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April 9, 2021

ELECTRONIC FILING

Mr. Adam J. Teitzman, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Docket 20210034-EI, Petition for Rate Increase by Tampa Electric Company


Dear Mr. Teitzman:

Attached for filing on behalf of Tampa Electric Company in the above-referenced docket is the Direct Testimony and Exhibit of Davicel Avellan.

Thank you for your assistance in connection with this matter.

(Document 16 of 34)

Sincerely,



J. Jeffry Wahlen

JJW/ne
Attachment

cc: Richard Gentry, Public Counsel
Jon Moyle, FIPUG



**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 20210034-EI
IN RE: PETITION FOR RATE INCREASE
BY TAMPA ELECTRIC COMPANY**

**DIRECT TESTIMONY AND EXHIBIT
OF
DAVICEL AVELLAN**

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **PREPARED DIRECT TESTIMONY**

3 **OF**

4 **DAVICEL AVELLAN**

5
6 **Q.** Please state your name, address, occupation, and employer.

7
8 **A.** My name is Davicel "David" Avellan. My business address
9 is 702 North Franklin Street, Tampa, Florida 33602. I am
10 employed by Tampa Electric Company ("Tampa Electric" or
11 "company") as Director, Regulatory Plant and Tax
12 Accounting.

13
14 **Q.** Please describe your duties and responsibilities in that
15 position.

16
17 **A.** I am responsible for overseeing all of the regulatory asset
18 accounting and reporting, which includes maintaining the
19 financial books and records of Tampa Electric and its
20 natural gas distribution division - Peoples Gas System -
21 relating to property, plant, and equipment, including
22 depreciation, amortization, and asset retirement
23 obligations. I am responsible for all depreciation and
24 dismantlement studies filed with the Florida Public
25 Service Commission ("Commission") and the Federal Energy

1 Regulatory Commission ("FERC"). I am also responsible for
2 providing tax services to Tampa Electric Company, Peoples
3 Gas System, and New Mexico Gas Company. My
4 responsibilities include the preparation and filing of tax
5 returns, tax accounting for internal and external
6 purposes, tax planning, and managing federal and state
7 income tax audits.

8

9 **Q.** Please provide a brief outline of your educational
10 background and business experience.

11

12 **A.** I attended the University of Tampa and graduated from the
13 American Intercontinental University with a bachelor's
14 degree in Accounting and Finance in 2006. I have worked
15 in the Accounting groups at Tampa Electric; TECO Services,
16 Inc.; TECO Energy, Inc.; and TECO Power Services
17 Corporation for the last 26 years, with increasing
18 responsibilities as Coordinator, Supervisor, Manager, and
19 my current position of Director - Regulatory Plant & Tax
20 Accounting. I have been active at the Edison Electric
21 Institute ("EEI") and American Gas Association on their
22 respective accounting committees, and currently serve as
23 Chairman of EEI's Tax Systems and Technology Subgroup. I
24 am also a member of the Society of Depreciation
25 Professionals.

1 **Q.** Have you previously testified before the Florida Public
2 Service Commission or other regulatory authority?

3

4 **A.** Yes. I have filed direct testimony with and been a sworn
5 witness on behalf of New Mexico Gas Company for proceedings
6 at the New Mexico Public Regulation Commission ("NMPRC")
7 with the primary focus of my direct testimony related to
8 income taxes. In addition, I have filed testimony in two
9 depreciation-related dockets at the FERC. Those
10 testimonies were filed in Docket No. ER20-1935-000 on May
11 29, 2020, in support of the company's request to add an
12 intangible solar depreciation rate to its Open Access
13 Transmission Tariff ("OATT") as of January 1, 2019, and
14 in Docket No. ER20-1960-000 on June 2, 2020, to add a
15 transmission energy storage depreciation rate to the same
16 tariff as of May 15, 2020. They were accepted for filing
17 by the FERC, respectively, on July 14, 2020, and July 2,
18 2020.

19

20 **Q.** What are the purposes of your direct testimony?

21

22 **A.** The purposes of my testimony are to: (1) provide background
23 information about the company's current depreciation
24 rates, (2) describe the process and results of the
25 depreciation and dismantlement study prepared by Tampa

1 Electric and filed in Docket No. 20200264-EI on December
2 30, 2020, (3) support and justify the depreciation rates
3 proposed by Tampa Electric to be effective January 1, 2022,
4 and used in the Minimum Filing Requirements ("MFR")
5 schedules for the 2022 test year, and (4) describe the
6 capital recovery schedules proposed by Tampa Electric for
7 the undepreciated net book value of assets, such as the
8 portions of Big Bend Units 1, 2, and 3 electric generating
9 units that are being retired, as described by Tampa
10 Electric witness J. Brent Caldwell, and Automated Meter
11 Reading ("AMR") meter retirements as described by Tampa
12 Electric witness Regan B. Haines. I also support the amount
13 of depreciation expense and amortization of capital cost
14 recovery included in the calculation of 2022 test year net
15 operating income.

16
17 **Q.** Have you prepared an exhibit to support your direct
18 testimony?

19
20 **A.** Yes. Exhibit No. DA-1, entitled "Exhibit of Davicel
21 Avellan" was prepared under my direction and supervision.
22 The contents of my exhibit were derived from the books and
23 records of the company and are true and correct to the
24 best of my information and belief. My exhibit consists of
25 two documents, as follows.

1 Document No. 1 List of Minimum Filing Requirement
2 Schedules Sponsored or Co-Sponsored
3 by Davicel Avellan

4 Document No. 2 Investment and cost associated with
5 retirement of Big Bend Unit 1, 2, and
6 3, and AMR meter net book value
7 proposed reclassification to FERC
8 182.2 (Unrecovered Plant).

9
10 **Q.** Are you sponsoring any sections of Tampa Electric's MFR
11 schedules?

12
13 **A.** Yes. I am sponsoring or co-sponsoring the MFR schedules
14 listed in Document No. 1 of my exhibit.

15
16 **TAMPA ELECTRIC'S CURRENT DEPRECIATION RATES**

17 **Q.** When were the company's current depreciation rates
18 approved by the Commission?

19
20 **A.** Tampa Electric filed its last depreciation study in 2011.
21 The Commission approved depreciation rates for the company
22 on April 3, 2012, by Order No. PSC-2012-0175-PAA-EI in
23 Docket No. 20110131-EI. That Order became final on April
24 30, 2012, by Order No. PSC-2012-0226-CO-EI. The company
25 used the rates approved in Docket No. 20110131-EI when it

1 filed its most recent general rate case in 2013, Petition
2 of Tampa Electric Company for an Increase in Base Rates
3 and Service Charges, Docket No. 20130040-EI ("2013 rate
4 case").

