the red line
20 is without both energy efficiency and the demand
21 response.

22 We refer to the red line as the summer firm
23 peak demand. And later, when I show you the chart
24 of reserve margins, it's this red line of summer
25 firm peak demand that we are using to calculate the

1 reserve margins.

2 Next slide, please.

3 Here we have the compound average annual
4 growth rate for firm peak showing the summer in red
5 and the winter in blue. And what I just draw from
6 this chart is you can see how the annual growth
7 rate has declined from two to two-and-a-half
8 percent in the '90s and early 2000s, to about one
9 percent in recent years.

10 Next slide, please.

11 This bar chart shows the demand response as a
12 percentage of peak demand in various parts of the
13 country. In 2021, we are projecting the demand
14 response will be 6.2 percent of peak demand in
15 FRCC.

16 Next slide, please.

17 And now I will turn to the capacity additions
18 and reserve margins.

19 The utilities are including over 12,000
20 megawatts of new generation in the ten-year site
21 plans. And that includes 5,100 megawatts of firm
22 solar. The nameplate solar that goes with the
23 5,100 megawatts is about 11,000 megawatts of
24 nameplate solar.

25 The solar generation peaks in the day earlier

1 than the Florida system peak. And then as you get
2 to system peak, the solar typically provides less
3 than its nameplate rating. And so the utilities in
4 Florida assign a firm capacity value to solar at
5 time of peak. In the ten-year site plan, these
6 range from 43 to 53 percent.

7 The utilities have included an estimate of
8 4,900 megawatts of retirements in the plans. And
9 then when we look at the load forecast that I
10 described before, and the capacity that's
11 available, and calculate the reserve margins, we
12 are calculating that they are above 20 percent for
13 each of the next 10 years, with the reserve margin
14 increasingly dependent on demand response in the
15 latter years.

16 Next slide, please.

17 So this bar chart shows the available capacity
18 over the 10 years. It includes the impacts of new
19 builds and planned retirements.

20 Again, there is over 12,000 megawatts of new
21 capacity that's planned. Of this 2,800 megawatts
22 is combined cycle generation, and 2,200 megawatts
23 is from combustion turbines or reciprocating
24 engines. We have 51 megawatts of firm solar being
25 added, and 1,400 megawatts of batteries. And then

1 there are 4,900 megawatts of planned retirements.

2 Next slide, please.

3 Now, this chart shows the incremental
4 generation changes, both additions and retirements,
5 but by fuel type. And you can see that the blue
6 bars are coal. And you can see the first five
7 years show coal retirements. The red bars are
8 natural gas. Green is solar, and the purple are
9 battery additions.

10 Next slide, please.

11 For nuclear, we don't see any change in the
12 nuclear capacity in Florida over the 10 years.
13 There is 3,600 megawatts in the current plans.

14 Next slide, please.

15 Now we will return to reserve margin. Again,
16 this is taking the expected generation less the
17 load as a percentage of the load.

18 On this chart, we show the winter reserve
19 margins in the blue bars, the summer reserve
20 margins in the red bars. And we've compared those
21 to the FRCC criteria of 15 percent, as shown in the
22 purple line across the chart, and the Commission
23 stipulation with the IOUs at 20 percent, which is
24 the red line across the chart. And you can see
25 that the reserve margins vary over the years, but

1 they do remain above 20 percent in each year of
2 this ten-year site plan.

3 Next slide, please.

4 These charts shows the forecast capacity by
5 fuel type on a megawatt basis. And you can see
6 that you look at this year, in blue we show gas
7 contributing 74 percent of the capacity, and that's
8 that declines to an estimated 70 percent by 2030.
9 In the yellow, we show coal at 10 percent,
10 declining to seven percent. And in the red, you
11 can see renewables increasing from five percent of
12 capacity to 12 percent by 2030.

13 Next slide, please.

14 This slide drills down to just look at the
15 renewables and what the mix of the renewables are.
16 And you can see the vast majority of our renewables
17 do come from solar, with 84 percent projected this
18 year, and 95 percent by 2030.

19 Next slide, please.

20 And this chart shows how much the forecasted
21 solar capacity has changed from the 2019 ten-year
22 site plan to this year's. The 2019 is shown in the
23 yellow. The green is 2020. And the red is this
24 year's ten-year site plan.

25 Next slide, please.

1 Now we are going to look at the fuel mix on an
2 energy basis, on a gigawatt hour basis. And here,
3 you can see that natural gas, in the blue, is
4 projected to hold steady at 68 percent. Coal, in
5 the yellow, projected to decline from 12 to four
6 percent. And renewables, in the red, projected to
7 increase from five percent to 15 percent on an
8 energy basis.

9 Next slide, please.

10 And again, looking at just renewables and the
11 contributions of various kinds of renewables, solar
12 is projected to be 83 percent on an energy basis
13 this year, and growing to 95 percent by 2030.

14 Next slide, please.

15 So with the significant growth of solar that
16 is forecasted, the utilities and FRCC are working
17 to understand the reliability considerations of
18 this changing resource mix. At the current levels
19 of solar penetration, the numbers have been able to
20 reliably incorporate solar without negative
21 operational impacts.

22 Members have been working together on solar
23 task forces at FRCC going back to 2015. And those
24 teams developed and implemented recommendations
25 that ranged from the planning horizon to realtime

1 operations.

2 Members are also conducting studies to look at
3 planned levels of solar and sensitivity of future
4 levels and their impacts on reliability.

5 Just last week, we held a three-hour workshop
6 with the FRCC board, which is composed of the
7 utility executives from the member utilities. We
8 discussed solar and batteries, and how to ensure
9 reliability as the penetration of these resources
10 increases.

11 In the meantime, utilities are developing real
12 experience with these resources, understanding the
13 importance of solar output forecasting and how to
14 integrate that into generation dispatch efficiently
15 and reliably.

16 We also have the ability to learn from other
17 parts of the country that already have high levels
18 of solar.

19 As I mentioned previously, solar output is
20 typically less than nameplate at the time of
21 Florida system peak.

22 FRCC and the members are studying the impacts
23 of solar and batteries on resource adequacy
24 measures. We are doing additional calculations and
25 analyses to ensure that we are considering the

1 attributes of these resources appropriately.

2 Next slide, please.

3 Now I will turn to a discussion of Florida's
4 natural gas infrastructure.

5 For years, FRCC members have employed a
6 consultant to maintain a comprehensive gas
7 infrastructure model in utility fuels database.
8 This allows the members to identify periodic
9 reliability studies examining different
10 infrastructure contingencies. We've also had the
11 consultant perform studies to see if the expected
12 infrastructure is projected to be sufficient based
13 on the forecasted generation. And based on these
14 studies, I can report that the natural gas
15 infrastructure capacity is on pace to support the
16 plan generation additions.

17 On a realtime basis, when it's needed due to
18 system conditions, FRCC coordinates regional
19 responses to fuel emergencies with the utilities
20 and the pipelines.

21 Another factor in support of reliability in
22 Florida is that utilities in FRCC have a large
23 percentage of gas generation with alternate fuel
24 capability, and that remains between 57 and 61
25 percent in the ten-year site plan.

