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BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

DOCKET NO. UNDOCKETED

REVIEW OF TEN YEAR SITE
PLANS OF ELECTRIC UTILITIES.

_____ /

PROCEEDINGS: COMMISSION WORKSHOP

COMMISSIONERS
PARTICIPATING: CHAIRMAN ANDREW GILES FAY
COMMISSIONER ART GRAHAM
COMMISSIONER GARY F. CLARK
COMMISSIONER MIKE LA ROSA
COMMISSIONER GABRIELLA PASSIDOMO

DATE: Tuesday, September 12, 2023

TIME: Commenced: 10:05 a.m.
Concluded: 11:15 a.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: DEBRA R. KRICK
Court Reporter

PREMIER REPORTING
TALLAHASSEE, FLORIDA
(850) 894-0828

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1 PROCEEDINGS

2 CHAIRMAN FAY: All right. If of everyone
3 could grab there seats.

4 All right. Thank you. I appreciate
5 everyone's patience. We are going to try to move
6 fairly swiftly this morning to make sure we get
7 through everything that we need to for this week.
8 So with that, we will begin the 2023 10-year Site
9 Plan workshop.

10 Staff, would you please read the notice?

11 MR. IMIG: Pursuant to notices issued on
12 August 29th, this time and place has been set for a
13 workshop on the 10-year site plan. The purpose of
14 the workshop is more fully set out in the notice.

15 CHAIRMAN FAY: Great. Thank you.

16 All right. We -- Commissioners, we will go
17 through our presenters for this morning. As
18 always, just to our presenters, I allow our
19 commission to interject if they choose to do so
20 when you are on a slide or a potential question.
21 Often, we wait until the end of the presentation,
22 depending on how we move forward, but we do have
23 the ability to do that at times.

24 So with that, we will move to our first
25 presenter, which is the Florida Reliability

1 Coordinating Council, Ms. Dochoda, you are
2 recognized to be in to begin your presentation.

3 MS. DOCHODA: Good morning, Chairman Fay,
4 Commissioners. I am Stacy Dochoda, the President
5 and CEO of the Florida Reliability Coordinating
6 Council, or FRCC.

7 Today I will be providing you a summary of our
8 analysis of the 2023 10-year site plans filed by
9 the utilities in Florida.

10 So first a little bit about FRCC. We are a
11 nonprofit corporation that was formed in the 1970s.
12 Our mission is to coordinate a safe, reliable and
13 secure bulk power system in Florida. We have 20
14 members, and those are utilities in Florida,
15 including the investor-owned utilities,
16 cooperatives and municipal utilities.

17 We carry out our activities on behalf of our
18 member utilities, and this includes being a
19 reliability coordinator, sort of like the air
20 traffic controller of the high voltage grid, and
21 also a planning coordinator, coordinating long-term
22 transmission planning in Florida among our members.
23 We have a staff of 28, and an annual budget of 17
24 million.

25 The topics that I will cover will include an

1 overall summary, the process that the utilities use
2 for integrated resource planning, and the aggregate
3 load forecast, planned capacity additions, reserve
4 margins and generation mix in the 10-year site
5 plans. I will also discuss reliability
6 considerations of both solar additions and the
7 natural gas infrastructure in Florida.

8 Now, in Florida, each utility develops its own
9 integrated resource plan to look out to the future
10 to forecast customer demand and how to reliably
11 serve that demand. The utility will prepare
12 forecasts of demand in energy usage, considering
13 drivers such as customer growth, the impacts of
14 energy efficiency and normal weather. Fuel and
15 resource price forecasts are also developed.

16 The utility will consider the demand in energy
17 that can be produced by its existing resources and
18 factor in any plans for modifications in outputs
19 such as updates rates, and will also consider the
20 impact of resource retirements and the expiration
21 of purchased power contracts.

22 The forecast tested demand and energy needs
23 are compared to the resources, and then against a
24 target reserve margin. And where there is a
25 shortfall, the utilities will consider options to

1 meet the reserve margin target.

2 Now, these options will include supply-side
3 options such as new generation or purchased power,
4 and demand-side options such as load control. The
5 cost and operating criteria of these options are
6 used to evaluate the alternatives, and the result
7 of this analysis is the utility's integrated
8 resource plan, or IRP.

9 Now, then the data from the individual utility
10 IRPs are brought together by FRCC to create the
11 FRCC load and resource plan. In addition, we use
12 the load and resource plan data to connect
13 reliability assessments of generation adequacy and
14 transmission reliability.

15 Now, I am going to start with the load
16 forecast.

17 In the 2023 10-year site plans, the firm
18 summer peak demand and energy growth are projected
19 to be about one percent per year. About the same
20 as last year's 10-year site plans.

21 Demand response reduces firm summer peak by
22 7.3 percent by 2032. And demand response would
23 include direct load control and interruptible
24 contracts.

25 And customer-owned distributed solar is

1 expected to reduce summer demand by 4.9 percent by
2 2032.

3 Now, let's look at some of the factors that
4 influence the utility's load forecast.

5 Unemployment rates have decreased and quite low, at
6 2.7 percent in Florida compared to 3.8 percent
7 nationally. Population growth continued to remain
8 strong. However, our wage and income growth have
9 not kept pace with employment growth.

10 Energy efficiency codes and standards, energy
11 conservation and distributed solar are dampening
12 energy use growth by about six percent by 2032. In
13 addition, commercial customer forecasts are being
14 reduced by on-line commerce.

15 And then finally, the impact of electric
16 vehicles is forecast to grow to above two gigawatts
17 by 2032, which is a sizable amount, but still a
18 relatively small percentage for a 65-gigawatt
19 system.

20 Now, this graph shows the 2022 and 2023
21 10-year site plan firm peak demand forecast. The
22 '23 forecast is in orange on the top. You can see
23 the growth rates, or the slope of the line, is very
24 similar, at about one percent.

25 And then this chart is looking at the energy

1 or gigawatt hour forecast from the two 10-year site
2 plans. The '23 forecast is the green line. And
3 again, the average annual growth rates on the
4 energy are also similar, at about one percent.

5 Now, here on Slide 10, we show the 2023
6 10-year site plan forecasted summer peak demands.
7 And what we are highlighting here is the impact of
8 demand response and utility energy efficiency
9 programs.

10 The yellow line that's on the top is what the
11 load forecast would be if we didn't have demand
12 response, or utility energy efficiency programs.
13 The green line just below shows the reduction in
14 the load forecast due to utility energy efficiency
15 programs. And then the blue line on the bottom is
16 the load forecast after energy efficiency programs,
17 and assuming activation of demand response. This
18 line is the forecasted summer firm peak demand that
19 we will use in the reserve margin calculations.

20 Now, this page is highlighting the net
21 capacity additions planned for the next 10 years.
22 The utilities are planning to add 5,300 megawatts
23 of firm solar, 5,000 megawatts of new natural gas
24 and uprates, 1,800 megawatts of new firm battery
25 storage. And the utilities are planning 3,700

1 megawatts of unit retirements. So this yields a
2 net new planned capacity of 8,400 megawatts over
3 the 10 years.

4 This chart shows the incremental generation
5 changes, additions or reductions, by fuel type.
6 The blue bars are coal, the orange is natural gas,
7 the gray is solar and the yellow is battery
8 capacity.

9 Now let's turn to reserve margin.

10 Using the forecasted firm load, so assuming
11 demand response is activated and utility energy
12 efficiency programs are in place, and then
13 comparing that to the projected available
14 resources, we've calculated the reserve margins.
15 And reserve margins are expected to be above 20
16 percent over the 10-year period for summer and
17 winter.

18 Now, these charts show the forecasted capacity
19 by fuel type on a megawatt basis. In the light
20 blue on the left, natural gas-fired generation
21 capacity is showing decreasing from 76 percent in
22 2023 to 70 percent in 2032. In orange, you will
23 see coal decreasing from seven percent to five
24 percent, and while in yellow, solar is increasing
25 capacity from six to 12 percent.