5
6 The company's 2013 rate case was resolved by stipulation.
7 On September 8, 2013, Tampa Electric and the Consumer
8 Parties - the Office of Public Counsel ("OPC"), Florida
9 Industrial Power Users Group ("FIPUG"), Florida Retail
10 Federation ("FRF"), Federal Executive Agencies ("FEA"),
11 and West Central Florida Hospital Utility Alliance ("HUA")
12 - filed a Stipulation and Settlement Agreement ("2013
13 Stipulation") that resolved all issues in Tampa Electric's
14 2013 rate case.

15
16 Paragraph 8 of the 2013 Agreement states:

17 Notwithstanding any requirements of Rules 25-6.0436
18 and 25-6.04364, F.A.C., the company shall not be
19 required during the Term of this Agreement to file
20 any depreciation study or dismantlement study. The
21 depreciation and amortization accrual rates in effect
22 as of the effective date of this Agreement (except
23 as modified for software by paragraph 11(b)) shall
24 remain in effect throughout the Term. The Parties
25 agree that the provisions of Rules 25-6.0436 and 25-

1 6.04364, F.A.C., pursuant to which depreciation and
2 dismantlement studies are filed at least every four
3 years will not apply to the company during the Term
4 and that the Commission's approval of this Agreement
5 shall excuse the company from compliance with the
6 filing requirement of these rules during the Term.
7 The company shall file a depreciation study no more
8 than one year nor less than 60 days before the filing
9 of its next general rate proceeding under Sections
10 366.06 and 366.07, Florida Statutes, such that the
11 proposed depreciation rates can be considered
12 contemporaneously with the company's next general
13 rate proceeding.

14

15 **Q.** Is this provision still in effect today?

16

17 **A.** Yes. Tampa Electric amended and restated the 2013
18 Stipulation in 2017 and executed an agreement called the
19 2017 Amended and Restated Stipulation and Settlement
20 Agreement ("2017 Agreement"). The Commission approved the
21 2017 Agreement by Order No. PSC-2017-0456-S-EI, issued on
22 November 27, 2017, in Docket Nos. 20170210-EI and
23 20160160-EI. Paragraph 8 of the 2013 Stipulation, as
24 detailed above, was included as paragraph 8 of the 2017
25 Agreement with certain clarifications.

1 Paragraph 8 of the 2017 Agreement states:

2 (a) The Parties agree and intend that,
3 notwithstanding any requirements of Rules 25-6.0436
4 and 25-6.04364, F.A.C., the company shall not be
5 required during the Term of this 2017 Agreement to
6 file any depreciation study or dismantlement study.
7 The depreciation and amortization accrual rates
8 approved by the FPSC and currently in effect as of
9 the Effective Date of this 2017 Agreement shall
10 remain in effect during the Term or the company's
11 next depreciation study, whichever is later. The
12 Parties further agree that the provisions of Rules
13 25-6.0436 and 25-6.04364, F.A.C., which otherwise
14 require depreciation and dismantlement studies to be
15 filed at least every four years, will not apply to
16 the company during the Term, and that the
17 Commission's approval of this 2017 Agreement shall
18 excuse the company from compliance with the filing
19 requirement of these rules during the Term.

20 (b) Notwithstanding the non-deferral language in
21 Paragraph 4, unless the company proposes a special
22 capital recovery schedule and the Commission approves
23 it, if coal-fired generating assets or other assets
24 are retired or planned for retirement of a magnitude
25 that would ordinarily or otherwise require a special

1 capital recovery schedule, such assets will continue
2 to be depreciated using their then existing
3 depreciation rates and special capital recovery
4 issues will be addressed in conjunction with the
5 company's next depreciation study. If the company
6 installs Automated Meter Infrastructure ("AMI")
7 meters and retires Automated Meter Reading ("AMR")
8 meters during the Term, such assets will continue to
9 be depreciated using their then existing depreciation
10 rates and special capital recovery issues will be
11 addressed in conjunction with the company's next
12 depreciation study.

13 (c) Notwithstanding the provisions of Subparagraph
14 8(a) above, the company shall file a depreciation and
15 dismantlement study or studies no more than one year
16 nor less than 90 days before the filing of its next
17 general rate proceeding under Sections 366.06 and
18 366.07, Florida Statutes, such that there is a
19 reasonable opportunity for the Consumer Parties to
20 review, analyze and potentially rebut depreciation
21 rates or other aspects of such depreciation and
22 dismantlement studies contemporaneously with the
23 company's next general rate proceeding. The
24 depreciation and dismantlement study period shall
25 match the test year in the company's MFRs, with all

1 supporting data in electronic format with links,
2 cells and formulae intact and functional, and shall
3 be served upon all Consumer Parties and all
4 intervenors in such subsequent rate case.

5
6 This explains why the company has not filed a depreciation
7 study since 2011 and why the company filed a depreciation
8 and dismantlement study on December 30, 2020 in
9 anticipation of the current rate case filing.

10
11 **Q.** Other than approving the 2013 Stipulation and 2017
12 Agreement, has the Commission taken any other actions that
13 affect the company's depreciation and amortization rates
14 over this same period?

15
16 **A.** Yes. The Commission has entered orders addressing the
17 depreciation of the company's Advanced Metering
18 Infrastructure ("AMI") system, amortization of intangible
19 software, and new depreciation rates for three new
20 categories of plant assets.

21
22 **Q.** What action did the Commission take on depreciation of the
23 company's AMI system?

24
25 **A.** The Commission approved a commencement date of January 1,

1 2022, for the depreciation of Tampa Electric's AMI program
2 assets in Order No. PSC-2019-0327-PAA-EI, issued on August
3 9, 2019, in Docket No. 20190107-EI. The AMI meters will
4 be fully functional and in-service at that time, meaning
5 the system will be able to provide customer service tools,
6 remote connection or disconnection of service, and
7 information regarding customer energy usage.

8
9 As a part of this order, the Commission also directed Tampa
10 Electric to continue to record depreciation expense on its
11 existing AMR assets if replaced by AMI assets during the
12 term of the 2017 Agreement, as addressed in Section 8 and
13 described above.