1 Next slide.

2 So I will just conclude by reiterating that
3 the planned reserve margins are above 20 percent
4 for the next 10 years, and meeting the reserve
5 margin target is increasingly dependent on demand
6 response in the later years.

7 The resource mix is changing, with renewables
8 increasing from five to 15 percent on an energy
9 basis.

10 The natural gas infrastructure is on pace to
11 keep up with the natural gas generation being
12 added.

13 And finally, FRCC and our members are studying
14 the lessons learned from the extreme weather events
15 that I have described.

16 And with that, I would be happy to answer any
17 questions.

18 CHAIRMAN CLARK: Thank you, Ms. Dochoda.

19 All right. Commissioners, do you have
20 questions?

21 Commissioner Fay.

22 COMMISSIONER FAY: Thank you, Mr. Chairman.

23 And thank you, Ms. Dochoda, for your -- your
24 presentation.

25 I just wanted to ask sort of a general

1 question out of one or two slides that I was going
2 to point you to, but one is -- obviously, the focus
3 of the review includes the -- the reliability of
4 presumptions for different categories of energy.
5 Do you look at how the, down the supply line
6 Florida could be potentially impacted? Like,
7 obviously the severe weather and things that we
8 deal with within our state are significant to that
9 access, but what about outside of Florida?

10 MS. DOCHODA: We -- we do studies -- our
11 members will do studies on various attributes. So
12 for example, we have done studies over the years in
13 particular on the natural gas infrastructure and
14 various contingencies around that gas
15 infrastructure. Typically we do the study every
16 year, and sometimes we, you know, severely stress
17 test that system to see what impacts would be on
18 reliability.

19 So, yes, those sorts of studies are -- are
20 done to look at the overall context of reliability.

21 COMMISSIONER FAY: Okay. Great. Thank you.

22 And then on your Slide 16, about the
23 forecasted summer peak demand, you have got the
24 different levels there, including the demand
25 response and the energy efficiency. Just -- just

1 based on those numbers, and that table, when I look
2 at the planned reserve margin, which you put on
3 Slide 23, your -- from what I understand there, it
4 looks like you are basing -- you are basing those
5 numbers off of the inclusion of both demand
6 response and energy efficiency. So if customers
7 weren't utilizing -- either the utilities and their
8 customers weren't utilizing those, would that --
9 would that bring the reserve -- I guess, would it
10 bring the -- both the red and the blue down some?

11 MS. DOCHODA: It would have that impact. We
12 have calculated that without the demand response,
13 and that would be bringing it down to approximately
14 16 percent.

15 COMMISSIONER FAY: Okay. Thank you.

16 And I apologize, was that in the material
17 somewhere or --

18 MS. DOCHODA: It's actually not in the slides.
19 I believe it's in the reliability assessment.

20 COMMISSIONER FAY: Okay. Great. Thank you.

21 And then just last question, Mr. Chair.

22 On Slide 26, you have the firm capacity for
23 the forecasted solar. Does that -- does that
24 include nonutility owned solar?

25 MS. DOCHODA: It -- it does -- it's -- the

1 solar that utilities have included in their
2 ten-year site plan, so it would not include
3 distributed solar.

4 COMMISSIONER FAY: Okay. Great.

5 Thank you again for your presentation.

6 MS. DOCHODA: Of course.

7 CHAIRMAN CLARK: Other Commissioners have
8 questions?

9 Commissioner Passidomo.

10 COMMISSIONER PASSIDOMO: Great. Thank you,
11 Mr. Chair.

12 Thank you, Ms. Dochoda. I appreciate your
13 presentation.

14 I have kind of a question. I was just
15 thinking about, you know, how on Slide 25 of your
16 forecast renewable mix, and how -- how you -- and
17 when you are looking in the future integrating new
18 DERs and new renewable sources into the forecasted
19 mix, and third, thinking about how, you know, the
20 updated Section 366 in our statutes has now
21 integrated renewable natural gas as a renewable
22 resource, and how you -- how you think ahead for
23 that?

24 MS. DOCHODA: I am going to have to learn more
25 about that. I don't have a response for you.

1 Sorry.

2 COMMISSIONER PASSIDOMO: Thank you.

3 CHAIRMAN CLARK: All right. Other

4 Commissioners have questions?

5 Commissioner Graham.

6 COMMISSIONER GRAHAM: Thank you, Mr. Chairman.

7 Ms. Dochoda, how are you today?

8 MS. DOCHODA: I am fine. And yourself?

9 COMMISSIONER GRAHAM: Pretty good. It's
10 always -- it's always interesting going through
11 this information. I guess it's the engineering
12 geek in me.

13 You may -- you may have said when you went
14 through page 20, why is purchase power so high in
15 that year?

16 MS. DOCHODA: Let me go back.

17 COMMISSIONER GRAHAM: I am sorry, yeah, 20 and
18 22.

19 MS. DOCHODA: Commissioner, I would like to go
20 back and research that and give you an answer
21 afterward, if I can.

22 COMMISSIONER GRAHAM: Okay. Thanks.

23 MS. DOCHODA: Yes, sir.

24 CHAIRMAN CLARK: Any other -- Commissioner La
25 Rosa.

1 COMMISSIONER LA ROSA: Thank you, Chairman.
2 And thank you, Ms. Dochoda, for your detail in the
3 presentation.

4 Quick question. On Slide 24, when you are
5 talking about the forecasted firm summer capacity,
6 for the projections for 2030, there is that other
7 at two percent, but not projected in the 2021
8 numbers. Just out of curiosity, where those others
9 are derived from, and what was included in that?

10 MS. DOCHODA: I believe that that other does
11 include -- well, actually, I am sorry. I am going
12 to need to get back to you on that as well. Sorry.

13 COMMISSIONER LA ROSA: Okay. No, all good.
14 All good. I know it's in the weeds a little bit,
15 but no, I appreciate and I look forward to your --
16 your research and response on that. Thank you.

17 MS. DOCHODA: Yes, sir.

18 CHAIRMAN CLARK: Other questions? Any other
19 questions from Commissioners?

20 Ms. Dochoda, I would just ask one, I guess,
21 kind of an overarching question. I have a lot of
22 concern about our current reliance on natural gas.
23 I understand the -- the integrated resource
24 planning process and how all of the factors are
25 taken into consideration.

1 I would just ask you, we -- we come under some
2 criticism about the -- about integrated resource
3 planning, about the ten-year site planning process
4 and the other alternatives out there that are
5 available for the planning process and factors for
6 consideration. How would you defend the process
7 that FRCC uses right now for integrated resource
8 planning?

9 MS. DOCHODA: The process in Florida is really
10 a utility process. They -- they do prepare their
11 integrated resource plan, and then that comes
12 together at FRCC where we aggregate the
13 information.

14 I think that, as I understand what each
15 utility goes through and described on my slides,
16 they are looking at the, you know, the forecast and
17 looking at the various options.

18 You know, FRCC would remain ready to
19 participate in, you know, any approach that the
20 Commission determined to take.

