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JOSE R. OLIVA
*Speaker of the House of
Representatives*

September 12, 2019

Mr. Adam Teitzman, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399

Re: Docket No. 20190061-EI
Petition by Florida Power & Light Company for Approval of FPL SolarTogether
Program and Tariff.

Dear Mr. Teitzman:

Enclosed for filing in the above docket on behalf of the Office of Public Counsel (OPC) is the Redacted Public Version of the prefiled testimony of James R. Dauphinais.

On September 3, 2019, the OPC submitted one copy of the prefiled original testimony of Mr. Dauphinais. This confidential filing was an interim measure, allowing the OPC to adhere to the procedural schedule while providing Florida Power & Light Company (FPL) an opportunity to review the testimony and redact the material that it regards as confidential. The enclosed Redacted Version reflects FPL's review. Counsel for FPL has provided its request for confidentiality, including the highlighted confidential material and the accompanying detailed justification, in a separate filing (Document Number 08676-2019).

The original testimony of Mr. Dauphinais filed on September 3, 2019, is the evidence OPC intends to introduce into evidence at the hearing. We have verified the confidential version filed by FPL on September 3, 2019, is identical to the original testimony filed on September 3, 2019 (Document Number 08598-2019), in all respects except for the yellow highlighting indicating the scope of its claim of confidentiality. The OPC has likewise verified the public version of Mr. Dauphinais' testimony filed here is identical in all respects except for the redactions and the stamped indications of redaction. The OPC will serve the redacted, public version on Staff and all parties. This yellow highlighted version designated confidential by FPL will be available by request under appropriate arrangements.

Thank you for your assistance.

Sincerely,

/s/ Stephanie Morse

Stephanie Morse
Associate Public Counsel
Florida Bar No. 0068713

cc: Parties of record

CERTIFICATE OF SERVICE

I **HEREBY CERTIFY** that a true and correct copy of the foregoing has been furnished by electronic mail on this 12th day of September 2019, to the following:

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s/Stephanie A. Morse
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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition by Florida Power &)
Light Company for Approval of FPL)
SolarTogether Program and Tariff)
_____)

DOCKET NO. 20190061-EI

FILED: September 3, 2019

**(FPL PRELIMINARY COMPETITIVE DEVELOPMENT
INFORMATION CONFIDENTIAL (CDI) DESIGNATION)**

DIRECT TESTIMONY

OF

JAMES R. DAUPHINAIS

ON BEHALF OF THE CITIZENS OF THE STATE OF FLORIDA

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LIST OF EXHIBITS

<u>Exhibit</u>	<u>Title</u>
Exhibit JRD-1	FPL Forecasted CPVRR Net Savings/(Cost) for Phase 1 SolarTogether Generation Facilities for FPL Customers as a Whole (FPL Base Case Only)
Exhibit JRD-2	FPL Forecasted CPVRR Net Savings/(Cost) for Phase 1 SolarTogether Generation Facilities for FPL Customers as a Whole (All FPL Cases)
Exhibit JRD-3	FPL Forecasted CPVRR Net Savings/(Cost) for Phase 1 SolarTogether Generation Facilities for Participating Customers (All FPL Cases)
Exhibit JRD-4	FPL Forecasted CPVRR Net Savings/(Cost) for Phase 1 SolarTogether Generation Facilities for Non-Participating Customers (FPL Base Case Only)
Exhibit JRD-5	FPL Forecasted CPVRR Net Savings/(Cost) for Phase 1 SolarTogether Generation Facilities for Non-Participating Customers (All FPL Cases)
Exhibit JRD-6	Public Discovery Responses Cited to by Mr. Dauphinais
Exhibit JRD-7	CDI Confidential Discovery Responses Cited to by Mr. Dauphinais

DIRECT TESTIMONY

OF

JAMES R. DAUPHINAIS

On Behalf of the Office of Public Counsel

Before the

Florida Public Service Commission

Docket No. 20190061-EI

I. INTRODUCTION

1

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. James R. Dauphinais. My business address is 16690 Swingley Ridge Road,
4 Suite 140, Chesterfield, MO 63017.

5

6 **Q. WHAT IS YOUR OCCUPATION?**

7 A. I am a consultant in the field of public utility regulation and a Managing
8 Principal of Brubaker & Associates, Inc. (“BAI”), energy, economic and regulatory
9 consultants.

10

11 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

12 A. I am appearing on behalf of the Florida Office of Public Counsel (“OPC”).

1 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

2 A. In 1983, I graduated from Hartford State Technical College with an Associate's
3 Degree in Electrical Engineering Technology. Subsequently, I completed
4 undergraduate studies at the University of Hartford and was awarded a Bachelor's
5 Degree in Electrical Engineering. I have also completed graduate level courses in the
6 study of power system analysis, power system transients and power system protection
7 through the Engineering Outreach Program of the University of Idaho.

8

9 **Q. PLEASE DESCRIBE YOUR EXPERIENCE.**

10 A. I have over 34 years of experience in the electric utility industry, which began
11 with the start of my employment as an Engineering Technician in the Transmission
12 Planning Department of the Northeast Utilities Service Company (“NU,” now
13 “Eversource Energy”) in 1984. In 1990, upon the completion of my undergraduate
14 studies in electrical engineering, I was promoted to the position of Associate Engineer
15 within the Transmission Planning Department. By 1996, I had been promoted to the
16 position of Senior Engineer within the Transmission Planning Department.

17 In the employment of NU, I was responsible for conducting thermal, voltage
18 and stability analyses of the NU’s electric transmission system to support planning and
19 operating decisions. This involved the use of load flow, power system stability and
20 production cost computer simulations. It also involved examination of potential
21 solutions to operational and planning problems including, but not limited to,
22 transmission line solutions and the routes that might be utilized by such transmission
23 line solutions.

1 In 1997, I joined the firm of BAI. The firm includes consultants with
2 backgrounds in accounting, engineering, economics, mathematics, computer science
3 and business. Since my employment with the firm, I have been involved with a wide
4 variety of electric power and electric utility issues including, but not limited to ancillary
5 service rates, avoided cost calculations, certification of public convenience and
6 necessity, class cost of service, cost allocation, fuel adjustment clauses, fuel costs,
7 generation interconnection, interruptible rates, market power, market structure, off
8 system sales, prudence, purchased power costs, resource planning, rate design, retail
9 open access, standby rates, transmission losses, transmission planning, transmission
10 rates and transmission line routing. I have provided expert testimony on all of the
11 foregoing. This expert testimony has been provided to the Federal Energy Regulatory
12 Commission (“FERC”) and the utility regulatory bodies of 18 states or provinces,
13 including the Florida Public Service Commission (“Commission” or “FPSC”). I
14 provide further information on my education and background in Appendix A to my
15 testimony.

16
17 **Q. PLEASE ELABORATE ON YOUR EXPERIENCE WITH RESPECT TO**
18 **RESOURCE PLANNING ISSUES.**

19 A. During my employment with NU, prior to the implementation of FERC Order
20 Nos. 888 and 889, the transmission planning organization within whom I was
21 employed was integrated with, and part of, the same functional organization as
22 Northeast Utilities’ generation planning organization. This integration led to
23 significant involvement by transmission planning, including myself, in resource

1 planning analyses (e.g., the analysis of the potential net benefit of retirement of existing
2 generation resources) and resource planning in transmission planning analyses (e.g.,
3 whether to proceed with economic transmission upgrades). In addition, while
4 employed at NU, I made significant usage of the General Electric Company Multi-Area
5 Production Simulator (“MAPS”) to analyze the generation production costs associated
6 with various transmission operating and planning alternatives on the NU system.

7 Subsequently, during my employment with BAI since 1997, I have become
8 further involved with resource planning issues, initially in support of my colleagues at
9 BAI and later in a lead position. This work has included the review of electric utility
10 resource plans, the review of proposed certificates of public convenience and necessity
11 for new electric utility generation resources, the forecasting of future market prices, the
12 forecasting of future utility rates and the evaluation of long-term power supply options.
13 I have conducted this work both for intervenors in regulatory proceedings and specific
14 retail end-use customer clients of BAI who were evaluating their future power supply
15 options. I have also been extensively involved in the development of Independent
16 System Operator (“ISO”) and Regional Transmission Organization (“RTO”) -
17 administered power markets including, but not limited to, issues related to markets for
18 energy, operating reserves and capacity.

19
20 **Q. PLEASE IDENTIFY SOME OF THE CASES IN WHICH YOU PROVIDED**
21 **TESTIMONY WITH RESPECT TO RESOURCE PLANNING ISSUES.**

22 A. In the past 14 years, I have provided testimony on resource planning and/or the
23 prudency issues related to resource planning in Indiana Utility Regulatory Commission

1 (“IURC”) Cause No. 42643, Louisiana Public Service Commission (“LPSC”) Docket
2 No. U-30192, IURC Cause No. 43393, IURC Cause No. 43396, Colorado Public
3 Utilities Commission (“CPUC”) Docket Nos. 09A-324E and 09A-325E, IURC Cause
4 No. 43956, IURC Cause No. 44012, New Mexico Public Regulatory Commission
5 (“NMPRC”) Case No. 13-00390-UT, NMPRC Case No. 15-00261-UT, NMPRC Case
6 No. 17-00174-UT and FPSC Docket Nos. 160186-EI and 160170-EI (with respect to
7 Scherer Unit 3 in the 2016 Gulf Power Company base rate case).

8 In a number of these proceedings, I had either extensive involvement in the
9 review of the utility’s Strategist® analysis or had a Strategist® analysis performed
10 under my direction and supervision, based upon data provided by subject utility.¹

11

12 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**
13 **DOCKET?**

14 A. I present testimony with respect to Florida Power & Light Company’s
15 (“FPL’s”) proposed SolarTogether community solar program (“SolarTogether
16 Program”), which FPL’s Petition categorizes as a voluntary program. My evaluation,
17 analysis and recommendation includes whether pursuit of the 1,490 MW of alternating
18 current (“MW_{AC}”) of new solar photovoltaic generation facilities FPL proposes to
19 construct at 20 different sites under Phase 1 of the SolarTogether Program is reasonable

¹Strategist®, which includes a module called Proview®, is a computer software tool produced by Ventyx that allows resource planners to examine a very large number of alternative resource portfolios with the goal of identifying through an optimization algorithm the most cost effective resource portfolio for an electric utility. It can also be used in a probabilistic mode to test the robustness (i.e., risk) of specific resource portfolios over a wide range of assumption variations. Strategist® is currently utilized, and has been utilized, by many electric utilities to conduct their resource planning. Other commercial software tools that have some or all of the functionality of Strategist® include software tools such as System Optimizer®, PLEXOS®, Aurora XMP® and EnCompass®.

1 for FPL’s customers as a whole, absent support from a reasonable voluntary solar
2 program (which I will describe later below). Assuming it is even prudent to add this
3 amount of generation in the first place, my testimony also examines whether FPL has
4 adequately considered all the options available to add the 1,490 MW_{AC} of new solar
5 generation such that it ensures FPL’s proposed construction of the facilities is the most
6 cost efficient manner for reliably adding this new solar generation (e.g., versus
7 providing for all or some of the solar generation through Purchased Power Agreements
8 (“PPAs”) or other third-party arrangements such as build and acquisition
9 arrangements). Finally, I explore whether FPL’s proposed split of benefits and costs
10 between itself, its customers who can and do opt to participate in the SolarTogether
11 Program (“Participating Customers”), and its customers who do not or cannot
12 participate in the SolarTogether Program (“Non-Participating Customers”) is
13 reasonable.

14 The fact that I do not address any other particular issues in my testimony or am
15 silent with respect to any portion of FPL’s Petition or direct testimony in this
16 proceeding should not be interpreted as an approval of any position taken by FPL.

17
18 **Q. YOU INDICATE THAT FPL’S PETITION CATEGORIZES THE**
19 **SOLARTOGETHER PROGRAM AS A VOLUNTARY PROGRAM. WOULD**
20 **YOU CONSIDER IT BE A VOLUNTARY PROGRAM?**

21 A. Not entirely. It would be voluntary from the perspective of a FPL customer
22 who could and did choose to subscribe to the program to become a Participating
23 Customer pursuant to the terms and conditions of the program. However, the costs and

1 risks that would be imposed on Non-Participating Customers by the SolarTogether
2 Program would be involuntary for Non-Participating Customers. Non-Participating
3 Customers would have no choice but to take on those costs and risks.

4

5 **Q. CAN YOU PLEASE EXPLAIN WHAT YOU MEAN BY A REASONABLE**
6 **VOLUNTARY SOLAR PROGRAM?**

7 A A reasonable voluntary solar program is one in which Participating Customers
8 take on sufficient cost and risk for a solar project such that it substantially reduces the
9 cost and risk faced by the utility's Non-Participating Customers versus what the latter
10 customers would be exposed to for the solar project absent the voluntary solar program.
11 Ideally, under such a reasonable voluntary solar program, the Participating Customers
12 and/or the utility voluntarily choose to subsidize additional solar power development
13 in such a manner that Non-Participating Customers are not economically harmed by
14 the pursuit of the additional solar power development. Later in this testimony, I address
15 whether FPL's proposed SolarTogether program is a reasonable voluntary solar
16 program.

1 **Q. YOU HAVE USED THE TERMS “PARTICIPATING CUSTOMERS,”**
2 **“NON-PARTICIPATING CUSTOMERS,” AND “FPL’S CUSTOMERS AS A**
3 **WHOLE.” PLEASE EXPLAIN THESE TERMS AND WHETHER FPL USED**
4 **THESE TERMS IN ITS PETITION AND DIRECT TESTIMONY.**

5 A. I use the term Participating Customers to refer to those FPL customers who can
6 and do voluntarily choose to subscribe to FPL’s proposed SolarTogether Program. FPL
7 used this same term in its Petition and direct testimony (e.g., Valle Direct at 3).

8 I use the term Non-Participating Customers to refer to those FPL customers
9 who either have not chosen to subscribe to the SolarTogether Program or are unable to
10 subscribe to the SolarTogether Program. In its petition and direct testimony, FPL used
11 the confusing term “FPL’s general body of customers” for these customers instead of
12 “Non-Participating Customers” (e.g., see Valle Direct at 4). The term “general body
13 of customers” is confusing because it could be easily mistaken to mean all of FPL’s
14 customers, in other words, Participating Customers and Non-Participating Customers
15 combined. Thus, for clarity in my testimony, in place of FPL’s term “general body of
16 customers,” I have chosen to instead use the more accurate term “Non-Participating
17 Customers” to mean those FPL customers who either have not chosen to subscribe to
18 the SolarTogether Program or are unable to subscribe to the SolarTogether Program.

19 I use the term “FPL’s customers as a whole” to refer to Participating Customers
20 and Non-Participating Customers combined. FPL does not use this term or any other
21 term for Participating and Non-Participating Customers combined. Instead, when
22 speaking of an impact to FPL’s customers as a whole, FPL typically speaks in terms of

1 the total impact on customers (e.g., Petition at paragraph 20, FPL response to Citizens’
2 Interrogatory No. 5, Valle Direct at 4 and Enjamio Direct at 10).

3

4 **Q. PLEASE DESCRIBE WHAT YOU REVIEWED AND ANALYZED IN**
5 **PREPARING YOUR DIRECT TESTIMONY.**

6 A. I reviewed and analyzed: (i) FPL’s Petition; (ii) the Direct Testimony and
7 Exhibits of its witnesses Matthew Valle, William F. Brannen, Juan E. Enjamio and
8 Scott R. Bores; (iii) the October 6, 2016 Stipulation and Settlement in FPL’s last base
9 rate case proceeding (Docket Nos. 160021-EI, 160061-EI, 160062-EI and 160088-EI);
10 (iv) FPL’s March 1, 2019 solar base rate adjustment (“SoBRA”) filing in Docket No.
11 20190001-EI; (v) FPL’s Ten-Year Power Plant Site Plan for 2019-2028 that was
12 submitted to the Commission in April 2019; and (vi) FPL’s responses to Interrogatories
13 and Requests for Production of Documents as of the date this testimony was filed with
14 the Commission. I applied my knowledge and experience in conducting my review
15 and analyses of the foregoing.

16

17 **Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.**

18 A. I conclude the following:

- 19 • FPL has not shown it needs additional resources in 2020 and 2021 and that its
20 1,490 MW_{AC} of proposed solar generation facilities under Phase 1 of its
21 SolarTogether Program would be the most cost effective solution to reliably meet
22 such an additional resource need for FPL’s customers as a whole, absent the
23 implementation of a reasonable voluntary solar program to support the facilities;
- 24 • FPL has not shown its proposed construction of all of the Phase 1 SolarTogether
25 projects is the most cost effective option to reliably add 1,490 MW_{AC} of new solar
26 generation for either FPL’s Participating Customers or its Non-Participating
27 Customers, assuming this solar generation was needed; and

- 1
2 • FPL’s proposed SolarTogether Program does not provide a reasonable allocation
3 of the benefits, costs and risks of the proposed SolarTogether Phase 1 projects
4 between FPL, Participating Customers, and Non-Participating Customers.
5

6 For the above reasons, I recommend that the Commission deny FPL’s petition
7 for its proposed SolarTogether Program, including any approval related to increasing
8 rate base sought by FPL for its proposed Phase 1 SolarTogether solar generation
9 projects.
10

11 **II. FPL’S PHASE 1 SOLARTOGETHER**
12 **PROPOSAL TO ADD 1,490 MW_{AC} OF SOLAR GENERATION**

13 **Q. YOU HAVE INDICATED THAT, UNDER PHASE 1 OF FPL’S**
14 **SOLARTOGETHER PROGRAM, 1,490 MW_{AC} OF NEW SOLAR**
15 **GENERATION WOULD BE ADDED ACROSS 20 SITES OF 74.5 MW_{AC}**
16 **EACH. HAS FPL IDENTIFIED WHETHER IT WOULD BE PURSUING THIS**
17 **NEW SOLAR GENERATION WITH OR WITHOUT ITS PROPOSED**
18 **SOLARTOGETHER PROGRAM?**

19 **A.** In discovery, FPL indicated the 1,490 MW_{AC} of solar generation proposed
20 under Phase 1 of its proposed SolarTogether Program includes: (i) 900 MW_{AC} of
21 nameplate non-solar base rate adjustment (“Non-SoBRA”) solar capacity that is shown
22 in its 2019 Ten-Year Site Plan (“TYSP”) resource plan for 2020 and 2021 and (ii) an
23 acceleration of part of the solar capacity FPL identified in its 2019 TYSP resource plan
24 for years 2022 – 2024 (FPL’s response to Citizens’ Interrogatory No. 8).² FPL also
25 indicated that it intends to proceed with construction of the 900 MW_{AC} of nameplate

²In Exhibit JRD-6, I have provided a copy of all of FPL’s public responses to interrogatories and requests for production of documents that I cite to in my direct testimony.

1 solar capacity even if its proposed SolarTogether Program is not approved by the
2 Commission (*Id.*). Additionally, in its direct testimony, FPL indicated that Projects 1
3 and 2 of Phase 1 of the proposed SolarTogether Program, totaling 447 MW_{AC}, are
4 already under construction (Brannen Direct at 5). Furthermore, FPL has indicated that
5 it intends to complete Projects 1 and 2 and to seek to place them into its rate base in its
6 next base rate proceeding, regardless of whether the Commission approves its proposed
7 SolarTogether Program (FPL’s response to Citizens’ Interrogatory No. 26). Given this,
8 it is important to examine whether the Phase 1 SolarTogether projects are the most cost
9 effective option to reliably meet FPL’s resource needs for FPL’s customers as a whole.

10

11 **Q. HAS FPL IN ITS PETITION, DIRECT TESTIMONY, OR RESPONSES TO**
12 **DISCOVERY AS OF THE DATE OF THIS TESTIMONY DEMONSTRATED**
13 **THAT THE 1,490 MW_{AC} OF PHASE 1 SOLARTOGETHER PROJECTS ARE**
14 **THE MOST COST EFFECTIVE MANNER TO RELIABLY MEET FPL’S**
15 **RESOURCE NEEDS?**

16 A. No, it has failed to make this demonstration. FPL has only provided an analysis
17 that it claims shows the Phase 1 SolarTogether projects are cost effective under an
18 assumed set of postulated conditions. In that analysis, under FPL’s base case
19 assumptions, the Phase 1 SolarTogether projects are forecasted to provide a Cumulative
20 Present Value Revenue Requirement (“CPVRR”) net savings of \$139 million to FPL’s
21 customers as a whole over the 30-year book life of the projects under the cost
22 effectiveness test that FPL is authorized to use only for its SoBRA projects. (Petition
23 at paragraphs 7 and 19-22; Enjamio Direct at 3-4, 6 and 10; and FPL’s response to

1 Staff's Interrogatory No. 39). In discovery, FPL further indicated it defines a project
2 or resource cost effective when it results in a lower CPVRR than the alternative. (FPL's
3 response to Staff's Interrogatory No. 24).

4

5 **Q. PLEASE EXPLAIN WHY FPL'S COST EFFECTIVENESS TEST FAILS TO**
6 **DEMONSTRATE THAT THE PHASE 1 SOLARTOGETHER PROJECTS ARE**
7 **THE MOST COST EFFECTIVE MANNER FOR FPL TO RELIABLY MEET**
8 **ITS RESOURCE NEEDS.**

9 A. The test does not consider the cost risk of one alternative versus another,
10 especially with respect to the length of time that needs to pass before FPL's customers
11 as a whole would receive a payback from the Phase 1 SolarTogether projects. As I
12 discuss later in my testimony, FPL put a heavy emphasis on providing a payback to the
13 Participating Customers from the SolarTogether Program within seven years in order
14 to meet the desires of those customers interested in the program. (Valle Direct at 12).
15 Yet, in applying the SoBRA cost effectiveness test to evaluate the Phase 1
16 SolarTogether projects for FPL's customers as a whole, FPL does not take payback
17 time into consideration at all.