1 This pie chart is looking at the forecasted
2 fuel mix on an energy, or gigawatt hour basis. And
3 here on the light blue, you will see natural gas
4 energy decreasing from 70 percent in 2023 to 56
5 percent in 2032. In orange, coal is decreasing
6 from six to three percent; and in yellow, solar is
7 growing from six to 27 percent.

8 Now, in last year's 10-year site plans, when
9 we looked 10 years out, solar was about 19 percent
10 of energy compared to the 27 percent that we are
11 showing you in this year's 10-year site plan.
12 Natural gas in last year's 10-year site plan was
13 projected to be 65 percent, compared to 56 this
14 year. So there has been a significant changes in
15 the resource mix for energy between last year's
16 10-year site plan and this year's.

17 Now, this slide shows a comparison of the
18 nameplate solar compared to the firm solar capacity
19 attributed by the utilities. The nameplate is
20 shown in the orange bars, and the firm is in the
21 blue. The firm solar capacity averages 51 percent
22 of nameplate for 2023, and 25 percent of nameplate
23 by 2032.

24 Now, while the utilities are planning to add
25 over 26,000 megawatts of nameplate solar capacity,

1 the firm solar, which is counted toward reserve
2 margin, is increasing by 5,300 megawatts.

3 Now, the next few slides are really to
4 illustrate how the utilities are assigning the firm
5 megawatts for solar, as solar is increasing and
6 changing the period of most risk of serving load.

7 Now, this graph shows the total load curve for
8 each hour for the date May 3rd, 2023. And you can
9 see the overall shape is what you would expect,
10 being lower in the morning and higher in the
11 afternoon hours. Now, the orange part of the line
12 on top shows the customer load. The gray line just
13 below is the load less utility solar output, and
14 this is called the net load.

15 Okay. The traditional daily peak, where the
16 orange line is at its maximum, is shown by the red
17 dashed line about 6:00 p.m. With the addition of
18 significant amounts of solar on the system, the
19 time when utilities face their smallest operating
20 reserve, when they have the least dispatchable
21 generation to meet incremental load, shifts to
22 later in the day.

23 With the current amount of solar on the
24 system, the smallest operating reserve, or the net
25 load peak shifts from 6:00 p.m. to 7:00 p.m. There

1 is less solar on-line at this later time of net
2 load peak, so the firm contribution of solar is
3 less as more solar is added to the system.

4 Now, this graph illustrates how the net peak
5 shifts with two times the current solar. And now
6 the net load peak and time has shifted to 7:30 p.m.

7 And then this final graph shows if you have
8 added five times the current solar, now net load
9 peak is shifting to about 8:00 p.m.

10 So as you can see, as more and more solar is
11 being added, and the net peak is moving to later in
12 the day, there is less solar on at that time of
13 day. So this is just to illustrate how as more
14 firm -- more solar is being added, the firm solar
15 is changing from the about 50 percent of nameplate
16 that we have today to an average of 25 percent in
17 2032.

18 Now, with the significant growth of solar
19 that's forecasted, for a number of years, utilities
20 and FRCC have been working to understand the
21 reliability considerations of this change in
22 resource mix. At the current levels of solar
23 penetration, members have been able to reliably
24 incorporate solar without negative operational
25 impacts.

1 Adding the solar shifts the period of lowest
2 operating generation margins, the net peak, as we
3 just showed in the previous slides, to later in the
4 day. And so planners are assigning lower capacity
5 value to solar as penetration increases and the net
6 peak moves to a time of day when less solar is
7 present.

8 Planners are evaluating resource adequacy
9 beyond summer and winter peaks. And utilities are
10 also developing experience with these resources,
11 understanding the importance of the solar output
12 forecasting, and integrating that into their
13 generation dispatch to ensure reliable and
14 efficient operations. We also have the ability to
15 learn from other parts of the country that already
16 have high levels of solar.

17 And finally, FRCC and members are studying the
18 impacts of solar and batteries on resource adequacy
19 measures, and we are doing additional calculations
20 and analysis to ensure that we are considering
21 these attributes of these resources appropriately.

22 Now, the last topic that I will cover is the
23 Florida natural gas infrastructure.

24 For years, FRCC members have employed a
25 consultant to maintain a comprehensive

1 infrastructure model for the natural gas system and
2 a utility fuels database. And this allows the
3 members to identify periodic reliability studies
4 examining different infrastructure contingencies.

5 We've also had the consultant perform studies
6 to see if the expected infrastructure capacity is
7 projected to be adequate based on the forecasted
8 needs. And based on these studies, I can report
9 that the natural gas infrastructure capacity is on
10 pace to support planned generation additions.

11 On a realtime basis, when it's need due to
12 emergency system conditions, FRCC coordinates with
13 our members any regional response to fuel
14 emergencies with the utilities and the pipelines.
15 And to bolster reliability, utilities and in FRCC
16 have a large percentage of gas generation that has
17 alternate fuel capability. The average is between
18 57 and 62 percent over the 10 years.

19 And then finely, we are fortunate that natural
20 gas is almost entirely dedicated to the electric
21 industry in Florida.

22 So to summarize the aggregate 2023 10-year
23 site plans, Florida utilities continue to increased
24 planned solar and battery capacity installations
25 with decreasing capacity value attributed to solar

1 as the net peak is shifting to later hours of the
2 day.

3 Distributed or customer-owned solar
4 penetration is noticeably decreasing the utility
5 load forecast. The electric vehicle impact to load
6 forecast is expected to increase substantially, but
7 still relatively small on a percentage basis. And
8 the planned reserve margins are above 20 percent
9 for the 10 years of the forecast.

10 Finally, Florida utilities continue to
11 coordinate at FRCC to ensure reliability through
12 studies of the transmission system, natural gas
13 infrastructure and solar and battery impacts to
14 operations and planning.

15 I would be happy to answer any questions that
16 you have.

17 CHAIRMAN FAY: Great. Thank you, Ms. Dochoda.

18 I have a quick question for you, and then I
19 will open it up to my colleagues if there is any
20 other questions. And this is sort of a generalized
21 question on your presentation.

22 You know, we -- I think all commissioners, we
23 go to these meetings and meet with other
24 commissioners from different states and regulatory
25 bodies, and there is just so much conversation

1 about how they are managing peak load, and rolling
2 blackouts, rolling brownouts, I mean, just a lot of
3 I think anxiety. It seems like, you know, storm
4 preparation and restoration has always been a
5 priority for us, but it doesn't seem like that we
6 have this constant sort of fear of reliability and
7 stability. So I know part of that is just the
8 reserves. But can you just give us an idea -- I
9 know you send out EEAs, I believe they are, if we
10 get to certain levels, we had a hot summer, like
11 just help us understand maybe behind the scenes
12 what occurs that helps support us not being in the
13 situation that some of these other states are.

14 MS. DOCHODA: Sure. Sure.

15 So, as I mentioned, we are the reliability
16 coordinator as well as the planning coordinator, so
17 in the RC role, we are involved in that. Realtime
18 operations that would involve like an energy
19 emergency alert, or if there would have to be
20 blackouts we would be involved with the utilities
21 on that.

22 But I can say that we are very fortunate in
23 Florida with, really beginning from the planning
24 stage working through into the near time and into
25 the real time with the work that the utilities do,

1 both within their own shops, with FRCC, and then
2 collaborating together to ensure reliability, you
3 know, every step of the way, and it really does
4 have to begin with that planning well ahead.

5 So I've, like you have certainly watched,
6 what's happened in the other states, I -- as an RC,
7 I would never say that I don't worry at all,
8 because, you know, you always want to be on top of
9 the game, but I'm very happy to be in Florida. I
10 am very happy to be with these utilities, with the
11 regulators that we have, because I do think that
12 the emphasis on reliability is front and center
13 every day. And it's really the entire mission of
14 FRCC, so it's what we do every day, and the
15 utilities are very sincere and very hard-working at
16 trying to make sure that we don't end up in those
17 situations.