21 CHAIRMAN CLARK: Okay. All right. Thank you
22 very much for being with us today.

23 Any other Commissioners have a question?

24 Thank you, Ms. Dochoda.

25 MS. DOCHODA: Thank you, sir.

1 CHAIRMAN CLARK: All right. Next up we will
2 move to the SACE presentation. Ms. Maggie Shober.
3 Ms. Shober, are you on the line?

4 MS. SHOBER: Yes, I am here.

5 CHAIRMAN CLARK: Thank you. You are
6 recognized.

7 MS. SHOBER: Good morning.

8 CHAIRMAN CLARK: Good morning.

9 MS. SHOBER: Thank you so much. Good morning.
10 Very nice to be with all of you this morning. And
11 I really appreciate the opportunity to present on
12 the ten-year site plan process today.

13 So again, I am a Director with Southern
14 Alliance for Clean Energy, or SACE as we are known.

15 If you can go to the next slide, please.

16 So just a little bit about SACE is that we are
17 nonprofit that covers the whole southeast, but I am
18 here today presenting on behalf of our -- all of
19 our members in the state of Florida.

20 We are focused on responsible and equitable
21 energy choices, with a focus on clean, safe -- safe
22 and healthy communities all across the southeast
23 and in Florida.

24 So if you can go to the next slide, please.

25 So I am going to have a fairly quick, I hope,

1 presentation today. It's -- there is some, you
2 know, review from a similar presentation I did
3 about this time last year, so there will be some --
4 possibly some slides that you have seen before. I
5 also know we have two new Commissioners since I
6 gave that presentation, so I am happy to present on
7 those, and then, you know, answer questions that
8 you have and have a dialogue about this.

9 All right. So next slide.

10 So first off is just resource planning. So
11 Chairman actually was a good segue into this topic
12 on the presentation.

13 So here this is -- this is my interpretation
14 of what I see as a spectrum of different kinds of
15 resource planning processes we see in various
16 states all across the country.

17 So just a little bit of background that we are
18 all, you know, familiar with, but resource planning
19 is the process whereby the utilities, electric
20 utilities determine what resources are needed to
21 meet future needs. This, you know, was
22 historically very much, you know, very important,
23 particularly as utilities were investing in very
24 large centralized power plants and transmission
25 that took, you know, a long time to plan and get

1 permitted and get constructed, and so you needed,
2 you know, a very long lead time in order to start
3 that process.

4 You also had, you know, very steady reliable
5 electric growth in both energy needs and peak
6 needs, and -- and that was kind of how this setup
7 was -- this resource planning process came about
8 under those sorts of circumstances.

9 In the last decade or two, a number of those
10 things have shifted. We have technology
11 innovations on the resource side, and then we also
12 have changes on the, you know, load and demand
13 forecast side.

14 So for instance, some of our, you know,
15 generation resources don't need as much time, where
16 we can be more modular, as in we don't have to
17 build a really big thing, we can build a lit bitty
18 here.

19 And -- and we've also seen -- I thought that
20 the previous presentation from FRCC was great in
21 that it showed the historical growth. You see
22 steady growth, and then over the last, almost 10
23 years, you see it really kind of flatlining, and
24 the utilities are projected that we then return to
25 that sort of historical level of growth of about

1 one percent per year.

2 And -- and so, you know, we are seeing a lot
3 of things shift. A number of states have made
4 changes in how they set up the rules for electric
5 utilities to do this kind of resource planning.

6 So this -- again, this -- this spectrum that I
7 am presenting here on this slide is my
8 interpretation of how -- of how that looks. I do
9 have a background in, you know, consulting on the
10 private sector side utilities on these. So I have
11 -- I have worked on a number of these kinds of, you
12 know, resource planning processes.

13 There is no perfect process, but there are
14 definitely pros and cons. And -- and it's
15 important to just kind of go back and look and see,
16 okay, what are we doing that's working, and what
17 are we doing that maybe, you know, needs some --
18 some improvement because we haven't looked at it
19 recently.

20 So on -- on the left here, the Florida
21 ten-year site plans, you know, because there is not
22 a whole lot of back and forth between stakeholders,
23 as the utilities are developing their resource
24 plans, you know, I really put it over on this end;
25 whereas, in TVA, there is a little bit of back and

1 forth. Mississippi and South Carolina, Georgia and
2 North Carolina, there are, you know, more back and
3 forth, as well as, you know, with stakeholders.
4 There is also the opportunity for commissions to
5 weigh in.

6 For instance, we saw recently the South
7 Carolina commission actually rejected Duke's IRPs
8 in North and South Carolina and said, hey, you guys
9 need to go back, rerun your model with some changes
10 to your fuel cost forecast -- fuel price forecasts
11 and a couple of other -- other things, you know,
12 and have the utility refile that.

13 Another example of some back and forth is in
14 Georgia, where the Commission -- it was the 2019
15 IRP, the Commission actually told Georgia Power,
16 you know, you guys should make a few changes to
17 your -- your IRP, increase the amount of solar,
18 invest 15 percent more than you are projecting here
19 in energy efficiency. So that's where the
20 Commission can actually say, you know, utility do
21 XYZ in your -- in your IRP.

22 Moving kind of along on the spectrum, the
23 NWPCC, that is the Northwest Power and Conservation
24 Council, which is actually a nonprofit that covers
25 a number of states in the Pacific Northwest. And

1 they are the ones that do the IRP for those
2 utilities. It's not actually the utilities
3 themselves. A lot of the utilities then just
4 incorporate that and do their own resource plan.
5 Some of the utilities just adopt what the NWPCC has
6 done.

7 They, in my opinion, have really been at the
8 forefront of what we call energy efficiency as a
9 resource. And this is where, you know, you are
10 really allowing energy efficiency to compete on an
11 even playing field with supply-side resources when
12 you are modeling the two. And they've seen an
13 incredible build-out of energy efficiency and
14 estimates from, I think it was 2016, where that
15 they had saved about 14 percent, customers had
16 saved about 14 percent on their bills. So that was
17 2016 numbers. That's likely even higher today.

18 Another sort of favorite in the sector these
19 days is All-Source Procurement, the kind of poster
20 child for that is Xcel Energy in Colorado. This is
21 basically where they go out to the market and say,
22 we have a need in the next five years, you know,
23 how can you fill it? And they have really have
24 seen record breaking prices, low prices for, for
25 instance, projects that are combining wind and

1 solar and storage kind of all in a portfolio, and
2 presenting it to the utility and really saving
3 those customers money.

4 Another good example of that is in Indiana.
5 So that one is really catching on.

6 And this is, you know, you get to sort of the
7 other end of the spectrum now from -- from Florida,
8 and -- and you are getting to the even more kind of
9 market based. So these are where we have wholesale
10 market competition. MISO, California, MISO is the
11 Midcontinent Independent System Operator. And
12 those -- those markets still have the utilities
13 doing their own plans and sort of the presenting
14 them in -- in the market.

