BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION DOCKET NO. 080317-EI

IN RE: TAMPA ELECTRIC COMPANY'S PETITION FOR AN INCREASE IN BASE RATES AND MISCELLANEOUS SERVICE CHARGES



DIRECT TESTIMONY AND EXHIBIT OF EDSEL L. CARLSON JR.

DUCUMENT NUMBER BAT

07060 AUG II 8

FPSC-COMMISSION CLERK



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1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		PREPARED DIRECT TESTIMONY
3		OF
4		EDSEL L. CARLSON, JR.
5		
6	Q.	Please state your name, business address, occupation and
7		employer.
8		
9	A.	My name is Edsel L. Carlson, Jr. My business address is
10		702 North Franklin Street, Tampa, Florida 33602. I am
11		the Risk Manager for Tampa Electric Company ("Tampa
12		Electric" or "company").
13		
14	Q.	Please provide a brief outline of your educational
15	2	background and business experience.
16		
17	A.	I graduated from the University of South Florida with a
18		Bachelor of Arts degree in Criminology and from Saint Leo
19		University with a Masters of Business Administration
20		degree. I hold the Associate in Risk Management
21		designation from Insurance Institute of America and a
22		Fellow in Risk Management designation from Global Risk
23		Management Institute, Inc. I have approximately 15 years
24		of experience working in the Risk Management Department
25		where I have held the positions of Claims Adjuster and DOCUMENT NUMBER-CATE

07060 AUG II 8

FPSC-COMMISSION CLERK

Risk Analyst. I have held my present position as Risk 1 Manager since 2000. 2 3 What is the purpose of your direct testimony? Q. 4 5 My direct testimony supports the need for an increase in 6 Α. Tampa Electric's annual accrual and target amount for its 7 storm damage reserve based on a comprehensive study 8 performed by ABSG Consulting, Inc. ("ABS Consulting"). 9 10 Have you prepared an exhibit to support your direct Q. 11 testimony? 12 13 Yes, Exhibit No. (ELC-1) entitled "Exhibit of Edsel 14 Α. L. Carlson, Jr." was prepared under my direction and 15 supervision. It consists of one document, "List Of 16 Minimum Filing Requirement Schedules Sponsored Or Co-17 Sponsored By Edsel L. Carlson, Jr.". 18 19 Please summarize Tampa Electric's proposed annual accrual Q. 20 21 and target amount for its storm damage reserve. 22 Based upon my experience and the results of a detailed 23 Α. storm study conducted by Tampa Electric witness Steven P. 24 Harris of ABS Consulting, Tampa Electric's annual reserve 25

accrual should increase from \$4 million to \$20 million 1 and the target reserve amount should increase from \$55 2 3 million to \$120 million. The proposed increases are designed to manage the cost of damage to Tampa Electric's uninsured transmission and distribution ("T&D") assets 5 6 and property deductibles associated with damage to 7 insured assets such as substations and generating facilities. This conclusion was based three 8 on 9 fundamental objectives that were considered essential by Tampa Electric as it evaluated its needs for a storm 10 damage reserve: 1) achieve an effective balance of rate 11 stability and long-term cost for customers; 2) build a 12 reserve sufficient to cover the majority of loss events 13 14in order to mitigate the need for a surcharge to customers immediately after such an event; and 3) design 15 a reserve to cover the higher probability events and not 16 the low probability high severity events. 17

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Please describe the history of Tampa Electric's existing Q. 19 20 storm reserve.

Prior to Hurricane Andrew in 1992, Tampa Electric was 22 Α. able to purchase commercial insurance coverage for its 23 T&D facilities. Shortly after Hurricane Andrew, this 24 25 insurance became unavailable, leaving utilities in

crucial assets that were uninsurable. Florida with Florida's investor-owned utilities ("IOUs") approached Public Service Commission ("FPSC" the Florida or proposal to establish "Commission") with a а selfinsurance program by creating a reserve for each utility to provide for uninsured property losses.

limited proceeding was held in early 1994 and А in Commission Order No. PSC-94-0337-FOF-EI the FPSC authorized Tampa Electric a \$4 million annual storm damage accrual and required the submittal of a storm damage study. Accordingly, Tampa Electric filed its study in September 1994 and in February 1995, by Order No. PSC-95-0255-FOF-EI, the Commission approved Tampa Electric's storm damage study and affirmed the annual accrual of \$4 million to Account 228.1, Accumulated Provision for Property Insurance. This same order also established a \$55 million target amount for the storm and ordered damage reserve the company to use а replacement cost approach to determine amounts to be charged to the reserve.

