1		BEFORE THE
2	FLORIDA	PUBLIC SERVICE COMMISSION
3		FILED 2/15/2018 DOCUMENT NO. 01253-2018 FPSC - COMMISSION CLERK
4	In the Matter of:	
5		DOCKET NO. 20170258-EQ
6	PETITION FOR APPROV STANDARD INTERCONNE AGREEMENT FOR	
7	INTERCONNECTED	
8	CUSTOMER-OWNED BATT SUBSYSTEMS, BY TAME	
9	ELECTRIC COMPANY.	/
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12	PROCEEDINGS:	COMMISSION CONFERENCE AGENDA ITEM NO. 11
13	COMMISSIONERS PARTICIPATING:	CHAIRMAN ART GRAHAM
14	PARIICIPAIING.	COMMISSIONER JULIE I. BROWN
15		COMMISSIONER DONALD J. POLMANN COMMISSIONER GARY F. CLARK
16	DATE:	Tuesday, February 6, 2018
17	PLACE:	Betty Easley Conference Center Room 148
18		4075 Esplanade Way Tallahassee, Florida
19		
20	REPORTED BY:	ANDREA KOMARIDIS Court Reporter and Notary Public in and for
21		the State of Florida at Large
22		
23		PREMIER REPORTING 114 W. 5TH AVENUE
24	1	ALLAHASSEE, FLORIDA (850) 894-0828
25		

1	PROCEEDINGS
2	CHAIRMAN GRAHAM: Move on to Item No. 11.
3	MS. THOMPSON: Takira Thompson with Commission
4	staff.
5	Item No. 11 is Tampa Electric Company's
б	petition for approval of its interconnection
7	agreements for customer-owned and rented battery
8	subsystems. These agreements allow customers
9	owning and renting battery subsystems to safely
10	interconnect to and operate in parallel with the
11	utility's electrical grid.
12	Staff has reviewed the utility's petition and
13	recommends that it be approved. No comments were
14	filed in this docket. Staff and the utility are
15	available for any questions.
16	CHAIRMAN GRAHAM: Commissioner Brown.
17	COMMISSIONER BROWN: Thank you.
18	And this is the first that we've seen before
19	this Commission of this type of interconnection
20	agreement, correct?
21	MS. THOMPSON: Yes.
22	COMMISSIONER BROWN: Did this arise as a
23	result of the hurricanes?
24	MS. THOMPSON: I am not sure, but that is our
25	understanding. The utility is available to answer
Dromior Doportin	a (950) 904 0929 Benerted by: Andrea Komeri

1 any questions.

2 COMMISSIONER BROWN: So, it notes that 3 there -- the utility anticipates only 73 customer-4 owned battery subsystems. I'm curious how TECO got 5 to that number. If you could elaborate, that would 6 be great.

7 MR. ASHBURN: Commissioner, Bill Ashburn with
8 Tampa Electric Company.

9 So, these are battery systems that are being 10 marketed to our customers. And they are --

11COMMISSIONER BROWN: Are they being marketed12through TECO or through a third party?

13 MR. ASHBURN: Through third parties. And they 14 are asking for the ability to operate in parallel 15 So, the interconnection agreement with our system. 16 is to allow them to operate in parallel and 17 identify when they need to disconnect from our 18 system and when they can operate independently of 19 our system. So, that's basically what the 20 agreement is for.

21 COMMISSIONER BROWN: How are you being 22 notified that these systems are in existence? In 23 operation through net-metering arrangements? 24 MR. ASHBURN: So, some of the batteries are in 25 association with the PV's array. So, there's a net 1 metering function there already for the PV. And 2 they're anticipated that sometimes these will be sold with the new PV array. So, we'll get that information when it's a PV array interconnect or net metering.

6 But some are just stand-alone. People just 7 want a battery in their house for -- for whatever 8 They serve several purposes. reason. They will 9 not run very long. You know, they're -- only put 10 out about enough energy to run a house for about 11 two, three hours really in Florida with air 12 conditioning and everything. So, they're not going 13 to help out much in a hurricane.

14 There is possibility, if a hurricane comes and 15 takes out the electric grid and we're out for weeks 16 or something like that, for the house, and they 17 have a PV, the PV can recharge the battery during 18 the day and they may be able to run a little bit 19 longer over some period of time, but they only can 20 run a house for a few hours.