15 There is a few markets in between those in
16 Texas. I didn't think it was -- it was worth kind
17 of presenting all of them at this point, but you
18 get all the way to the other end of the spectrum,
19 and there is Texas, which is unique in the country
20 in that they have, you know, utilities don't own
21 their own generation. They have this energy only
22 market, and they are also this, you know, unique
23 island that kind of does -- does things their own
24 way.

25 So I am happy to answer any questions about

1 this, but this is my sort of interpretation of, you
2 know, where -- where the spectrum runs in terms of
3 resource planning for electric utilities.

4 And then on the next slide, just continuing on
5 this sort of theme is South Florida is all the way
6 at one end. And those are the main reasons that I
7 think, you know, that this is kind of an outlier in
8 the resource planning process.

9 The first one is that there aren't any
10 alternatives presented. A big part of the -- the
11 IRP process in a lot of states is you look at
12 different scenarios, and you want to see, okay,
13 well, what does this look like under a carbon
14 restraint in the future, a carbon tax, or a carbon,
15 you know, clean electricity standard or, you know,
16 pick your carbon policy.

17 Then, you know, along with that is some --
18 some visibility into the assumptions, and some --
19 some stakeholder and -- and commission interaction.
20 So if the utility says, well, we are looking at a
21 carbon policy. Well, what -- what carbon policy
22 are you looking at? We are looking at a high
23 natural gas price scenario. Well, what -- what are
24 those high gas prices, and how do they compare
25 with, you know, what other utilities are assuming

1 are high natural gas prices? Maybe these aren't
2 the same. Maybe there are stakeholders that would
3 have inputs or, you know, suggested scenarios, or
4 suggested data assumptions that the utility, you
5 know, hasn't considered and would be worth looking
6 at. You know, while you need to get to one
7 resource plan, it's important to look at, you know,
8 all these different options.

9 So, you know, these -- these issues are all
10 things that I think would -- would bring us to the
11 recommendation that SACE is making, which is that
12 the Commission have a workshop and just talk more
13 about the resource planning process generally.
14 What are some different examples across the
15 country? Are there any potential blind spots in
16 the current process? You know, what are some --
17 some solutions to those?

18 All right. Next slide, please.

19 All right. And this was also brought up
20 already, but we really find that the current
21 process has led to a very high reliance of gas in
22 the state of Florida, and that's concerning for a
23 number of reasons, particularly these three right
24 here. The first two are associated with customer
25 costs, and then the last with pollution.

1 So the first is that the more gas that is on
2 the system, the -- the higher costs customers will
3 pay because fuel costs are passed directly on to
4 customers on their bill. So gas price is projected
5 to increase. The percentage of electricity firm
6 gas is projected to increase, so as those prices go
7 up, customers feel that very directly and very
8 immediately. And this, of course, will impact
9 low-income and fixed income customers the hardest.

10 I will say that -- that fuel cost pass-through
11 is not unique to Florida, but the combination of
12 that plus, you know, the high percentage of gas are
13 what make it particularly concerning in Florida.

14 Also the increase of the potential for
15 stranded assets, so, you know, in next year's
16 ten-year site plan, if the utilities come forward
17 with additional, you know, investments in gas, and
18 especially as they are making investments into the
19 late 2020s, and those resources either new or, you
20 know, adding capacity at existing, the utility is
21 -- is continuing to spend capital on these
22 resources even if, you know, in the near future, at
23 that point they won't be providing, you know,
24 additional values.

25 So there is the potential that the utilities

1 will still be paying off, you know, debt on that
2 capital, while those assets as power plants, or
3 other infrastructure, are no longer being used, or
4 being used to the level that they were expected by
5 the utility to provide electricity for the
6 customer, you know, because that's the -- that's
7 the main focus here.

8 And then the last one is it hampers
9 decarbonization of the sector. So we have gotten
10 -- as a nation, we have got a lot of carbon
11 emission reductions from replacing coal with gas,
12 that, you know, over the last decade or two.

13 From a direct emissions from combustion
14 perspective, gas has about half of the direct
15 emissions as coal. So you can get, you know,
16 theoretically, if you just replace all your coal
17 with gas, you can -- you can reduce those emissions
18 by 50 percent. You can't get below that if that's
19 the only, you know, tool in your toolbox.

20 And so, you know, we are seeing really an
21 inflection point of, you know, Florida's emissions
22 rate. So that's the carbon emissions per megawatt
23 hour has -- has really dropped to about that of a
24 gas plant, and is projected to stay pretty flat
25 because of that. You know, if you are, you know,

1 keeping gas on your system, or even adding gas to
2 your system, you are not able to bring that -- that
3 carbon intensity of electricity down below that
4 level.

5 All right. Next slide, please.

6 Okay. So what do we do, you know, what else
7 is there besides gas?

8 As the ten-year site plans presented, and also
9 FRCC presented, you know, there is a lot of
10 potential in renewables, but I am going to talk to
11 you more about the demand-side of energy
12 efficiency.

13 So we see energy efficiency as a win, win,
14 win. It lowers the utility's cost. It lowers
15 customer bills. It reduces pollution. It even
16 improves, you know, the health of customers in
17 their, you know, the indoor air quality and whatnot
18 in their homes and businesses. But the utility
19 business model is not currently aligned to -- to
20 where investments in energy efficiency are aligned
21 with customer interest and energy efficiency.

22 There is -- obviously, one way to remedy this
23 is the current FEECA rule-making process. I mean,
24 FEECA is a policy that helps, you know, with how
25 utilities set their energy efficiency goals, and

1 that is, you know, going on right now, and it's an
2 important look at, you know, bringing those --
3 those -- that process of setting those energy
4 efficiency goals in line with sort of modern energy
5 efficiency practices.

6 As I mentioned previously about what goes on,
7 for instance, in the Pacific Northwest, is there is
8 also the potential to look at energy efficiency in
9 the resource planning process. The way that works
10 now is that the utilities set their goals during
11 FEECA, and then those get fed into ten-year site
12 plans and they aren't, you know, able to be
13 adjusted at all.

14 Many states, though, require that energy
15 efficiency be considered in resource planning.
16 Either, you know, you look at it on an even playing
17 field with supply-side resources, and so let it
18 compete. And where it's cost-effective, utilities
19 invest in that instead of, you know, gas or other
20 resources.

21 And there are even states where energy
22 efficiency is not just required to be on an even
23 playing field. It actually has to be considered
24 first. So for instance, in California, it's sort
25 of this considered first resource. So there is the

1 potential for a look at that in the resource
2 planning process as well.

3 All right, next slide.

4 So in conclusion, we see the ten-year site
5 plan process as an outlier, and it is -- is not a
6 good deal for Floridians in terms of cost, in terms
7 of risk, in terms of pollution, and particularly
8 the lack of transparency, the lack of stakeholder
9 involvement and the lack of resource competition.

10 To address these concerns, again, our
11 recommendation is that the Commission hold a
12 workshop on resource planning methods, and -- and
13 also to look at energy efficiency rules both within
14 and parallel to the resource planning process, so
15 that utilities can take advantage of this least
16 cost resource.

17 And then the next slide.

18 I put in a few reports that SACE has published
19 since our last presentation for you to take a look
20 at to -- to dig deeper into any of these issues.
21 We are looking at, you know, what a clean
22 electricity standard would look like for major
23 utilities. That includes FPL and Duke Energy
24 Florida.