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Q. Has Tampa Electric ever charged expenses against its reserve?

Yes, but not until recently. Between August 13, 2004 and Α. 1 September 2004, Hurricanes Charley, 26, Frances 2 and Jeanne hit Tampa Electric's service territory causing 3 damage to its system. The cost to repair the system was Δ approximately \$73.4 million. At that time, the company's 5 storm damage reserve balance was only \$42.3 million, an 6 amount insufficient to cover the entire damage. 7 8 Q. Did Tampa Electric seek a surcharge to recover 9 the damages in excess of the reserve, as did other Florida 10 IOUs? 11 12 Order No. PSC-05-0675-PAA-EI, the Commission 13 Α. No. In approved a stipulation ("the Stipulation") between Tampa 14 Electric, the Office of Public Counsel and other parties 15 which avoided imposing a customer storm surcharge as the 16 result of the 2004 hurricanes. The Stipulation allowed 17 the company to charge \$34.5 million of the storm damage 18 costs to the reserve and the remaining storm restoration 19 costs were charged to utility plant. After this charge, 20 21 the reserve had a balance of \$7.9 million. While the Stipulation provided a practical solution at the time, 22 23 the 2004 and 2005 hurricane seasons and the predicted increased storm activity emphasized Tampa Electric's need 24 to reevaluate the level of the annual storm accrual and 25

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1		the total targeted reserve.
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3	Q.	What is Tampa Electric's current status regarding
4		insurance and its storm reserve?
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6	A.	Traditional commercial property insurance for T&D assets
7		is still generally not available in the market today at
8		deductible levels and prices that would make it cost
9		effective. Since the Stipulation the company has
10		continued to accrue \$4 million annually. As of June 30,
11	1	2008, the storm damage reserve balance is approximately
12		\$22,310,000.
13		
14	Q.	What is the overall regulatory framework that you
15		consider when evaluating the storm-related accrual
16		amount?
17		
18	A.	Electric utilities in Florida will incur costs to restore
19		service after tropical storms and hurricanes. These
20		costs are an integral part of the cost of providing
21		electric service in Florida, a region susceptible to
22		tropical storms and hurricanes. It is essential that
23		utilities realistically plan for these events and reserve
24		sufficiently so that surcharges are less likely to be
25		required when storm damage occurs. Adequate accruals can

minimize the need for surcharges in the future. 1 2 Storm damage accruals are an essential element of Tampa 3 Electric's cost to serve its customers. The Commission's 4 previous actions acknowledge this and have established a 5 regulatory framework consisting of three 6 major components: 1) an annual storm accrual, adjusted over 7 time as circumstances change; 2) a storm reserve adequate 8 to accommodate most, but not all storm years; and 3) a 9 provision for utilities to seek recovery of costs that go 10 beyond the storm reserve. These three components act 11 together to allow Florida utilities over time to recover 12 the full costs of storm restoration, while at the same 13 14 time balancing the impact on customers. The storm damage reserve methodology has functioned as designed and the 15 Commission's basic approach has proven to be a cost-16 effective way to finance storm damage risk while keeping 17 customer impacts stabilized. 18 19

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Q. Why does Tampa Electric believe it is important to mitigate the need for storm damage surcharges?