21 COMMISSIONER BROWN: How does -- how will TECO 22 be notified of users trying to implement this --23 these --

24 Right. We've been in contact MR. ASHBURN: 25 with the installers of these batteries and

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1 communicating with them. So, we're going to 2 maintain relationships with them. It's the same 3 thing as we did with PVs in the early years when 4 they started the company.

5 We started identifying those who were going to 6 put in PV and alert them that, when you put in a 7 PV, you're going to have to get an interconnection 8 agreement with us, as well as permitting with the 9 county or the city or whatever. So, it -- it's 10 kind of going to be working with them over time to 11 build up that relationship.

12 COMMISSIONER BROWN: But then, under this 13 interconnection, TECO has the final right of 14 approval for the -- the overall battery. That's 15 the way I read it.

16 Well, we have the right for it MR. ASHBURN: 17 to be connected to us and operated in parallels. 18 There's actually quite a few -- I won't say quite a 19 Maybe a dozen or more of these batteries have few. 20 been installed at customers' already. They're not 21 interconnected, so they can't operate in parallel. 22 If our power goes off, they can turn the battery 23 on, but -- but we're not going to let them run in 24 parallel until they have the agreement. 25

COMMISSIONER BROWN:

And they're going to need

1 additional insurance protecting --2 MR. ASHBURN: Right. Right, just like we do 3 with the PV interconnect. 4 COMMISSIONER BROWN: Okay. How did you come 5 up with the 73 number? 6 MR. ASHBURN: The 70 -- how many there are? 7 COMMISSIONER BROWN: No, you anticipate 8 interconnecting 73 systems. 9 MR. ASHBURN: Oh, yes. Well, we're talking 10 about -- at -- at this point, there's only the 11 one vendor who's been talking to us about these batteries. It's -- it's Tesla. And it's the power 12 13 wall. There's no secret there. 14 So, they have told us that they've installed 15 maybe a dozen of them, and they have about --16 COMMISSIONER BROWN: How much are those power 17 walls? 18 MR. ASHBURN: Excuse me? 19 COMMISSIONER BROWN: How much are those power 20 walls? 21 MR. ASHBURN: We're talking multiple thousands 22 of dollars, like, you know -- I don't know, five or 23 six or seven, something like that, to put one in. 24 And you can gang them up. So, you can put two or 25 three at your house, too.

1 And they said they have a backlog of about 50 or so that they're -- 50 or 60. And then there's 2 3 about a dozen that's been installed already. Now, 4 they say that they're going to continue to --5 they've got a lot of people in line, ready to come, 6 ready to sign up, but waiting for this 7 interconnection. So, they're eager to have this 8 approved so they can really start marketing --9 COMMISSIONER BROWN: Thank you. And thank you 10 for putting this forth. It makes sense for -- for 11 the grid and for the ratepayers. 12 So, with -- if there are other questions? 13 CHAIRMAN GRAHAM: Commissioner Clark. 14 COMMISSIONER CLARK: Thank you, Mr. Chairman. 15 In the notice, it says that the utility 16 company is reimbursing the consumers for the cost 17 of the switch. 18 Yes. MR. ASHBURN: 19 COMMISSIONER CLARK: Could you share with us 20 what that -- how much that cost is? And my 21 curiosity is: Why is the utility paying for the 22 switch. 23 MR. ASHBURN: So, one of the other important 24 elements of this is safety. In fact, that's one of 25 the big reasons we have these interconnection

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agreements. And we have, over the last ten or more years, while we were interconnecting PV arrays, required that they put in a switch.

And the switch is a visible load-break switch on the side of the house where a lineman or someone else can see it and can turn off the equipment. And that was for safety of our -- our linemen, safety of the neighbors.

9 And you talked about hurricanes. So, we've 10 been concerned and heard stories elsewhere about, 11 you know, a fire department shows up at the house 12 and suddenly the -- the thing is still running, 13 either the battery is running or the PV is running 14 and the house is lit. And they're afraid to throw 15 They don't want to do that. water on the house.

So, for a safety measure, we've required people to put these switches on the side of the house, so that either us or fireman can throw them -- turn the power off and rescue people or turn out the fire or whatever the emergency is.

It's an expensive option to put a switch on the house for a customer. It's -- it can be -depending on where the PV array or where the battery is or how far away it is or how close it is to where the battery -- the -- where the meter is, it can be 500, a thousand dollars. It could be more than that.