18 **Q. PLEASE EXPLAIN THE TERM "PAYBACK."**

19 A. Payback occurs when the cumulative revenue requirement net benefit of an
20 investment becomes positive. It can be expressed in terms of either: (i) nominal dollars,
21 which FPL refers to as "simple payback" (Valle Direct at 11-12), or (ii) present value
22 dollars. The latter approach, which I will refer to as the "cumulative present value
23 payback," is the more appropriate approach as it properly takes into consideration the

1 time value of money in terms of utility cost of capital. A cumulative present value
2 payback occurs when the CPVRR net benefit of an investment becomes positive.

3

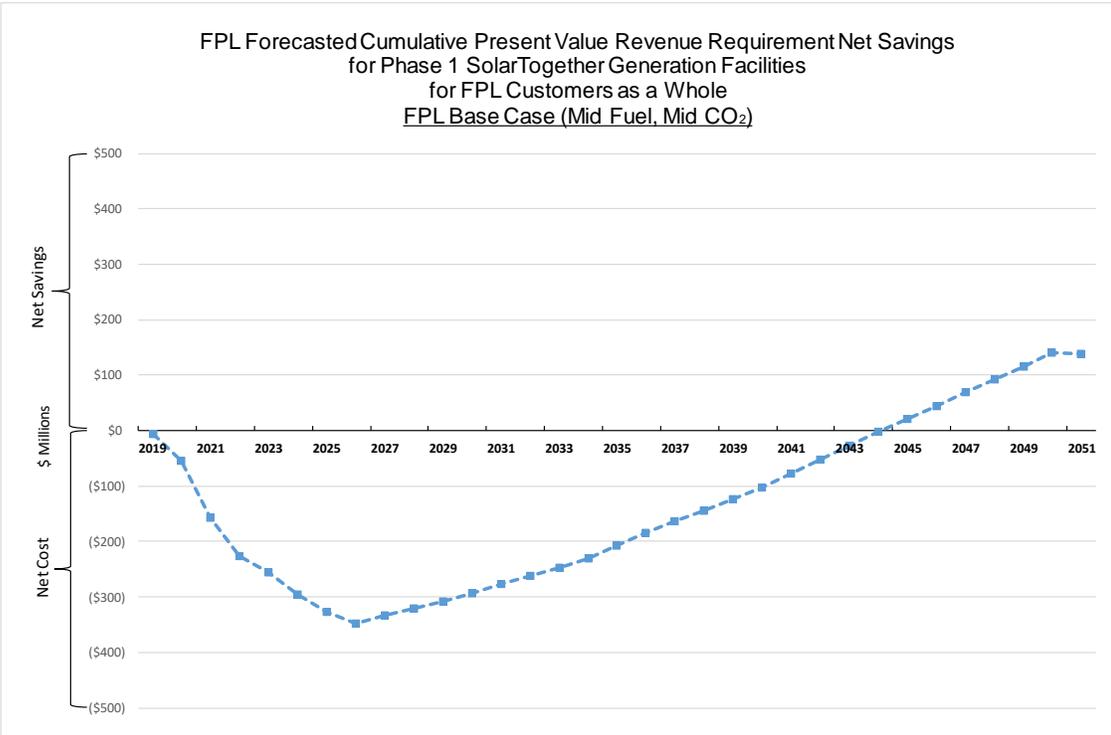
4 **Q. PLEASE EXPLAIN WHY THE TIME IT TAKES TO ACHIEVE A PAYBACK**
5 **MATTERS.**

6 A. The forecasted benefits from an investment do not always necessarily flow
7 evenly over the life of an investment, if at all. The forecasted benefits from a particular
8 investment can fall predominately in the earlier years of the book life of the investment,
9 in the later years of the book life of the investment, or be spread fairly evenly over the
10 book life of the investment. While discounting later year costs and benefits through
11 the net present value calculation accounts for the lower level of lost investment
12 opportunity associated with later year costs and benefits, it does not account for the fact
13 that there is generally greater uncertainty as you go out in time. This is to say we can
14 better predict most benefits and costs two to three years from now than we can predict
15 those benefits and costs 22 to 23 years into the future.

1 **Q. DOES FPL’S ANALYSIS CONTAIN SUFFICIENT INFORMATION TO**
 2 **KNOW THE FORECASTED CUMULATIVE PRESENT VALUE PAYBACK**
 3 **YEAR FOR FPL’S CUSTOMERS AS A WHOLE FOR THE PHASE 1**
 4 **SOLARTOGETHER PROJECTS?**

5 A. Yes. While FPL does not present the number in its petition or direct testimony,
 6 it can be calculated from FPL’s workpapers that were provided by FPL in response to
 7 Staff’s Interrogatory No. 78. In Figure JRD-1 below, I have plotted the forecasted
 8 CPVRR net savings of the Phase 1 Solar Together projects for FPL’s customers as a
 9 whole year-by-year from 2019-2051 under FPL’s base case fuel and emission price
 10 assumptions. I also present this information in tabular form in Exhibit JRD-1.

Figure JRD-1



Source: FPL Response to Staff Interrogatory No. 78.

1 As can be seen from Figure JRD-1, at the end of the book life of the last of the
2 installed Phase 1 SolarTogether projects in 2051, FPL is forecasting a CPVRR net
3 savings of \$139 million for the Phase 1 SolarTogether projects for FPL’s customers as
4 a whole. However, the cumulative present value payback year for FPL’s customers as
5 a whole is not forecasted to materialize, under FPL’s base case assumptions, until 2045
6 – some 24 years after the last of the Phase 1 SolarTogether projects would enter service
7 in 2021. This makes the actual realization of a cumulative present value payback for
8 FPL’s customers as a whole much riskier than, for example, if the forecasted
9 cumulative present value payback year was only 10 years into the future and net savings
10 were forecasted to consistently grow after those 10 years.

11

12 **Q. DOES THE TIME TO ACHIEVE A CUMULATIVE PRESENT VALUE**
13 **PAYBACK MATTER FOR OTHER REASONS BESIDES THE GREATER**
14 **RISK ASSOCIATED WITH ACTUALLY REALIZING THAT PAYBACK?**

15 A. Yes. Utility investments with a long cumulative present value payback period
16 create generational cross-subsidies between ratepayers. For example, many of the
17 customers who pay electric rates today will not be the same customers who pay electric
18 rates 20 years from now or may have very different demand and consumption levels
19 than they do today. As a result, a utility investment made today that does not have a
20 forecasted cumulative present value payback until 20 years from now will likely result
21 in today’s electric customers of FPL subsidizing its electric customers of 20 years from
22 now, since today’s customers would likely pay a lion’s share of the costs of the

1 investment while FPL's customers 20 years from now would likely receive the lion's
2 share of the benefits from that investment.

3

4 **Q. ARE THERE ADDITIONAL FACTORS THAT SHOULD BE CONSIDERED**
5 **WHEN EVALUATING WHETHER A PROPOSED PROJECT IS THE MOST**
6 **COST EFFECTIVE CHOICE TO RELIABLY MEET THE RESOURCE NEED**
7 **OF A UTILITY?**

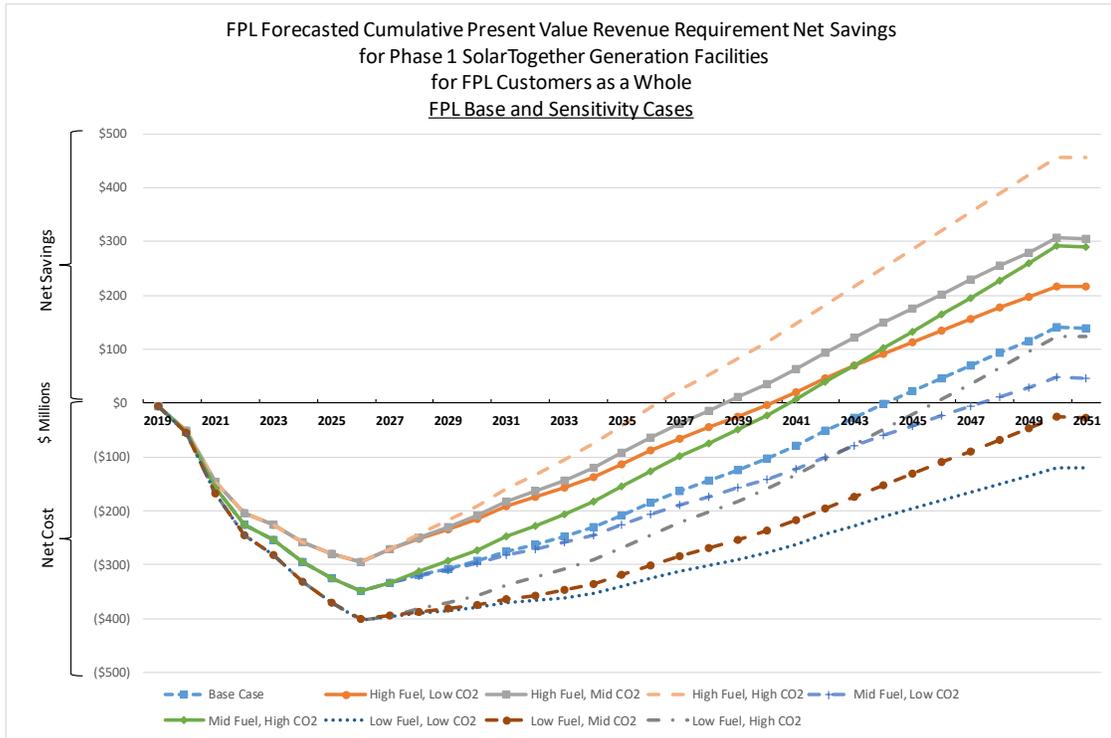
8 A. Yes. Specifically, reviewers should consider the sensitivity of the forecasted
9 results to the underlying assumptions when making an analysis. In particular, it is
10 prudent to consider the sensitivity of the results to assumed natural gas prices and CO₂
11 emission prices, as they can have a major impact on forecasted values when evaluating
12 different resource options.

13

14 **Q. DID FPL UNDERTAKE SUCH A SENSITIVITY ANALYSIS?**

15 A. While FPL makes no mention of any sensitivity analysis in its Petition or direct
16 testimony, FPL did in fact run eight sensitivity cases in addition to its base case that
17 used FPL's midlevel fuel and CO₂ emission price assumptions. The results of these
18 sensitivity cases were provided as part of FPL's response to Staff's Interrogatory No.
19 78. In Figure JRD-2, I plot the year-by-year CPVRR net savings for FPL's customers
20 as a whole for each of FPL's eight sensitivity cases and FPL's base case. I also present
21 this information in tabular form in Exhibit JRD-2.

Figure JRD-2



Source: FPL Response to Staff Interrogatory No. 78.

1 As can be seen from Figure JRD-2, a very wide range of outcomes can result
2 by 2051 under FPL’s sensitivity cases. The results from these sensitivity cases range
3 from a \$121 million CPVRR net loss for the Phase 1 SolarTogether projects under
4 FPL’s low fuel and low CO₂ price case, to a \$456 million CPVRR net savings under
5 FPL’s high fuel cost and high CO₂ cost case. However, I would caution that, given
6 there is no CO₂ emission regulation in place today and predictions indicate the current
7 great abundance of natural gas in the United States will continue in the foreseeable
8 future, it is my opinion greater weight should be placed on (1) FPL’s base case, (2)
9 FPL’s mid fuel and low CO₂ price case, (3) FPL’s low fuel and mid CO₂ price case,
10 and (4) FPL’s low fuel and low CO₂ price case, than on any of FPL’s other sensitivity
11 cases involving high fuel prices and/or high CO₂ emission prices. The four FPL cases

1 with only medium and/or low price assumptions yield results for FPL’s customers as a
2 whole that range from no cumulative present value payback (with a forecasted end-state
3 CPVRR net loss of \$121 million) to a cumulative present value payback for the
4 SolarTogether projects at 24 years after the last of the Phase 1 projects would enter
5 service (with a forecasted end-state CPVRR net savings of \$139 million for the
6 projects).

7

8 **Q. IN YOUR OPINION, DO THE RESULTS OF FPL’S ANALYSES SUPPORT**
9 **THE ADDITION OF THE PHASE 1 SOLARTOGETHER PROJECTS BEING**
10 **THE MOST COST EFFECTIVE SOLUTION FOR FPL’S CUSTOMERS AS A**
11 **WHOLE TO RELIABLY MEET FPL’S CURRENT RESOURCE NEEDS?**

12 A. No, they do not. Given that the indicators point to abundant natural gas for the
13 foreseeable future and that no CO₂ emission regulation is in place today (or approved
14 or expected to go into effect in the near future), the focus should be on FPL’s results
15 under its four cases involving only low and medium price assumptions for natural gas
16 and CO₂ emissions. Results for these four cases show an end-state where there is nearly
17 an equal likelihood of a CPVRR net loss or a CPVRR net benefit for FPL’s customers
18 as a whole. Taking this into consideration and combined with the generational
19 cross-subsidies and greater risk with respect to actually realizing a cumulative present
20 value payback associated with the lengthy 24-year cumulative present value payback
21 period forecasted under even the most optimistic of these four cases (FPL’s base case
22 with mid-level fuel and mid-level CO₂ emission prices), I conclude that FPL’s proposed
23 Phase 1 SolarTogether projects are not FPL’s most cost effective reliable resource

1 option at this time for FPL’s customers as a whole without support from a reasonable
2 voluntary solar program. Moreover, it is important to note that FPL has already made,
3 and is in the process of making, other 74.5 MW_{AC} solar generation investments with
4 very similar economics through the SoBRA provisions of the 2016 Stipulation and
5 Settlement (“2016 Settlement”) in FPL’s last base rate proceeding. It is my
6 understanding that those provisions are highly specific to the unique circumstances of
7 the 2016 Settlement. Specifically, between its 2017, 2018 and 2019 SoBRA projects,
8 FPL has added a total of 894 MW_{AC} of solar generation (through sites of 74.5 MW_{AC}
9 each) and has proposed an additional 298 MW_{AC} of solar generation (through more
10 sites of 74.5 MW_{AC} each) for its 2020 SoBRA project. Given the current borderline of
11 economics discussed above for new utility-scale solar generation, it does not make
12 sense to “double down” on FPL’s 1,192 MW_{AC} of SoBRA solar generation additions
13 by pursuing the Phase 1 SolarTogether projects without support for those projects from
14 a reasonable voluntary solar program.

15

16 **Q. DOES THE SOBRA APPROVAL STANDARD OUTLINED IN THE 2016**
17 **SETTLEMENT HAVE PRECEDENTIAL EFFECT IN THIS CASE?**

18 A. No, it does not. When I inquired about the SoBRA approval standard, counsel
19 for OPC showed me Paragraph 24 of the 2016 Settlement, which reads as follows:

20 No party will assert in any proceeding before the Commission or any
21 court that this Agreement or any of the terms in the Agreement shall
22 have any precedential value, except to enforce the provisions of this
23 Agreement.

24

25 Based on this reading, as a witness and expert in electric utility regulation (in
26 addition to resource planning), I would not expect that the 2016 Settlement provides a

1 precedential basis for evaluating the cost-effectiveness of the SolarTogether projects.
2 I would certainly not recommend it to this Commission as a reasonable or even
3 meaningful standard to approve over \$1.7 billion in new generation assets of any type.³
4

5 **Q. IT WAS SUFFICIENT FOR FPL'S SOBRA PROJECTS TO GAIN**
6 **COMMISSION APPROVAL BY FPL SIMPLY SHOWING THOSE PROJECTS**
7 **WERE COST EFFECTIVE FOR FPL'S CUSTOMERS AS A WHOLE UNDER**
8 **FPL'S BASE CASE ASSUMPTIONS. PLEASE EXPLAIN WHY SUCH A**
9 **DEMONSTRATION IS NOT APPROPRIATE FOR FPL'S PHASE 1**
10 **SOLARTOGETHER PROJECTS?**

11 A. Section 10 of the 2016 Settlement in FPL's last base rate proceeding
12 specifically provided for approximately 300 MW_{AC} of solar projects for each calendar
13 year within a defined term. It also limited the evaluation of the cost effectiveness of
14 these projects to testing whether they lower FPL's projected CPVRR as compared to
15 FPL's CPVRR without the project. Under the specifically negotiated terms of that
16 2016 Settlement, demonstration of "most cost effectiveness" is not required and there
17 is no consideration of payback and price risks. However, the terms of the
18 2016 Settlement are limited to the SoBRA projects provided for in the Stipulation and
19 Settlement. They do not apply to any other resource proposals of FPL. Thus, passing
20 the SoBRA cost effectiveness test has no bearing upon, and is not sufficient for, the
21 proposed Phase 1 SolarTogether projects.

³FPL is estimating the total cost of the Phase 1 SolarTogether projects to be \$1.79 million (Brannen Direct at 10).

1 **Q. PUTTING ASIDE THE FACT THAT FPL HAS FAILED TO DEMONSTRATE**
2 **THAT PURSUIT OF ITS PROPOSED PHASE 1 SOLARTOGETHER**
3 **PROJECTS IS THE MOST COST EFFECTIVE ALTERNATIVE FOR**
4 **RELIABLY MEETING ITS RESOURCE NEEDS, HAS FPL MADE ANY**
5 **DEMONSTRATION IN ITS PETITION AND DIRECT TESTIMONY THAT IT**
6 **NEEDS TO MAKE ANY RESOURCE ADDITIONS TO ITS SYSTEM IN 2020**
7 **AND 2021 BEYOND ITS 2020 SOBRA PROJECTS AND PROJECTS**
8 **ALREADY APPROVED BY THE COMMISSION?**

9 A. No, it has not. FPL has failed to present evidence in its Petition or direct
10 testimony that demonstrates it has a need for additional generation capacity in 2020
11 and 2021 beyond its 2020 SoBRA projects and its resource projects that have already
12 been approved by the Commission. Therefore, FPL has failed to demonstrate it has an
13 additional capacity need of any sort for 2020 and 2021, in addition to failing to
14 demonstrate that the most cost effective way to reliably meet such a need would be
15 through pursuit of the Phase 1 SolarTogether projects.

**III. FPL'S CHOICE TO CONSTRUCT
ALL OF THE PHASE 1 SOLARTOGETHER PROJECTS**

Q. HOW IS FPL PROPOSING TO PROVIDE FOR THE ADDITION OF 1,490 MW_{AC} OF NEW SOLAR GENERATION FOR ITS PROPOSED PHASE 1 SOLARTOGETHER PROJECT?

A. FPL is proposing to construct all 20 of the 74.5 MW_{AC} sites itself⁴ through the use of contractors.

Q. DID FPL CONDUCT A REQUEST FOR PROPOSALS (“RFP”) PROCESS FOR SOLAR PURCHASED POWER AGREEMENTS (“PPAs”) OR OTHER THIRD-PARTY ARRANGEMENTS BEFORE DECIDING ON CONSTRUCTING ALL OF THE PHASE 1 SOLARTOGETHER PROJECTS ITSELF?

A. No, it did not. In response to Citizens’ Interrogatory No. 10, FPL indicated it did not solicit proposals from third-parties. The Company provided the following two purported reasons for not evaluating third-party PPA options:

- Such options would not align with the program design for the SolarTogether Program, including the structure of recovery of cost for the program (i.e., fixed payment stream to a third-party PPA seller vs. FPL’s collection of revenues through charges and credits to subscribed customers);

⁴I say that FPL will construct all 20 sites “itself;” however, it should be noted FPL witness Brannen is an employee of NextEra Energy Resources, LLC and manages the development and implementation of engineering technology selection and execution strategies for universal solar and distributed generation projects for NextEra Energy, Inc., the parent of FPL (Brannen Direct at 1). Given Mr. Brannen’s status as a NextEra Energy Resources, LLC employee, it is possible that the development and construction of the SolarTogether sites is actually being performed by an affiliate or affiliates of FPL rather than FPL itself. I have not made any assumptions about whether any possible affiliated asset transfers appropriately affect the costs and other assumptions related to the payback and cost-effectiveness issues that I address in my testimony.

- 1 • SolarTogether represents a significant commitment to FPL’s customers, and
2 reliance on a third-party with no track record in Florida would represent an
3 unreasonable level of risk, particularly as it relates to scale, cost, timing and
4 performance.

5
6 (FPL’s response to Citizens’ Interrogatory No. 10)
7

8 **Q. DO YOU AGREE WITH FPL’S REASONING?**

9 A. No, I do not. With respect to the first point, were FPL to have an actual need
10 for the solar generation resources, a fixed payment stream to a third-party PPA seller
11 could be coupled with FPL’s collections of revenues through charges and credits to
12 subscribed customers. It would simply require that either FPL, the Non-Participating
13 Customers, or some combination of the two, pay or collect the difference between the
14 revenue stream paid to the PPA seller and the collection of revenues through charges
15 and credits to Participating Customers. Therefore, FPL’s first point is not valid
16 especially considering FPL’s own proposal for its proposed SolarTogether Program
17 involves FPL’s Non-Participating Customers taking on the risk to pick up the slack
18 between FPL and the Participating Customers.

19 FPL’s second point is also invalid. Essentially, FPL presents an all or nothing
20 proposition for the use of PPAs or other third-party arrangements such as build and
21 acquisition arrangements. Were FPL to have an actual need for the solar generation
22 resources, it would not be unduly risky for it to pursue at least some of the Phase 1
23 SolarTogether projects through PPAs or other third-party arrangements, such as build
24 and acquisition arrangements, if, after performing a reasonable RFP, it was determined
25 that the most cost effective way to provide for the Phase 1 SolarTogether projects
26 would be through the use of some level of third-party arrangements. In addition, FPL’s

1 opposition to relying in any way on a third-party under the argument that the
2 third-parties lack a track record in Florida is highly problematic. There are likely many
3 third-party solar developers with good reputations inside and outside of Florida, and it
4 is unreasonable to expect any of them to have a track record in Florida if no utility in
5 Florida is willing to give them a chance to establish such a track record.