A. It is important to mitigate, if not avoid altogether,
imposing a storm surcharge subsequent to storms because
the surcharge compounds the effects on customers at a

time when they are likely to have experienced property 1 damage from the same event. 2 3 Q. After three hurricanes hit Tampa Electric's service 4 territory in 2004, was the storm damage reserve adequate 5 6 to cover the actual costs for system restoration and repairs? 7 8 Α. No. As I indicated above, the reserve balance at that 9 time was \$42.3 million and the costs associated with 10 damages were \$73.4 million. The Stipulation allowed the 11 company to avoid a negative reserve balance and customer 12 It is important to note that the damage 13 surcharge. experienced in 2004 was small relative to what it could 14have been if these storms had hit Tampa directly. 15 16 Q. Does this indicate a failure in the FPSC's 17 current regulatory framework? 18 19 No, quite the opposite. In general, I think it supports 20 Α. 21 the conclusion that the current regulatory framework is sound. For the most part, the damages Tampa Electric 22 incurred in 2004 were of a nature that the reserve is 23 designed to account for and the Commission has shown 24 permitting customer 25 flexibility in surcharges when

companies' reserves are inadequate. However, recent experience shows that previous estimates of appropriate reserve levels and annual accruals are out of date and should be increased.

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The Commission recognized the need to periodically reexamine accrual and reserve levels in Order No. PSC-07-0444-FOF-EI issued in May 2007 and the Commission supported a requirement to conduct a new storm damage study every five years. Tampa Electric, in this proceeding, is supplying the FPSC with its most recent study completed in 2008 by ABS Consulting. Witness Harris, who conducted the study for ABS Consulting, details the results of this study in his direct testimony.

Q. Why was ABS Consulting selected to conduct the study?

Tampa Electric selected ABS Consulting because of their Α. 19 experience and qualifications. They have been conducting 20 21 storm loss analyses in Florida since 1993 not only for Tampa Electric but also for Florida Power æ Light, 22 Progress Energy Florida, and Gulf Power Company. 23 ABS Consulting uses an advanced computer model simulation 24 (USWIND) which is one of only 25 program four models

evaluated and determined acceptable by the Florida Commission on Hurricane Loss Projection Methodology for projecting hurricane loss costs. Witness Harris has over conducting various risk 25 years of experience in assessments for utilities throughout the United States ("U.S."), Caribbean and Europe.

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Q. What direction was provided by Tampa Electric to ABS Consulting in the preparation of the study?

Α. Consistent with Order No. PSC-07-0444-FOF-EI, the company 11 directed ABS Consulting to perform analyses of 12 Tampa 13 Electric's T&D assets for both hurricane and tropical Electric 14 storm loss exposures. Tampa asked ABS Consulting to conduct the analysis on a near-term view of 15 hurricane risk because there is a consensus among experts 16 that the Atlantic Basin, which includes Florida, is in a 17 period of increased storm activity and the near-term 18 analysis is an appropriate indicator of Tampa Electric's 19 The company also requested that ABS Consulting 20 exposure. 21 include insured Tampa Electric property such as generating plants and substations to determine the amount 22 of un-recovered property deductibles. Finally, 23 Tampa Electric asked ABS Consulting to model and analyze the 24 25 performance of the storm reserve to assist in estimating

the expected annual reserve balance over a multi-year 1 2 period. 3 What conclusions did ABS Consulting reach regarding the 4 Q. 5 expected annual long-term cost for service restoration 6 and repair of storm damage to Tampa Electric's assets? 7 Α. As described in the direct testimony of witness Harris, 8 the analysis concludes that the expected average annual 9 10 cost for windstorm losses in the current environment of increased storms is approximately \$17.8 million. 11 This 12 represents average losses per year over time. Of course, 13 there will be years where there are no losses like 2006 and 2007, but there will also be years where losses will 1415 be higher like 2004. Over time, losses will average 16 about \$17.8 million per year; the loss could be as much 17 as \$650 million as demonstrated by witness Harris. 1819 Windstorm losses include costs associated with service restoration and system repair of Tampa Electric's T&D 20 21 system from hurricane and tropical storm losses and 22 windstorm insurance deductibles attributable to other 23 assets. 24 25 Does the study's conclusions support a specific target Q.

reserve level?