18 CHAIRMAN FAY: Yeah, and in that coordinating
19 part, you said you have 20 something members. Is
20 there a reason -- I know obviously, you have the
21 IOUs, munis and co-ops. Is there a reason some are
22 involved and some aren't? I mean --

23 MS. DOCHODA: Well, I would say that, in
24 essence, the way our industry structure will have,
25 under NERC terminology, balancing authorities and

1 load serving entities and reliability coordinators,
2 so we have these different players.

3 Every balancing authority, which is the
4 utility that has to balance its load for, and its
5 generation, every one of those is a member of FRCC.
6 And they, in turn, then may have members that they
7 serve that may not be members of FRCC but they are
8 really served through this higher utility that they
9 work with and have contracts with.

10 So I would say that we really cover the entire
11 state in terms of that reliability look at the high
12 voltage level.

13 CHAIRMAN FAY: Gotcha. That's very helpful.
14 It's a broader net than maybe just what the number
15 demonstrates.

16 MS. DOCHODA: Right.

17 CHAIRMAN FAY: Okay. Great.

18 Commissioners?

19 Commissioner Clark, you are recognized.

20 COMMISSIONER CLARK: Thank you, Mr. Chairman.

21 Ms. Dochoda, thank you for reiterating some of
22 the things I have had some serious concerns about.
23 I continued to address our overreliance on the
24 future of solar. And I just have a couple of
25 questions regarding the plan and how the

1 calculations are made when it comes to generation
2 mix and the reserve margins.

3 My concern, too, has been the nameplate
4 capacity ratings of the systems versus what their
5 actual performance is under peak. When you look at
6 the reserve margin calculations, and you see in
7 2032 a 20- to 25-percent summer reserve margin, is
8 that based on the nameplate ratings that the solar
9 systems are given, or is that giving them that
10 25-percent actual capacity rating?

11 MS. DOCHODA: It's the latter. So the reserve
12 margins that I am showing you that are above 20
13 percent are only attributing the firm solar
14 capacity. So out in 2032, it's 25 percent of the
15 nameplate on average.

16 COMMISSIONER CLARK: So that leads me to the
17 point I have tried to make a number of times. So
18 to make up that additional 75 percent, what do we
19 still have to do?

20 MS. DOCHODA: Well, maybe I -- look at it just
21 a little bit different way. I think that the
22 utilities are -- they are planning to make sure
23 they have the 200percent, and they are being, I
24 think, appropriately looking at the solar in terms
25 of what it's contributing at that time, and only

1 counting the 25 percent. So the 75-percent you
2 are, I think, referring to, the complement of that,
3 really what that is is energy that will be
4 available at other times of the day. So that
5 nameplate solar, you do see almost nameplate --

6 COMMISSIONER CLARK: Right. I am sorry to
7 interrupt, but it's energy, but what about capacity
8 during the peak time, what is it made up with?

9 MS. DOCHODA: Okay. So since they are meeting
10 the 20-percent, so they are only counting 25
11 percent of the solar, they are not counting that 75
12 percent. So they've got the gas and the coal,
13 those are there to make sure that you get to the
14 20-percent.

15 COMMISSIONER CLARK: So I could determine from
16 that that we are still having to build a fossil
17 fuel plant in order to meet our capacity needs even
18 though we don't necessarily need it for our energy
19 needs, is that correct?

20 MS. DOCHODA: I think that's a fair way to
21 look at it.

22 COMMISSIONER CLARK: So would it also be fair,
23 when this commission looks and views at the cost of
24 solar installation, that that calculation be a part
25 of what we are looking at in terms of our long-term

1 cost?

2 MS. DOCHODA: So now you are in the economics
3 of it, which is beyond my --

4 COMMISSIONER CLARK: I'm trying to get there.
5 Yeah.

6 MS. DOCHODA: -- my jurisdiction. Sorry.

7 COMMISSIONER CLARK: I will leave it with
8 that, Mr. Chairman. Thank you.

9 CHAIRMAN FAY: Okay. Commissioner La Rosa,
10 you are recognized.

11 COMMISSIONER LA ROSA: Thank you, Chairman.
12 And maybe I am going to piggyback a little bit on
13 some of the questions.

14 So when we stalk about the reserve, and the
15 20-percent here in Florida, it is refreshing to
16 hear you say that, you know, we don't have to face
17 maybe some of the challenges of other states. But
18 where do we compare to other states as far as a
19 reserve amount? That's more of a, kind of a
20 personal curiosity question.

21 MS. DOCHODA: Right. So I would say, as you
22 look across the states, 15 percent is a common
23 number that's used, and actually FRCC's target
24 reserve is 15 percent. The IOUs, of course, have
25 the 20-percent here in Florida. But you see

1 numbers ranging from 15, 17, 22. It's typically in
2 those sorts of numbers.

3 But I think one thing that we are also seeing
4 is this evolution, or recognizing that we obviously
5 want to serve our customers in every hour, not just
6 the peak. So the workaround reserve margins and
7 the workaround reserve resource adequacy is
8 evolving really as we speak to try to create
9 analysis that looks at more hours of the year, to
10 make sure that we have sufficiency in all hours.

11 And more will be coming on that. It's really
12 an evolving science. But I would say we are really
13 sitting in a very similar target as most other
14 places.

15 COMMISSIONER LA ROSA: And reliability is one
16 of those things that we all want, we all say we
17 want, and then we really want it when all of a
18 sudden you don't have capacity, or of course, power
19 is out.

20 I am just kind of flipping over to another
21 topic that was largely discussed is solar. And
22 maybe this might be a little better suited for one
23 of the utilities, but do you see, and looking at
24 what we are looking at over the next 10 years, more
25 solar outlay, are there challenges that are being

1 faced with the bringing -- with bringing more solar
2 on, or maybe getting solar permitted? Because we
3 are probably not just talking about rural areas, we
4 are probably talking about also, you know, urban
5 uses, and so forth.

6 MS. DOCHODA: Yeah. I am afraid the
7 permitting is not in my -- the area that we study.

8 COMMISSIONER LA ROSA: Gotcha.

9 MS. DOCHODA: Yeah.

10 COMMISSIONER LA ROSA: All right. Obviously,
11 that question will come to others, but I appreciate
12 it. Thank you for your time.

13 MS. DOCHODA: Of course.

14 CHAIRMAN FAY: Thank you, Commissioner La
15 Rosa.

16 Seeing no other questions for Ms. Dochoda --
17 staff, any questions? No. Okay. Great.

18 Seeing no other questions, Ms. Dochoda, we
19 appreciate you being here this morning. As always,
20 we -- sometimes we will have follow-ups, so our
21 offices may reach out to you if we have follow-up
22 questions on your presentation.

23 All right. With that, Commissioners, next we
24 will move to a presentation by Duke by Mr. Borsch.

25 Mr. Borsch, you are recognized.

1 MR. BORSCH: Thank you very much, and good
2 morning. I am here to talk about the 10-year site
3 plan for Duke Energy Florida. And our plan is
4 basically very similar to what we had showed you
5 last year.

6 Our load forecast has not changed materially
7 from the forecast that was presented last year. We
8 continue to see modest retail growth, which is
9 driven by healthy customer growth, but it's offset
10 by falling use per customer, which is driven in
11 part by continued aggressive adoption of rooftop
12 and customer-owned solar.

13 Our overall system load growth is essentially
14 flat. We have some retail -- modest retail growth,
15 but the -- it's offset by the expiration of the
16 number of wholesale contracts. But we do project
17 some summer peak demand growth, which is what
18 drives our resource plan. And this peak demand
19 increase reflects a kind of continuing trend of a
20 disconnect between the peak demand and the overall
21 energy use.

22 Our overall generation plan is not very
23 different from the one that we showed you last
24 year. Again, overall, we expect to see a continued
25 and sort of steady rate of growth in cost-effective

1 solar addition to our system, while we are
2 projecting the expiration of a variety of higher
3 priced legacy power contracts and some modest
4 requirement of our older peaking system.