6 Simply put, FPL's reasons for not conducting an RFP for PPAs and other third-
7 party arrangements for at least a portion of the Phase 1 SolarTogether projects are not
8 prudent or reasonable. Such an RFP might have revealed that there were opportunities
9 with third-parties to provide for at least a portion of the proposed Phase 1 SolarTogether
10 generation facilities on a more cost effective basis than having FPL construct all of the
11 projects itself. As a result, an important check on the cost of the Phase 1 SolarTogether
12 projects for both Participating Customers and Non-Participating customers was lost.
13 Therefore, we do not know whether FPL (or a non-regulated affiliate of FPL)
14 constructing all of the Phase 1 SolarTogether projects is the most cost effective
15 approach for reliably pursuing the Phase 1 SolarTogether solar generation facilities,
16 and this is assuming that FPL even needs additional resources such that pursuit of the
17 Phase 1 SolarTogether solar generation facilities is the most effective way to meet that
18 resource need.

1 Q. IS THERE ANY EVIDENCE OF A THIRD-PARTY SOLAR DEVELOPER
2 WITH A GOOD TRACK RECORD OUTSIDE OF FLORIDA BEING
3 INTERESTED IN DEVELOPING UTILITY-SCALE SOLAR GENERATION
4 PROJECTS WITHIN THE FPL SERVICE TERRITORY?

5 A.

Yes.

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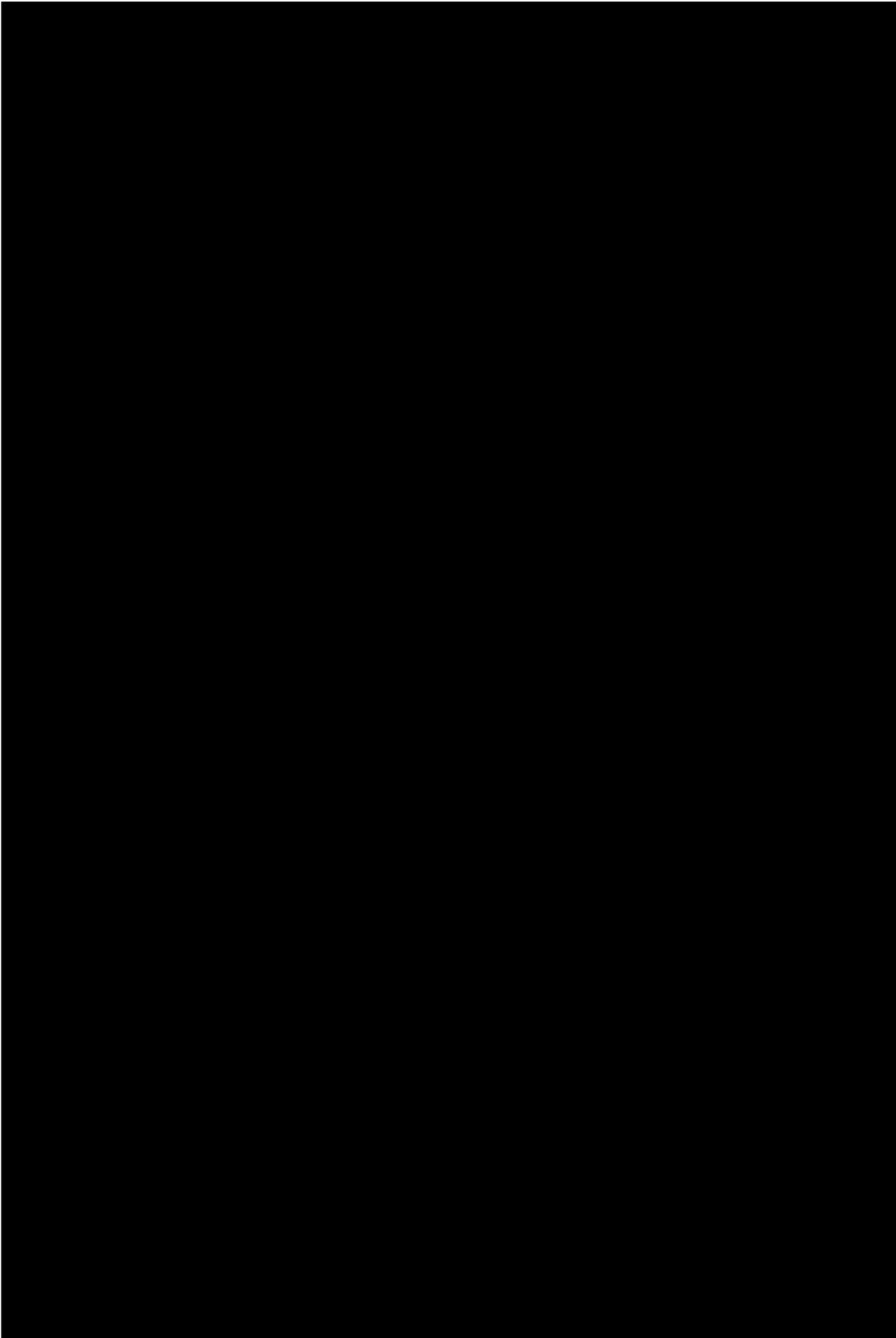
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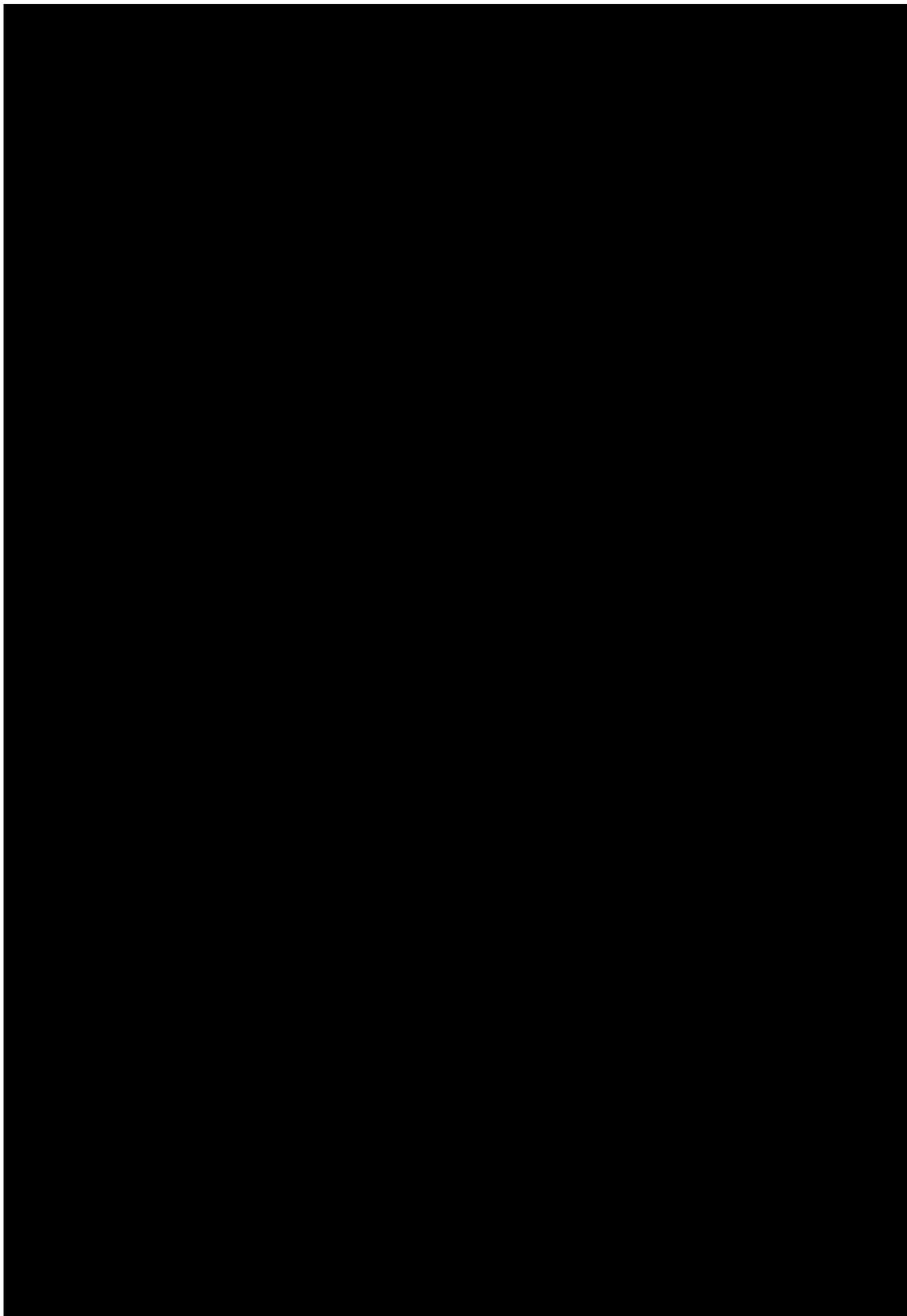
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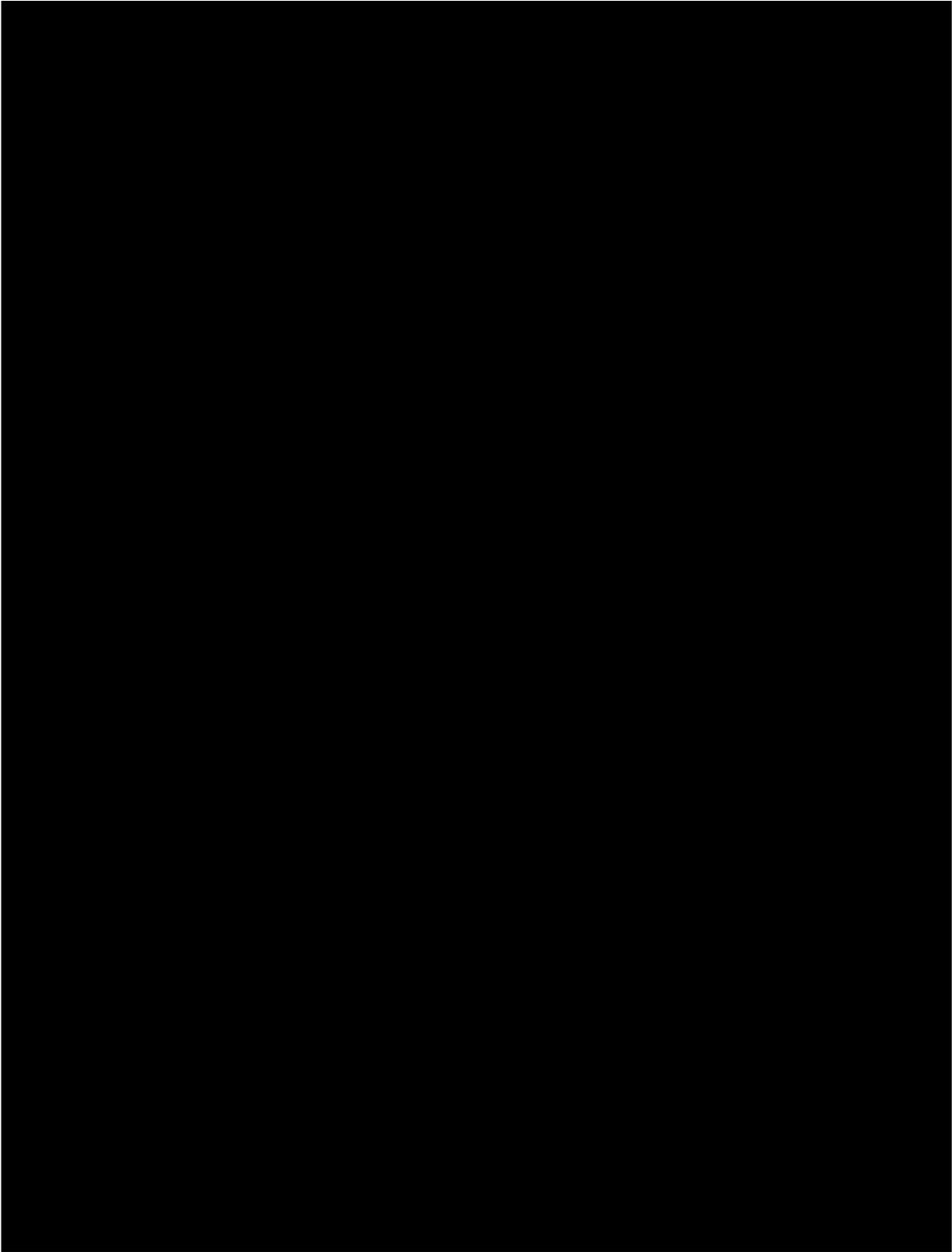
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1 **IV. REASONABLENESS OF FPL’S SOLARTOGETHER PROGRAM**

2 **Q. PLEASE BRIEFLY SUMMARIZE FPL’S PROPOSED SOLARTOGETHER**
3 **PROGRAM.**

4 A Under FPL’s SolarTogether Program, customers who volunteer to participate
5 would be permitted to subscribe to a portion of FPL’s proposed utility-scale
6 SolarTogether solar photovoltaic generation projects for up to 100% of each customer’s
7 annual energy usage, pursuant to the terms and conditions of the program and
8 contingent upon the solar capacity being available to the customer. As I have
9 discussed, for Phase 1 of its SolarTogether Program, FPL proposes to construct
10 1,490 MW_{AC} of new solar generation facilities split between 20 sites of 74.5 MW_{AC}
11 each that would enter service between February 2020 and April 2021 (Valle Direct at
12 9 and 19). FPL proposes to initially offer 25% of the Phase 1 capacity (372.5 MW_{AC})
13 to its residential and small business customers and the remaining 75% of this capacity
14 (1,117.5 MW_{AC}) to its Commercial, Industrial and Governmental (“C&I-G”) customers
15 (Valle Direct at 16). FPL proposes to periodically reevaluate demand for the
16 SolarTogether Program and, if warranted, reassign the allocation of capacity as
17 appropriate (*Id.*). As I have also noted earlier in my testimony, the impact of FPL’s
18 proposed SolarTogether Program on FPL’s Non-Participating Customers is not
19 voluntary for those Non-Participating Customers.

20 FPL has already offered pre-registration for the SolarTogether Program to its
21 C&I-G customers and purportedly received reservations from 200 such customers for
22 a total capacity amount of approximately 1,100 MW_{AC}—nearly the entire initial 1,117.5
23 MW_{AC} allocation of Phase 1 capacity to C&I-G customers (Valle Direct at 23). FPL

1 reports that many of these C&I-G customers have reserved a subscription that will
2 cover 75% to 100% of their annual energy usage (*Id.*). Under FPL’s SolarTogether
3 Pre-Registration Agreement, these pre-registration reservations are essentially binding
4 unless the SolarTogether Program is either not approved or the Commission makes
5 material modifications to the program. (FPL’s response to Staff’s Interrogatory No.
6 55).

7

8 **Q. PLEASE HIGHLIGHT SOME OF THE KEY TERMS AND CONDITIONS TO**
9 **WHICH PARTICIPATING CUSTOMERS WOULD BE SUBJECT UNDER**
10 **FPL’S SOLARTOGETHER PROGRAM.**

11 A. Participating Customers may participate in the program for up to 30 years and
12 can terminate their participation at any point past their initial month of participation.
13 Participating Customers pay a fixed, flat monthly subscription rate of \$6.76 per
14 kW-month applied to their kW of subscribed SolarTogether capacity (FPL Exhibit
15 MV-1). In exchange, they receive a stated subscription credit for the actual energy
16 produced by their subscribed SolarTogether capacity that starts at 3.42881¢ per kWh
17 in year 1 and escalates annually to reach 5.20540¢ per kWh in year 30 (*Id.*).

18

19 **Q. PLEASE EXPLAIN HOW FPL DEVELOPED THE RESERVATION CHARGE**
20 **AND SUBSCRIPTION CREDIT FOR PARTICIPATING CUSTOMERS**
21 **UNDER ITS PROPOSED SOLARTOGETHER PROGRAM.**

22 A. The subscription charge was developed by FPL by first allocating 96.4% of the
23 forecasted \$1.370 billion CPVRR net base rate revenue requirement for Phase 1 of the

1 SolarTogether Program to Participating Customers and then developing a levelized
2 monthly subscription rate intended to recover that amount (\$1.321 billion) from
3 Participating Customers over 30 years. The subscription charge for each customer was
4 then calculated as the monthly subscription rate (\$6.76 per kW-month) multiplied by
5 the subscribed kW of capacity of the participating customer (Bores Direct at 6).

6 The subscription credit was developed by assigning 80% (\$111 million) of the
7 forecasted base case \$139 million CPVRR net savings for Phase 1 of the SolarTogether
8 projects to Participating Customers and targeting a seven-year simple payback to those
9 Participating Customers based on the estimated output of the Phase 1 solar generation
10 facilities, assuming typical Florida weather. FPL reports this allocates 95% or
11 \$1.432 billion of the \$1.509 billion total fuel and emission fuel clause savings that FPL
12 is forecasting to receive from the Phase 1 SolarTogether projects over their 30-year
13 book life under its base case assumptions (Bores Direct at 8 and Valle Direct at 11).

14

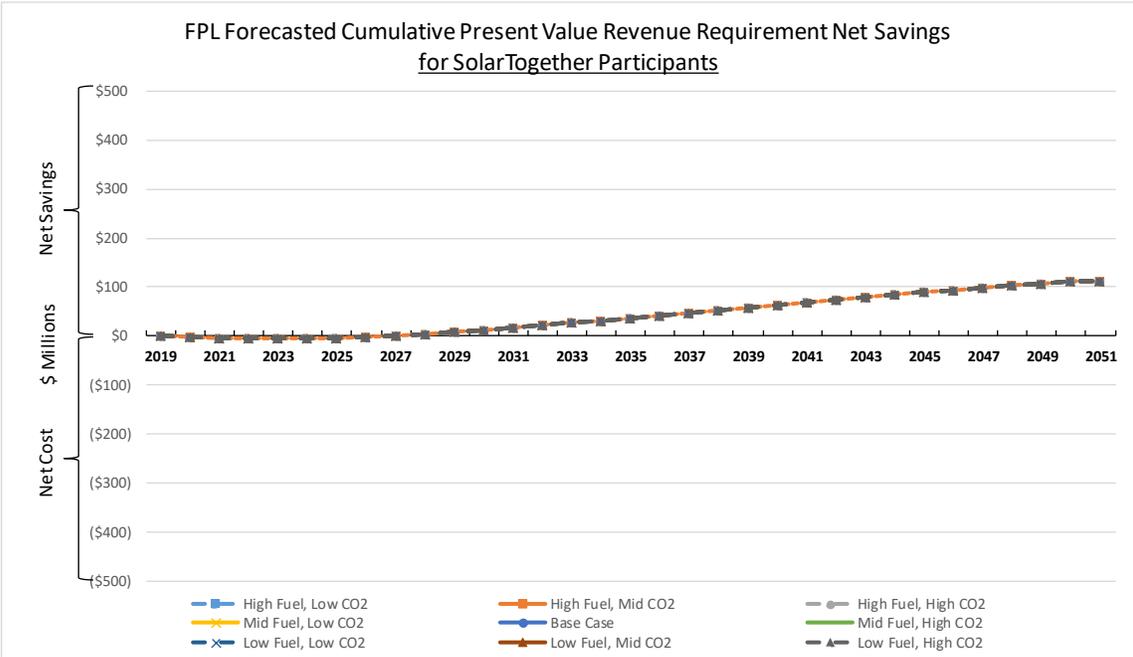
15 **Q. ARE PARTICIPATING CUSTOMERS STILL SUBJECT TO NORMAL**
16 **TARIFF RATES FOR THE DEMAND AND ENERGY CONSUMPTION OF**
17 **THEIR LOAD?**

18 A Yes, they are. Participating Customers continue to be subject to normal tariff
19 rates for their load. The customers' normal tariff rates include any applicable tariff
20 riders, which also include FPL's fuel clause.

1 Q. EARLIER IN YOUR TESTIMONY, YOU PLOTTED FPL'S FORECASTED
 2 YEAR-BY-YEAR CPVRR NET SAVINGS FROM THE PROPOSED PHASE 1
 3 SOLARTOGETHER PROJECTS FOR FPL'S CUSTOMERS AS A WHOLE
 4 (I.E., FPL'S PARTICIPATING CUSTOMERS AND NON-PARTICIPATING
 5 CUSTOMERS COMBINED). ARE YOU ABLE TO DO THE SAME FOR
 6 PARTICIPATING CUSTOMERS BY THEMSELVES?

7 A. Yes. In response to Staff's Interrogatory No. 79, FPL provided sufficient
 8 information to perform the necessary calculations. I have performed the necessary
 9 calculations and have plotted FPL's forecasted year-by-year CPVRR net savings from
 10 the Phase 1 SolarTogether projects for just the Participating Customers for FPL's base
 11 case and eight sensitivity cases in Figure JRD-3 below. I also present this information
 12 in tabular form in Exhibit JRD-3.

Figure JRD-3



Source: FPL Response to Staff Interrogatory No. 79.