14
15 **Q.** What actions did the Commission take regarding
16 amortization of the company's intangible software?

17
18 **A.** In Order No. PSC-2013-0443-FOF-EI, issued September 30,
19 2013, the Commission approved the 2013 Stipulation and
20 accordingly directed the company to begin using a 15-year
21 amortization period for all intangible software.

22
23 In Order No. PSC-2015-0573-PAA-EI, the Commission approved
24 the Company's Petition for Approval of Depreciation Rates
25 for Solar Photovoltaic ("PV") generating units and

1 associated units over a 30-year period with a whole life
2 depreciation rate of 3.3 percent. As a result, the company
3 created subaccount 303.99 for the intangible software
4 associated with its solar PV facilities and is amortizing
5 that software over 30 years.

6
7 In Docket No. 20200065-EI, the Commission approved the
8 company's petition to eliminate the accumulated
9 amortization reserve surplus for intangible software
10 assets of approximately \$16.0 million and to amortize it
11 over 12 months, beginning in January 2020.

12
13 **Q.** What actions did the Commission take to approve
14 depreciation rates for new categories of plant assets
15 since 2013?

16
17 **A.** In Order No. PSC-2017-0391-PAA-EI, the Commission approved
18 a 35-year average service life and a whole life
19 depreciation rate of 2.9 percent for the Polk 2 combined
20 cycle ("CC") unit, including heat recovery steam
21 generator, steam turbine, and associated equipment. The
22 combined cycle assets are unitized in the following plant
23 account depreciation groups:

24 341.86 Structures and Improvements

25 342.86 Fuel Holders, Producers and Accessories

- 1 343.86 Prime Movers
- 2 345.86 Accessory Electric Equipment
- 3 346.86 Miscellaneous Power Plant Equipment

4

5 In Order No. PSC-2020-0116-PAA-EI, the Commission approved

6 a 10-year average service life and a whole life

7 depreciation rate of 10 percent for the company's energy

8 storage equipment. The energy storage asset accounts

9 include the following plant account depreciation groups:

- 10 348-Energy Storage Equipment-Production
- 11 351-Energy Storage Equipment-Transmission
- 12 363-Energy Storage Equipment-Distribution

13

14 The company's current battery storage assets are unitized

15 into the plant account depreciation group 348.99 Energy

16 Storage Equipment-Production.

17

18 As I previously stated, the Commission approved new

19 depreciation rates for solar generating units by Order No.

20 PSC-2015-0573-PAA-EI, including a 30-year service life and

21 a whole life depreciation rate of 3.3 percent. The solar

22 assets are unitized into the following plant account

23 depreciation groups:

- 24 303.99 Intangible Plant
- 25 341.99 Structures and Improvements

1 343.99 Other Generation Plant

2 345.99 Accessory Electric Equipment

3

4 **Q.** Does the 2020 and 2021 financial information in the MFR
5 schedules filed in this case reflect the Commission
6 actions discussed above?

7

8 **A.** Yes.

9

10 **TAMPA ELECTRIC'S 2020 DEPRECIATION AND DISMANTLEMENT STUDIES**

11 **Q.** Did the company file a depreciation and dismantlement
12 study "no more than one year nor less than 90 days before
13 the filing of its next general rate proceeding under
14 Sections 366.06 and 366.07, Florida Statutes, such that
15 there is a reasonable opportunity for the Consumer Parties
16 to review, analyze and potentially rebut depreciation
17 rates or other aspects of such depreciation and
18 dismantlement studies contemporaneously with [this] rate
19 proceeding" as required in the 2017 Agreement?

20

21 **A.** Yes. The company filed a depreciation and dismantlement
22 study on December 30, 2020 in Docket No. 20200264-EI. I
23 will refer to this study as the "2020 Depreciation Study"
24 during the remainder of my testimony. Consistent with the
25 2017 Agreement, the company will file a motion to

1 consolidate Docket No. 20200264-EI with this rate case
2 docket shortly after the petition, testimony and MFRs are
3 filed in this docket.

4
5 **Q.** Please generally describe the 2020 Depreciation Study and
6 summarize the results of the study.

7
8 **A.** We employed generally accepted standard depreciation
9 methods, procedures, and techniques in preparing the 2020
10 Depreciation Study. The table below shows the proposed
11 changes in annual depreciation, based on 2019 Ending Gross
12 Plant Balances, resulting from the proposed changes to
13 depreciation rates and dismantlement accruals. The company
14 has proposed to establish amortization schedules for: (1)
15 the remaining net book values and dismantlement reserve
16 deficiencies for Big Bend Unit 1, Big Bend Unit 2, and Big
17 Bend Unit 3; and (2) the remaining net book value for AMR
18 meters resulting from the systemwide conversion to AMI
19 meters. The following change in expense levels does not
20 include any impacts of these proposed amortization
21 recovery schedules.

22		
23	Steam Production Plant	\$ 8,510,671
24	<u>Other Production Plant</u>	<u>18,609,414</u>
25	<u>Subtotal Change in Generation</u>	<u>27,120,085</u>

1	Transmission Plant	1,203,427
2	Distribution Plant	1,180,333
3	General Plant	95,468
4	<u>Subtotal Change in TD&G</u>	<u>2,479,228</u>
5		
6	<u>Dismantlement</u>	\$ 6,828,649
7	Total Change in Depreciation	\$36,427,962
8	<u>& Dismantlement</u>	

9

10 The depreciation study is organized by functional group:

11 Generation Production; Transmission, Distribution, and

12 General Plant; and Dismantlement. Each of these groups

13 also contains subdivisions. Generation Production plant

14 is organized by Energy Supply power stations, units, and

15 accounts stratified by life category composites.

16 Transmission, Distribution & General plant is organized

17 by plant accounts or sub-accounts. Dismantlement is

18 organized by power station units.

19

20 The effective date of the implementation requested for

21 changing depreciation rates and dismantlement accruals is

22 January 1, 2022.

23

24 **Q.** Was the 2020 Depreciation Study prepared in accordance

25 with FPSC Rules 25-6.0142, 25-6.0143, 25-6.0436, 25-

1 6.04361 and 25-6.04364?

2

3 **A.** Yes.

4

5 **Q.** What role did you play in preparing the 2020 Depreciation
6 Study?

7

8 **A.** The 2020 Depreciation Study was prepared by Tampa Electric
9 staff under my direct supervision.

10

11 **Q.** What definition of "depreciation" have you used in the
12 preparation of the 2020 Depreciation Study and this
13 testimony?