5 The one material change we have in our plan
6 this year is a series of efficiency improvement
7 projects at our combined cycle fleet. These
8 projects, which will be implemented between 2023
9 and 2027, are expected to provide fuel savings in
10 excess of their cost to customers.

11 In addition, these projects will provide some
12 additional capacity in the combined cycle
13 facilities that will provide additional reliability
14 coverage during evenings and other low solar hours.

15 Our summer reserve margins continue to follow
16 our overall trend of targeting the 20-percent
17 target over the next several years.

18 Winter reserve margins are almost always
19 slightly higher than our summer reserve margins,
20 and they also will follow that general trend. We
21 do have a little bump up in our wintered thanks to
22 the reliability additions from the previously
23 mentioned combined cycle projects.

24 And lastly, our energy generation by fuel type
25 is, again, very similar to what we showed you last

1 year. There is some modest increase in our
2 expectation from solar, which eats into a little
3 bit of the gas generation overall.

4 And that is our summary in a nutshell, and I
5 am available for any questions.

6 Thank you.

7 CHAIRMAN FAY: Great. Thank you, Mr. Borsch.

8 Just real quick, on page four, on that summer
9 reserve margin, you have got the jump from 2023 to
10 2024. Can you just elaborate a little on that
11 adjustment? 43 percent down to 28 percent.

12 MR. BORSCH: Yeah. Really, that's a load
13 forecast anomaly, to be honest with you. It's not
14 really a change -- such a huge change in the
15 capacity.

16 We -- our load forecast for 2023 had initially
17 incorporated the idea that we were going to have a
18 recession this year. And so I would say we
19 slightly undershot the load forecast. But overall,
20 it's not a significant change. There is -- we are
21 having one modest size contract roll off this
22 summer that impacts our overall capacity, but -- so
23 it's a little bit of combination of factors, but
24 that's -- it's not really a significant change in
25 our actual unit capacity.

1 CHAIRMAN FAY: Okay. Great. Thanks. That's
2 all I have.

3 Commissioners, any questions for Duke?

4 Commissioner Graham, you are recognized.

5 COMMISSIONER GRAHAM: Quick question for you.
6 On page two, I see the summer peak demand from '22
7 to '23 compared to the winter from '22 to '23.
8 What caused for the winter to go up so much?

9 MR. BORSCH: The difference is -- those are
10 actuals. The starting values that you can see
11 there, 2021 starting value and the 2022 starting
12 value, those are actual values for the given years.
13 Winter -- winter load, as you know, is
14 substantially variable in Florida. So really, that
15 reflects the fact that the winter of 2022-'23 was
16 much colder than the previous winter before that.
17 We had that cold snap, you may remember, over
18 Christmas and into January, and that drove us a --
19 drove a peak load that we hadn't seen actually in
20 three or four years before that.

21 COMMISSIONER GRAHAM: I was going to say, it's
22 just kind of an impressive difference. That's why
23 I was curious.

24 MR. BORSCH: Well, I mean -- you know, this is
25 one of the things we deal with. I mean, the

1 variability in winter load is really one of the
2 things that significantly drives our plans, even
3 though we are technically a summer planning
4 utility, what we look at, to be honest with you,
5 most carefully when we start thinking about our
6 resources is the wintered because there is just so
7 much variability.

8 I mean, you know, the years -- I mean, if you
9 think about our history, we had, you know, most
10 recently I think in everybody's memory, 2010, when
11 it was very cold for an extended period of time,
12 and, you know, the load was 25 percent above, you
13 know, what the average has been for the rest of the
14 most recent 10 years. So that variability from,
15 you know, may only happen once a decade, but we
16 really keep an eye on that. That's an important
17 factor in our planning.

18 COMMISSIONER GRAHAM: And all that nice pretty
19 solar doesn't do you any good at six o'clock in the
20 morning, does it?

21 MR. BORSCH: It does not, and, you know --
22 and, you know, to the point that was being talked
23 about earlier, you know, I mean, we do -- at least
24 Duke plans essentially for zero solar on that
25 winter morning peak because we assume it's going to

1 occur at seven o'clock in the morning in January.

2 COMMISSIONER GRAHAM: Thank you.

3 CHAIRMAN FAY: Commissioner Clark, nothing to
4 -- no questions?

5 COMMISSIONER CLARK: No.

6 CHAIRMAN FAY: Okay. Any other questions?

7 All right.

8 Yeah. Commissioner La Rosa, you are
9 recognized.

10 COMMISSIONER LA ROSA: Thank you.

11 And sorry, you were just kind of next up so I
12 am going to ask you a similar question as we are
13 talking about solar.

14 Do you find any challenges with the outlay of
15 solar as far as either, you know, I am going to say
16 building out in rural areas, or even when it comes
17 to the more urban scenarios, where customers are
18 either trying to get rooftop, which I know not
19 necessarily -- you may not necessarily be involved
20 day-to-day with, but I am just kind of curious, as
21 this continues to grow in popularity with customers
22 and what challenges that the industry is going to
23 have?

24 MR. BORSCH: Well, I mean, I don't know if I
25 would use the word challenges exactly. But I mean,

1 you know, any -- any utility permitting is an
2 effort, so, I mean, you know -- and we work very
3 closely with all of the involved stakeholders in
4 any given local area where we are building a
5 utility scale solar project, you know, from
6 landowners to, you know, county siting boards,
7 local residents, everybody, you know, that gets
8 involved, as well as, of course, environmental
9 permitting.

10 So, I mean, there are always challenges there.
11 We have not seen really, I would say, a point
12 where, you know, we would say, wow, this is getting
13 to be a problem. I mean, you know, we are seeing a
14 point where, you know, project by project we go
15 through and we find a good site and we, you know,
16 overcome whatever the specific local issues are.

17 As you say, I am not directly involved in the
18 question of rooftop solar. My perception is that,
19 you know, overall, customers are able to connect
20 rooftop.

21 We do have local issues in places where, you
22 know, say, a lot of rooftop may be, you know,
23 connected to a single distribution feeder, but, you
24 know, that is overall, again, a matter of our
25 working with local communities to anticipate the

1 infrastructure needs, which is not very different
2 from what we have done on the load side for, you
3 know, ever.

4 COMMISSIONER LA ROSA: Awesome. Thank you. I
5 appreciate it.

6 CHAIRMAN FAY: All right. Seeing no other
7 questions, thank you, Mr. Borsch.

8 Next we will move to -- oh, staff any
9 questions? I apologize. No? Okay.

10 Next we will move to FPL's presentation by Mr.
11 Whitley.

12 Mr. Whitley, you are recognized.

13 MR. WHITLEY: Thank you. Good morning,
14 Chairman and Commissioners. My name is Andrew
15 Whitley. I am the Manager of Integrated Resource
16 Planning at FPL. And I am here to talk to you --
17 highlight some of the major changes and additions
18 in the 2023 10-year site plan, as well as compare
19 it back to the 2022 10-year site plan.

20 So I summarized just some major updates of the
21 2023 site plan here. The first two bullets are
22 consistent with what we filed in 2022. We continue
23 to upgrade our combined cycle fleet in order to
24 provide more megawatts on peak. And so those
25 efforts are lasting through 2026 and 2027,

1 resulting in almost 300 more megawatts added to our
2 system.

3 By the end of the 10-year period, all of FPL's
4 coal-fired generation will be retired. Next year,
5 we are planning on retiring our ownership portion
6 of the Daniel Plant in Mississippi, and the -- and
7 later on in the period, in 2029, we will retire our
8 25 percent ownership stake in Scherer 3.

9 The remaining four bullets there cover kind of
10 the major changes to our 2023 site plan as compared
11 to our 2022. We are adding almost 20 gigawatts of
12 nameplate solar during that period, and close to
13 two gigawatts of battery storage. So that's a much
14 more aggressive outlay than our 2022 10-year site
15 plan.

16 As a result of that, our percentage of energy
17 shifts drastically. Our percentage generated from
18 gas drops to roughly 45 percent, meaning that the
19 remaining percentage of energy for FPL by 2032 is
20 going to be generated by about 54 percent from
21 sources of energy that aren't future by fossil fuel
22 and don't produce any emissions. So that's our --
23 all of our solar and nuclear energy.