1 As can be seen from Figure JRD-3, the Participating Customers as a group
2 receive a cumulative present value payback by 2027, six years after the last of the Phase
3 1 SolarTogether projects enter service, and then these customers see a consistently
4 increasing CPVRR net savings that ultimately reaches \$111 million at the 2051
5 end-state. In addition, since FPL has designed its stated subscription credit for the
6 SolarTogether Program based on its forecasted base case fuel clause savings and not
7 on the actual fuel clause savings to be realized, as shown in Figure JRD-3, the time to
8 a cumulative present value payback and the CPVRR net savings for Participating
9 Customers is completely immune to variations in natural gas prices and CO₂ emission
10 prices. Furthermore, while it is not considered in FPL's sensitivity cases, it is also
11 important to note that the time to recognize a cumulative present value payback and the
12 end state CPVRR net savings for Participating Customers is also immune to FPL's
13 actual costs for the Phase 1 SolarTogether projects because FPL has designed the
14 SolarTogether monthly subscription rate for Participating Customers based on its
15 forecasted cost for those projects and there is no true-up to actual costs for Participating
16 Customers in FPL's SolarTogether proposal.

17

18 **Q. DO PARTICIPATING CUSTOMERS FACE ANY RISKS UNDER FPL'S**
19 **PROPOSED SOLARTOGETHER PROGRAM?**

20 A. There are two, but both are minor. The first is if actual weather conditions over
21 time produce much less solar energy production than the historic period that FPL used
22 to develop its forecast of solar energy production from the Phase 1 SolarTogether

1 projects. However, there is no evidence that over an extended period of time that this
2 will be a risk of any significance.

3 The second risk is that several years into the SolarTogether Program the
4 Commission could potentially make material changes to the monthly subscription rate
5 and/or subscription credit that ruins the economics of the SolarTogether Program for
6 Participating Customers. However, this is a risk of no significance given that (i) FPL
7 designed the SolarTogether Program to provide a payback to Participating Customers
8 within seven years regardless of the actual cost of the Phase 1 SolarTogether projects
9 and the actual fuel clause savings provided by the Phase 1 SolarTogether projects, and
10 (ii) Participating Customers can terminate participation at any time after their initial
11 month of participation. The bottom line is that, given the seven-year or less payback
12 and the nearly complete lack of risk, participation in FPL's proposed SolarTogether
13 Program is a good way for Participating Customers to lower their electric bills
14 regardless of any interest those customers may have in receiving solar power. Based
15 on this lack of risk and seven-year or less payback, it is not surprising FPL was able to
16 secure reservations for approximately 1,100 MW of the Phase 1 SolarTogether projects
17 from C&I-G customers during its pre-registration process.

1 **Q. YOU HAVE ILLUSTRATED HOW ATTRACTIVE PARTICIPATION IN**
2 **FPL'S PROPOSED SOLARTOGETHER PROGRAM IS TO FPL'S**
3 **CUSTOMERS REGARDLESS OF THEIR INTEREST IN RECEIVING SOLAR**
4 **POWER. HOW DOES FPL'S PROPOSED SOLARTOGETHER PROGRAM**
5 **AFFECT FPL'S NON-PARTICIPATING CUSTOMERS?**

6 A. In stark contrast to the Participating Customers, FPL's Non-Participating
7 Customers are worse off under FPL's proposed SolarTogether proposal than FPL's
8 customers as a whole (i.e., Participating Customers and Non-Participating Customers
9 combined). In addition, Non-Participating Customers continue to bear all of the risks
10 associated with costs and benefits related to FPL's Phase 1 SolarTogether projects
11 except for the level of solar energy production by the facilities.

12

13 **Q. PLEASE EXPLAIN.**

14 A. Under FPL's proposed SolarTogether Program, FPL proposes the following
15 rate treatment for Non-Participating Customers:

16

- 17 • The actual costs of the Phase 1 SolarTogether projects be included in FPL's rate
18 base in FPL's next base rate proceeding;
- 19 • The actual reservation charges collected by FPL from Participating Customers be
20 applied as a revenue credit against FPL's base rate revenue requirement in its next
21 base rate proceeding; and
- 22 • The actual subscription credits paid out to Participating Customers be recovered by
23 FPL from its Non-Participating Customers through FPL's fuel clause.

24

25 It should be noted that FPL's actual fuel and emission cost savings from the

26

27 Phase 1 SolarTogether projects would flow back to FPL's Non-Participating Customers

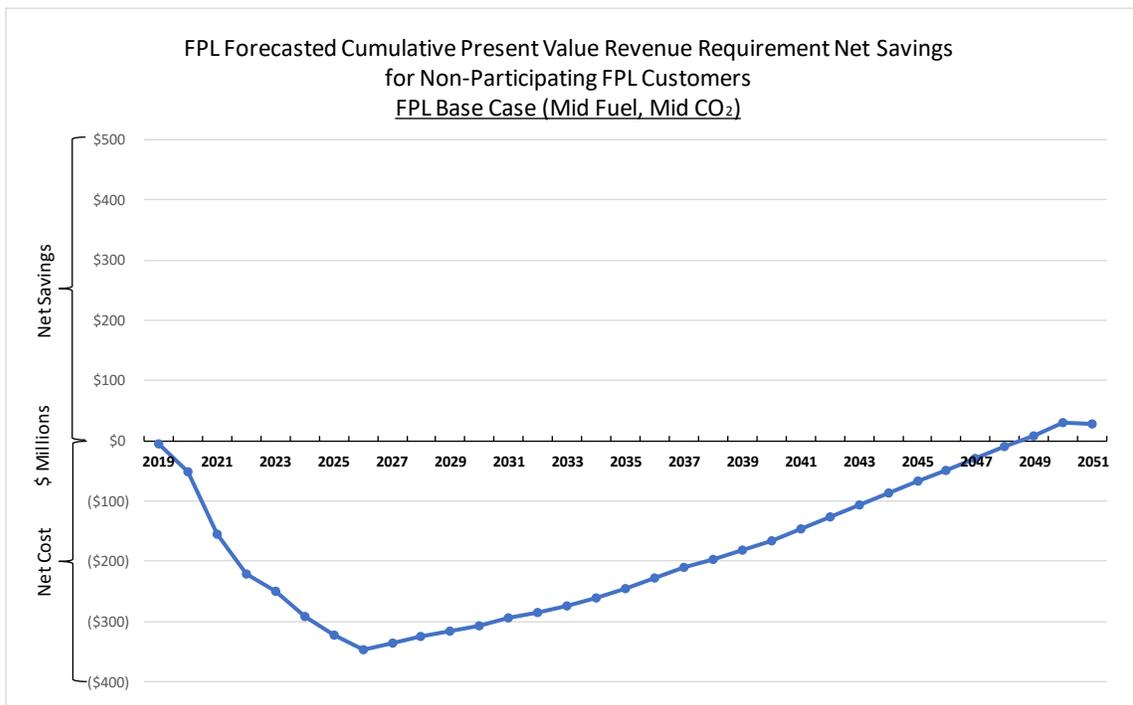
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1 through FPL’s fuel clause; however, it would of course be offset by the subscription
2 credits paid to Participating Customers under FPL’s proposal.

3 **Q. CAN YOU PLOT FPL’S FORECASTED YEAR-BY-YEAR CPVRR NET**
4 **SAVINGS FROM ITS PHASE 1 SOLARTOGETHER PROJECTS FOR FPL’S**
5 **NON-PARTICIPATING CUSTOMERS UNDER ITS PROPOSAL?**

6 A. Yes. The information for the necessary calculations was provided in FPL’s
7 response to Staff’s Interrogatory No. 79. I have performed the necessary calculations
8 and have plotted FPL’s year-by-year forecasted CPVRR net savings for
9 Non-Participating Customers under FPL’s base case assumptions in Figure JRD-4. I
10 also present this information in tabular form in Exhibit JRD-4.

Figure JRD-4



Source: FPL Response to Staff Interrogatory No. 79.

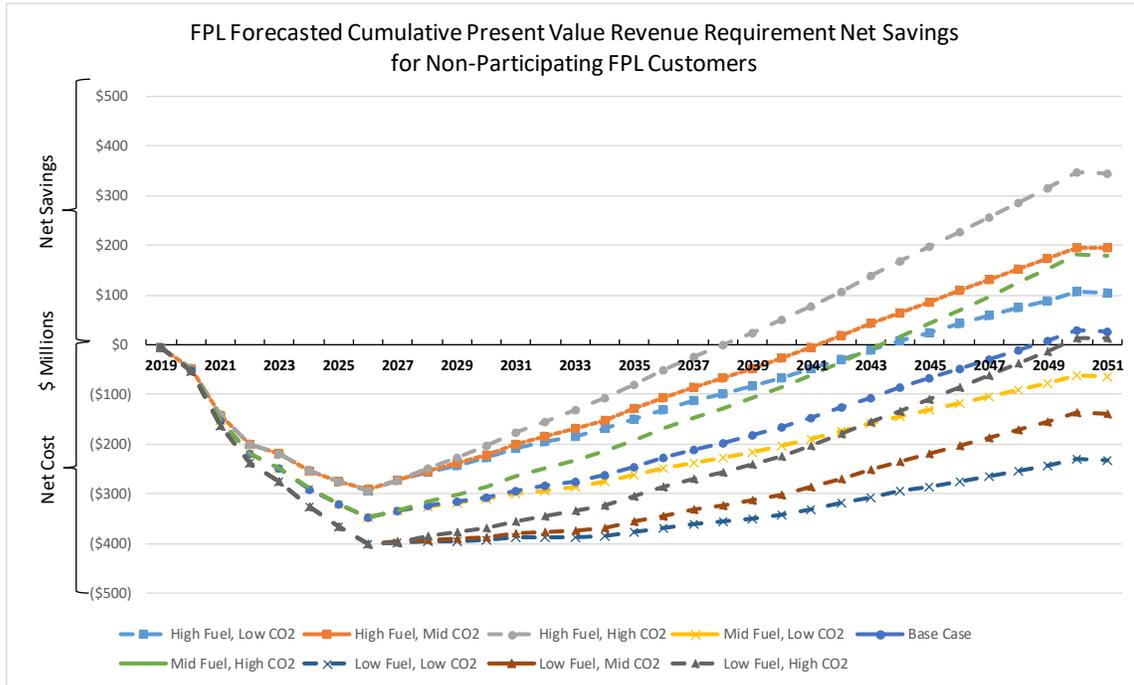
1 As can be seen from comparing Figure JRD-4 to my earlier Figure JRD-1,
2 FPL's Non-Participating Customers are worse off under FPL's proposal than FPL's
3 customers as a whole. Specifically, FPL's Non-Participating Customers – those
4 customers who either do not have the opportunity to participate or choose not to
5 participate – do not see a cumulative present value payback under FPL's base case
6 assumptions until 2049 – 4 years later than FPL's customers as a whole and 22 years
7 later than the Participating Customers. The situation becomes even more problematic
8 when FPL's sensitivity cases are examined.

9

10 **Q. CAN YOU PLOT FPL'S FORECASTED YEAR-BY-YEAR CPVRR NET**
11 **SAVINGS FOR FPL'S NON-PARTICIPATING CUSTOMERS FOR FPL'S**
12 **EIGHT SENSITIVITY CASES IN ADDITION TO FPL'S BASE CASE?**

13 A. Yes. I have done so in figure JRD-5 below using the information provided in
14 FPL's response to Staff's Interrogatory No. 79. I also present this information in
15 tabular form in Exhibit JRD-5.

Figure JRD-5



Source: FPL Response to Staff Interrogatory No. 79.

1 Focusing on FPL’s base case and its three sensitivity cases that do not utilize
2 either its high natural gas or high CO₂ emission price assumptions for the reasons I
3 discussed earlier in my testimony, the end-state CPVRR net savings for
4 Non-Participating Customers range from a CPVRR net loss of \$232 million under
5 FPL’s low fuel and low CO₂ emission cost case to a CPVRR net savings of \$28 million
6 under FPL’s base case. This is dramatically worse than the situation for Participating
7 Customers, whose CPVRR net savings are immune to natural gas and CO₂ emission
8 price swings (see Figure JRD-3). It is also significantly worse than for FPL’s customers
9 as a whole, whose CPVRR net savings range from a CPVRR net loss of \$121 million
10 to a CPVRR net savings of \$139 million for the four FPL cases I have focused upon
11 (see Figure JRD-2). It must be emphasized again that the cost-effectiveness test

1 proposed by FPL is not appropriate for use in approving the SolarTogether Program or
2 the addition of the associated generation assets.

3

4 **Q. WHAT DO YOU CONCLUDE FROM YOUR ANALYSIS ABOVE OF FPL'S**
5 **PROPOSED SOLARTOGETHER PROGRAM?**

6 A. As noted earlier in my testimony, a reasonable voluntary solar program is one
7 in which Participating Customers take on sufficient cost and risk for a solar project,
8 such that it substantially reduces the cost and risk faced by the Non-Participating
9 Customers versus what those Non-Participating Customers would be exposed to absent
10 the voluntary solar program. This is the complete opposite of what will occur under
11 FPL's proposed SolarTogether Program if it is subsequently approved. Instead of the
12 SolarTogether Program lowering the net cost and risk associated with pursuing the
13 Phase 1 SolarTogether Projects for Non-Participating Customers, the SolarTogether
14 program would instead increase those net costs and risks, as is evidenced by comparing
15 year-by-year CPVRR net savings in Figure JRD-5 for the Non-Participating customers
16 to year-by-year CPVRR net savings in Figure JRD-2 for the FPL's customers as a
17 whole (i.e., the Participating Customers and the Non-Participating Customers
18 combined).

19 In addition, Participating Customers under FPL's Solar Together Program are
20 not paying a premium in order to access solar power. Instead, they are receiving a
21 nearly guaranteed CPVRR rate reduction within seven years of beginning participation
22 and a nearly guaranteed amount of additional CPVRR rate savings for the remaining
23 23 years of the participation thereafter. As such, participation in the program is highly

1 attractive as a way to lower a customer's electric bill regardless of the customer's
2 interest in fostering solar power development. However, this comes at the expense of
3 FPL's Non-Participating Customers, as noted above. This is completely counter to a
4 reasonable voluntary solar program where Participating Customers would pay a
5 premium (in terms of the costs and risks assigned to them) over what the
6 Non-Participating Customers would pay in order to help foster the development of solar
7 power. Instead, under FPL's proposal, the Non-Participating Customers would
8 subsidize Participating Customers by continuing to be saddled with nearly all of the
9 risks associated with the Phase 1 SolarTogether projects and having a lower likelihood
10 of realizing a cumulative present value payback from the projects than if the projects
11 were simply pursued on behalf of FPL's customers as a whole.

12 Finally, FPL's side of the equation under its proposal also needs to be
13 considered. Under the proposal, FPL will accelerate its construction of solar generation
14 facilities in 2020 and 2021 by at least 590 MW_{AC}⁶, which will allow it to accelerate the
15 growth of its rate base, and, in turn, accelerate the growth in the total return earned by
16 its shareholders. Furthermore, it is important to remember that, similar to the
17 subscription credits paid to Participating Customers under the SolarTogether Program,
18 the return earned by FPL's shareholders is essentially immune to fuel and CO₂ emission
19 price swings given that FPL's fuel clause protects FPL, but not its customers, from such
20 price swings.

21 In summary, for the reasons I have discussed, FPL's proposed SolarTogether
22 Program does not provide a reasonable allocation of benefits, costs and risks between

⁶590 MW_{AC} = 1,490 MW_{AC} (Phase 1 SolarTogether projects) – 900 MW_{AC} (FPL 2019 Ten-Year Site Plan projects with no SolarTogether Program).

1 FPL, the Participating Customers and the Non-Participating Customers. As such, the
2 program is unreasonable and should not be approved by the Commission.

3

4 **V. CONCLUSIONS AND RECOMMENDATIONS**

5 **Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.**

6 A. I conclude the following:

- 7 • FPL has not shown it needs additional resources in 2020 and 2021 and that its 1,490
8 MW_{AC} of proposed solar generation facilities under Phase 1 of its SolarTogether
9 Program would be the most cost effective solution to reliably meet such an
10 additional resource need for FPL’s customers as a whole absent the implementation
11 of a reasonable voluntary solar program to support the facilities;
- 12 • FPL has not shown its proposed construction of all of the Phase 1 SolarTogether
13 projects is the most cost effective manner to reliably add 1,490 MW_{AC} of new solar
14 generation for either FPL’s Participating Customers or the Non-Participating
15 Customers, assuming this solar generation was needed; and
- 16 • FPL’s proposed SolarTogether Program does not provide a reasonable allocation
17 of the benefits, costs and risks of the proposed SolarTogether Phase 1 projects
18 between FPL, the Participating Customers and the Non-Participating customers.
19

20
21 For the above reasons, I recommend that the Commission deny FPL’s petition
22
23 for its proposed SolarTogether Program at this time including any approval related to
24 increasing rate base sought by FPL for the proposed Phase 1 SolarTogether solar
25 generation projects.

26

27 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

28 A. Yes, it does.

Qualifications of James R. Dauphinais

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A James R. Dauphinais. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017, USA.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and a Managing Principal with
6 the firm of Brubaker & Associates, Inc. (“BAI”), energy, economic and regulatory
7 consultants.

8 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
9 **EXPERIENCE.**

10 A I graduated from Hartford State Technical College in 1983 with an Associate's Degree
11 in Electrical Engineering Technology. Subsequent to graduation, I was employed by
12 the Transmission Planning Department of the Northeast Utilities Service Company¹ as
13 an Engineering Technician.

14 While employed as an Engineering Technician, I completed undergraduate
15 studies at the University of Hartford. I graduated in 1990 with a Bachelor's Degree in
16 Electrical Engineering. Subsequent to graduation, I was promoted to the position of
17 Associate Engineer. Between 1993 and 1994, I completed graduate level courses in the
18 study of power system analysis, power system transients and power system protection

¹In 2015, Northeast Utilities changed its name to Eversource Energy.

1 through the Engineering Outreach Program of the University of Idaho. By 1996 I had
2 been promoted to the position of Senior Engineer.

3 In the employment of the Northeast Utilities Service Company, I was
4 responsible for conducting thermal, voltage and stability analyses of the Northeast
5 Utilities' transmission system to support planning and operating decisions. This
6 involved the use of load flow, power system stability and production cost computer
7 simulations. It also involved examination of potential solutions to operational and
8 planning problems including, but not limited to, transmission line solutions and the
9 routes that might be utilized by such transmission line solutions. Among the most
10 notable achievements I had in this area include the solution of a transient stability
11 problem near Millstone Nuclear Power Station, and the solution of a small signal (or
12 dynamic) stability problem near Seabrook Nuclear Power Station. In 1993 I was
13 awarded the Chairman's Award, Northeast Utilities' highest employee award, for my
14 work involving stability analysis in the vicinity of Millstone Nuclear Power Station.

15 From 1990 to 1996, I represented Northeast Utilities on the New England Power
16 Pool Stability Task Force. I also represented Northeast Utilities on several other
17 technical working groups within the New England Power Pool ("NEPOOL") and the
18 Northeast Power Coordinating Council ("NPCC"), including the 1992-1996 New York-
19 New England Transmission Working Group, the Southeastern Massachusetts/Rhode
20 Island Transmission Working Group, the NPCC CPSS-2 Working Group on Extreme
21 Disturbances and the NPCC SS-38 Working Group on Interarea Dynamic Analysis.

1 This latter working group also included participation from a number of ECAR, PJM and
2 VACAR utilities.

3 From 1990 to 1995, I also acted as an internal consultant to the Nuclear
4 Electrical Engineering Department of Northeast Utilities. This included interactions
5 with the electrical engineering personnel of the Connecticut Yankee, Millstone and
6 Seabrook nuclear generation stations and inspectors from the Nuclear Regulatory
7 Commission (“NRC”).

8 In addition to my technical responsibilities, from 1995 to 1997, I was also
9 responsible for oversight of the day-to-day administration of Northeast Utilities' Open
10 Access Transmission Tariff. This included the creation of Northeast Utilities' pre-FERC
11 Order No. 889 transmission electronic bulletin board and the coordination of Northeast
12 Utilities' transmission tariff filings prior to and after the issuance of Federal Energy
13 Regulatory Commission (“FERC” or “Commission”) FERC Order No. 888. I was also
14 responsible for spearheading the implementation of Northeast Utilities' Open Access
15 Same-Time Information System and Northeast Utilities’ Standard of Conduct under
16 FERC Order No. 889. During this time, I represented Northeast Utilities on the Federal
17 Energy Regulatory Commission's "What" Working Group on Real-Time Information
18 Networks. Later I served as Vice Chairman of the NEPOOL OASIS Working Group
19 and Co-Chair of the Joint Transmission Services Information Network Functional
20 Process Committee. I also served for a brief time on the Electric Power Research
21 Institute facilitated "How" Working Group on OASIS and the North American Electric
22 Reliability Council facilitated Commercial Practices Working Group.