14

15 **A.** Utility depreciation recognizes the wear and tear on plant
16 or equipment as it performs its intended function. Annual
17 depreciation represents the reduction in useful life of
18 the plant or equipment during one year of operation. The
19 net of interim salvage value and cost of removal is
20 adjusted against the reserve and is factored into the
21 whole-life or remaining-life formulas used to calculate
22 the annual depreciation rate of accrual per category of
23 plant or equipment.

24

25 **Q.** What is the purpose of a depreciation and dismantlement

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study?

A. The purpose of a depreciation study is to estimate the useful service lives (average service life and average remaining life) of different components of plant or equipment. Each category of plant or equipment is based on the Code of Federal Regulations - Title 18: Conservation of Power and Water Resources, Chapter I, Subchapter C, Part 101, Electric Plant Chart of Accounts segregated by FERC function and designated by account numbers 301-399. The plant account in total, or stratification of equipment within a plant account, is analyzed for useful service life, net of interim salvage value and cost of removal factors in conjunction with vintage year plant costs and Iowa survivor curve plotting to calculate the annual depreciation rate for that plant account.

The purpose of the dismantlement study, which applies to all generating plant (Production Steam and Production Other), is to reserve funds for the final disposition and removal of a generating station or unit during end-of-life decommissioning. Each generating unit has its own terminal year based on when the unit was placed in-service and its estimated maximum life span. Each unit is provided an estimated cost for final disposition and removal that is

1 escalated to the terminal year for calculating the annual
2 dismantlement accrual. The standard dismantlement study
3 determines these costs based on removal or demolition at
4 the end of life of the entire station. Additional costs
5 are incurred if units are removed while units at the
6 station continue to operate, as described in the direct
7 testimony of witness Charles R. Beitel.

8
9 **Q.** What steps, inputs, and data did you use to prepare the
10 2020 Depreciation Study?

11
12 **A.** The 2020 Depreciation Study is based on the continuing
13 property record details per each plant account as of
14 December 31, 2019. Generating unit (Production Steam and
15 Production Other) plant accounts and equipment are
16 stratified by retirement unit into varying average service
17 lives and Iowa curve types for analysis, and the results
18 are then aggregated into a composite rate for each plant
19 account. An additional data point, called the terminal
20 date of the generating unit, is also taken into
21 consideration. The terminal date is the year when the
22 generating unit will be taken out of service and
23 dismantled. Using the terminal date, the Iowa curve
24 analysis will begin to truncate the remaining life per
25 vintage to fully recover the invested cost of each

1 generating unit. Transmission, Distribution and General
2 Plant equipment is studied at the plant account level for
3 average service life and curve analysis. The underlying
4 plant account retirement unit details are reviewed for
5 primary drivers, each is assigned an average service life,
6 and weighted averages are calculated, resulting in a
7 composite average service life for curve type study
8 purposes. Terminal dates are not used when studying
9 perpetual Transmission, Distribution and General Plant
10 account equipment. Annual salvage and cost of removal of
11 historical information through 2019 and corresponding 5-
12 year rolling averages are reviewed and input selections
13 are made for net salvage factors to complete the whole
14 life and remaining life formula calculations.

15
16 The dismantlement study is projected through a December
17 31, 2021, reserve starting point for modeling the change
18 in annual accrual. The projection uses vendor-provided
19 cost estimates in 2020 dollars subject to cost escalations
20 using Moody's Analytics October 2020 indices for the GDP
21 Chain Price Deflator (2012=100); Intermediate Goods,
22 Producer Prices (1982=100); and Compensation Per Hour,
23 Productivity and Costs (2012=100). The model performs a
24 present value annual accrual calculation based on the
25 estimated future cash flows that were escalated to each

1 generating unit's terminal date. The dismantlement annual
2 accrual per generating unit is based on an average of the
3 next four years of projected annual accruals between 2022
4 and 2025.

5
6 **Q.** What classes of property are included in the 2020
7 Depreciation Study?

8
9 **A.** Tampa Electric plant or equipment is categorized by
10 function into FERC electric plant accounts, specifically
11 Steam Production Plant (311-317), Other Production Plant
12 (341-348), Transmission Plant (350-359.1), Distribution
13 Plant (361-374), General Plant (390-399.1), and Intangible
14 Plant (303).

15
16 **Q.** What classes of property were not included in the 2020
17 Depreciation Study?

18
19 **A.** Tampa Electric does not have any plant or equipment
20 categorized by the following FERC functions of electric
21 plant accounts: Nuclear Production Plant (320-326),
22 Hydraulic Production Plant (330-337), Regional
23 Transmission and Market Operation Plant (380-387), and
24 Intangible Plant (301-302). In addition, non-depreciable
25 land costs assigned to FERC electric plant accounts 310,

1 340, 350, 360, and 389 were not included and utilize a
2 zero percent depreciation rate.

3

4 **Q.** What depreciation systems did you use when preparing the
5 2020 Depreciation Study?

6

7 **A.** In 2016, Tampa Electric implemented a new depreciation
8 software solution, PowerPlan's Depreciation Study module.
9 The company utilizes Excel spreadsheets to aggregate the
10 results of the module. We accomplish inclusion of our
11 consultant dismantlement study results in the 2020
12 Depreciation Study through an Excel spreadsheet model that
13 has been used in the company's previous depreciation study
14 filings.

15

16 **Q.** What is a survivor curve, and how were survivor curves
17 used in preparation of the 2020 Depreciation Study?

18

19 **A.** Iowa survivor curve analysis is a standard method for
20 determining utility plant remaining life. The Iowa
21 survivor curves were developed at the Iowa State College
22 Engineering Experiment Station in the 1950s through the
23 process of observation and classification of ages at which
24 industrial property had been retired. These standardized
25 patterns of asset retirement dispersion are organized into

1 four broad classes of curve types: Right-Modal "R" curve,
2 Left-Modal "L" curve, Symmetrical "S" curve, and Original
3 Modal "O" curve. The purpose of Iowa curves is to enable
4 the calculation of an average remaining life based on the
5 average service life chosen. Remaining life calculations
6 take the current age of each vintage of equipment within
7 a plant account and then use the retirement rate projected
8 by the appropriate Iowa curve to project the remaining
9 life per each vintage. We chose the Iowa survivor curve
10 for each plant account or stratified plant account based
11 on historical precedent, comparable industry best
12 practices, or advanced analytics, if available.