24 After considering all these generation
25 additions and the associated effects on our system,

1 we will continue to meet our summer and winter
2 reserve margin of 20 percent through 2032.

3 And here in this slide, we can see the
4 marriage factors in terms of our forecast going
5 forward. Pretty consistent growth rates between
6 the 2022 and 2023 10-year site plan. We do
7 continue to see expected growth in our service
8 territory through the 10-year period.

9 I will note in both cases, the natural gas
10 forecast at the bottom there, the higher values for
11 -- that we are seeing for 2022 and 2023 are a
12 result of the kind of volatility from that time
13 period, and we expect that to subside over time.
14 And that results in that drop in natural gas prices
15 over the 10-year period.

16 For generation additions, all of these are in
17 firm megawatts. So you can see the firm megawatts
18 provided by our solar additions for the 10-year
19 period, and obviously, you can see that number is
20 much greater in the 2023 10-year site plan. And
21 for the first several years, you can see the
22 results of our upgrades to our natural gas plants
23 there.

24 I will say, you can see, later on in the
25 period, we begin to add more battery storage

1 facilities. I believe that kind of answers
2 Commissioner Clark's question as to what do you add
3 when your solar firm capacity declines over time.
4 You do have to add additional firm capacity, and in
5 this case, it's being added in the form of battery
6 storage facilities.

7 For our summer reserve margins, you can see we
8 do expect to be at or above 20 percent for the
9 10-year period. We show a similar pattern to the
10 additions we had in the 2022 site plan as well.

11 And same kind of pattern exists for winter
12 reserve margins. We do have slightly higher values
13 than our summer reserve margins. As kind of been
14 explained before, our winter is, you know, we are
15 modeling this on a P50 winter, so we do tend to
16 have slightly higher reserves for winter reserve
17 margins over a time.

18 So the following side comes back to something
19 I alluded to earlier. You can see the big change
20 in our energy mix, especially over time, going into
21 2032, by the end of the 10-year period. As we add
22 more and more solar to our system, that essentially
23 displaces energy that would be resulting from
24 gas-fired combined cycle units on our fleet. And
25 so you can see that on the right-hand side there.

1 Our percentage of gas drops from 74 percent
2 down to 45 percent. Our solar goes from five to
3 about 35 percent of the net energy for load on our
4 system in 2032, while our output from our nuclear
5 units remains relatively constant over time.

6 And that is the end of the presentation I had.
7 I will be happy to answer any questions you may
8 have.

9 CHAIRMAN FAY: Great.

10 Any questions, Commissioners?

11 Yeah, Commissioner Clark, you are recognized.

12 COMMISSIONER CLARK: Thank you.

13 I was just looking at your observation
14 regarding replacing that firm capacity with
15 batteries, yet, if you look at the 10-year
16 forecast, it looks to be, you know, you replace
17 probably, what, 15 percent of that need? If we
18 discuss there is a 75 percent differential between
19 the nameplate and the actual firm capacity, you are
20 replacing about 15, 20 percent of with battery.
21 How do we anticipate making the rest up?

22 MR. WHITLEY: Well, we do -- we factor in the,
23 basically the decline in firm capacity from solar
24 in all of our planning. So we make sure not to --
25 not to assume that we will have all of that

1 nameplate available.

2 So, you know, we recognize that, you know, as
3 the graph that Ms. Dochoda showed earlier, that the
4 net peak shifts later and later in time. We kind
5 of recognize that solar will not be able to produce
6 energy during those times later on in the evening,
7 and that essentially becomes our new peak for the
8 rest of our generation.

9 And so by using that, and kind of utilizing a
10 formula to determine how much firm capacity value
11 we have for solar, that allows us to plan for the
12 differential between nameplate and the firm
13 capacity of solar.

14 COMMISSIONER CLARK: The term -- and we have
15 talked about peak and net peak, and that's kind
16 of -- the terms, I guess, a little bit unusual.

17 How long have we used this -- how long have we
18 needed this term? Going back in history, have we
19 ever had to differentiate between a peak and a net
20 peak with any other generation sources?

21 MR. WHITLEY: For other generation sources, I
22 don't believe so. Nothing comes to mind off the
23 top of my head. Most --

24 COMMISSIONER CLARK: And that was an honest
25 question. I was trying to think if there -- how

1 did we come up with this term, peak and net peak,
2 all of a sudden?

3 MR. WHITLEY: Most of it is, you know, most of
4 traditional generating resources are available, you
5 know, have the same -- relatively the same capacity
6 peak and on-peak. There has been some difference
7 in fossil units between winter and summer, et
8 cetera.

9 I think most of what we have seen in terms of
10 how to handle solar has been by looking at
11 jurisdictions where there is much higher
12 penetration, like areas like California, and seeing
13 some of the challenges they've experienced, and
14 some of the methodologies and practices that
15 they've used.

16 I think ever since we've started adding solar
17 to our system back in 2008 and 2009, we have kind
18 of relied on not treating solar as having all of
19 its nameplate capacity on the system peak, and kind
20 of as it's become more of a factor in our planning,
21 we've kind of relied more on different
22 methodologies to determine the firm capacity value.

23 COMMISSIONER CLARK: I guess my other question
24 would relate to distributed solar. And it seems to
25 me, from the trend that Ms. Dochoda was referring

1 to, that we are seeing an uptick again in the
2 distributed solar. Is that some -- do we know
3 what's causing -- my question is, we made a shift
4 for the utilities to begin to get into the solar,
5 begin to use solar, and there was an assumption, I
6 guess on my part, that we would probably see that
7 have an effect on the distributed solar. And I
8 think what we are seeing is the opposite is
9 happening. Is there any trend or something that
10 the Commission should know or be aware of?

11 MR. WHITLEY: As far as distributed solar, I
12 mean, you know, there is -- I think it's just the
13 general trend of more increasing adoption that we
14 have seen. And when we produce our load forecast
15 every year to use for our planning processes, we
16 receive a forecast of what projected additions, as
17 far as rooftop PC and distributed PV are coming on
18 line in our system.

19 And in the past couple of years, we have seen
20 a shift towards that going higher. I think that's
21 driven by some of the tax incentives and some of
22 the declines in solar that we have seen that not
23 only applies to utility-scale solar, but also
24 distributed PV as well.

25 COMMISSIONER CLARK: My final question has to

1 do with other renewable resources that you guys
2 have touted over the years in terms of, I believe,
3 NextEra being one of the largest wind generating
4 companies, but we don't see any other -- we don't
5 see any projections on green hydrogen. We don't
6 see any projections from wind. Are there any
7 reasons those aren't included in your long-term
8 projections?

9 MR. WHITLEY: I will say wind, in general, in
10 Florida, I think, doesn't make sense. We've -- I
11 know, years ago we've had inquiries about an
12 offshore wind in St. Lucie, and I don't think that
13 really went anywhere. I think the amount of land
14 that wind would require and the output you get
15 wouldn't be comparable to what you get in, say, the
16 midwest.

17 As far as green hydrogen goes, FPL is piloting
18 a green hydrogen electrolyzer system at its
19 Okeechobee plant utilizing energy generated from
20 solar. And that will be on line roughly by the end
21 of this year. And as we get information about that
22 plant, that will kind of allow us to determine, you
23 know, the viability of hydrogen going forward in
24 FPL's system.

25 COMMISSIONER CLARK: So we don't really see it

1 right now in the 10-year window, even though we are
2 under some potential mandates to have it done
3 within five or six? I think that was the right
4 number.

5 MR. WHITLEY: I'm not familiar if the mandate
6 is on --

7 COMMISSIONER CLARK: Potential mandates.

8 MR. WHITLEY: Potential mandates on green
9 hydrogen, yes. But right now, we don't -- we don't
10 see that being a huge part of our issue -- planning
11 process in the 10-year period, but as we get
12 information, we will reevaluate that going forward.