1 In 1997, I joined the firm of Brubaker & Associates, Inc. The firm includes
2 consultants with backgrounds in accounting, engineering, economics, mathematics,
3 computer science and business. Since my employment with the firm, I have filed or
4 presented testimony before the Federal Energy Regulatory Commission in Consumers
5 Energy Company, Docket No. OA96-77-000; Midwest Independent Transmission
6 System Operator, Inc., Docket No. ER98-1438-000; Montana Power Company, Docket
7 No. ER98-2382-000; Inquiry Concerning the Commission's Policy on Independent
8 System Operators, Docket No. PL98-5-003; SkyGen Energy LLC v. Southern Company
9 Services, Inc., Docket No. EL00-77-000; Alliance Companies, et al., Docket No. EL02-
10 65-000, et al.; Entergy Services, Inc., Docket No. ER01-2201-000; Remedying Undue
11 Discrimination through Open Access Transmission Service, Standard Electricity
12 Market Design, Docket No. RM01-12-000; Midwest Independent Transmission System
13 Operator, Inc., Docket No. ER10-1791-000; NorthWestern Corporation, Docket No.
14 ER10-1138-001, et al.; Illinois Industrial Energy Consumers v. Midcontinent
15 Independent System Operator, Inc., Docket No. EL15-82-000; Midcontinent
16 Independent System Operator, Inc., Docket No. ER16-833-000; Midcontinent
17 Independent System Operator, Inc., Docket No. ER17-284-000; and Midcontinent
18 Independent System Operator, Inc. and Ameren Services Company Docket No. ER18-
19 463-000. I have also filed or presented testimony before the Alberta Utilities
20 Commission, Colorado Public Utilities Commission, Connecticut Department of Public
21 Utility Control, the Florida Public Service Commission, the Idaho Public Service
22 Commission; Illinois Commerce Commission, the Indiana Utility Regulatory

1 Commission, the Iowa Utilities Board, the Kentucky Public Service Commission, the
2 Louisiana Public Service Commission, the Michigan Public Service Commission, the
3 Missouri Public Service Commission, the Montana Public Service Commission, the
4 New Mexico Public Regulation Commission, the Council of the City of New Orleans,
5 the Oklahoma Corporation Commission, the Public Utility Commission of Texas, the
6 Wisconsin Public Service Commission, the Wyoming Public Service Commission and
7 various committees of the Illinois, Missouri and South Carolina State Legislatures. This
8 testimony has been given regarding a wide variety of issues including, but not limited
9 to, ancillary service rates, avoided cost calculations, certification of public convenience
10 and necessity, class cost of service, cost allocation, fuel adjustment clauses, fuel costs,
11 generation interconnection, interruptible rates, market power, market structure,
12 off-system sales, prudence, purchased power costs, resource planning, rate design, retail
13 open access, standby rates, transmission losses, transmission planning, transmission
14 rates and transmission line routing.

15 I have also participated on behalf of clients in the Southwest Power Pool
16 Congestion Management System Working Group, the Alliance Market Development
17 Advisory Group and several committees and working groups of the Midcontinent
18 Independent System Operator, Inc. (“MISO”), including the Congestion Management
19 Working Group; Economic Planning Users Group; Loss of Load Expectation Working
20 Group; Planning Subcommittee; Regional Expansion, Criteria and Benefits Working
21 Group and Resource Adequacy Subcommittee (formerly the Supply Adequacy Working
22 Group). I am currently a member of the MISO Advisory Committee in the end-use

1 customer sector on behalf of industrial customer groups in Illinois, Louisiana and Texas.
2 I am also the past Chairman of the Issues/Solutions Subgroup of the MISO Revenue
3 Sufficiency Guarantee (“RSG”) Task Force.

4 In 2009, I completed the University of Wisconsin-Madison High Voltage Direct
5 Current (“HVDC”) Transmission course for Planners that was sponsored by MISO. I
6 am a member of the Power and Energy Society (“PES”) of the Institute of Electrical and
7 Electronics Engineers (“IEEE”).

8 In addition to our main office in St. Louis, the firm also has branch offices in
9 Phoenix, Arizona and Corpus Christi, Texas.

Exhibit JRD-1

**FPL Forecasted CPVRR Net
Savings/(Cost) for Phase 1
SolarTogether Generation Facilities
for FPL Customers as a Whole (FPL
Base Case Only)**

Florida Power & Light Company

Docket No. 20190061-EI

FPL Forecasted Cumulative Present Value Revenue Requirement Net Savings/(Cost) for Phase 1 SolarTogether Generation Facilities
for FPL Customers as a Whole
FPL Base Case (Mid Fuel, Mid CO2)
(\$ Millions)

<u>Year</u>	<u>Base Case</u> (1)
2019	(\$5.83)
2020	(53.30)
2021	(157.58)
2022	(225.94)
2023	(255.01)
2024	(296.00)
2025	(325.89)
2026	(348.70)
2027	(334.05)
2028	(319.77)
2029	(307.93)
2030	(293.82)
2031	(276.01)
2032	(262.50)
2033	(247.49)
2034	(229.81)
2035	(207.95)
2036	(184.54)
2037	(162.79)
2038	(143.90)
2039	(123.42)
2040	(102.20)
2041	(78.13)
2042	(51.83)
2043	(26.63)
2044	(2.36)
2045	21.59
2046	45.21
2047	69.20
2048	93.07
2049	116.12
2050	139.92
2051	138.71

Source: FPL Response to Staff Interrogatory No. 78.

Exhibit JRD-2

**FPL Forecasted CPVRR Net
Savings/(Cost) for Phase 1
SolarTogether Generation Facilities
for FPL Customers as a Whole (All
FPL Cases)**

Florida Power & Light Company

Docket No. 20190061-EI

**FPL Forecasted Cumulative Present Value Revenue Requirement Net Savings/(Cost) for Phase 1 SolarTogether Generation Facilities
for FPL Customers as a Whole
(\$ Millions)**

<u>Year</u>	<u>Base Case</u>	<u>Low Fuel, Low CO2</u>	<u>Low Fuel, Mid CO2</u>	<u>Mid Fuel, Low CO2</u>	<u>Low Fuel, High CO2</u>	<u>Mid Fuel, High CO2</u>	<u>High Fuel, Low CO2</u>	<u>High Fuel, Mid CO2</u>	<u>High Fuel, High CO2</u>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2019	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)
2020	(53.30)	(55.63)	(55.63)	(53.25)	(55.63)	(53.25)	(50.06)	(50.06)	(50.06)
2021	(157.58)	(168.20)	(168.20)	(157.12)	(168.20)	(157.12)	(145.39)	(145.39)	(145.39)
2022	(225.94)	(244.77)	(244.77)	(225.15)	(244.77)	(225.15)	(205.02)	(205.02)	(205.02)
2023	(255.01)	(282.20)	(282.20)	(254.21)	(282.20)	(254.21)	(226.49)	(226.49)	(226.49)
2024	(296.00)	(331.60)	(331.60)	(295.21)	(331.60)	(295.21)	(258.80)	(258.80)	(258.80)
2025	(325.89)	(370.23)	(370.23)	(324.88)	(370.23)	(324.88)	(280.05)	(280.05)	(280.05)
2026	(348.70)	(402.32)	(401.61)	(348.14)	(402.32)	(348.14)	(294.61)	(293.91)	(294.61)
2027	(334.05)	(396.34)	(394.88)	(334.19)	(396.34)	(334.19)	(271.88)	(270.44)	(271.88)
2028	(319.77)	(390.82)	(388.17)	(321.57)	(381.86)	(312.32)	(251.65)	(249.30)	(243.36)
2029	(307.93)	(386.37)	(382.23)	(310.27)	(369.98)	(293.37)	(234.06)	(230.34)	(217.92)
2030	(293.82)	(380.15)	(374.87)	(297.64)	(356.59)	(273.64)	(214.15)	(209.08)	(191.16)
2031	(276.01)	(371.35)	(363.55)	(282.00)	(337.57)	(247.78)	(191.67)	(183.64)	(159.16)
2032	(262.50)	(367.11)	(356.52)	(271.59)	(323.89)	(227.75)	(174.72)	(163.70)	(132.43)
2033	(247.49)	(361.15)	(347.70)	(259.11)	(308.38)	(206.33)	(156.69)	(143.10)	(105.07)
2034	(229.81)	(352.76)	(336.13)	(244.91)	(290.50)	(182.78)	(136.96)	(120.14)	(75.92)
2035	(207.95)	(340.31)	(319.65)	(226.44)	(268.40)	(155.08)	(113.03)	(92.70)	(42.59)
2036	(184.54)	(325.97)	(301.48)	(207.12)	(244.54)	(125.89)	(88.05)	(64.18)	(8.37)
2037	(162.79)	(313.21)	(284.72)	(189.19)	(222.66)	(99.13)	(65.44)	(37.67)	23.55
2038	(143.90)	(302.47)	(269.97)	(173.84)	(202.73)	(74.66)	(45.08)	(13.84)	52.72
2039	(123.42)	(291.06)	(254.24)	(157.75)	(181.74)	(49.41)	(24.59)	10.52	82.54
2040	(102.20)	(278.32)	(237.32)	(140.86)	(159.75)	(23.13)	(3.46)	35.60	113.16
2041	(78.13)	(262.52)	(217.43)	(121.53)	(134.11)	6.48	20.11	63.17	146.44
2042	(51.83)	(244.26)	(195.03)	(99.97)	(105.51)	38.62	45.43	93.11	182.28
2043	(26.63)	(227.31)	(173.49)	(79.65)	(77.26)	70.23	69.30	121.68	217.28
2044	(2.36)	(211.43)	(152.26)	(60.82)	(49.41)	101.45	91.98	148.99	251.56
2045	21.59	(196.11)	(131.21)	(42.33)	(21.49)	132.61	113.82	175.88	285.59
2046	45.21	(180.52)	(110.23)	(23.63)	7.03	164.22	135.46	202.36	320.07
2047	69.20	(165.20)	(89.18)	(5.40)	35.96	195.94	156.29	228.75	354.51
2048	93.07	(150.35)	(68.40)	12.42	65.32	227.53	176.95	254.77	388.93
2049	116.12	(135.44)	(47.69)	29.52	94.61	259.23	196.66	280.11	422.90
2050	139.92	(119.35)	(26.10)	47.68	124.33	291.22	217.28	306.06	457.04
2051	138.71	(120.55)	(27.30)	46.48	123.12	290.01	216.07	304.85	455.83

Source: FPL Response to Staff Interrogatory No. 78.

Exhibit JRD-3

FPL Forecasted CPVRR Net Savings/(Cost) for Phase 1 SolarTogether Generation Facilities for Participating Customers (All FPL Cases)

Florida Power & Light Company

Docket No. 20190061-EI

FPL Forecasted Cumulative Present Value Revenue Requirement Net Savings/(Cost) for SolarTogether Participants
(\$ Millions)

<u>Year</u>	<u>Base Case</u> (1)	<u>Low Fuel, Low CO2</u> (2)	<u>Low Fuel, Mid CO2</u> (3)	<u>Mid Fuel, Low CO2</u> (4)	<u>Low Fuel, High CO2</u> (5)	<u>Mid Fuel, High CO2</u> (6)	<u>High Fuel, Low CO2</u> (7)	<u>High Fuel, Mid CO2</u> (8)	<u>High Fuel, High CO2</u> (9)
2019	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2020	(\$1.18)	(\$1.18)	(\$1.18)	(\$1.18)	(\$1.18)	(\$1.18)	(\$1.18)	(\$1.18)	(\$1.18)
2021	(\$3.69)	(\$3.69)	(\$3.69)	(\$3.69)	(\$3.69)	(\$3.69)	(\$3.69)	(\$3.69)	(\$3.69)
2022	(\$5.29)	(\$5.29)	(\$5.29)	(\$5.29)	(\$5.29)	(\$5.29)	(\$5.29)	(\$5.29)	(\$5.29)
2023	(\$5.76)	(\$5.76)	(\$5.76)	(\$5.76)	(\$5.76)	(\$5.76)	(\$5.76)	(\$5.76)	(\$5.76)
2024	(\$5.01)	(\$5.01)	(\$5.01)	(\$5.01)	(\$5.01)	(\$5.01)	(\$5.01)	(\$5.01)	(\$5.01)
2025	(\$3.64)	(\$3.64)	(\$3.64)	(\$3.64)	(\$3.64)	(\$3.64)	(\$3.64)	(\$3.64)	(\$3.64)
2026	(\$1.52)	(\$1.52)	(\$1.52)	(\$1.52)	(\$1.52)	(\$1.52)	(\$1.52)	(\$1.52)	(\$1.52)
2027	\$1.24	\$1.24	\$1.24	\$1.24	\$1.24	\$1.24	\$1.24	\$1.24	\$1.24
2028	\$4.72	\$4.72	\$4.72	\$4.72	\$4.72	\$4.72	\$4.72	\$4.72	\$4.72
2029	\$8.48	\$8.48	\$8.48	\$8.48	\$8.48	\$8.48	\$8.48	\$8.48	\$8.48
2030	\$12.62	\$12.62	\$12.62	\$12.62	\$12.62	\$12.62	\$12.62	\$12.62	\$12.62
2031	\$17.08	\$17.08	\$17.08	\$17.08	\$17.08	\$17.08	\$17.08	\$17.08	\$17.08
2032	\$21.93	\$21.93	\$21.93	\$21.93	\$21.93	\$21.93	\$21.93	\$21.93	\$21.93
2033	\$26.85	\$26.85	\$26.85	\$26.85	\$26.85	\$26.85	\$26.85	\$26.85	\$26.85
2034	\$31.92	\$31.92	\$31.92	\$31.92	\$31.92	\$31.92	\$31.92	\$31.92	\$31.92
2035	\$37.11	\$37.11	\$37.11	\$37.11	\$37.11	\$37.11	\$37.11	\$37.11	\$37.11
2036	\$42.48	\$42.48	\$42.48	\$42.48	\$42.48	\$42.48	\$42.48	\$42.48	\$42.48
2037	\$47.78	\$47.78	\$47.78	\$47.78	\$47.78	\$47.78	\$47.78	\$47.78	\$47.78
2038	\$53.10	\$53.10	\$53.10	\$53.10	\$53.10	\$53.10	\$53.10	\$53.10	\$53.10
2039	\$58.40	\$58.40	\$58.40	\$58.40	\$58.40	\$58.40	\$58.40	\$58.40	\$58.40
2040	\$63.76	\$63.76	\$63.76	\$63.76	\$63.76	\$63.76	\$63.76	\$63.76	\$63.76
2041	\$68.98	\$68.98	\$68.98	\$68.98	\$68.98	\$68.98	\$68.98	\$68.98	\$68.98
2042	\$74.13	\$74.13	\$74.13	\$74.13	\$74.13	\$74.13	\$74.13	\$74.13	\$74.13
2043	\$79.20	\$79.20	\$79.20	\$79.20	\$79.20	\$79.20	\$79.20	\$79.20	\$79.20
2044	\$84.24	\$84.24	\$84.24	\$84.24	\$84.24	\$84.24	\$84.24	\$84.24	\$84.24
2045	\$89.11	\$89.11	\$89.11	\$89.11	\$89.11	\$89.11	\$89.11	\$89.11	\$89.11
2046	\$93.87	\$93.87	\$93.87	\$93.87	\$93.87	\$93.87	\$93.87	\$93.87	\$93.87
2047	\$98.51	\$98.51	\$98.51	\$98.51	\$98.51	\$98.51	\$98.51	\$98.51	\$98.51
2048	\$103.08	\$103.08	\$103.08	\$103.08	\$103.08	\$103.08	\$103.08	\$103.08	\$103.08
2049	\$107.47	\$107.47	\$107.47	\$107.47	\$107.47	\$107.47	\$107.47	\$107.47	\$107.47
2050	\$110.57	\$110.57	\$110.57	\$110.57	\$110.57	\$110.57	\$110.57	\$110.57	\$110.57
2051	\$110.98	\$110.98	\$110.98	\$110.98	\$110.98	\$110.98	\$110.98	\$110.98	\$110.98

Source: FPL Response to Staff Interrogatory No. 79.

Exhibit JRD-4

**FPL Forecasted CPVRR Net
Savings/(Cost) for Phase 1
SolarTogether Generation Facilities
for Non-Participating Customers (FPL
Base Case Only)**

Florida Power & Light Company

Docket No. 20190061-EI

FPL Forecasted Cumulative Present Value Revenue Requirement Net Savings/(Cost) for Non-Participating FPL Customers
FPL Base Case (Mid Fuel, Mid CO2)
(\$ Millions)

<u>Year</u>	<u>Base Case</u> (1)
2019	(\$5.83)
2020	(\$52.12)
2021	(\$153.90)
2022	(\$220.65)
2023	(\$249.25)
2024	(\$290.99)
2025	(\$322.25)
2026	(\$347.18)
2027	(\$335.29)
2028	(\$324.49)
2029	(\$316.41)
2030	(\$306.44)
2031	(\$293.09)
2032	(\$284.44)
2033	(\$274.35)
2034	(\$261.74)
2035	(\$245.06)
2036	(\$227.02)
2037	(\$210.57)
2038	(\$196.99)
2039	(\$181.82)
2040	(\$165.96)
2041	(\$147.10)
2042	(\$125.96)
2043	(\$105.83)
2044	(\$86.60)
2045	(\$67.51)
2046	(\$48.66)
2047	(\$29.31)
2048	(\$10.00)
2049	\$8.65
2050	\$29.35
2051	\$27.73

Source: FPL Response to Staff Interrogatory No. 79.

Exhibit JRD-5

FPL Forecasted CPVRR Net Savings/(Cost) for Phase 1 SolarTogether Generation Facilities for Non-Participating Customers (All FPL Cases)

Florida Power & Light Company

Docket No. 20190061-EI

FPL Forecasted Cumulative Present Value Revenue Requirement Net Savings/(Cost) for Non-Participating FPL Customers
(\$ Millions)

<u>Year</u>	<u>Base Case</u>	<u>Low Fuel, Low CO2</u>	<u>Low Fuel, Mid CO2</u>	<u>Mid Fuel, Low CO2</u>	<u>Low Fuel, High CO2</u>	<u>Mid Fuel, High CO2</u>	<u>High Fuel, Low CO2</u>	<u>High Fuel, Mid CO2</u>	<u>High Fuel, High CO2</u>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2019	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)	(\$5.83)
2020	(\$52.12)	(\$54.45)	(\$54.45)	(\$52.07)	(\$54.45)	(\$52.07)	(\$48.88)	(\$48.88)	(\$48.88)
2021	(\$153.90)	(\$164.52)	(\$164.52)	(\$153.44)	(\$164.52)	(\$153.44)	(\$141.71)	(\$141.71)	(\$141.71)
2022	(\$220.65)	(\$239.48)	(\$239.48)	(\$219.86)	(\$239.48)	(\$219.86)	(\$199.73)	(\$199.73)	(\$199.73)
2023	(\$249.25)	(\$276.43)	(\$276.43)	(\$248.44)	(\$276.43)	(\$248.44)	(\$220.73)	(\$220.73)	(\$220.73)
2024	(\$290.99)	(\$326.58)	(\$326.58)	(\$290.20)	(\$326.58)	(\$290.20)	(\$253.79)	(\$253.79)	(\$253.79)
2025	(\$322.25)	(\$366.59)	(\$366.59)	(\$321.24)	(\$366.59)	(\$321.24)	(\$276.41)	(\$276.41)	(\$276.41)
2026	(\$347.18)	(\$400.80)	(\$400.09)	(\$346.62)	(\$400.80)	(\$346.62)	(\$293.09)	(\$292.39)	(\$293.09)
2027	(\$335.29)	(\$397.57)	(\$396.12)	(\$335.42)	(\$397.57)	(\$335.42)	(\$273.12)	(\$271.68)	(\$273.12)
2028	(\$324.49)	(\$395.53)	(\$392.88)	(\$326.29)	(\$386.58)	(\$317.03)	(\$256.37)	(\$254.02)	(\$248.08)
2029	(\$316.41)	(\$394.84)	(\$390.71)	(\$318.74)	(\$378.46)	(\$301.85)	(\$242.53)	(\$238.81)	(\$226.40)
2030	(\$306.44)	(\$392.77)	(\$387.49)	(\$310.26)	(\$369.21)	(\$286.26)	(\$226.77)	(\$221.70)	(\$203.78)
2031	(\$293.09)	(\$388.43)	(\$380.63)	(\$299.08)	(\$354.65)	(\$264.86)	(\$208.75)	(\$200.72)	(\$176.24)
2032	(\$284.44)	(\$389.05)	(\$378.46)	(\$293.52)	(\$345.82)	(\$249.69)	(\$196.65)	(\$185.64)	(\$154.36)
2033	(\$274.35)	(\$388.01)	(\$374.55)	(\$285.97)	(\$335.24)	(\$233.18)	(\$183.54)	(\$169.95)	(\$131.92)
2034	(\$261.74)	(\$384.68)	(\$368.06)	(\$276.83)	(\$322.43)	(\$214.70)	(\$168.89)	(\$152.06)	(\$107.84)
2035	(\$245.06)	(\$377.42)	(\$356.76)	(\$263.55)	(\$305.51)	(\$192.19)	(\$150.14)	(\$129.81)	(\$79.70)
2036	(\$227.02)	(\$368.45)	(\$343.96)	(\$249.60)	(\$287.02)	(\$168.37)	(\$130.53)	(\$106.66)	(\$50.85)
2037	(\$210.57)	(\$360.99)	(\$332.50)	(\$236.97)	(\$270.45)	(\$146.91)	(\$113.22)	(\$85.45)	(\$24.23)
2038	(\$196.99)	(\$355.57)	(\$323.06)	(\$226.93)	(\$255.83)	(\$127.76)	(\$98.18)	(\$66.94)	(\$0.38)
2039	(\$181.82)	(\$349.46)	(\$312.65)	(\$216.15)	(\$240.14)	(\$107.81)	(\$82.99)	(\$47.88)	\$24.13
2040	(\$165.96)	(\$342.08)	(\$301.08)	(\$204.62)	(\$223.51)	(\$86.89)	(\$67.22)	(\$28.16)	\$49.41
2041	(\$147.10)	(\$331.50)	(\$286.40)	(\$190.50)	(\$203.09)	(\$62.50)	(\$48.86)	(\$5.81)	\$77.46
2042	(\$125.96)	(\$318.39)	(\$269.16)	(\$174.10)	(\$179.64)	(\$35.51)	(\$28.69)	\$18.98	\$108.15
2043	(\$105.83)	(\$306.50)	(\$252.69)	(\$158.85)	(\$156.46)	(\$8.97)	(\$9.89)	\$42.48	\$138.08
2044	(\$86.60)	(\$295.66)	(\$236.50)	(\$145.06)	(\$133.65)	\$17.22	\$7.75	\$64.76	\$167.33
2045	(\$67.51)	(\$285.22)	(\$220.32)	(\$131.44)	(\$110.60)	\$43.50	\$24.72	\$86.77	\$196.48
2046	(\$48.66)	(\$274.38)	(\$204.09)	(\$117.49)	(\$86.84)	\$70.35	\$41.60	\$108.49	\$226.20
2047	(\$29.31)	(\$263.71)	(\$187.69)	(\$103.91)	(\$62.55)	\$97.43	\$57.79	\$130.25	\$256.00
2048	(\$10.00)	(\$253.42)	(\$171.47)	(\$90.65)	(\$37.76)	\$124.46	\$73.87	\$151.69	\$285.85
2049	\$8.65	(\$242.91)	(\$155.15)	(\$77.94)	(\$12.86)	\$151.76	\$89.19	\$172.64	\$315.44
2050	\$29.35	(\$229.91)	(\$136.66)	(\$62.88)	\$13.76	\$180.65	\$106.71	\$195.49	\$346.47
2051	\$27.73	(\$231.53)	(\$138.28)	(\$64.50)	\$12.15	\$179.03	\$105.09	\$193.88	\$344.86

Source: FPL Response to Staff Interrogatory No. 79.