13
14 **Q.** What is the depreciation rate formula, *i.e.*, how are
15 depreciation rates developed?

16
17 **A.** There are two depreciation rate formula techniques - whole
18 life and remaining life. Under the whole life method,
19 depreciation expense must cover invested capital and
20 recognize credit for salvage and recover cost of removal
21 over the average service life. This is expressed by the
22 following formula:

$$\frac{100\% - (\text{Salvage \%} + \text{Cost of Removal \%})}{\text{Average Service Life}}$$

1 Using the remaining life method, depreciation expense must
2 cover invested capital, recognize credit for salvage,
3 recover cost of removal, and be adjusted for the actual
4 book reserve ratio over the average remaining life. This
5 is expressed by the following formula:

$$\frac{100\% - (\text{Salvage } \% + \text{Cost of Removal } \%) - \text{Reserve } \%}{\text{Average Remaining Life}}$$

6
7
8
9
10 **Q.** What portion of the formula used to derive depreciation
11 rates is supported by the study?

12
13 **A.** The study utilizes plant and depreciation reserve balances
14 as of December 31, 2019. The study supports the remaining
15 life formula calculation of depreciation rates and
16 determines the average remaining life and theoretical
17 reserve amounts based on inputs for vintage surviving
18 plant balances, Iowa curve type, net salvage percentages,
19 and average service life estimation.

20
21 **Q.** Please describe the work you performed in the first step
22 of the 2020 Depreciation Study, *i.e.*, data collection.

23
24 **A.** Tampa Electric files an annual depreciation status report
25 with the Commission. We extracted plant and depreciation

1 reserve balances as of December 31, 2019, as seen on the
2 annual status report pages B-7 and B-9, submitted on June
3 1, 2020, from the continuing property record in detail by
4 asset retirement unit. We calculated historical net
5 salvage activities for gross salvage and gross cost of
6 removal, as seen on annual status report page B-9 and
7 recorded them by year and 5-year rolling averages.

8
9 **Q.** Please describe the work you performed in the second step
10 of the 2020 Depreciation Study, *i.e.*, analysis.

11
12 **A.** For production plant accounts, we analyzed the generating
13 units for terminal date (end of life) year changes. Then
14 we stratified each production generating unit plant
15 account's asset retirement unit records into short,
16 medium, and long-life categories. Each category is applied
17 a different Iowa curve type, average service life and
18 results aggregated by plant account. We analyzed the
19 Transmission, Distribution and General Plant accounts on
20 a non-stratified, perpetual (no terminal date) basis for
21 applying a singular Iowa curve type, average service life
22 and net salvage factor.

23
24 **Q.** Please describe the work you performed in the third step
25 of the 2020 Depreciation Study, *i.e.* evaluation.

1 **A.** We performed initial analyses and had them reviewed
2 internally by company engineers. The production generating
3 unit terminal date assessments are critical for
4 determining whether depreciation recovery of a specific
5 unit needs to accelerate due to early shutdown or
6 decelerate due to life extension. We compared
7 Transmission, Distribution and General Plant account
8 average service life assessments for property group cross-
9 functional similarities or differences and for future
10 program initiatives that could impact average service
11 lives.

12
13 Tampa Electric considered its new Storm Protection Plan
14 ("SPP") program initiative for this study. The activities
15 were determined to be mostly wind mitigation outage
16 prevention activities that would not cause average service
17 life extension.

18
19 **Q.** Please describe the work you performed in the fourth step
20 of the 2020 Depreciation Study, *i.e.*, calculation.

21
22 **A.** After evaluations were completed, we finalized inputs and
23 factored them into the depreciation study software to
24 produce the necessary output reports that yield the
25 average remaining lives, theoretical reserves, and

1 remaining life formula calculation of depreciation rates.
2 We then summarized the study outputs on a spreadsheet in
3 order to perform comparisons using existing depreciation
4 rates and the study's proposed depreciation rates for the
5 annual accrual change impacts.
6

7 **Q.** Did Tampa Electric commission a 2020 dismantlement study
8 to be performed?
9

10 **A.** Yes. The company contracted with 1898 & Co. to perform the
11 standard dismantlement study. This study considers the
12 costs and accrual needed for dismantlement of each entire
13 station at the end of the life of the longest-lived unit.
14 Tampa Electric also contracted with Sargent & Lundy to
15 perform a dismantlement study for the cost estimates
16 related to the near-term dismantlement of Big Bend Units
17 1, 2, and 3 within a functioning power station. Witness
18 Jeffrey S. Kopp with 1898 & Co. sponsors and describes the
19 dismantlement study where removal is completed at the end
20 of the entire plant life in his direct testimony. In his
21 prepared direct testimony, Mr. Beitel with Sargent & Lundy
22 sponsors and describes the dismantlement studies that
23 provide the demolition and removal costs of Big Bend Units
24 1, 2, and 3 while the remaining units at the plant continue
25 operating.

1 Q. Please explain how you incorporated the results of the
2 1898 & Co. and Sargent & Lundy dismantlement studies in
3 the 2020 Depreciation Study.
4

5 A. We used the 1898 & Co. dismantlement cost estimates for
6 all generating assets except for Big Bend Units 1, 2, and
7 3. We used the cost estimates from Sargent & Lundy for the
8 Big Bend Units 1, 2, and 3 assets because these units will
9 be demolished within an operating power plant, as
10 described earlier in my testimony and in the testimony of
11 Mr. Beitel.
12

13 **PROPOSED DEPRECIATION RATES AND EXPENSE FOR 2022 TEST YEAR**

14 Q. What depreciation rates does the company propose to use
15 for its 2022 test year in this proceeding?
16

17 A. The company proposes to use the depreciation rates
18 developed in its 2020 Depreciation Study as described
19 above. Those rates are set forth by category of plant
20 asset. The use of these rates is reflected in the 2022
21 financial data included in the company's MFR schedules
22 filed in this case.
23

24 Q. Are the depreciation rates proposed for 2022 by the company
25 reasonable?

1 **A.** Yes, based on the analyses performed to prepare the 2020
2 Depreciation Study filing and review and comparisons to
3 other utilities' rates, the depreciation rates and expense
4 levels proposed for 2022 are reasonable and should be
5 approved.

6
7 **Q.** Have you compared the depreciation rates proposed by the
8 company for 2022 to the depreciation rates being used by
9 other public electric utilities in Florida?