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A. While there is no single correct target reserve No. 3 balance, the study is consistent and supports the target 4 we have selected. The study does supply a table that 5 shows the probability of loss exceeding a particular 6 dollar amount in any given year. The target reserve 7 level depends largely on one's tolerance for risk. Ι 8 believe the target reserve level should be set to cover 9 10 most storm events (higher probability and lower severity events) but not all storms (low probability and high 11 severity). The higher the storm damage reserve balance 12 level, the lower the probability that a storm will exceed 13 the reserve and thus less likely the company would need 14 15 to request a surcharge from customers. 16 17 Q. How were the target reserve level and annual accrual determined? 18 19 Α. The total targeted amount of the reserve and the annual 20 accrual to reach the target is a function of the total 21 loss that could occur to the company's system as a result 22 of storm activity and the probability of occurrences of 23 various levels of storm activity in Tampa Electric's 24

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service area. Once ABS Consulting assessed these values

and probabilities, I applied professional judgment 1 to determine an appropriate level for the annual accrual and 2 target level for the reserve. In applying this judgment, 3 I considered the company's actual experience in 2004 when 4 losses could have been substantially more than the 5 company actually incurred had the hurricanes made 6 landfall in closer proximity to Tampa. It is fair to say 7 no one knows when storm damage will occur and the exact 8 it is reasonably certain that extent of damage, but 9 storms will cause damage to Tampa Electric's system in 10 the future and the company should make reasonable plans 11 to provide for the costs of this damage with a minimal 12 13 impact to customers after a storm occurs.

15 Q. How did the results of the ABS Consulting study affect 16 your determination of an annual accrual and targeted 17 total reserve?

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I relied heavily on the results of ABS Consulting's A. 19 study. The study showed that the appropriate level of 20 21 the annual accrual should be at least \$17.8 million although this amount is not expected to occur each year. 22 Some years will have no damage; some years will have a 23 24 little damage; and some will have severe damage. The \$17.8 million represents the average of all storm years 25

over a long period. However, the company is at risk for 1 losses for in excess of this amount as witness Harris's 2 exhibit illustrates. Consequently, considerations of all 3 factors lead to the conclusion that the annual accrual 4 should be \$20 million in order have an opportunity to 5 build a targeted total reserve of \$120 million gradually. 6 the reserve builds each year, the company will 7 As essentially be increasing the amount of self-insurance to 8 cover potential losses from storms. Of course, there is 9 a risk each year that a storm loss will occur and that 10 the reserve will be inadequate, but Ι believe the 11 proposed accrual level should give Tampa Electric a 12 reasonable chance to build a reserve that can accommodate 13 14 most events. 15

Q. Will the proposed annual accrual ensure that the storm damage reserve will be adequate to cover all windstorm losses?

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20 A. No. Even with an increase in the annual accrual to \$20 21 million, there is still a 26.1 percent probability while 22 the reserve is being built up to the target level that 23 losses will exceed the value of the storm damage reserve 24 over a five-year period. Figure 4-5 on page 41 of 25 witness Harris' study (Document No. 1) shows that if an

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1		SSI Category 4 storm hit milepost 1170, which is located
2		around Crystal River, the average loss to Tampa
3		Electric's T&D system would exceed \$650 million. In
4		fact, if such a Category 4 storm hit anywhere along a 70
5		mile coastline from milepost 1230 (20 miles south of St.
6		Petersburg) to milepost 1160 (50 miles north of St.
7		Petersburg), Tampa Electric's average losses would exceed
8		\$300 million. Even though my recommended target amount
9		might be insufficient to cover all windstorm losses,
10 .		Tampa Electric believes it provides an adequate level of
11		coverage and meets the Commission's objectives which
12		state that a reserve should be large enough to cover most
13	. •	catastrophic weather events but at the same time
14		sufficiently low to prevent unbounded growth in the
15		reserve. An annual accrual of \$20 million will achieve
16		these objectives.
17		
18	Q.	How can the company ensure that the requested annual
19		accrual continues to be appropriate over time?
20		
21	A.	Based on the current study and associated probabilities,
22		there is only a 26.1 percent probability that a reserve
23		based on a \$20 million annual accrual will be depleted by
24		the end of five years. There is a 94 percent probability
25		that Tampa Electric will have at least \$20 million