3 So, we have -- when we started out with PVs, 4 we -- we knew that this was a barrier and wanted 5 people to still put in the switch in. And so, we 6 were reimbursing people for putting the switch in. 7 And we've continued that practice for PVs to this 8 day and found it to be very successful.

9 COMMISSIONER CLARK: So, would you also pay 10 for a switch if someone were putting in, let's just 11 say, diesel back-up generator to their house? 12 MR. ASHBURN: No, because they are not 13 permitted to operate those in parallel with our 14 system.

15 So, if you had a Honda in your garage, right, 16 for the hur- -- the classic Honda in the garage 17 when the hurricane comes -- they are not allowed or 18 cannot run it in parallel with our system. So, 19 when the power -- when -- when the power goes off 20 from our grid, then they can start it up and run 21 it. 22 And it's a place usually outside where we --23 someone can go see it and turn it off if they want 24 I mean, you can hear it running and to, right?

someone can go and turn it off.

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The PV is silent.

1 The battery is silent. No one knows that it's 2 running except they see the lights on, and they 3 don't know what's going on. 4 So, we -- the switch is -- is a very important 5 safety measure. 6 COMMISSIONER CLARK: Thank you. 7 CHAIRMAN GRAHAM: Well, I -- it's interesting 8 that Commissioner Clark brought that up. Ι 9 understand, because there's very few of them right 10 now, it's -- it's more of a safety issue more than 11 anything else. But what happens when this starts 12 to pick up a little bit? Because our policy is 13 always trying to put the cost with the cost-14 causers. 15 Right. MR. ASHBURN: 16 CHAIRMAN GRAHAM: And now, everybody is 17 picking up the cost of this switch. 18 MR. ASHBURN: Right. Well, that will be -- if 19 it becomes that big a deal, we'll come back to you 20 and see if there is something we should change. 21 It was -- when we -- when we determined to put 22 the switches in back in the early 2000s, it was 23 determined that that was a cost barrier to put PV 24 on the roofs. And so, the Commission didn't like 25 the idea of us having them having to pay another

1 500 to a thousand dollars to put the switch in. 2 So, we've been doing it ever since, reimbursing 3 customers for putting them in or putting them in 4 ourselves, and so forth. 5 It's been successful. We still only have a 6 couple of thousand, maybe, customers that have a 7 So, it hasn't been burdensome. But if it does PV. 8 become burdensome, we'll come back to you and maybe 9 suggest a different approach. 10 CHAIRMAN GRAHAM: When this number hits 146, 11 you'll be back? 12 MR. ASHBURN: I'm not sure that's the number, 13 but you know, if it gets to 146,000, we certainly 14 would be coming to you, talking about it. 15 CHAIRMAN GRAHAM: Commissioners, Okay. 16 motion, please. 17 COMMISSIONER BROWN: Move staff recommendation 18 on Item 3 -- 11. 19 CHAIRMAN GRAHAM: It's been moved and 20 seconded, staff recommendation Item No. 11. 21 Any further discussion? Seeing none, all in 22 favor, say aye. 23 (Chorus of ayes.) 24 CHAIRMAN GRAHAM: Any opposed? 25 By your action, you have approved staff

1	recommendation, item No. 11.
2	(Agenda item concluded.)
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1	CERTIFICATE OF REPORTER
2	STATE OF FLORIDA)
3	COUNTY OF LEON)
4	I, ANDREA KOMARIDIS, Court Reporter, do hereby
5	certify that the foregoing proceeding was heard at the
6	time and place herein stated.
7	IT IS FURTHER CERTIFIED that I
8	stenographically reported the said proceedings; that the
9	same has been transcribed under my direct supervision;
10	and that this transcript constitutes a true
11	transcription of my notes of said proceedings.
12	I FURTHER CERTIFY that I am not a relative,
13	employee, attorney or counsel of any of the parties, nor
14	am I a relative or employee of any of the parties'
15	attorney or counsel connected with the action, nor am I
16	financially interested in the action.
17	DATED THIS 15th day of February, 2018.
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19	\bigcap
20	
21	Jacob
22	ANDREA KOMARIDIS NOTARY PUBLIC
23	COMMISSION #GG060963 EXPIRES February 9, 2021
24	EAFINES FEDIUALY 9, 2021
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