10
11 **A.** Yes. Tampa Electric compared Production Steam, Production
12 Other, Transmission, Distribution, and General Plant
13 account metrics to other public utilities for depreciation
14 rate, average service life, average remaining life, future
15 net salvage, reserve ratio, and curve type, if data was
16 available. The purpose was to compare proposed study
17 metrics looking for outlier low or high data points, and
18 focus was placed on average service life and future net
19 salvage differences. Tampa Electric's proposed rates are
20 comparable to those used by other electric utilities.

21
22 **Q.** Using the company's proposed depreciation rates, what is
23 the amount of depreciation expense in the 2022 test year?

24
25 **A.** The amount of depreciation expense in the 2022 test year

1 using the company's proposed depreciation rates and the
 2 proposed 10-year amortization period for recovery of the
 3 special capital recovery schedules for retiring assets is
 4 \$493,324,106 as shown on MFR Schedule B-9. The table below
 5 is the detail by group:

PowerPlant Depr Group	2022	10-year Amortization Capital Recovery Schedule	Total 2022 Depreciation
Dismantlement	8,014,742	11,108,881	19,123,623
Acquisition Adjustments	236,709		236,709
SOFTWARE - Intangibles	29,516,555		29,516,555
ARO - Intangibles	5,493,447		5,493,447
GENERATION - Steam	45,258,426	47,619,458	92,877,884
GENERATION - Other	155,342,425		155,342,425
TRANSMISSION	33,038,697	532,506	33,571,203
DISTRIBUTION	123,196,423	3,614,687	126,811,110
VEHICLES - General	4,986,730		4,986,730
GENERAL - General	25,363,122	1,298	25,364,420
TOTAL	430,447,276	62,876,830	493,324,106

19
 20 **Q.** How does the proposed depreciation expense amount for 2022
 21 compare with the projected amount of depreciation expense
 22 for 2021, and how much of the increase is due to changes
 23 in depreciation rates?

24
 25 **A.** The difference between the 2022 depreciation expense and

the projected amount of 2021 depreciation expense, excluding the amortization of the capital recovery schedules, is \$51,878,413. The table below sets out the differences in detail by group:

PowerPlant Depr Group	2021	2022	Difference
Dismantlement	1,186,094	8,014,742	6,828,648
Acquisition Adjustments	236,709	236,709	-
SOFTWARE - Intangibles	18,018,310	29,516,555	11,498,245
ARO - Intangibles	5,493,447	5,493,447	-
GENERATION - Steam	72,734,684	45,258,426	-27,476,259
GENERATION - Other	114,509,070	155,342,425	40,833,355
TRANSMISSION	29,412,703	33,038,697	3,625,994
DISTRIBUTION	109,213,822	123,196,423	13,982,601
VEHICLES - General	4,017,007	4,986,730	969,724
GENERAL - General	23,747,016	25,363,122	1,616,106
TOTAL	378,568,863	430,447,276	51,878,413

COST RECOVERY SCHEDULES

Q. Is the company proposing special cost recovery schedules for the portions of Big Bend Units 1, 2, and 3 to be retired, as discussed in the direct testimony of witness Caldwell?

A. Yes. Mr. Caldwell has shown that the early retirement of portions or all of Big Bend Units 1, 2, and 3 are prudent and that the associated investment will not be recovered by the time of retirement through the current depreciation rates. Accordingly, pursuant to FPSC Rule 25-6.0436(7),

1 the company is requesting that the Commission approve a
2 capital recovery schedule for the \$481,532,619 of
3 undepreciated Big Bend Units 1, 2, and 3 assets to be
4 retired.

5
6 **Q.** Over what period does the company propose to recover the
7 \$481,532,619 of undepreciated Big Bend Units 1, 2, and 3
8 assets to be retired and why?

9
10 **A.** The company proposes to recover the \$481,532,619 of the
11 Big Bend Units 1, 2, and 3 remaining net book value over
12 a 10-year period as reflected on MFR C-19. The company
13 analyzed various alternatives and concluded that the 10-
14 year amortization period reflects a prudent and reasonable
15 time period that would mitigate the rate impact on
16 customers.

17
18 **Q.** What is the resulting annual cost recovery amount if the
19 FPSC approves the company's proposal?

20
21 **A.** The annual cost recovery amount if the FPSC approved the
22 company's proposal is \$48,153,263:

23
24
25

	12/31/2021	Recovered through		10 Years Annual
	NBV	ECRC Clause	Rate Base	Amortization
BB1-Boiler 1	86,841,738		86,841,738	8,684,174
BB1-SCR 1	36,027,477	42,029,496	-6,002,019	3,602,748
BB2-Boiler 2	89,024,459		89,024,459	8,902,446
BB2-SCR 2	51,391,691	50,765,849	625,842	5,139,169
BB2-FGD 1/2	30,890,328	19,351,304	11,539,024	3,089,033
BB3-Boiler 3	145,197,790		145,197,790	14,519,779
BB3-SCR 3	42,159,136	41,726,353	432,783	4,215,914
Total	\$481,532,619	\$153,873,002	\$327,659,617	\$48,153,263

Q. Is the company proposing a special cost recovery schedule for the unrecovered value of AMR meters that were retired during the period the 2017 Settlement Agreement was effective?

A. Yes, the company is requesting that the Commission approve a capital recovery schedule to recover \$36,146,873 for the remaining net book value of the AMR meters as reflected on MFR Schedule C-19.

Q. Over what period does the company propose to recover the \$36,146,873 of undepreciated retired AMR meter assets and why?

A. The company proposes to recover the \$36,146,873 of the AMR

1 remaining net book value over a 10-year period. The company
2 analyzed various alternatives and determined that a 10-
3 year amortization period is prudent and reasonable because
4 it provides a reasonable balance between timely recovery
5 of the costs while mitigating the rate impact on
6 customers.

7

8 **Q.** What is the resulting annual cost recovery amount if the
9 Commission approves the company's proposal?

10

11 **A.** The annual cost recovery amount if the Commission approved
12 the company's proposal would be \$3,614,687.

13

	12/31/2021	10 Years
	NBV	Annual
		Amortization
AMR	36,146,873	3,614,687

17

18 **Q.** Is the company proposing a special cost recovery schedule
19 for the Dismantlement Reserve Deficiency related to the
20 early retirement of Big Bend Units 1, 2, and 3?