Exhibit JRD-6

**Public Discovery Responses Cited to
by Mr. Dauphinais**

Florida Power & Light Company
Docket No. 20190061-EI
OPC's First Set of Interrogatories
Interrogatory No. 5
Page 1 of 2

QUESTION:

Please refer to Pet. at 8, para. 20. Please explain in detail which specific customers are projected to save an estimated \$139 million. If both SolarTogether participants and the general body of FPL customers, please explain in detail the portion of \$139 million that will go to SolarTogether participants and the portion of the \$139 million that will go to general body of FPL customers.

RESPONSE:

Both the FPL SolarTogether participants and the general body of FPL customers will share in the estimated savings of \$139 million.

The table below provides the total base and clause revenue requirements which result in total savings of \$139 million. The table, in Excel format, is provided as Attachment No. 1 to this response.

The Subscription Rate of \$6.76/kW-month results in participants contributing \$1,321.3 million, or 96.4%, of the total \$1,370.2 million in base revenue requirements while non-participants contribute \$48.9 million, or 3.6%. Likewise, the Subscription Benefit Rate of 3.42881¢/kWh, escalating at 1.45% annually, results in participants receiving \$1,432.3 million, or 94.9% of the total \$1,509.0 million in clause revenue requirement savings while non-participants receive \$76.6 million, or 5.1%.

On a CPVRR basis, participants will receive approximately \$110.0 million in benefits, or 80%, of the total program benefits. Non-participants will receive approximately \$28.0 million, or 20%, of the total program savings.

Florida Power & Light Company
Docket No. 20190061-EI
OPC's First Set of Interrogatories
Interrogatory No. 5
Page 2 of 2

(\$ millions)		<u>CPVRR</u>
<u>Base Revenue Requirements</u>		
FPL SolarTogether Capital, O&M		\$1,837.8
Program Administrative Costs		<u>11.5</u>
Total SolarTogether Costs		1,849.2
System Impacts (Avoided Gen. Capital, O&M)		<u>(479.0)</u>
Total Base RevReq's (fav) unfav		\$1,370.2 A
<u>Clause Revenue Requirements</u>		
System Net Fuel		(\$1,050.4)
Incremental Gas Transport		(367.9)
Emissions		<u>(90.6)</u>
Total Clause RevReq's (fav) unfav		(\$1,509.0) B
Net Revenue Requirements (fav) unfav		<u>(\$138.7) C = A + B</u>
<u>Participant Subscription Charge and Credit</u>		
	<u>% of Total</u>	
Subscription Charge (Revenue)		(\$1,321.3) D
Subscription Credits		<u>1,432.3 E</u>
Participant Net Distribution (Payment)	80.0% = -(F / C)	<u>\$111.0 F = D + E</u>
<u>Non-Participant Revenue Requirements</u>		
Base		
Total Base RevReq's		\$1,370.2 =A
Participant Subscription (Revenue)	96.43% = -(D / A)	<u>(1,321.3) =D</u>
Non-Participant Net Base RevReq's (fav) unfav	3.57%	\$48.9 G = A + D
Clause		
Total Clause RevReq's (fav) unfav		(1,509.0) =B
Participant Credits	94.92% = -(E / B)	<u>1,432.3 =E</u>
Non-Participant Net Clause RevReq's - (fav) unfav	5.08%	(\$76.6) H = B + E
Total Non-Participant Net RevReq's (fav) unfav	20.0% = -(I / C)	<u>(\$27.7) I = G + H</u>

QUESTION:

Please refer to FPL's Petition at Paragraph 13 and FPL's April 2019 Ten Year Power Plant Site Plan 2019-2028 ("Ten Year Site Plan") at pages 12 and 14. Table ES-1 on page 14 of the Ten Year Site Plan has entries for 248 MW of firm capacity from Solar PV for 2020 and 248 MW of firm capacity from Solar PV for 2021. These amounts are in addition to 165 MW of firm capacity from the proposed 2020 SoBRA PV projects that is also indicated in Table ES-1. Assuming a firm capacity to nameplate capacity percentage of approximately 55%, the 496 MW of firm capacity from non-SoBRA Solar PV for 2020 and 2021 in the Ten Year Site Plan is about 900 MW of nameplate PV Solar capacity.

- a. Please explain in detail whether the 900 MW of nameplate non-SoBRA Solar PV capacity identified for 2020 and 2021 in Table ES-1 of the Ten Year Site Plan is in addition to the 1,490 MW of nameplate SolarTogether Solar PV that FPL is proposing or is part of the 1,490 MW of nameplate SolarTogether Solar PV that FPL is proposing.
- b. Please explain in detail whether, in the event its SolarTogether proposal is not approved by the Commission, FPL would, in place of the 1,490 MW of SolarTogether solar PV projects, pursue the 900 MW of nameplate non-SoBRA Solar PV capacity identified for 2020 and 2021 in Table ES-1 of its Ten Year Site Plan.
- c. Please explain in detail whether FPL views Phase 1 of its the SolarTogether proposal as accelerating its planned investment in non-SoBRA solar PV generation capacity from 900 MW of nameplate capacity for 2020 and 2021 to 1,490 MW of nameplate capacity for 2020 and 2021.

RESPONSE:

- a. At this point, FPL is not planning to build additional solar in 2020 and 2021 above the solar capacity included in FPL SolarTogether (1,490 MW) and the 2020 SoBRA Project. FPL will, however, continue to evaluate whether additional solar may be cost-effective in 2021 over the amount shown in the FPL SolarTogether Program.
- b. FPL still plans to proceed with the construction of the 900 MW of solar capacity shown in the 2019 Ten Year Site Plan (TYSP) even if the FPL SolarTogether Program is not approved.
- c. The FPL SolarTogether solar capacity replaces the 900 MW of solar nameplate capacity shown in the 2019 TYSP Resource Plan in 2020 and 2021. In addition, it accelerates part of the solar capacity shown in the 2019 TYSP for the years 2022 to 2024.

QUESTION:

Did FPL evaluate options for purchasing solar energy, or solar energy and capacity, from solar power plants operated by any other entities? For example, did FPL consider pursuing power purchase agreements (PPAs) or similar purchase options? If so, please describe in detail each option considered and the analysis conducted.

RESPONSE:

FPL did not evaluate third party PPA options for several reasons. First, such options would not align with the program design for the SolarTogether Program, including the structure of recovery of costs for the program, i.e., fixed payment stream to a third party PPA Seller vs. FPL's collection of revenues through charges and credits to subscribed customers. Second, SolarTogether represents a significant commitment to FPL's customers, and reliance on a third party with no track record in Florida would represent an unreasonable level of risk, particularly as it relates to scale, cost, timing and performance.

QUESTION:

Please refer to the Direct Testimony of William Brannen at page 5. In this section of his direct testimony, Mr. Brannen indicates that SolarTogether "Projects 1 and 2, which consist of three centers each, are currently under construction and are expected to be placed into service by February 1, 2020."

- a. If the Commission denies FPL's proposed SolarTogether program and tariff, does FPL still intend to complete and bring into service Projects 1 and 2?
- b. If the response to a. is in the affirmative, assuming the Commission did deny FPL's proposed SolarTogether program and tariff, please explain in detail whether FPL would still seek to place Projects 1 and 2 into its rate base at the time of its next base rate proceeding.
- c. If the Commission denies FPL's proposed SolarTogether program and tariff, does FPL still intend to complete and bring into service Projects 3, 4 and 5?
- d. If the response to c. is in the affirmative, assuming the Commission did deny FPL's proposed SolarTogether program and tariff, please explain in detail whether FPL would still seek to place Projects 3, 4 and 5 into its rate base at the time of its next base rate proceeding.

RESPONSE:

See FPL's response to Staff's First Set of Interrogatories No. 100.

- a. If the Program is not approved, FPL intends to complete and bring into service the sites that comprise Projects 1-2.
- b. The revenue requirements of the facilities would be included in FPL's requested revenue recovery at the time of its next base rate proceeding.
- c. If the program is not approved by the Commission, FPL will reevaluate the amount and timing of additional solar capacity to be installed beyond Projects 1-2 as part of its late 2019/early 2020 integrated resource planning work.
- d. As stated in FPL's response to Staff's First Set of Interrogatories No. 100, FPL intends to complete and bring into service the sites that comprise Projects 1-2. The reevaluation noted in (c) above will determine the timing and amount of additional solar capacity to be installed beyond Projects 1-2, including the timing of any regulatory filings such as base rate recovery.

QUESTION:

Please refer to FPL's response to OPC's Second Request for Production of Documents, Item No. 2.

- a. Please identify each date since 2017 on which FPL personnel met by phone, web conference, or in person with personnel from the entity which authored the documents found at Bates Nos. FPL 0000013 through 0000025, and identify for each such meeting each attendee from FPL including each attendee's job title.
- b. Please provide a detailed explanation of FPL's consideration of the documents found at Bates Nos. FPL 0000013 through 0000025 including a detailed description of all analyses FPL performed of what was proposed in the documents.
- c. Please provide a detailed explanation with respect to the consideration FPL gave to the documents found at Bates Nos. FPL 0000013 through 0000025 potentially being a basis for all or a portion of its proposed SolarTogether program.

RESPONSE:

- a. Beginning in October 2017 and continuing to the present, FPL employees have had a number of face to face meetings and telephone conversations with personnel from the entity that authored the documents in Bates Nos. FPL 000013 through 000025 regarding the proposals contained in those documents.
- b. In evaluation of the proposals contained in those documents to sell power to FPL from a portfolio of solar projects as Qualifying Facilities under the Public Utility Regulatory Policy Act of 1978 ("PURPA") and applicable Florida law and regulations, FPL personnel evaluated the proposed PPA rate versus FPL's full avoided costs on both As Available and Firm Energy and Capacity bases. The proposed PPA pricing contained in the proposals was well above FPL's applicable projected As Available energy rate, as well as above the energy rate from the next planned generating unit in FPL's applicable Ten Year Site Plans. Additionally, the operating characteristics of the proposed Qualifying Facilities would likely not meet the requirements to receive capacity payments for Firm Energy and Capacity under FPL's Standard Offer Contract.
- c. The rate design of SolarTogether is complex and, combined with the structuring of certain elements to make the program appealing to potential participants (*e.g.*, timing of program effective date, net cost to participate, payback period, and impacts to general body of rate payers), FPL needed to have a high degree of certainty and control over the project criteria in order to keep the program design manageable and on target consistent with customer demand and expectations. Unexpected variations in cost structure (*e.g.*, up-front capital investment vs. over-time PPA payments), level of cost, uncertainty in annual solar production per project, or risks to the in-service date of the projects, would increase the uncertainty of the program offering and thereby greatly reduce its chance of success. As such, FPL chose from its available portfolio low-cost and cost-effective solar projects, after first selecting available projects to satisfy the SoBRA program for 2020, that provided the greatest certainty for the

design and launch of the SolarTogether program. There are other mechanisms, such as the long-standing availability of the Standard Offer Contract that are not subject to the program design features of the SolarTogether program, which are a more suitable avenue for evaluation of the proposals contained in the documents with Bates Nos. FPL 000013 through 000025.

FPL did not procure or plan a specific set of solar projects for its SolarTogether program, but rather established a general portfolio of potential solar projects based on evaluation of cost, risk, and project characteristics through its broader generation planning process. It was from this portfolio of potential projects that those most likely to meet the timing, cost, and production requirements of the SolarTogether program were chosen as the concept was developed (after first selecting available projects to satisfy the 2020 SoBRA Project). In that context, the proposals referenced in Bates Nos. FPL 000013 through 000025 were not specifically evaluated for SolarTogether. However, as described in subpart (b) above, the projects were evaluated versus FPL's avoided unit in its applicable Ten Year Site Plans consistent with state and federal law. Since the projects failed in those evaluations and did not proceed to an executed PPA, they were not considered part of the available portfolio of solar projects to be included in the SolarTogether program or otherwise as a part of FPL's resource plan. See FPL's response to OPC's Sixth Set of Interrogatories No. 29.

QUESTION:

Please provide a complete copy of all FPL's internal e-mails, memoranda and other correspondence within FPL regarding the documents found at Bates Nos. FPL 0000013 through 000025.

RESPONSE:

See FPL's objection to this request.

QUESTION:

Please provide a complete copy of all e-mails, letters, memoranda and other correspondence between FPL and the entity which authored the documents found at Bates Nos. FPL 0000013 through 000025 regarding the documents found at Bates Nos. FPL 0000013 through 000025.

RESPONSE:

See FPL's objection to this request.

QUESTION:

Please provide a complete copy of all analyses and studies prepared by, or on behalf of, FPL regarding the documents found at Bates Nos. FPL 000013 through 000025.

RESPONSE:

See FPL's objection to this request.

QUESTION:

Please provide a complete copy of all internal presentations prepared by, or on behalf of, FPL regarding the documents found at Bates Nos. FPL 0000013 through 000025.

RESPONSE:

See FPL's objection to this request.

**Florida Power & Light Company
Docket No. 20190061-EI
Staff's First Set of Interrogatories
Interrogatory No. 24
Page 1 of 1**

QUESTION:

Petition at 4, Paragraph 7. Define the term cost-effective, as used in this text.

RESPONSE:

FPL defines a project or resource plan as cost-effective when it results in a lower Cumulative Present Value of Revenue Requirement (CPVRR) than the alternative. FPL compared two resource plans, one plan that includes the FPL SolarTogether projects and the alternative of not including the projects. The plan with the FPL SolarTogether showed a lower CPVRR, making that plan cost-effective for participants and the general body of FPL customers. In determining CPVRR, FPL considers the annual revenue requirements of all system costs and system benefits, including all cost associated with the project or plan.

Florida Power & Light Company
Docket No. 20190061-EI
Staff's First Set of Interrogatories
Interrogatory No. 39
Page 1 of 1

QUESTION:

Please refer to the petition, page 8, paragraph 21. It is stated that "Both plans [No ST Plan and FPL SolarTogether Plan] use the same major system assumptions, including the Company's official load, fuel price, and carbon dioxide price forecasts."

- A. Please provide FPL load forecasts used to determine the CPVRR in this proceeding in electronic format (Excel).
- B. Please provide the date(s) FPL's load forecasts were completed and approved.
- C. Please detail how FPL's load forecast is considered in the Cumulative Present Value Revenue Requirement Analysis.
- D. Did FPL consider different combinations of forecast sensitivities in the CPVRR? i.e. did FPL prepare a separate CPVRR based on "low case", "base case", and "high case" load forecast scenarios?
- E. If the answer to 1(d) is yes, please provide all such forecasts, summaries of such CPVRR results using such forecasts, and all related data output.
- F. If the answer to 1(d) is no, please explain why not?

RESPONSE:

In the economic analysis of the FPL SolarTogether Program, as described in the Petition, FPL used the same major system assumptions and methodology as used in the 2019 FPL Ten Year Site Plan and the 2020 SoBRA filing. This applies to both plans [No ST Plan and FPL SolarTogether Plan].

- A. Please see Attachment No. 1 to this response.
- B. FPL's load forecast was completed and approved in December 2018.
- C. FPL's load forecast is a key input in the development of resource plans, and in the economic dispatch of FPL's generating units which in turn determine the CPVRR for each resource plan and, as such, it is used in FPL's resource plans and production costing models.
- D. FPL did not consider different load forecast sensitivities.
- E. See response to subpart (D) above.
- F. FPL does not perform load forecast sensitivity analysis in the economic determination of resource plans. The principal concern for potential load forecast error is system reliability; FPL's reserve margin criteria is in part developed to account for such potential load forecast error.

QUESTION:

Please refer to paragraph 5 of the Petition. For the approximately 200 customers with 1,100 MW of pre-registered capacity, provide the number of customers by type (commercial, industrial, and governmental), their individual subscription capacity, and subscription level compared to annual energy usage. As part of this response, provide a copy of the pre-registration agreements and binding subscription reservation agreements.

RESPONSE:

See Attachment No. 1 to this Interrogatory for the requested data for pre-registered customers. Pre-registration was offered online only, and participants committed to the terms of the pre-registration agreement, (see Attachment No. 2 to this Interrogatory) by signing electronically, as such there are no “individual” pre-registration agreements to provide. Upon signature, customers were provided with an email and on screen confirmation including a confirmed registration number, estimated subscription, and the registration date (see Attachment No. 3).

**SolarTogether – An FPL Shared Solar Program
Pre-Registration Agreement**

Pursuant to this pre-registration agreement (“**Agreement**”), the undersigned (“**Subscriber**”) is agreeing to subscribe to a specified number of kilowatts (“**kW**”) of solar-generated electric power under SolarTogether – An FPL Shared Solar Program (“**Program**”) sponsored by Florida Power & Light Company (“**FPL**”). The Program will be filed with the Florida Public Service Commission (“**FPSC**”) in 2019, and it is anticipated that Program power will become available to FPL customers sometime in March 2020. This voluntary program allows FPL customers to subscribe to a portion of universal solar capacity built specifically for this Program, thereby sharing in the benefits of solar generation and receiving a credit for the system savings produced by the respective capacity for which such customer subscribes.

**Article I
Pre-Registration Terms**

1. **Pre-Registration Quantity.** Subscriber hereby registers for [_____] kilowatts (kW) (“**Pre-Registration Quantity**”) of Program capacity. The Pre-Registration Quantity Amount must be in whole kilowatt (kW) increments and cannot exceed Subscriber’s total kWh usage for the immediately preceding 12 months, which will be determined by dividing Subscriber’s total kWh for the preceding 12 months by 2,535 (“**Maximum Subscription Quantity**”).

2. **Reservations; Wait Listing; Reservation Quantity Increases and Decreases.**

- a) **Reservations.** Upon submission of this Agreement, Subscriber will receive via email a date and time stamped confirmation of its receipt (“**Timestamped Confirmation**”) by FPL. Following the pre-registration period, FPL will verify Subscriber’s FPL electric service account (“**FPL Account**”) information and, subject to then-remaining Program capacity, will reserve the Pre-Registration Quantity based on Subscriber’s Timestamped Confirmation. FPL reserves the right to apportion the available Program power to ensure that no single customer or customer group amasses all or an unreasonable share of the Program capacity. FPL will notify Subscriber in writing of Subscriber’s reserved kilowatt (kW) allocation of Program capacity (“**Reservation**”). If the Reservation reflects a reduction in the Pre-Registration Quantity by more than 10%, Subscriber will have 10 business days after its receipt of the Reservation in which to cancel the Reservation, except in the case where the reduction is made to meet the Maximum Subscription Quantity requirement.
- b) **Wait Listing.** Subscribers whose Agreements are received after the Program’s kW capacity is fully subscribed will be so notified by FPL and will be placed on a waiting list in the order of their Timestamped Confirmation and will be admitted into the Program as, when and to the extent that Program kW capacity thereafter becomes available.
- c) **Reservation Increases.** Subscriber may elect to increase the Reservation, subject to the Program’s then-available kW capacity and the Maximum Subscription Quantity, at any time prior to the opening of the Program in accordance with Section 3 of this Article I by executing and delivering to FPL a new Agreement, which would supersede this Agreement. Subscriber

may not elect to decrease its Reservation prior to Enrollment (as defined in Section 3 of this Article I). A decrease in Subscriber's Subscription Quantity (as defined in Section 3 of this Article I) may be made after Enrollment in accordance with Section 4 of Article II of this Agreement.

3. **Opening of Program and Enrollment.** When the Florida Public Service Commission approves the Program ("**FPSC Approval**"), FPL will designate the date on which the Program will open ("**Program Opening Date**"), and Subscriber hereby authorizes FPL to enroll Subscriber in the Program ("**Enrollment**") on the Program Opening Date. The Reservation will determine the total number of kW subscribed to ("**Subscription Quantity**") by Subscriber. Opening of the Program and Enrollment are conditioned upon FPSC Approval. FPL will notify all Subscribers as to whether FPSC Approval is or is not obtained, and if FPSC Approval is obtained, FPL will notify Subscribers of the Program Opening Date and their Enrollment in the Program, provided that, if the FPSC Approval provides for Monthly Subscription Charge pricing *in excess of*, or Monthly Subscription Credit pricing *less than*, the amounts set forth in Section 1 of Article II of this Agreement or other material modifications to any of the other material terms in Article II of this Agreement, FPL will so notify Subscribers, and each Subscriber will have 10 business days after the date of its receipt of such notification in which to elect to (i) cancel its Reservation and forgo Enrollment or (ii) cancel its Enrollment, if Enrollment shall have already occurred prior to the expiration of such period of 10 business days.

4. **Termination.** This Agreement shall remain in effect until the earlier of the Program Opening Date and the date on which FPSC Approval is denied. Except as provided in the last sentence of Section 3 of this Article I, Subscriber may not terminate this Agreement at any time prior to Enrollment. If Subscriber terminates this Agreement after Enrollment and before the first billing month under the Program, Subscriber's monthly FPL Account bill for the first billing month under the Program will nevertheless include the full amount of the Monthly Subscription Charge and the full amount of the Monthly Subscription Credit (as such terms are defined in Section 1 of Article II of this Agreement).