25 We are also looking at tracking

1 decarbonization goals and decarbonization in
2 resource plans in the Southeast, as well as our
3 energy efficiency and solar reports.

4 So with that, that's the end of my
5 presentation and I am happy to answer any
6 questions.

7 CHAIRMAN CLARK: All right. Thank you, Ms.
8 Shober, for your presentation.

9 Questions from Commissioners?

10 I would pose one question -- go ahead,
11 Commissioner Graham, you are recognized.

12 COMMISSIONER GRAHAM: Thank you, Mr. Chairman.

13 Ms. Shober, thank you so much for your
14 presentation. I guess I am going to work backwards
15 a little here. I am just trying to get some
16 understanding.

17 When you are talking about the energy
18 efficiency, you are mainly just talking
19 demand-side. Do you guys do any research when it
20 comes to supply-side?

21 MS. SHOBER: On the efficiency of supply-side
22 resources?

23 COMMISSIONER GRAHAM: Yes.

24 MS. SHOBER: So we've seen -- we've seen
25 improvements in efficiency of a number of

1 supply-side resources, particularly solar, the
2 efficiency of panels has really improved. That's
3 not our, you know, expertise as SACE, but one thing
4 that -- that we look at from that is that the --
5 the costs have improved. So if you are -- if you
6 have the same price for a solar panel and the
7 efficiency of that panel improves, obviously you
8 are going to get a bigger bang for your buck per
9 dollar that you invest in solar.

10 So that's what we -- what we look at and
11 track. And we've seen, you know, huge improvements
12 in that in -- in wind, which is, you know, a little
13 bit less relevant here.

14 COMMISSIONER GRAHAM: But do you guys look at
15 things like line loss and transformers, and that
16 sort of stuff?

17 MS. SHOBER: Yes. We -- we do include that
18 when we are looking at, you know, system-wide.
19 There are organizations that look at ways to
20 improve, you know, have lower lining losses, but
21 there are also sort of just ways you can set up
22 your grid so you have less, of course. And the
23 more distributed resources, obviously the farther
24 an electron has to go, the more likely you are to
25 have those losses. So if you cut down on how far

1 those electrons have to go, you don't have as many
2 of those losses.

3 COMMISSIONER GRAHAM: I ask because I look at
4 the chart that you have on page seven and, you
5 know, we hear this quite a bit when it comes to
6 demand-side efficiency, but I never see anybody
7 bring us any information when it comes to
8 supply-side. And we are Florida, and we are ranked
9 with all of the other people in the southeast that
10 are including supply-side.

11 MS. SHOBER: Yes, I think -- I haven't seen
12 figures vary very much in terms of, you know, line
13 losses and transmission efficiency and efficiency
14 of the distribution system. I think that the
15 utilities probably have -- have figures for this.

16 We typically use values anywhere from six to
17 10 percent in modeling, depending on if you are
18 looking at just transmission or transmission and
19 distribution. And that's pretty consistent all
20 across the country that, you know, that six to 10
21 percent value is pretty consistent. So I don't
22 know that Florida would be, you know, very far
23 from -- from the average there.

24 COMMISSIONER GRAHAM: All right. Let's go to
25 page four. I am trying to -- I am trying to figure

1 out this. So this arrow on here, you have got red
2 on one side and you have got green on the other
3 side. So the purpose is to get more towards the
4 green side?

5 MS. SHOBER: I mean, maybe the -- the -- the
6 purpose is that there is kind of outliers on -- on
7 either side. I would call Texas an outlier as
8 well, as in they are the only one that has that
9 kind of, you know, model that they have, which is
10 no utility on generation; completely energy only.
11 Market; completely closed off from, you know, the
12 rest of the country.

13 So I think there are certainly sweet spots,
14 you know, elsewhere, you know, somewhere in the
15 middle. It really is, you know, you kind of have
16 to go over and look at what makes the most sense
17 for Florida, for Florida's current regulatory
18 model, you know, you are not going to go to a Texas
19 model over night probably, so -- so, you know, what
20 makes sense.

21 But there are definitely lessons learned from,
22 you know, MISO, from California, from Xcel, from
23 Georgia, North Carolina, South Carolina, all of
24 these have, you know, things that are working well,
25 and I think the -- the best option would be, you

1 know, for Florida to pick and choose from some of
2 those Best Practices and set up a process that
3 works best for the state of Florida.

4 COMMISSIONER GRAHAM: All right. I just
5 thought it was a little ironic. I don't know if
6 you heard Ms. Dochoda before you. If -- if the
7 goals get down towards the green and the two
8 catastrophic failures we had being California and
9 Texas.

10 MS. SHOBER: Yes. So now the Texas failure
11 was not an issue of -- of resource planning, at
12 least not primarily. They had a reserve margin of
13 over 50 percent when they had all these -- these
14 failures, so obviously something else is going on.

15 Similarly for California. California I have
16 looked at a little bit, and I mean the main issue
17 their is that they rely heavily on hydro and they
18 are in a huge drought. So you can't have as much
19 reliance on those resources when, you know, when
20 they are not there. So those are both pretty
21 unique situations that I don't see being relevant
22 here in Florida.

23 COMMISSIONER GRAHAM: But that sounds like
24 poor resource planning to me and not good resource
25 planning.

1 MS. SHOBER: Yes, I think that they did not
2 foresee the extreme weather events that came, and
3 maybe, you know, they should have. If we all paid
4 better attention to what the climate models were
5 saying and all of that, you know, that -- that
6 could have been foreseen better perhaps.

7 But also it gets back to this idea of
8 scenarios, and looking at, you know, what happens
9 in some of these extreme scenarios. You know, what
10 would happen in a big, you know, cold snap or a
11 heatwave plus a drought in combining those two.

12 COMMISSIONER GRAHAM: Okay. That's all the
13 questions I had. Thank you very much for your
14 presentation.

15 MS. SHOBER: Thank you.

16 CHAIRMAN CLARK: Thank you, Commissioner
17 Graham.

18 Commissioner Fay.

19 COMMISSIONER FAY: Thank you, Mr. Chairman.
20 My light just remained on.

21 CHAIRMAN CLARK: Sorry.

22 All right. Any other Commissioners have a
23 question?

24 Ms. Shober, I would ask one -- one question.
25 I share your enthusiasm findings of fact energy

1 efficiency. It is a passion of mine. I think we
2 might diverge on -- on how those programs are best
3 implemented, but I would just kind of pose a
4 hypothetical.

5 If we could provide two or three energy
6 efficiency programs for consumers in the state of
7 Florida that are not currently under consideration,
8 are not currently engaged in, what three would you
9 recommend this commission be evaluating?

10 MS. SHOBER: That is an excellent question,
11 and I don't have an answer ready, but I would like
12 to get back to you on that one, if I may.