21

22 **A.** Yes, the company requests that the Commission approve a
23 capital recovery schedule of \$111,088,808 related to the
24 Dismantlement Reserve Deficiency for the early retirement
25 of Big Bend Units 1, 2, and 3.

1 **Q.** Over what period does the company propose to recover the
2 \$111,088,808 Dismantlement Reserve Deficiency for the
3 early retirement of Big Bend Units 1, 2, and 3 and why?
4

5 **A.** The company proposes to recover the \$111,088,808
6 Dismantlement Reserve Deficiency over a 10-year period.
7 The company analyzed various alternatives and determined
8 that a 10-year amortization period reflects a prudent and
9 reasonable time period that would mitigate the rate impact
10 on customers.
11

12 **Q.** What is the resulting annual cost recovery amount if the
13 Commission approves the company's proposal?
14

15 **A.** The annual cost recovery amount if the Commission approves
16 the company's proposal is \$11,108,881:
17

	12/31/2021	10 Years
Dismantlement Reserve Deficiency	NBV	Annual
		Amortization
Big Bend Unit #1	28,471,852	2,847,185
Big Bend Unit #2	39,642,284	3,964,228
Big Bend Unit #3	42,974,672	4,297,467
	111,088,808	11,108,881

23
24 **Q.** What investments and costs associated with the retirement
25 of Big Bend Units 1, 2, and 3, and AMR need to be considered

1 as part of the ratemaking activity in this docket?

2

3 **A.** In general, there are two. The first is the projected
4 undepreciated net book values of the Big Bend Units 1, 2,
5 and 3, and AMR assets to be retired as of December 31,
6 2021, which are \$517,679,493 is reflected on Document No.
7 2 of my exhibit. The second is the Dismantlement Reserve
8 Deficiencies associated with the portions of Big Bend
9 Units 1, 2, and 3 to be retired, which are \$111,088,808
10 shown in our depreciation and dismantlement study and in
11 Document No. 2 of my exhibit. The total of these amounts
12 is \$628,768,301 and represents the total amount the
13 company proposes to include for a capital recovery
14 schedule over ten years. This amount is shown on Document
15 No. 2 of my exhibit.

16

17 **Q.** What is the total annual amortization expense associated
18 with the company's proposed capital recovery schedule in
19 the 2022 test year?

20

21 **A.** The total annual amortization expense in 2022 associated
22 with our proposed capital recovery schedule is
23 \$62,876,830. Approximately \$51,767,949 of this amount is
24 attributable to recovery of the remaining net book value
25 of the assets to be retired and \$11,108,881 is for recovery

1 of the dismantlement reserve deficiency associated with
2 the Big Bend assets to be retired. These amounts are
3 reflected on Document No. 2 of my exhibit and on MFR
4 Schedule B-9.

5
6 **Q.** How are the Big Bend Unit 1, 2, and 3, and AMR meter net
7 book values as of December 31, 2021 proposed for capital
8 recovery schedules reflected in the 2022 test year MFR
9 schedules submitted with this filing?

10
11 **A.** We accounted for the planned retirement of these assets
12 by removing the asset costs from FERC account number 101
13 (Plant-in-Service) and recording them in FERC account
14 number 108 (Accumulated Reserve) of December 31, 2021. The
15 retirement of these assets is shown on MFR Schedules B-7
16 and B-9, and their net book values are embedded in the
17 December 31, 2021 balances shown on MFR Schedule B-9. We
18 reflected our proposed level of capital recovery schedule
19 amortization (over ten years) in the reserve accruals for
20 FERC account number 403 (Depreciation Expense) and FERC
21 account number 108. For the 2022 test year, our proposed
22 level of capital recovery schedule amortization and
23 depreciation expense for the portion of Big Bend Units 1,
24 2, and 3 that will remain in service are shown on MFR
25 Schedules B-7 and B-9. We used this approach to facilitate

1 reforecasting actual monthly work order activities that
2 have not been unitized from 107 CWIP ("Construction Work
3 in Progress") or 108 RWIP ("Retirement Work in Progress")
4 and to true-up final net book values as of December 31,
5 2021.

6
7 Once the Commission approves our proposed Net Book Value
8 ("NBV") amounts for capital recovery schedules and an
9 amortization period, the net book value amounts, and
10 amortization recovery period, we will record the actual
11 retirements in our accounting records as of December 31,
12 2021, adjust the accumulated reserve for the net book
13 values, create a regulatory debit account balance in FERC
14 Account 182.2 (Unrecovered Plant) in December 2021, and
15 begin amortizing the regulatory debit in January
16 2022. The company did not reflect the movement of the net
17 book values into FERC account number 182.2 in its 2022 MFR
18 schedules to maintain visibility to the asset groups in
19 which each proposed amount resides. When the
20 reclassification to 182.2 occurs, we will begin posting
21 the amortization expenses to FERC 407 (Amortization of
22 Property Losses for Unrecovered Plant). The journal
23 entries we propose to account for the NBV portion of our
24 proposed capital recovery schedule are reflected in
25 Document No. 2 of my exhibit.

1 **Q.** How are the Big Bend Unit 1, 2, and 3 dismantlement reserve
2 deficiencies proposed for capital recovery reflected in
3 the projected 2022 MFR schedules submitted with this
4 filing?

5
6 **A.** The company has included proposed amount of its annual
7 amortization for the projected dismantlement reserve
8 deficiency (approximately \$11.1 million) in FERC account
9 number 403 (Depreciation Expense) and FERC account number
10 108 (Accumulated Reserve). These amounts are included in
11 MFR Schedule B-9. The company did not project in the
12 forecasted balance sheet a movement of the dismantlement
13 reserve deficiencies into FERC 182.2 Unrecovered plant
14 (regulatory debit). When the reclassification to FERC
15 182.2 occurs, we will post the related amortization
16 expenses to FERC 407 Amortization of property losses for
17 unrecovered plant. The journal entries the company
18 proposes to use to account for the dismantlement reserve
19 deficiency portion of its proposed capital recovery
20 schedule are shown in Document No. 2 of my exhibit.

21
22 **Q.** Are there any retirement amounts in the company's filing
23 that need further explanation?

24
25 **A.** Yes, as reflected in the 2021 MFR Schedules B-7 and B-9

1 in account 31140 there is a \$68.3 million retirement on
2 line 5 related to Big Bend Common Structures and
3 Improvements. As reflected on MFR Schedule F-8 budget
4 assumptions, retirements of plant-in-service are based on
5 a ratio of retirements to additions historical averages
6 that is applied to infrastructure replacement projects
7 additions. New expansion project additions have zero
8 retirement budgeted. However, the Big Bend Modernization
9 CT 5 and CT 6 project additions were considered a
10 replacement activity and triggered an automatic budget
11 retirement to occur out of Big Bend common.