remaining in the reserve in five years. To ensure the 1 reserve accrual and target are still reasonable, the 2 company will submit an updated study for Commission 3 review in five years as required. 4 5 Q. does the proposed reserve compare How to insurance б premiums? 7 8 The study conducted by ABS Consulting that was used to 9 Α. establish a proposed reserve is similar to 10 studies insurers use as a foundation to develop premium charges. 11 The expected annual loss amount is the starting point an 12 13 insurer uses to calculate an annual premium. Thus, in determining an annual accrual amount, Tampa Electric's 14 approach is similar to that used by an insurance company 15to determine a premium. This is appropriate, considering 16 that the reason the storm damage reserve and accrual 17 exist available is that insurance is not at cost 18 effective pricing for T&D assets. The advantage of the 19 reserve is that the annual accrual, in a year where no 20 21 losses occur, will remain in the reserve, in contrast to insurance where, even if there are no losses, the insurer 22 retains the premiums paid. The obvious advantage of 23 insurance is that if you have a large loss event, the 24 insurance policy will pay the loss up to the limits of 25

the policy with usually no other obligation on the 1 insured's part, while a reserve may be insufficient to 2 absorb the loss particularly if it occurs before the 3 reserve has a chance to accumulate. The practical 4 reality, however, is that insurance is not available at 5 cost effective pricing for T&D assets in wind-exposed 6 locations like Florida. 7 8 Q. Is it possible that cost effective T&D insurance may 9 become available in the future? 10 11 Tampa Electric is hopeful that reasonably priced, 12 Α. Yes. cost effective T&D insurance may become available and 13 would like to be in a position to take advantage of it if 14Since 2006, Tampa Electric and the other 15 it occurs. three Florida IOUs, in conjunction with other IOUs with 16 hurricane exposed T&D facilities, have been meeting to 17 investigate feasible risk financing alternatives to cover 18 T&D exposures including the formation of а mutual 19 insurance company and a risk purchasing group. 20 The group was able to spark the interest of some insurance markets; 21 however, the insurers were only interested in insuring 22 low probability, high severity storms which 23 the effectively only provides coverage at 24 the 75 year frequency category and above with costly pricing. 25 At

1	÷	this time, the alternatives are not particularly
2		attractive but the group purchasing and/or the mutual
3		concept might ultimately develop into viable options. If
4		the group is successful in developing a mutual insurance
5		company as the industry has done with other uninsurable
6		exposures, this could be a long-term component in
7		providing for T&D storm losses. Consequently, if this
8		were to occur, Tampa Electric seeks approval to charge
9		the cost of such insurance against the storm reserve if
10		insurance from either of the sources becomes viable and
11		cost effective.
12		
13	Q.	Does the company have property insurance on other
14		portions of its property?
15		
16	А.	Yes, Tampa Electric has property insurance on all of its
17		assets with the exception of its T&D assets. The company
18		has included its non-recovered windstorm deductible
19		losses for substation and generating assets as a part of
20		its proposed \$20 million annual accrual.
21		
22	Q.	How much are property insurance costs expected to
23		increase from 1991 to the 2009 test year?
24		
25	A.	The cost of property insurance premiums, as reflected in

Account 924, is expected to increase to \$11.1 million in 2009 from \$2.5 million in 1991. At the same time, the represent decreased limits premium increases and increased deductibles for specific risks such as wind and flood result of changes the insurance as а in marketplace.

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Are increases in insurance costs occurring globally?

Α. Yes. There are three primary drivers that have influenced insurance costs globally in the last decade: 1) catastrophic losses; 2) capacity for risks in catastrophe prone areas; and 3) declining performance of the returns insurance companies' investment on portfolios.

Since 1991, insurance markets have weathered several 17 large catastrophic events that have significantly altered 18 The September 11, 2001 terrorist 19 the insurance market. attacks were, at the time, the largest insured loss event 20 in history, costing the insurance industry approximately 21 In the period between August 2004 and \$40 billion. 22 October 2005, seven of the 10 most expensive hurricanes 23 in U.S. history occurred. The year 2005 was by far the 24 worst year ever for insured catastrophic losses in the 25

U.S. with losses exceeding \$60 billion. Insurance companies responded with substantial increases in property insurance premiums especially in areas with wind exposure like Florida.

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An additional impact of these catastrophes was that significantly restricting insurers began the total amounts of coverage limits they would make available in high wind exposure areas. With the limited capacity made available in Florida and an increased demand for wind and deductibles coverage, property insurance premiums soared.