13 CHAIRMAN CLARK: Okay. All right. Well,
14 thank you for being here with us today.

15 Our next presenter is Vote Solar. Ms.
16 Ottenweller, are you on the line?

17 MS. OTTENWELLER: Good morning, yes.

18 CHAIRMAN CLARK: There you are.

19 MS. OTTENWELLER: Can you hear all right?

20 CHAIRMAN CLARK: Yes, good morning. You are
21 recognized.

22 MS. OTTENWELLER: Good morning, Chairman Clark
23 and Commissioners. My name is Katie Chiles
24 Ottenweller. I am the Southeast Director of Vote
25 Solar. I am originally from Tallahassee, now based

1 in Atlanta. I am an attorney and here representing
2 our 39,000 members that we have in Florida, so
3 thank you so much for the opportunity to speak this
4 morning.

5 Next slide.

6 We spent some time reviewing -- oh, sorry,
7 it's cutting out a little bit. Sorry. I guess my
8 font changes, so hopefully y'all have the
9 presentations printed out in front of you.

10 What we did was spent some time reviewing the
11 ten-year site plans. And comparing them to past
12 filings, we identified some cross-cutting themes
13 similar to last year, and we bring this up as five
14 questions that the Commission should ask as it
15 reviews the 2021 site plans, and hopefully this
16 assists the Commission and the staff in y'all's
17 important review function.

18 Next slide.

19 One of the things that is clear in Florida law
20 is that the Commission shall review these plans for
21 their effective on fuel diversity. And I know
22 that's an issue that's very important to the
23 Commission, and one that we've looked into
24 extensive.

25 I want to give a snapshot on where Florida

1 stands compared to the national average. It's
2 about double in terms of its reliance on natural
3 gas. And you can also see where Florida stacks up
4 against some other states in the southeast.

5 The 70 percent reliance on natural gas -- if
6 you can go to the next slide, please.

7 I'm give you a sense of kind of how this shift
8 has happened over time. You know, we've seen a big
9 increase in natural gas, especially since the early
10 2000s. And to give a sense of sort of how this
11 impacts customers' bills, about \$5 billion is
12 leaving Florida's economy every year to pay for
13 natural gas to be imported into the state for the
14 electricity system, and it comes out to about one
15 out of every \$4 that Floridians pay their electric
16 companies on their bills.

17 Next slide.

18 This since 1990, we've seen about 33 gigawatts
19 of new plants be built -- new gas plants be built
20 in Florida, and I want to give a sense of 10 years
21 out based on this year's ten-year site plans.

22 All 10 utilities that we looked at that filed
23 ten-year site plans are going to be above 50
24 percent natural gas reliance at the end of the
25 decade. Some are proposing expanding reliance on

1 natural gas plants over this time period.

2 Typically that 50 percent is something that we
3 view as a benchmark. That's about 15 percent above
4 the national average. And, you know, in our mind,
5 anything over 50 percent is something that should
6 be a cause for concern given the risk that this
7 poses for consumers, and I will talk about those on
8 the next slide.

9 So -- oh, actually, go back one slide. Sorry,
10 I have got a couple more notes to make on this.

11 So a few thoughts on the risks, and I know
12 Maggie spent some time on this, so I am the not
13 going to spend a whole lot of time, but fuel price
14 volatility risk, we have seen increases even in
15 utility filings this year based on where they
16 thought natural gas prices were going to be a year
17 ago and where they actually ended up being.

18 One Florida utility, in its ten-year site
19 plan, is projecting a 32-percent increase in the
20 price of gas over the next decade. That would
21 translate to about \$200 a year in bill increases
22 for the, you know, average residential customer
23 that uses about a thousand kilowatt hours. So, you
24 know, definitely some increased exposure there for
25 customers in terms of just the bills that they are

1 paying.

2 I thought Maggie well-summarized the stranded
3 asset concerns with these types of resource. And
4 those stranded assets could occur based on cheaper
5 alternatives, like solar and storage that we are
6 seeing now, and then also carbon regulation, which
7 I will talk about in a couple of minutes.

8 The -- the third risk that I want to highlight
9 does actually relate to Texas. So, you know, there
10 is a lot of research happening now to try to get to
11 the root of why the cold snap in Texas in February
12 led to the catastrophic failures of the grid that
13 it did. But one thing that we do know is 20 out of
14 the 50 gigawatts of gas plants that ERCOT expected
15 to be on line during that period were not, and
16 there were a couple of reasons for that. One was
17 just due to the failure to winterize those systems.
18 And then the other was just unavailability of gas,
19 that the pipelines froze and weren't actually able
20 to transfer gas to the plants that were
21 operational.

22 We know those impacts were felt even here. We
23 had plants in Florida that were transferred to run
24 on oil during that period because of unavailability
25 of natural gas. Texas is only 52 percent reliance

1 on gas compared to Florida's 70 percent. So
2 definitely important to looking at lessons learned
3 there and risks for the Florida system.

4 Next slide, please.

5 So the second question that we encourage the
6 Commission to be asking as it reviews the plans is
7 how do utilities stack up on clean energy? So the
8 US EIA, the Energy Information Administration,
9 projects that solar is now the cheapest generating
10 resource for utilities in Florida.

11 Our goal is for utilities to be hitting 30
12 percent renewable energy by 2030. Many utilities
13 across the country are pursuing much more
14 aggressive transitions than that, even getting to
15 50, 70, 80 or 100 percent by the end of the decade.

16 The good news is that Florida has a lot of
17 catching up to do, but also a lot of runway to do
18 it. And I also thought Stacy said very eloquently,
19 we learned have a lot of lessons, even across the
20 southeast, in how to integrate large percentages of
21 renewable energy. Just to give a quick example of
22 what I am talking about.

23 Duke Energy Progress in the Carolinas has
24 nearly 10 times as much solar per customer as Duke
25 Energy Florida here, and has demonstrated the

1 ability to integrate that smoothly, harness
2 significantly higher penetrations of solar.

3 So, you know, Duke is an example of a utility
4 that knows how to do this. They know how to
5 integrate 10 times more solar than they already
6 have on the system in Florida, and they are going
7 to be prepared and able to share lessons learned
8 for how to do that for other utilities here.

9 And all of that goal is to help smoothly to
10 place solar at scale here in Florida. And we are
11 moving in that direction but not moving in that
12 direction as quickly as we should. So this graph
13 gives a sense of where the utilities are going to
14 be at the end of the decade in terms of solar
15 penetration.

16 Next slide, please.

17 So the third question that we encourage the
18 Commission to be asking is are utilities ready for
19 a carbon constrained world? And there is a few
20 issues here.

21 One is there is broad consensus across market
22 analysts and utilities that carbon regulation is a
23 matter of when, not if. Even right now, Congress
24 is debating a reconciliation package that could
25 include a clean energy standard of 80 percent

1 carbon free resources by 2030.

2 So, you know, that is a very real possibility.
3 And obviously, you know, an 80 percent carbon free
4 is pretty far from where we are right now in
5 Florida, and would require some real mobilization
6 by utilities in the state.