12
13 **Q.** Does the \$68.3 million retirement alter total rate base?

14
15 **A.** No, the \$68.3 million retirement does not alter total rate
16 base in 2022 since we debited accumulated reserve account
17 108 and credited gross plant account 101.

18
19 **Q.** What impact did this retirement have on book depreciation
20 expense in 2022?

21
22 **A.** As a result of this retirement total book depreciation
23 expense was reduced by \$2.2 million:

24
25

	B-7 / B-9		2022	2022
	Asset		Depreciation	Depreciation
	Retirement		Rate	Expense
311.40 Str & Improvements-BBCM	(68,339,560)	X	3.2%	(2,186,866)

GAINS AND LOSSES ON DISPOSITION OF PROPERTY

Q. Did the company have gains or losses on the disposition of plant and property previously used in providing electric service from 2018 to 2020?

A. No. See MFR Schedule C-29.

Q. Does the company project gains or losses on the disposition of plant and property previously used in providing electric service in 2021 and 2022?

A. No. See MFR Schedule C-29.

SUMMARY

Q. Please summarize your direct testimony.

A. The 2020 Depreciation Study and analysis performed under my supervision fully supports setting depreciation rates as I have described in my testimony. The depreciation rates proposed by Tampa Electric to be effective January 1, 2022

1 and used in the MFR schedules for the 2022 test year are
2 reasonable and should be approved. For the reasons
3 described in my direct testimony and the direct testimony
4 of Mr. Caldwell and Mr. Haines, the capital recovery
5 schedules proposed by Tampa Electric for the undepreciated
6 net book value of retiring assets are reasonable and
7 prudent and should be approved.

8

9 **Q.** Does this conclude your direct testimony?

10

11 **A.** Yes, it does.

12

13

14

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25

TAMPA ELECTRIC COMPANY
DOCKET NO. 20210034-EI
FILED: 04/09/2021

EXHIBIT

OF

DAVICEL AVELLAN

Table of Contents

DOCUMENT NO.	TITLE	PAGE
1	List of Minimum Filing Requirement Schedules Sponsored or Co-Sponsored by Davicel Avellan	45
2	Investment and cost associated with retirement of Big Bend Unit 1, 2, and 3, and AMR meter net book value proposed reclassification to FERC 182.2 (Unrecovered Plant).	46

LIST OF MINIMUM FILING REQUIREMENT SCHEDULES
SPONSORED OR CO-SPONSORED BY DAVICEL AVELLAN

MFR Schedule	Title
B-07	Plant Balances by Account and Sub-account
B-08	Monthly Plant Balances Test Year - 13 Months
B-09	Depreciation Reserve Balances by Account and Sub-account
B-10	Monthly Plant (Reserve) Balances Test Year - 13 Months
B-11	Capital Additions and Retirements
B-12	Production Plant Additions
B-13	Construction Work in Progress
B-15	Property Held for Future Use - 13 Month Average
C-06	Budgeted Versus Actual Operating Revenues And Expenses
C-08	Detail Of Changes In Expenses
C-09	Five Year Analysis-Change In Cost
C-19	Amortization/Recovery Schedule - 12 Months
C-29	Gains and Losses on Disposition of Plant or Property
F-08	Assumptions

INVESTMENT AND COST ASSOCIATED WITH RETIREMENT OF BIG BEND
UNIT 1, 2, AND 3, AND AMR METER NET BOOK VALUE PROPOSED
RECLASSIFICATION TO FERC 182.2 (UNRECOVERED PLANT)

	Dec-21		Annual 2022		Annual 2022	
	Set up Reg Asset		Undo PPE Amort		Reg Asset Amort	
	108	182.2	108	403	407	182.2
<u>Asset NBV Recovery</u>						
BB1 Boiler	(86,841,739)	86,841,739	8,684,174	(8,684,174)	8,684,174	(8,684,174)
BB1 SCR	(36,027,477)	36,027,477	3,602,748	(3,602,748)	3,602,748	(3,602,748)
BB1	<u>(122,869,216)</u>	<u>122,869,216</u>	<u>12,286,922</u>	<u>(12,286,922)</u>	<u>12,286,922</u>	<u>(12,286,922)</u>
	-					
BB2 Boiler	(89,024,462)	89,024,462	8,902,446	(8,902,446)	8,902,446	(8,902,446)
BB2 SCR	(51,391,691)	51,391,691	5,139,169	(5,139,169)	5,139,169	(5,139,169)
BB FDG 1&2	(30,890,328)	30,890,328	3,089,033	(3,089,033)	3,089,033	(3,089,033)
BB2	<u>(171,306,481)</u>	<u>171,306,481</u>	<u>17,130,648</u>	<u>(17,130,648)</u>	<u>17,130,648</u>	<u>(17,130,648)</u>
	-					
BB3 Boiler	(145,197,789)	145,197,789	14,519,779	(14,519,779)	14,519,779	(14,519,779)
BB3 SCR	(42,159,136)	42,159,136	4,215,914	(4,215,914)	4,215,914	(4,215,914)
BB3	<u>(187,356,924)</u>	<u>187,356,924</u>	<u>18,735,692</u>	<u>(18,735,692)</u>	<u>18,735,692</u>	<u>(18,735,692)</u>
	-					
AMR	(36,146,871)	36,146,871	3,614,687	(3,614,687)	3,614,687	(3,614,687)
Total	<u>(517,679,493)</u>	<u>517,679,493</u>	<u>51,767,949</u>	<u>(51,767,949)</u>	<u>51,767,949</u>	<u>(51,767,949)</u>
<u>Dismantlement Deficiency</u>						
BB1	(28,471,852)	28,471,852	2,847,185	(2,847,185)	2,847,185	(2,847,185)
BB2	(39,642,284)	39,642,284	3,964,228	(3,964,228)	3,964,228	(3,964,228)
BB3	(42,974,672)	42,974,672	4,297,467	(4,297,467)	4,297,467	(4,297,467)
Total	<u>(111,088,808)</u>	<u>111,088,808</u>	<u>11,108,881</u>	<u>(11,108,881)</u>	<u>11,108,881</u>	<u>(11,108,881)</u>