13 COMMISSIONER CLARK: That was more a poke at
14 EPA than you, so don't take that the wrong way.

15 Thank you.

16 CHAIRMAN FAY: All right. Thank you,
17 Commissioner Clark.

18 Yeah, Commissioner La Rosa, you are
19 recognized.

20 COMMISSIONER LA ROSA: Thank you. And I feel
21 like I am piggybacking on questions.

22 What about nuclear? Is there any thoughts on
23 the expansion of nuclear? It wasn't really
24 necessarily discussed a whole lot, as we are trying
25 to make up the difference for some of the solar

1 that's being generated.

2 MR. WHITLEY: Yeah, I think there are -- as
3 part of the Inflation Reduction Act, there were
4 some incentives for possibly upgrading nuclear. I
5 know we've examined possibly, you know, further
6 uprates of our units. I think that would be very
7 early in planning to determine whether or not that
8 would be cost-effective for all of our customers.

9 You know, we have already upgraded our nuclear
10 plants previously back in 20 -- finalized back in,
11 like, 2013 or 2014, and so there is -- you know,
12 we've already done that once. I am not sure
13 exactly how much more we could be able to get out
14 of existing nuclear going forward.

15 COMMISSIONER LA ROSA: How about the
16 implementation of small scale?

17 MR. WHITLEY: Like small modular reactors
18 or --

19 COMMISSIONER LA ROSA: Right.

20 MR. WHITLEY: Again, it's kind of -- it's kind
21 of similar to green hydrogen, right. In the
22 10-year period, you know, that's not a very mature
23 technology. A lot of these companies are making a
24 lot of promises as far as, you know, can they
25 scale, can they be cheap enough to provide a

1 reliable solution for resource additions? I think
2 that will be something we look at, especially over
3 the next couple of years as the technology gets
4 more mature, and we'll see if that's a possibility
5 to include in our planning processes.

6 COMMISSIONER LA ROSA: Thank you. I know
7 earlier this year we had a pretty unique and
8 interesting presentation on small scale nuclear,
9 and I appreciate your candor on the subject. But
10 that's what it seems to be, is something that is
11 evolving but kind of on the cusp of possibly going
12 with it. I appreciate it. Thank you.

13 CHAIRMAN FAY: Great. Thank you, Commissioner
14 La Rosa.

15 All right. Commissioners seeing no other
16 questions.

17 Staff, any of questions of Mr. Whitley? No?

18 Okay, with that, Mr. Whitley, that will
19 conclude your presentation. I appreciate it.

20 Next we are going to move to TECO's
21 presentation by Mr. Caldwell this morning.
22 Mr. Caldwell, you are recognized when you are
23 ready.

24 MR. CALDWELL: Good morning, Commissioners.
25 Brent Caldwell, Director of Resource Planning,

1 Tampa Electric Company.

2 All right. There is a secret here. Did I
3 turn it off somehow?

4 CHAIRMAN FAY: We will just check with IT real
5 quick. It looks like it's frozen.

6 MR. CALDWELL: Thank you.

7 I appreciate this opportunity to talk about
8 the 2023 10-year site plan, and I appreciate staff
9 providing the template to make sure we provide the
10 information that you need in a format that you can
11 use.

12 My presentation will sound an awful lot like
13 Duke and Power and Light's, starting with this page
14 right here, kind of comparing the underlying
15 forecast that goes into the 10-year slight plan
16 2022 to 2023. And as everyone has said, the load
17 growth has been pretty consistent between those two
18 years, the forecasted load growth. We are seeing
19 higher customer growth, about 1.44 percent for
20 residential number of customers, but that's
21 translating into less than one percent, kind of
22 moderate growth in both summer peak demand, winter
23 peak demand and also energy.

24 Looking at the generation additions in our
25 2023 10-year site plan compared to 2022, you will

1 see that they are very similar. I will highlight
2 the 2022-2023, we were kind of in the middle of
3 same fairly sizable changes. We had our new
4 natural gas combined cycle conversion, the Big Bend
5 steam turbine one, into natural gas combined cycle
6 that came on line end of last year.

7 We retired our Big Bend steam turbine Unit 3
8 April this past year. And you also see roughly
9 about 500 megawatts of solar coming on line for
10 Tampa Electric '22 and '23.

11 In the -- going out beyond that, there are
12 some efficiency conversions. Advanced gas path for
13 our base side Units 1 and 2 combined cycles. We
14 have some recip engines coming in in '25 and '28,
15 or '30, end of 2023. And we have additional
16 batteries and solar coming on on kind of a steady
17 pace.

18 For summer reserve margin, we are above the
19 20-percent. I will say, we are slightly different
20 than the other utilities. We do -- we had the
21 internal debate, how the -- what timeframe do you
22 measure that reserve margin at. This reflects time
23 of load peak in the summer, and so it's using
24 roughly a 50-percent contribution of solar to firm.

25 But if I move on to the winter reserve margin,

1 Tampa Electric is a winter reserve margin driven
2 expansion plan. And at the time of winter peak, we
3 count solar as zero. So our solar additions are
4 all purely cost-effectiveness. They are fuel
5 savings outweighing the capital expenditure, and so
6 there is the -- contribution to capacity is not a
7 driver for Tampa Electric in terms of solar
8 expansion.

9 In terms of generation mix, we continue to be
10 pretty dominated by natural gas at about 80
11 percent, but we are seeing solar generation
12 increased about 20 percent by the end of our 2023
13 10-year site plan.

14 That concludes my presentation. I will be
15 glad to answer any questions you may have.

16 CHAIRMAN FAY: Great. Thank you.

17 Commissioners, any questions? Seeing none.

18 I just have a quick question that sort of
19 obvious on your last slide, it keeps you up at
20 night, we talk about diversified energy portfolios,
21 and diversifying that risk. And this is just a
22 10-year outlook, but any thoughts long-term as to
23 how that plan can essentially, you know, mitigate
24 some of that?

25 MR. CALDWELL: In terms of additional solar?

1 CHAIRMAN FAY: Any options.

2 MR. CALDWELL: Well, we certainly take the
3 dependence on natural gas very seriously. What's
4 not reflected in here, and we do still have Big
5 Bend Unit 4, which is a coal-fired unit, which is
6 dual fuel. We can run it on coal or we can run it
7 on natural gas. For here, gas is the economic
8 choice, but we could actually displace some of that
9 with coal generation.

10 We do have dual pipeline capability to both
11 Big Bend and Bayside Stations, and we have oil
12 capability at Polk, so -- but certainly one of the
13 benefits of the solar addition is you reduce your
14 dependence on natural gas, and it kind of serves as
15 a physical hedge to natural gas, both price
16 volatility as well as availability.

17 CHAIRMAN FAY: Great. Thank you. Always
18 trying to look like me and Commissioner Clark are
19 debating up here. We are just -- we are really
20 just asking questions, so I appreciate your
21 patience with that.

22 Staff, any of questions for TECO before we
23 move on?

24 MR. IMIG: No.

25 CHAIRMAN FAY: No? Okay. Great. Seeing

1 none.

2 Next we will move to -- thank you. We will
3 move to Orlando Utilities presented by Mr.
4 Gillingham.

5 MR. GILLINGHAM: Good morning. Thank you for
6 the opportunity. Welcome, Commissioners.

7 Let me start off by saying that OUC has got a
8 commitment to net a zero 2050 goal, net zero CO2
9 emissions reduction. Our resource planning takes
10 into several strategies. One, the path to net
11 zero, our very high service reliability, our
12 planning flexibility, and making sure we maintain
13 reasonable cost to our customers.

14 We have some interim targets. In 2030, we
15 have a 50-percent reduction; 2040, a 75; and
16 obviously, the 2050 net zero that I mentioned. We
17 are on track to meet all the goals at this current
18 pace through investments in solar, energy storage,
19 vehicle electrification, energy efficiency and a
20 few others.

21 So let's get into the differences between the
22 2022 site plan and the 2023. As you can see there
23 is not a tremendous amount of difference between
24 the values of our customers in the winter peak
25 demand and that we are, you know, slightly we are

1 increasing but we are not increased from the '22
2 timeframe.