7 There are a few ways that utilities can be
8 planning for this now, regardless of the form that
9 it eventually ends up taking. One is to assume a
10 carbon price in their planning. Duke Energy
11 Florida does this. FPL also does it. And it makes
12 sure that they are acknowledging the fact that
13 carbon regulation is coming in some form. We can
14 make pretty good assumptions about what that form
15 can be, build that into planning now and make sure
16 that customers aren't blindsided by that when that
17 ends up happening.

18 The other things that utilities are starting
19 to do is commit themselves to 100 percent carbon
20 free resources. So this chart shows some of the
21 utilities that are and are not taking the leap on
22 that.

23 So, for example, Tampa Electric's parent
24 company has a 100 percent by 2050 goal. Duke
25 Energy has one as well. Show so those utilities

1 are starting to look at, you know, what is that
2 going to look like, and how do we make resource
3 decisions that are going to lead to the place
4 where, you know, we know we really need to be for
5 customers.

6 Another option is to make sure that customers
7 are given cost-effective options for going 100
8 percent clean energy themselves. And, you know,
9 last year when I presented, we raised a concern
10 that some utilities in Florida were actually going
11 the wrong direction investing in more coal energy,
12 which is something that we are really not seeing
13 anywhere else in the country.

14 I am encouraged to say that several utilities
15 actually moved away from that in this year's
16 filing, made some significant improvements in terms
17 of their plans for relying on coal between now and
18 the end of the decade.

19 So FPL's reliance on coal is going to be 0.2
20 percent in 2030; TECO's will be 1.8 percent; OUC
21 FMPA Lakeland and Gainesville will all be zero
22 percent.

23 That said, there is a few outlier utilities
24 that still have significant coal resources on their
25 system at the end of the decade. JEA in particular

1 has over 20 percent of its system coming from coal
2 in 2030, which, obviously, we think is a reason in
3 and of itself to reject their plan and ask for
4 additional information; which is something the
5 Commission is fully within its authority to do
6 right now under the ten-year site plan statute.

7 Next slide.

8 And just to give a sense of how big and issue
9 this is, you know, preparing for a carbon
10 constrained reality for major companies all across
11 the world, household names. I don't know if Disney
12 is on this slide, but Disney is one of the
13 companies that is investing in solar and has a 100
14 percent carbon free goal.

15 Having these types of offerings and programs
16 available to customers to allow them to subscribe
17 to something that is 100 percent clean energy is a
18 big part of making Florida an attractive place to
19 work, live and open a business.

20 Next slide.

21 I want to switch gears and talk about
22 something that has particularly been important this
23 year, and that is how are utilities are treating
24 vulnerable ratepayers? And this, in some ways,
25 relates to the underinvestment that we have seen in

1 DSM in Florida for some time, but I think there is
2 additional urgency for measures to make Floridians'
3 bills more affordable right now because of COVID.

4 So I talked about some of these issues in last
5 year's COVID workshop, but just wanted to give you
6 some updated numbers on where things stand, and I
7 want to particularly highlight utilities like
8 Tallahassee, that have really gone out of their way
9 to protect customers during this time.

10 Tallahassee expanded its low-income grant
11 programs in light of COVID. It didn't disconnect
12 customers who applied for energy efficiency aid,
13 and it waited until April of 2021 to resume
14 disconnections, when a lot of other Florida
15 utilities started disconnection back in the fall.

16 So I think Tallahassee is a great example of
17 how to integrate affordability programs, energy
18 efficiency and arrearage management with a
19 compassionate disconnection policy, as folks are
20 still really in the woods on COVID and dealing with
21 the economic repercussions of that.

22 Next slide.

23 I want to end with a couple of additional
24 thoughts to Chairman Clark's question about Florida
25 modernizing its energy resource planning process.

1 So there are some things that would require
2 legislative authority. For example, you know,
3 looking at a broader time horizon, like 15 or 20
4 years instead of 10 years. But there are other
5 things that the Commission could do right now.
6 There is existing authority that would make this
7 process more robust and modernize it.

8 One would be to, instead of having an informal
9 workshop, put this process into a distinct docket
10 with a clear opportunity and timeline for public
11 comments and more robust discovery opportunities.

12 The other, I will echo Maggie. It's so
13 helpful to have the utilities filed preferred plans
14 and also alternatives, to give a sense of some of
15 the things that utilities are wrestling with as
16 they are dealing with this major time of transition
17 for the electric utility sector; and providing
18 clear price comparisons so that the Commission can
19 better understand where those choice points are for
20 utilities as they are looking over the horizon at
21 the next 10 years.

22 And then the other is the utility -- the
23 Commission has broad authority to deem plans
24 suitable or unsuitable; to make recommendations,
25 either for this year's filings or for next year's

1 filings; and to -- to propose alternatives for
2 utilities.

3 So lots of opportunities for the Commission to
4 provide more feedback to the utilities about what
5 they would like to he see going forward, or changes
6 that they really want to see in the current one,
7 provide the utilities an opportunity to provide
8 additional data, and then send back amended plans
9 based on that.

10 So just a few thoughts on how to do that, but
11 also would support the opportunity to engage in a
12 workshop on those issues in a more deeper way.

13 Next slide.

14 And with that, I will conclude my comments. I
15 am happy to take any questions. And thank you
16 again for the opportunity to speak with y'all this
17 morning.

18 CHAIRMAN CLARK: Thank you, Ms. Ottenweller.

19 All right. Commissioners, anyone have any
20 questions?

21 Commissioner Fay.

22 COMMISSIONER FAY: Thank you, Mr. Chairman.
23 And thank you, Ms. Ottenweller, for your
24 presentation.

25 I apologize, because I don't think your slides

1 are numbered, but if you go to the slide that's got
2 the utilities' percentage of energy for natural
3 gas. It's basically got some red bars on it with
4 different utilities, including municipals. I -- I
5 am a resident of Tallahassee here, and I have heard
6 them discuss a lot about renewables, and so when
7 I -- when I started looking at the percentage of
8 the energy of natural gas here and I saw that
9 Tallahassee was over 100 percent, am I -- am I
10 interpreting that correctly?

11 MS. OTTENWELLER: Honestly, Commissioner Fay,
12 this is something that's mystified me, too. They
13 had -- they've had this in their plans for the last
14 several years. And, you know, they are showing a
15 small percentage of solar also coming -- or a small
16 percentage of power also coming from solar. I
17 think it's, like, four percent by the end of the
18 decade. And so the only way I can make sense of
19 that is that they are -- they actually say that
20 they are over 100 percent natural gas. I think
21 they must be passing off some of that on the market
22 in wholesale energy sales, because over -- when you
23 look at the totals that they are putting into their
24 ten-year site plan, it's over 100 percent.

25 COMMISSIONER FAY: Okay. Yeah. Great. And I

1 had the same struggle. And I did see they had some
2 solar, utility solar generation at, you know, 40 or
3 60 megawatts. And so that would at least, from a
4 percentage standpoint, that would -- that would
5 make that the no 100, but I just wanted to make
6 sure as you include it in your -- your comparison
7 that -- that I wasn't misinterpreting that, because
8 to your point on the next page, they've got the 3.9
9 percent that you included, which I was guessing was
10 consumer solar, was a percentage of consumer solar.