Article II FPL Proposed FPSC Program Terms

1. **Monthly Rate.** Subscriber's total monthly FPL Account bill will include a "Monthly Subscription Charge" and a "Monthly Subscription Credit," calculated as follows:

Monthly Subscription Charge = Subscription Quantity x \$6.76/kW

Monthly Subscription Credit = \$0.0308/kWh (escalating annually at 1.45%) × $\frac{\text{Subscription Quantity}}{\text{Program Capacity}}$ × Program Output (kWh)

2. **Eligibility.** Any FPL customer that takes electric service under a metered rate schedule and has no delinquent FPL Account balances is eligible to participate in the Program ("**Eligible Customers**"). An Eligible Customer may elect a subscription level in whole kW increments up to such customer's total kWh usage for the immediately preceding 12 months and may elect once every year thereafter to increase the number of whole kW purchased under the Program, subject to then-available Program capacity.

3. **Billing.** Eligible Customers participating in the Program will be subject to the minimum FPL Account bill on their otherwise applicable rate schedule. The Monthly Subscription Charge and the

offsetting Monthly Subscription Credit will appear as separate line items on the monthly FPL Account bills of participating Eligible Customers during every month of their respective Enrollments and will be subject to all applicable taxes and fees.

4. **Termination and Reduction.** Program participants may terminate their participation in the Program (“**Voluntary Termination**”), or reduce the number of their respective whole kW Subscription Quantities, at any time after the Program Opening Date, and FPL may terminate any customer’s participation in the Program if such customer’s FPL Account becomes delinquent (“**Involuntary Termination**”), provided that, in the event of either Voluntary Termination or Involuntary Termination, (i) the customer’s monthly FPL Account bill for the month in which such termination occurs will include the full amount of the Monthly Subscription Charge and the full amount of the Monthly Subscription Credit, and (ii) the customer will be prohibited from re-enrolling in the Program for a period of 12 months after any such termination, subject to then-available Program capacity.

5. **Portability.** Program participation is entirely portable within FPL’s electric service territory. A Program participant may transfer Program participation to a new service address and will be deemed to have continuous, uninterrupted Enrollment for the purpose of determining the participant’s Monthly Subscription Credit.

6. **Attributes.** Program participants may elect to have FPL retire on their behalf any renewable energy credits associated with their Program participation.

7. **Subscription Is Not a Security; No Guarantee of Savings.** A Program participant’s subscription to purchase kW under the Program is not a security and does not represent an ownership interest in any of the Program’s assets and, therefore, may not be sold, assigned, transferred or conveyed by such participant to any other person or entity or otherwise disposed of by such participant. There is no guarantee that a Program participant will realize any savings from participation in the Program.



LOG IN

PAY BILL

Registration Name: [REDACTED]
Registration Date: May 09, 2019 02:39 PM
Subscription Quantity Requested: 40,007 kW
Registration Confirmation Number: 430

FPL Shared Solar Registration Confirmation

Thank you for pre-registering for SolarTogether, an FPL Shared Solar Program.

As a future participant, we will continue to update you on the status of the program in 2019 as we near approval and launch of the program.

Please do not reply to this email. This address is not monitored.

For help, visit FPL.com

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[Contact Us](#)

Florida Power & Light Company
700 Universe Blvd., Juno Beach, FL 33408

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**Florida Power & Light Company
 Docket No. 20190061-EI
 Staff's First Set of Interrogatories
 Interrogatory No. 78
 Page 1 of 1**

QUESTION:

Please refer to paragraphs 21 and 22 of the Petition. Complete the table below for each scenarios listed (a) through (d). Provide the annual revenue requirement of each Plan, the “No ST Plan” and “FPL SolarTogether Plan,” by category. These include SolarTogether costs for generation, transmission, and O&M, as well as FPL’s remainder of system costs for generation, transmission, fuel, fuel transportation, O&M, emissions (excluding CO2 and CO2 only). Provide a version of this table in nominal and present value dollars for each scenario.

- A. Base Case scenario
- B. Low Fuel scenario.
- C. High Fuel scenario.
- D. No CO2 Cost scenario.

[Scenario Name] – [No ST Plan / FPL SolarTogether Plan] – ([Nominal / NPV] \$ millions)														
Year	SolarTogether				Remainder of System									System Total
	Generation	Transmission	O&M	Total	Generation	Transmission	Fuel	Purchases	Fuel Transportation	O&M	Emissions (Non-carbon)	Emissions (Carbon-only)	Total	
2020														
...														
Total														

RESPONSE:

Please see Attachment No. 1 to this Interrogatory that provides the annual revenue requirement in nominal and present values dollars, as well as CPVRR, for nine natural gas and CO2 price scenarios. The CO2 price scenarios considered included a low (i.e., zero) price scenario, as well as mid and high band CO2 price scenarios.

Florida Power & Light Company
Docket No. 20190061-EI
Staff's First Set of Interrogatories
Interrogatory No. 79
Page 1 of 1

QUESTION:

Please refer to paragraphs 21 and 22 and Exhibits B and C. Complete the table below for each scenarios listed (a) through (d). Provide the annual and total value for the net system savings between the “No ST Plan” and the “FPL Solar Together Plan,” the total SolarTogether Charges, the SolarTogether Credits, and the remaining net system benefits to the general body of ratepayers. Provide a version of this table in nominal and present value dollars.

- A. Base Case scenario.
- B. Low Fuel scenario.
- C. High Fuel scenario.
- D. No CO2 Cost scenario.

System Benefits and SolarTogether Program Impacts - [Nominal \$] or [NPV \$]				
Year	Net System Savings	SolarTogether Charges	SolarTogether Credits	Remaining Net System Savings
2020				
...				
Total				

RESPONSE:

Please see Attachment No. 1 to this Interrogatory, that provides the total (tab 1) and annual (tab 2) value for the net system savings in nominal and present values dollars for the Base Case scenario (Mid Fuel and Mid CO₂), Low Fuel scenario, High Fuel scenario, and the No CO₂ Cost scenario (the Low CO₂ scenario represents No CO₂ Costs). Along with these scenarios, FPL also provided a High CO₂ scenario.

**Competitive Development Information
Confidential Exhibit JRD-7**

**CDI Confidential Discovery Responses
Cited to by Mr. Dauphinais**

Florida Power & Light Company
Docket No. 20190016-EI
OPC's Second Request for Production of Documents
Request No. 2
Page 1 of 1

QUESTION:

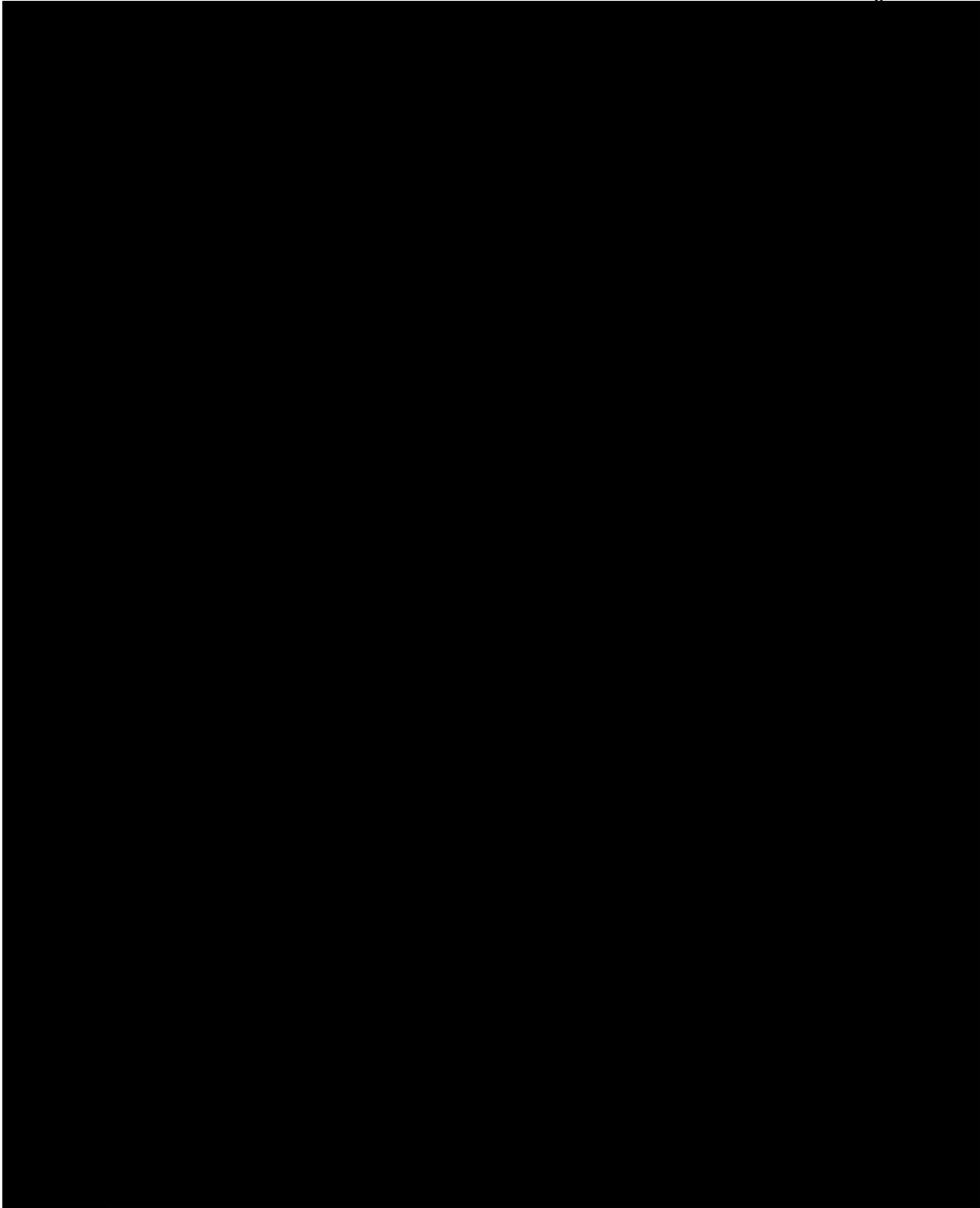
Produce any and all documents related to offers for the sale of solar power energy FPL has received since January 1, 2017, including but not limited to, offers to sell to FPL

- a) solar power
- b) equipment related to the generation and/or transmission of solar power
- c) service related to the generation and/or transmission of solar power
- d) real property related to the generation and/or transmission of solar power.

RESPONSE:

Please see documents provided with this response. We note that none of the confidential attached offers for the sale of solar power energy to FPL were presented in the context of SolarTogether.