3 Let's talk about generation additions. This
4 is probably where our biggest change is. And quite
5 honestly, came in the reduction of solar within the
6 next 10 years. Part of that was the volatility in
7 the market, the supply chain issues, availability
8 and schedule impacts that have been incurred.

9 We feel that, with this approach, we can still
10 maintain high reliability standards, reasonable
11 costs for our customers, and still meet -- handle
12 our 2030 goal of 50 percent reduction of CO2.
13 We've introduced batteries a little later into the
14 2023 10-year site plan. You can see in the
15 outlying years, there is about 250 watts of
16 batteries coming in.

17 There is a continued retirement of one of our
18 coal units, a conversion of the second coal unit to
19 natural gas, and then we -- obviously, we move
20 forward some of the peaking assets that we have
21 from their maintenance timeframe to be a plus into
22 the system for a grid reliability.

23 Summer reserve margins. OUC sounds like Tampa
24 Electric, uses a 50-percent nameplate capacity for
25 solar. With that solar capacity, you see our

1 requirement of 15 percent is easily met in the
2 outlying years and coming through.

3 The winter reserve margins, we contribute zero
4 percent contribution from solar to the winter peak.
5 So, therefore, the reserve margins are quite a bit
6 higher, which is -- should be anticipated. Our
7 winter forecast was also a little bit reduced from
8 the 2022 timeframe for mild temperatures.

9 Here's our 2022 and '23 breakup between our
10 coal, nuclear and landfill gas. Actuals in '22,
11 '21 and '22 compared to just the nuclear and
12 landfill gas, others in '23. And the increase in
13 gas supply is coming from the conversion of the
14 units, and the additional peaking capacity that was
15 purchased in 2021.

16 I think the big storey for OUC is, is that we
17 are well on track to meeting our 50 percent
18 reduction goals from the 2005 levels. We maintain,
19 you know, superior service and reliability. We --
20 our reserve margins are well above the minimum
21 requirements to satisfy the requirements. We are
22 meeting our net goals by facilitating the
23 integration of solar and energy storage.

24 We continue to take on some planning
25 flexibility in looking for cost reductions and

1 technology improvements in the future. And again,
2 OUC is planning to ensure customers are clean,
3 reliable and serviced at the lowest reasonable
4 cost.

5 And that should be it. Any questions?

6 CHAIRMAN FAY: Great. Thank you.

7 I just have a quick question for you. You
8 talked about -- this is on your last slide, that
9 2030 target of the 50 percent reduction. You
10 mentioned in your presentation a little bit of, I
11 won't call it rollback, but maybe slow because of
12 supply chain issues on solar. It seems like you,
13 as a body, you are committed to adapting and
14 changing kind of as you need to in those markets.
15 Is that 2030, or even the 2050 goal for that
16 matter, is that something that was placed on you by
17 the municipality? Like, how was that -- how was
18 that set?

19 MR. CALDWELL: Self-imposed -- it was
20 self-imposed. We wanted to have some interim
21 targets prior to the 2050 net zero target.

22 CHAIRMAN FAY: Gotcha. And even with some of
23 the changes, you have seen supply chain, and
24 knowing new issues would come, you still feel that
25 that's a -- that's a significant goal on

1 achievable --

2 MR. CALDWELL: Yeah -- retirement of the coal
3 unit, and adding some natural gas peaking units
4 into it, which was the big step in reducing CO2.

5 CHAIRMAN FAY: Okay. Great.
6 Commissions, any questions?

7 Commissioner Graham you are recognized, and
8 then Commissioner Clark.

9 COMMISSIONER GRAHAM: Thank you.
10 I read, I don't know if it was six months ago,
11 or maybe a little longer, that you guys were
12 looking into molten salt for energy storage. Where
13 does that sit?

14 MR. CALDWELL: We are still in the evaluation
15 stage. It's -- we are a little more mature in the
16 process, but we are getting to the point with the
17 terms that we need to, you know, really satisfy our
18 needs. So it's still part of the evaluation with
19 them. It's a very new project, very large-scale,
20 so there is a lot of proof of concept things that
21 got to really come out of this, so we are still
22 taking our time with this.

23 There are other long duration energy storage
24 projects that are also being looked at and
25 considered.

1 COMMISSIONER GRAHAM: Is that part of the
2 change here on your battery general addition.

3 MR. CALDWELL: No. Those are all batteries,
4 that's batteries. There is malta project in that
5 if growth in the 10 years.

6 COMMISSIONER GRAHAM: So you don't consider
7 that as being -- when you are talking about molten
8 salt, you are not talking about battery, or -- it's
9 all energy storage? I mean, how does one
10 distinguish over the other?

11 MR. CALDWELL: The energy storage that's here
12 is the battery energy storage. Not malta, not
13 molten salt.

14 COMMISSIONER GRAHAM: So that has -- your
15 molten salt is not part of any of this?

16 MR. CALDWELL: No, sir.

17 COMMISSIONER GRAHAM: Thanks.

18 CHAIRMAN FAY: Commissioner Clark.

19 COMMISSIONER CLARK: Just a little question --
20 I was trying to get a better picture of your
21 margins and how -- I see your summer margin
22 projections going down and your winter margin
23 projections are going down from your 2023 versus
24 your 2022, your percentages. And is that -- is
25 that margin reduction and how it works into your

1 2030 goal of 50 percent emission reductions, is
2 that based off of actual numbers, or is that based
3 on the fact that you are reducing what your
4 projections were?

5 MR. CALDWELL: They are projections, because
6 they are 2030, right, but they are 2030
7 projections, and we -- we know very well how the
8 CO2 emissions are from the fossil units, so those
9 can be calculated pretty easily and then compared.

10 COMMISSIONER CLARK: So you calculate the 500
11 megawatt reduction in your increase in capacity
12 needed by 2030 into that formula?

13 MR. CALDWELL: Yes, sir.

14 COMMISSIONER CLARK: Interesting. Thank you.

15 CHAIRMAN FAY: Great. Any other questions?

16 Nope.

17 All right. Staff, any questions?

18 All right. Mr. Gillingham, I appreciate you
19 being here. I know we have some limited
20 jurisdiction of you, so any time you come before us
21 we appreciate that, and taking the time to answer
22 our questions, so thank you again.

23 All right. Commissioners with that, we will
24 move to our last presentation, which will be Mr.
25 Wubben, did I pronounce that right?

1 MR. WUBBENA: Close enough.

2 CHAIRMAN FAY: Thank you, you are recognized,
3 Mr. Wubben, to present.

4 MR. WUBBENA: Thank you, Mr. Chairman, and
5 thank you to the -- for allowing us to come in and
6 present today.

7 I want to start out just a little bit
8 introduction of who Seminole is.

9 So Seminole is a generation and transmission
10 cooperative governed by our nine member
11 distribution cooperatives. And as you can see
12 illustrated on the Florida map, the service
13 territory throughout Florida.

14 We serve approximately 1.9 million member
15 consumers and businesses in 42 of Seminole's 67
16 counties, predominantly in the rural areas.

17 On our generation resources -- and you will
18 see following in the next table -- we have our
19 Seminole combined cycle facility, which is a
20 natural gas two-on-one combined cycle that just
21 went into commercial operation this year.

22 We also have our Midulla Generating Station,
23 which is a combination of a two-on-one combined
24 cycle facility down in Hardee County, as well as
25 some quick start peaking units, about 300

1 megawatts.

2 And then we have our existing Seminole
3 Generating Station, which is two coal-fired units,
4 which one of those units is slated to be retired by
5 the end of this year.

6 On the solar side, and there is a lot of
7 discussion on renewables, you will see that to date
8 we are a little bit behind the curve on that. We
9 have 2.2 megawatts. This was a site that we put in
10 place as a prototype for learning and evaluation,
11 and we do have additional solar slated to come into
12 the portfolio over the next few years.