11 MS. OTTENWELLER: Yeah. Their numbers don't
12 add up, and it's something that I --

13 COMMISSIONER FAY: Gotcha, okay.

14 MS. OTTENWELLER: -- would definitely
15 encourage you to ask them about.

16 COMMISSIONER FAY: Okay, great. Thanks. You
17 don't have to represent them today. I appreciate
18 your effort. Thanks so much.

19 MS. OTTENWELLER: I feel like I should as a
20 native.

21 COMMISSIONER FAY: Thank you.

22 Thank you, Mr. Chair. That's all I had.

23 CHAIRMAN CLARK: Thank you, Commissioner Fay.

24 Other Commissioners have questions?

25 Okay. Ms. Ottenweller, I have two questions.

1 I am going to begin with a question relating to
2 solar capacity. And you, as well as other groups,
3 are advocating this 30 percent by 2030. If my math
4 is right, that would take Florida to about 20,000
5 megawatt hours of solar capacity over the next nine
6 years. Your projection right now, staying on --
7 looking back at the IRP FRCC presented, would be at
8 about 7,200 megawatts on the current rate.

9 So what you're suggesting is it would be an
10 additional 12,000 dollars -- 12,000 megawatt hours
11 of solar capacity. That would assume -- assumably
12 replace either natural gas or current coal -- some
13 of the coal dispatch they may have.

14 Have you or your organization done any
15 calculations in terms of if we were to reach that
16 goal as you are suggesting, what would happen to
17 the cost of electricity for the state of Florida
18 for the consumers if you calculate in you would
19 have to have early retirements on those facilities,
20 what would happen to the cost of electricity?

21 MS. OTTENWELLER: Sure. So, you know, we've
22 not done a specific analysis on 2030, but I -- I
23 can send you analyses that have been done around
24 that time horizon. We are looking at, you know,
25 2030, different kind of roadmaps for 2030, 2035 and

1 2040. And, you know, even the Florida utilities,
2 some of them that are looking at analyses of, like,
3 you know, out to 2050 across the country are saying
4 even without a carbon tax or some other, you know,
5 kind of price of regulation, we can get to 100
6 percent clean energy at minimal cost. And we've
7 actually seen that model out in Florida so far.

8 So the SoBRA projects that are going into the
9 system that a lot of the utilities are doing are
10 adding maybe, you know, between 50 cents and a
11 dollar to customers' bills right now. But when you
12 look at the savings that are projected, from having
13 fuel free electricity and decreasing that reliance
14 on gas, especially as the price of gas increases,
15 you are talking about net savings.

16 So, you know, I think there is a very good
17 chance that continuing to shift in this direction,
18 especially some of the trends that we are seeing on
19 natural gas right now, could actually be a net
20 positive for consumers in Florida, but it's
21 something that I would love to follow up with you
22 about and provide some more information.

23 CHAIRMAN CLARK: Okay. Thank you.

24 Also, in your presentation, you went back to
25 address the current problem with disconnects in the

1 state of Florida. And my question for everyone
2 that has brought this up is who -- how would you
3 propose that these costs be paid for if we continue
4 to allow, or set a moratorium on disconnects?
5 Where we know for a fact would see an increased
6 number of folks that would not pay their bill, you
7 are going to see an increased amount of debt to
8 accumulate, and at some point in time, debts have
9 to be settled.

10 How you would propose that the additional debt
11 that is accumulated en masse across the entire
12 state of Florida be handled at the point in time
13 where we looked at a different methodology?

14 MS. OTTENWELLER: So I would start from the
15 perspective that, you know, I think Floridians
16 don't want to be in debt. They want to, for the
17 most part, like, you know, there is a handed full
18 of bad actors I am sure, but, you know, people want
19 to get a handle on their electric bills, but they
20 really just need some support right now and some
21 relief.

22 So what we've seen is, you know, there were
23 some increases in bad debt over the last year for
24 Florida utilities, but we don't see significantly
25 bad debt for the ones who had longer disconnection

1 periods from the ones who decided to restart
2 disconnections in September.

3 So these things are a judgment call, but, you
4 know, I think what we would really like to see is
5 we believe that targeted energy efficiency for
6 low-income customers, there is a lot of savings out
7 there that aren't being captured because of the
8 two-year screen. So lightbulbs for example, like,
9 we did an analysis showing that you could take
10 every customers that was in arrears, send them a
11 low-income assistance kit with weatherization
12 items, with lightbulbs, with, you know, smart power
13 strips, and actually end up in a net positive for
14 the system by helping them to actually lower their
15 bill and get on top of their arrearage with
16 targeted energy efficiency that's very focused on
17 those low-income customers' needs.

18 Not every customer is going to take it up, but
19 I think there are a lot of innovative opportunities
20 for taking these customers who are particularly
21 vulnerable and have high disconnection risk,
22 putting them into arrearage management plans that
23 really focus on energy efficiency that's going to
24 benefit them, and you don't end up with that bad
25 debt because you are really helping those folks to

1 lower their bills, not just for one month by
2 saying, you know, we will erase your debt, but
3 every single month going forward they are having
4 more affordable bills.

5 So, you know, I think it's, in my mind, it's
6 not necessarily an either/or, like, either we
7 disconnect people or we don't. But I think there
8 is a lot of opportunities in the middle of, you
9 know, how can we protect people right now, these
10 disconnections in this moment, but then look at,
11 you know, the underlying affordability problems
12 that we are seeing and really address those in a
13 more systemic way.

14 CHAIRMAN CLARK: All right. And I wouldn't
15 disagree with that. I don't know that that's the
16 Florida Public Service Commission's task and
17 responsibility to -- to look at those big overall
18 pictures of what are the systemic problems. I
19 specifically, when you look at the bad debt, do you
20 have statistical data that shows that there is not
21 going to be an increase in bad debt, or that we
22 haven't seen an increase in debt, do you have that
23 data?

24 MS. OTTENWELLER: Yeah. So for FPL, for
25 example, they ended up with about \$30 million of

1 bad debt. They also had \$200 million of increased
2 profits last year. So it may not be a popular
3 answer, but like their shareholders can absorb that
4 a lot better than the ratepayers of Florida can --

5 CHAIRMAN CLARK: Okay. Well --

6 MS. OTTENWELLER: -- or at least take some of
7 that on --

8 CHAIRMAN CLARK: That was the answer I --

9 MS. OTTENWELLER: -- here --

10 CHAIRMAN CLARK: Thank you for your honesty.

11 MS. OTTENWELLER: Yeah.

12 CHAIRMAN CLARK: All right. Thank you very
13 much.

14 Any other questions?

15 All right. Thank you very much.

16 MS. OTTENWELLER: Thank you.

17 CHAIRMAN CLARK: All right. We will move into
18 our public comment portion.

19 Is there anyone here today that has come to
20 share comments with us? Anyone?

21 All right. Commissioners, do you have any
22 other items to come before us, comments or
23 questions?

24 All right. Let me say thank to you all of our
25 presenters today for the information that you

1 brought forward. It was great to see everyone. I
2 look forward to seeing you next week.

3 Thanks, have a great week.

4 (Proceedings concluded.)

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