Although to a lesser extent, another factor affecting 14insurance premium increases has been the decline of many 15 insurers' investment portfolio returns. 16 Insurers have traditionally relied on their returns from the investment 17 of premium dollars taken in to assist them in offsetting 18 any deficiencies in the rates they charge for a specific 19 In the past several years, this investment income 2.0 risk. 21 has dwindled thus making the companies more reliant on actual premiums to provide enough capital to pay losses. 22 That served to further focus insurers' attention on price 23 24 adequacy and resulted in rate increases for nearly every line of insurance. 25

Q. In addition to the global drivers, has Tampa Electric had 1 any company-specific factors, which would cause 2 the significant increase in property insurance costs? 3 4 5 Α. Yes. Tampa Electric has experienced а substantial 6 increase in the value of its insured assets in areas exposed to wind loss. By year-end 2009, Tampa Electric 7 8 will have invested \$1.7 billion to add or repower approximately 1,700 9 MW of generation since 1991. significantly increasing 10its asset values. Property insurers develop premiums based on the values exposed to 11 In 2009, Tampa Electric is projected to have 12 loss. 13 approximately \$5 billion of insurance assets located in coastal Florida, where insurers 14have reduced their 15 available capacity. Insurers are currently limited on the amount of wind coverage they can write in a specific 16 As assets continue to be built in Florida's 17 area. 18 coastal regions, there is a high demand for this coverage 19 limited supply, thus with а causing the price to 20 It is estimated that over 50 percent of Tampa increase. 21 Electric's current premium is for wind coverage compared to approximately 10 percent or less in 1991. 22 23 24 Ο. Please summarize your direct testimony.

25

Following Hurricane Andrew, property insurance coverage A. 1 for T&D assets became unavailable in Florida. Since 1994 2 Tampa Electric, as authorized by the Commission, has been 3 accruing \$4 million annually to a reserve to provide for 4 uninsured storm losses. The company believes and ABS 5 Consulting's study supports that the annual storm damage 6 accrual should be increased to \$20 million in order to 7 build its storm damage reserve to a level sufficient to 8 9 provide for most, but not all, storms and that the target 10 reserve balance should be increased to \$120 million. the landfall location, Depending on а high-intensity 11 hurricane strike from 20 miles below St. Petersburg to 12 Crystal River, losses could average between \$300 and \$650 13 million. 14

Damage from windstorms is a fact of life in Florida, and 16 the cost associated with windstorm damage is an integral 17 part of the cost of providing electric service in the 18 19 state. Tampa Electric's objective is to reserve appropriately for such damage so that surcharges are less 20 likely to be required when storm damage occurs. Although 21 22 the targeted reserve level is certainly not sufficient to cover the low probability, high severity windstorm event, 23 Tampa Electric believes it provides a conservative level 24 of coverage to reduce the probability of a need for an 25

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emergency surcharge.

3		Also related to Florida windstorm exposures, Tampa
4		Electric's premiums for property insurance have increased
5		significantly. Premiums have risen from \$2.5 million in
6		1991 to a projected \$11.1 million in 2009. This is due
7		to global factors affecting the insurance industry during
8		this period including significant catastrophic losses,
.9		diminished coverage capacity in catastrophe-prone areas
10		and declining investment returns. The increase also
11		reflects Tampa Electric specific factors including the
12	1	higher insured values today and, more importantly, the
13		location of its assets in Florida with exposure to wind
14		loss.
15		
16	Q.	Does this conclude your direct testimony?
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18	A.	Yes, it does.
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TAMPA ELECTRIC COMPANY DOCKET NO. 080317-EI WITNESS: CARLSON

EXHIBIT

OF

EDSEL L. CARLSON, JR.

TAMPA ELECTRIC COMPANY DOCKET NO. 080317-EI WITNESS: CARLSON

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LIST OF MINIMUM FILING REQUIREMENT SCHEDULES

SPONSORED OR CO-SPONSORED BY EDSEL L. CARLSON, JR.

MFR Schedule	Title
B-21	Accumulated Provision Accounts - 228.1, 228.2
	and 228.4