13 And then lastly, on the transmission side of
14 it. Seminole owns about 350 miles of transmission
15 to serve approximately -- but 90 percent of our
16 member consumer load is served through third party
17 transmission, either Duke, or FPL, or others,
18 through open access tariffs.

19 So looking at customer growth and demand. We
20 are pretty consistent with the other presentations.
21 So we are seeing growth both in the residential and
22 the industrial consumers, as well as not much of a
23 change in terms of projected summer peak demands or
24 winter peak demands from 2022.

25 Generation additions and nameplates, we do

1 have some descriptions here.

2 So first change between '22 and '23 associated
3 with our natural gas combined cycle facility, which
4 was delayed in going in commercial operations from
5 2022 to 2023. As I had mentioned, that facility
6 did go commercial earlier this year. Subsequently,
7 the retirement of one of those two coal units you
8 will see shifting from '22 to '23 as well.

9 And then lastly is we had originally slated
10 298 megawatts of solar coming in through purchased
11 power agreements. Those projected have been
12 delayed due to supply chain, and it's now
13 anticipated to go into service at the latter part
14 of 2024.

15 Additional changes to our generation mix
16 pretty consistent throughout 10-year site plan. We
17 do have a couple of things that are teed up. One
18 is for the -- 621 represents a new combined cycle
19 facility, and then 2024 10-year site plan you will
20 see that with an in-service date shifting to 2026.

21 From a summer reserve margin aspect, not a lot
22 of change. We are consistently above the
23 20-percent threshold of around 21 percent through
24 all four gears.

25 On the question related to solar contribution.

1 During the years in which solar, similar to how
2 TECO measures theirs, ours is peak load, not net
3 peak load. And we contribute 40 percent of the
4 nameplate solar to available capacity to meet
5 summer peak demand.

6 Winter reserve margins, again, pretty
7 consistent with summer. We are wintered peaking,
8 and not a material change from previous 2022 site
9 plan.

10 And then last, in terms of our portfolio mix,
11 we -- not a big change there as well. Looking out
12 by 2031 at a 80-percent energy contribution from
13 natural gas. Then the balance of that coming from
14 other purchased power agreements, coal, nuclear, so
15 forth. Of those purchased power agreements, those
16 are also heavily weighted in the natural gas
17 aspect.

18 Any questions?

19 CHAIRMAN FAY: All right. Yeah, Commissioner
20 Clark.

21 COMMISSIONER CLARK: Yes. You mentioned that
22 you are -- that Seminole is a winter peaking
23 facility, and so you are doing most of your basic
24 forecast design off of a winter peak. I guess that
25 would be a little different than most of the other

1 utilities who are designing more on summer --

2 MR. WUBBENA: That's right.

3 COMMISSIONER CLARK: -- is that a correct
4 statement?

5 MR. WUBBENA: Yes, sir.

6 COMMISSIONER CLARK: One of the biggest
7 differences you see in the site plan is a reserve
8 margin difference between winter and summer. Is
9 that one of the key reasons for the difference is
10 that you are designing off winter numbers, you are
11 going to see that number be more balanced between
12 winter and summer loads -- peak reserves? I am
13 sorry.

14 MR. WUBBENA: The balance of that is also that
15 we have some winter peaking options, some winter
16 peaking purchased power agreements, which is winter
17 capacity only, so it's not carried through the
18 balance of the year, so that --

19 COMMISSIONER CLARK: Those are PPAs, right?
20 And they are not -- they don't show up in your --
21 in any of your --

22 MR. WUBBENA: Correct. They are showing up on
23 the PPA.

24 COMMISSIONER CLARK: Okay. Great. Thank you
25 very much.

1 CHAIRMAN FAY: Yeah, Commissioner Graham.

2 COMMISSIONER GRAHAM: I got a question on your
3 retirements. The 736 that got pushed from '22 to
4 '23, did you say that was coal?

5 MR. WUBBENA: That is, correct. That's one of
6 the two existing coal-fired units at our Seminole
7 Generating Station.

8 COMMISSIONER GRAHAM: Why was it pushed back a
9 year?

10 MR. WUBBENA: That was tied to our air
11 permitting requirements and the commercial
12 operation of the combined cycle facility. With the
13 delay of in-service on combined cycle facility
14 moving to April, the requirement to retire that
15 coal unit shifted with that. So it will be
16 permanently disabled by the end of this year.

17 COMMISSIONER GRAHAM: Okay. Thank you.

18 CHAIRMAN FAY: Great. Thank you. Yeah.

19 COMMISSIONER CLARK: You made me think of a
20 follow-up question, and this is what we are seeing
21 in terms of -- I think there is another utility
22 that retired some coal plants. Most of these
23 retirements that we are seeing of the coal plants
24 aren't necessarily due to end of life of the units,
25 but they are more in terms of environmental and

1 permitting issues, is that a fair statement?

2 MR. WUBBENA: In Seminole's case, that is a
3 correct statement.

4 COMMISSIONER CLARK: Yeah. And we are being
5 forced to leave those costs hanging on the
6 consumers out there that goes with that --

7 MR. WUBBENA: I think that was part of our --
8 of negotiation in obtaining the permits with FDEP.

9 COMMISSIONER CLARK: Yeah. And I am not
10 knocking the utilities. You guys, I realize, are
11 doing what you are required to do, but we are
12 leaving these costs of a plant that has valuable
13 life left to it, we are having to abandon those
14 just to meet simple environmental permit
15 requirements right now.

16 MR. WUBBENA: Partly true. In our -- you
17 know, going back to it, I should have mentioned
18 this earlier -- excuse me.

19 You know, Seminole is a not-for-profit, so our
20 costs are directly borne by our member consumers
21 and our member distribution cooperatives. And in
22 our decisions to retire this unit, it was -- it was
23 an economic aspect of it as well in terms of
24 consideration. As we went through the permitting
25 and the siting for the new combined cycle, it was

1 -- it was part of that overarching decision. So it
2 wasn't strictly driven by regulatory permitting
3 issues. It was -- it as part of our overall
4 economic analysis.

5 COMMISSIONER CLARK: Okay. Thank you.

6 CHAIRMAN FAY: Great. Thank you.

7 Any more questions?

8 All right. Seeing none, then staff?

9 MR. IMIG: No questions.

10 CHAIRMAN FAY: No? Okay. Great.

11 Thank you again, Mr. Wubbena for being here.

12 We know you have got a lot going on. And just real
13 quick, how is the area faring for recovery?

14 MR. WUBBENA: We are looking pretty good. The
15 -- from the storm, I believe we are back to 100
16 percent -- 100 percent restored on -- that could be
17 restored.

18 CHAIRMAN FAY: Yeah.

19 MR. WUBBENA: There is still some meters out
20 there that had substantial damage so it's going to
21 take a while.

22 CHAIRMAN FAY: Sure. That's great news. We
23 appreciate all the work that you are doing to get
24 those customers back on.

25 MR. WUBBENA: Thank you.

1 CHAIRMAN FAY: Thank you.

2 All right. Commissioners, with that, we will
3 make sure we don't have anybody here specifically
4 for public comment on the workshop. If we do, we
5 will give them an opportunity to speak.

6 Seeing nobody from the public to speak, we
7 will look to adjourn.

8 I do just real quickly want to make sure if
9 there are members of the public that do want to
10 input information, that they can submit it to the
11 Office of the Clerk by October 3rd. Just make sure
12 you reference the review of the 2022 -- 2022
13 10-year site plans for utilities.

14 With that, Commissioners, we will adjourn this
15 workshop, and then start back at 11:20 to begin the
16 storm protection plan cost recovery.

17 Thank you all for being here.

18 (Proceedings concluded.)

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CERTIFICATE OF REPORTER


STATE OF FLORIDA)
COUNTY OF LEON)

I, DEBRA KRICK, Court Reporter, do hereby
certify that the foregoing proceeding was heard at the
time and place herein stated.

IT IS FURTHER CERTIFIED that I
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I FURTHER CERTIFY that I am not a relative,
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DATED this 27th day of September, 2023.


DEBRA R. KRICK
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