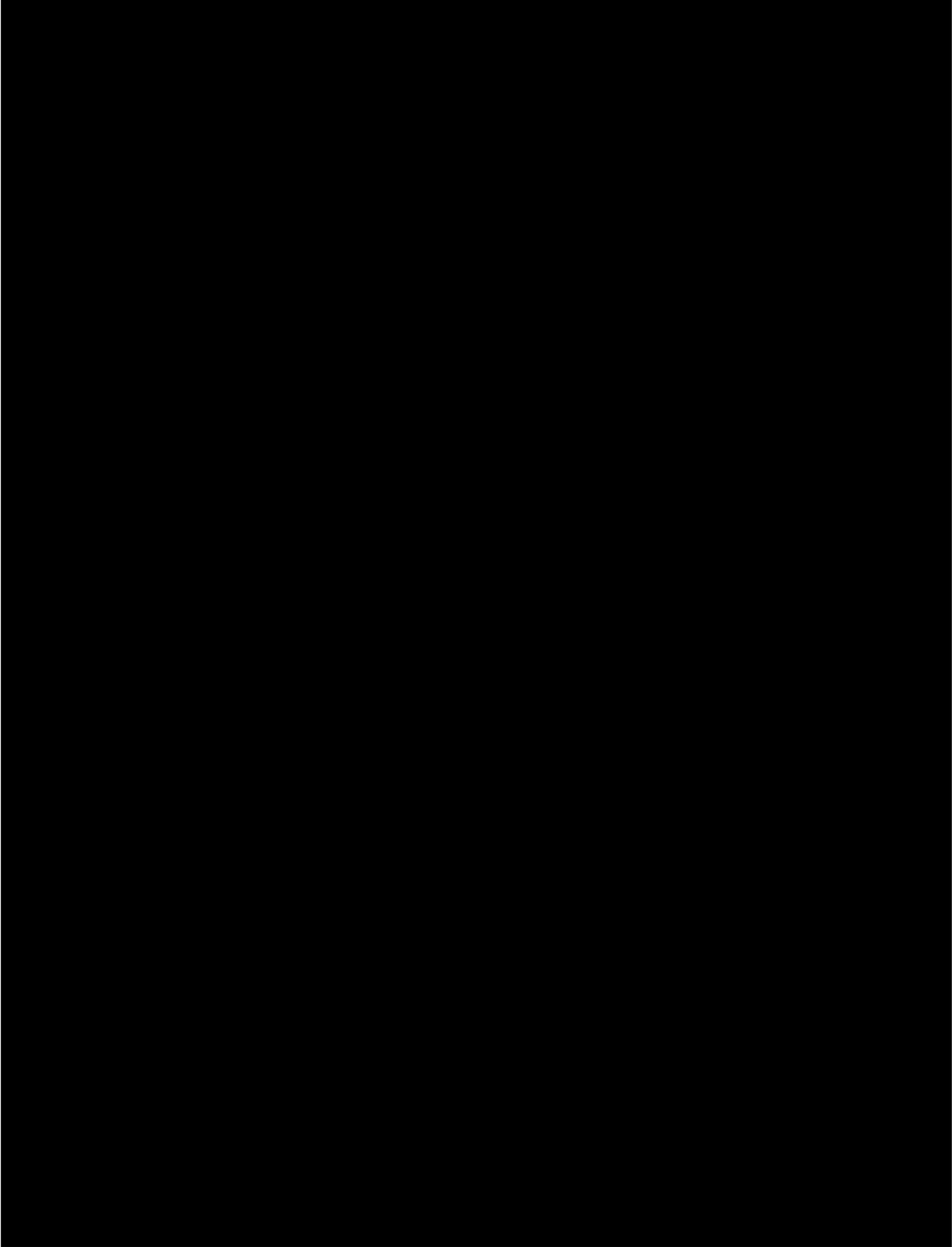
CONFIDENTIAL



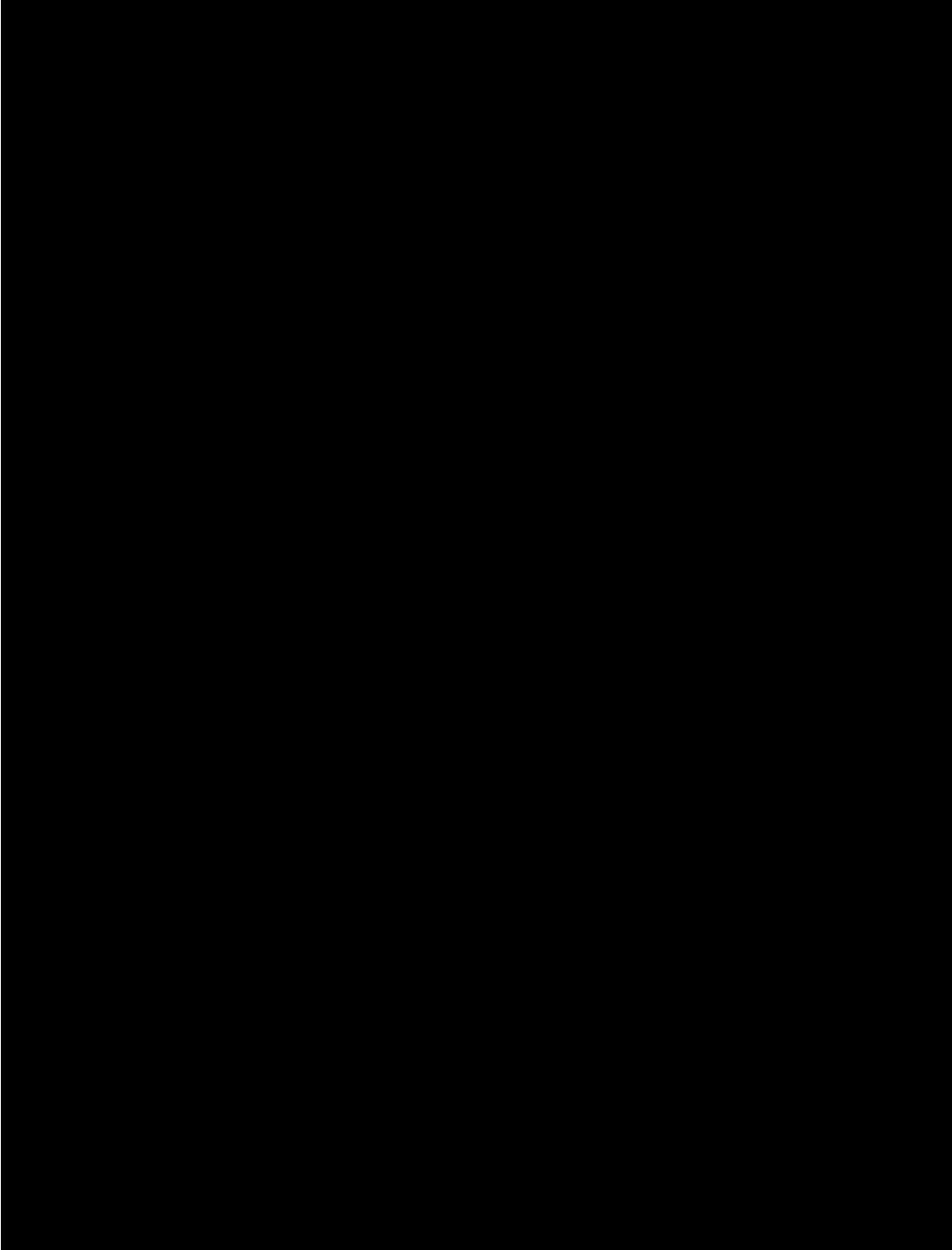
CONFIDENTIAL



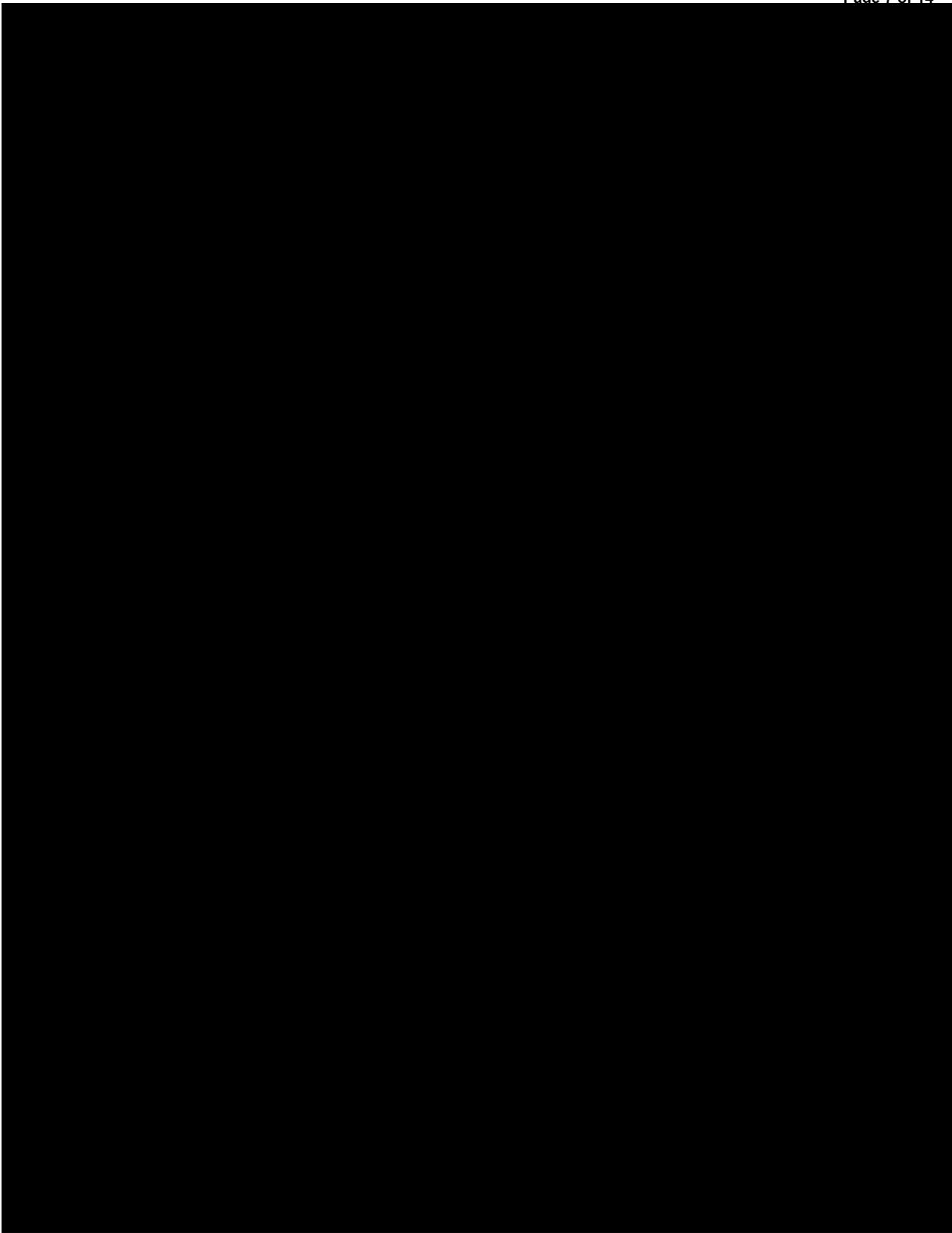
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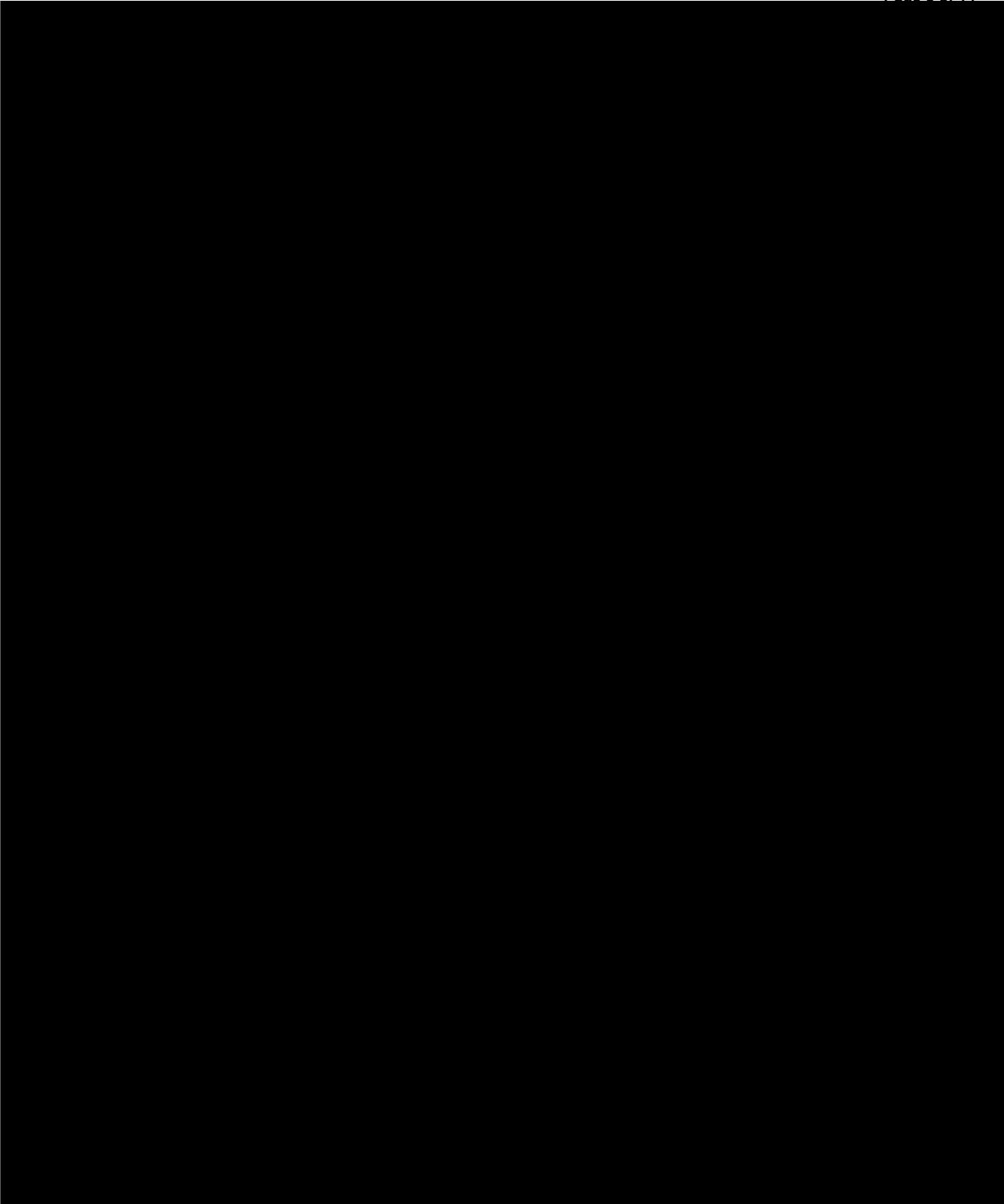
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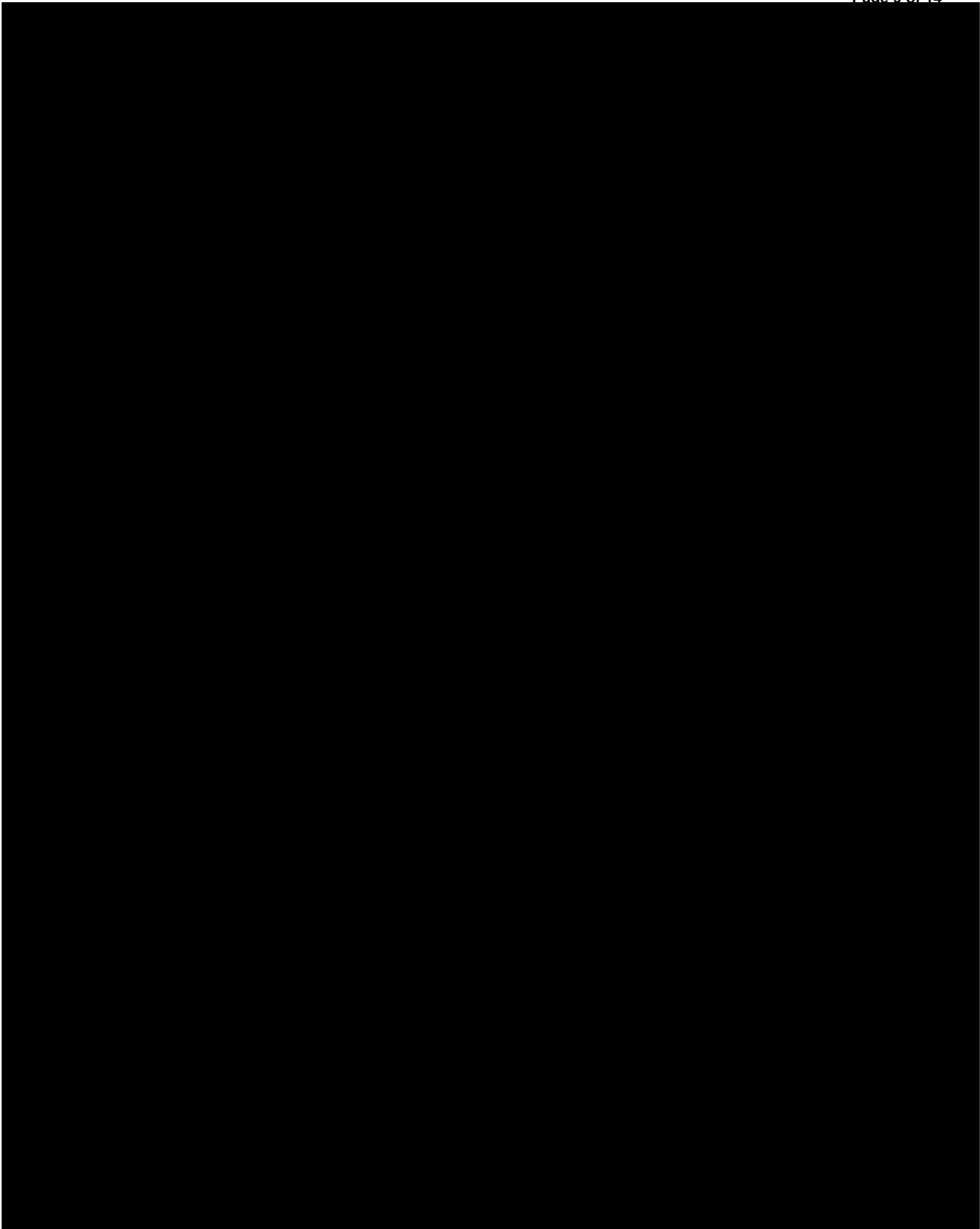
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CONFIDENTIAL



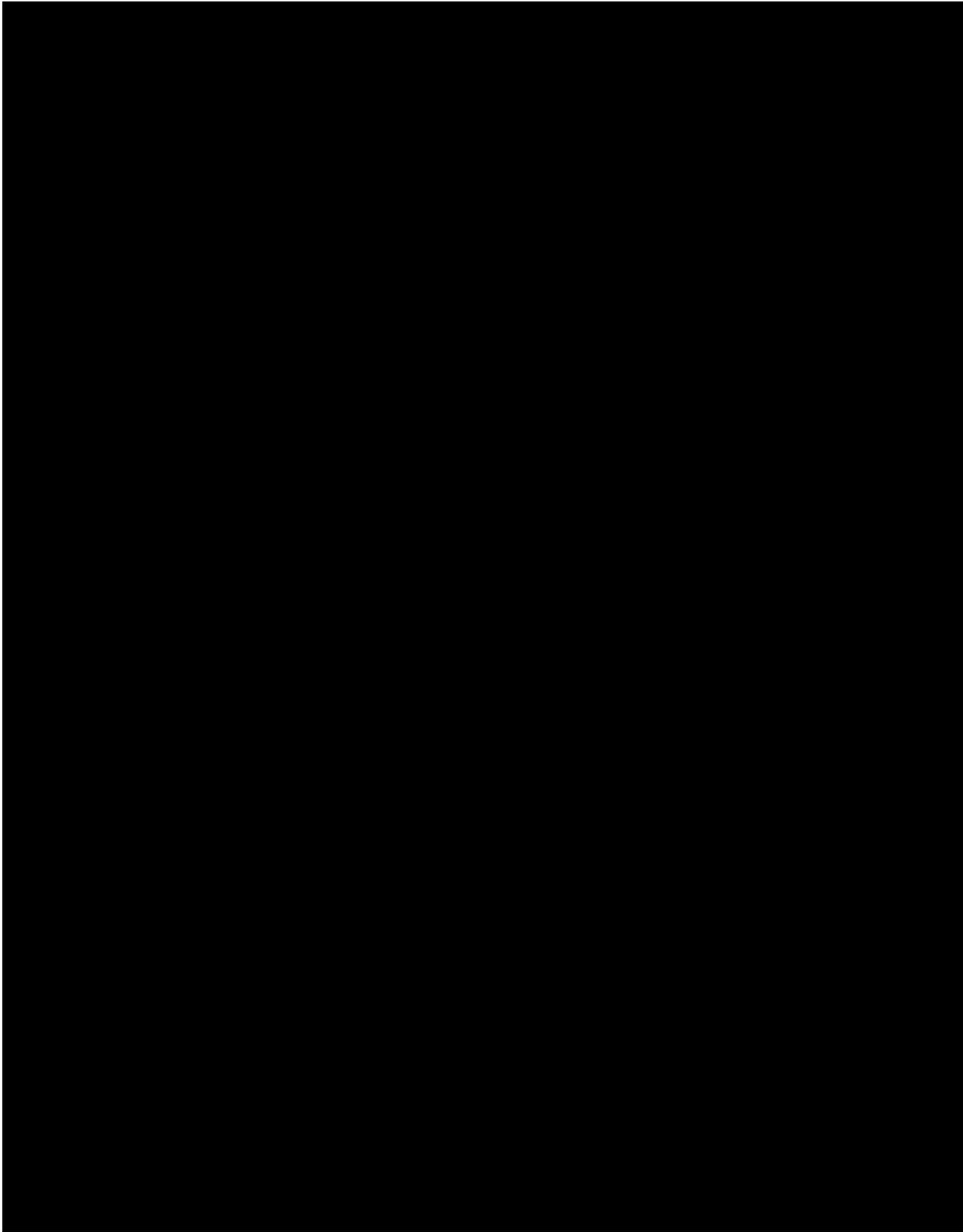
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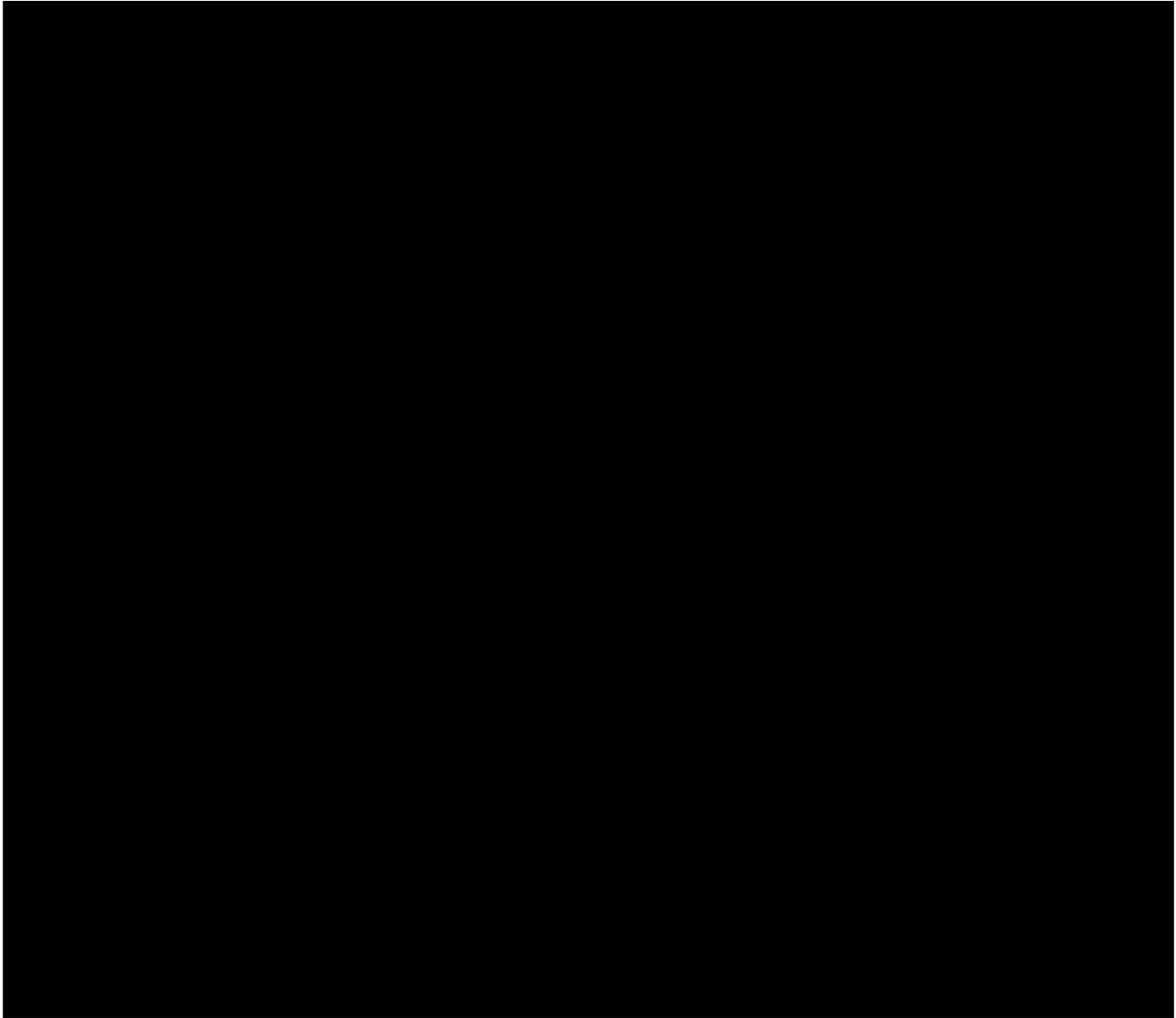
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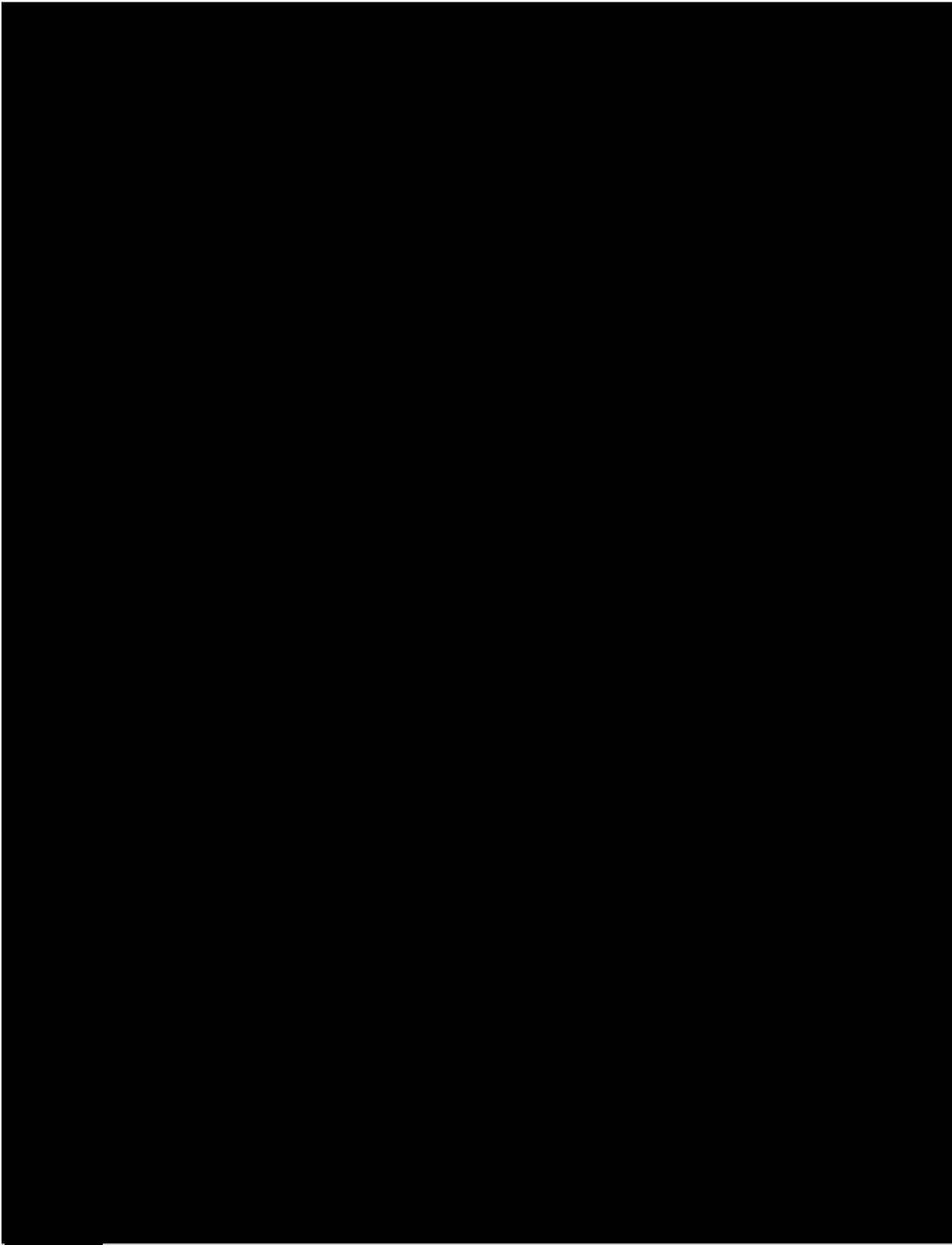
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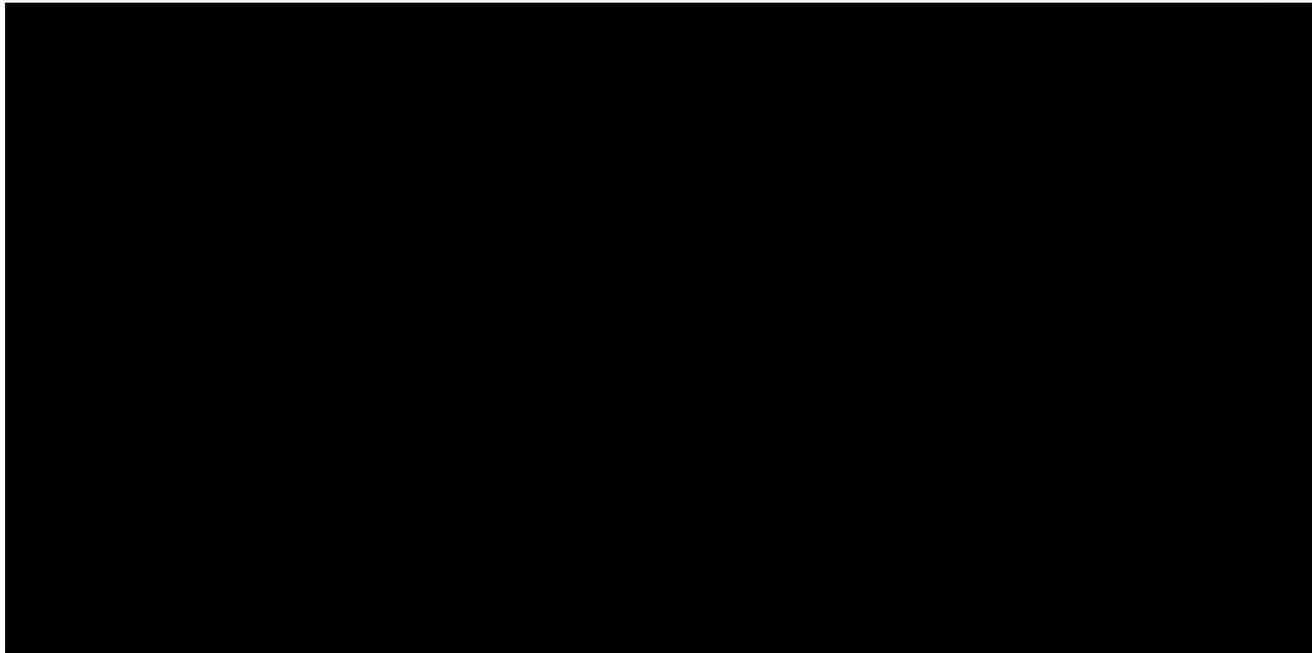
CONFIDENTIAL



CONFIDENTIAL



CONFIDENTIAL



CONFIDENTIAL 2