

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE



July 31, 2019

Advice Letter 5579-E

Erik Jacobson
Director, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

SUBJECT: Pacific Gas and Electric Company's Conformed Bundled Procurement Plan Compliance Submittal

Dear Mr. Jacobson:

Advice Letter 5579-E is effective as of July 1, 2019.

Sincerely,

A handwritten signature in cursive script that reads "Edward Randolph".

Edward Randolph
Deputy Executive Director for Energy and Climate Policy/
Director, Energy Division

July 1, 2019

Advice 5579-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Pacific Gas and Electric Company's Conformed Bundled Procurement Plan Compliance Submittal**Purpose**

Pursuant to Ordering Paragraphs ("OP") in Resolution E-4998, Pacific Gas and Electric Company (PG&E) respectfully submits its compliance submittal and conformed Bundled Procurement Plan ("Conformed BPP"). This Advice Letter describes PG&E's Conformed BPP. Included as Confidential Attachments A and B are the redline and clean versions of PG&E's Conformed BPP Appendix G. Confidential Attachments C and D are the redline and clean versions of PG&E's Conformed BPP Appendix S.

Background

On January 25, 2019, PG&E submitted Advice Letter ("AL") 5473-E to revise certain procurement activities in its Conformed BPP. On May 30, 2019, the CPUC issued Resolution E-4998 which approved PG&E's AL 5473-E with modifications. This Advice Letter modifies PG&E's Conformed BPP as follows:

- Appendix G –
 - Greenhouse Gas Procurement Plan – added definition of "GHG compliance obligation."
- Appendix S –
 - Sales Framework – revised to:
 - State that PG&E will offer Resource Adequacy ("RA") capacity from Local Reliability Areas for all three years in the multiyear framework adopted in D.19-02-022; and
 - Include the RA solicitation schedule to reflect a multiyear sales framework that includes local RA capacity for delivery periods covering all three years (2020 – 2022).

In addition, PG&E modifies the confidential portions of Appendix S in the Conformed BPP to conform to the OP in the Resolution.

Attachments

Confidential Attachment A	Redline Version, Appendix G and Appendix S
Confidential Attachment B	Clean Version, Appendix G and Appendix S
Attachment C	Redline Version, Appendix S (Public Version)
Attachment D	Clean Version, Appendix G and Appendix S (Public Version)

Protests

Anyone wishing to protest this submittal may do so by letter sent via U.S. mail, facsimile or E-mail, no later than July 22, 2019 which is 21 days¹ after the date of this submittal. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, California 94177

¹ The 20-day protest period concludes on a weekend, therefore, PG&E is moving this date to the following business day.

Facsimile: (415) 973-3582
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

PG&E requests that this Tier 1 advice submittal become effective upon date of submittal, which is July 1, 2019.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittals can also be accessed electronically at: <http://www.pge.com/tariffs/>.

/S/

Erik Jacobson
Director, Regulatory Relations

Attachments

cc: Service List R.16-02-007



ADVICE LETTER SUMMARY

ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Pacific Gas and Electric Company (ID U39E)

Utility type:

- ELC GAS WATER
 PLC HEAT

Contact Person: Yvonne Yang

Phone #: (415)973-2094

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: Yvonne.Yang@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
 PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 5579-E

Tier Designation: 1

Subject of AL: Pacific Gas and Electric Company's Conformed Bundled Procurement Plan Compliance Submittal

Keywords (choose from CPUC listing): Compliance

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: Resolution E-4998

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested? Yes No

If yes, specification of confidential information: See attached Confidentiality Declaration and Matrix
Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information: Robert Gomez, 415-973-8681, RSGa@pge.com

Resolution required? Yes No

Requested effective date: 7/1/19

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed¹: N/A

Pending advice letters that revise the same tariff sheets: N/A

¹Discuss in AL if more space is needed.

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name: Erik Jacobson, c/o Megan Lawson
Title: Director, Regulatory Relations
Utility Name: Pacific Gas and Electric Company
Address: 77 Beale Street, Mail Code B13U
City: San Francisco, CA 94177
State: California Zip: 94177
Telephone (xxx) xxx-xxxx: (415)973-2093
Facsimile (xxx) xxx-xxxx: (415)973-3582
Email: PGETariffs@pge.com

Name:
Title:
Utility Name:
Address:
City:
State: District of Columbia Zip:
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

**DECLARATION OF ROBERT GOMEZ SEEKING
CONFIDENTIAL TREATMENT FOR CERTAIN DATA AND
INFORMATION CONTAINED IN PG&E'S
PROPOSED UPDATES TO THE BUNDLED PROCUREMENT PLAN
(ADVICE LETTER 5579-E)**

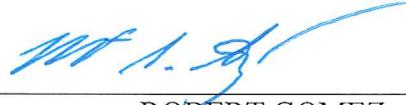
I, Robert Gomez, declare:

1. I am a Manager in the Portfolio Management department in the Energy Policy and Procurement organization at Pacific Gas and Electric Company (PG&E). In this position, my responsibilities include overseeing Commercial Planning activities, including the mid-term load forecast and position management at PG&E. This declaration is based on my personal knowledge of PG&E's practices and my understanding of the Commission's decisions protecting the confidentiality of market-sensitive information.

2. Based on my knowledge and experience, and in accordance with the Decisions 06-06-066, 08-04-023, and relevant Commission rules, I make this declaration seeking confidential treatment for certain data and information contained in PG&E's proposed updates to the Bundled Procurement Plan (Advice Letter 5579-E).

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive data and information covered by D.06-06-066. The matrix also specifies why confidential protection is justified. Further, the data and information: (1) is not already public; and (2) cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all of the explanatory text that is pertinent to my testimony in the attached matrix.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed on July 1, 2019, at San Francisco, California.

A handwritten signature in blue ink, appearing to read 'R. Gomez', is written above a horizontal line.

ROBERT GOMEZ

**PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
ADVICE LETTER 5579-E
JULY 1, 2019**

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	Justification for Confidential Treatment	Length of Time Data To Be Kept Confidential
Confidential Appendix G	D.14-10-033 Pub. Util. Code §454.5(g)	This information includes confidential greenhouse gas (GHG) compliance instrument procurement strategy and/or activities. The release of this commercially sensitive information could cause harm to PG&E's customers and put PG&E at an unfair business advantage by the disclosure of a GHG procurement strategy. This information could be used by other market participants to gain a commercial advantage. The disclosure of GHG information is prohibited according to Title 17 of the California Code of Regulations.	Indefinite
Confidential Appendix S	Pub. Util. Code §454.5(g)	This information includes PG&E's confidential sales framework. Any discussion of PG&E's sales strategies is market sensitive, and if released, this information could cause harm to PG&E's customers and put PG&E at an unfair business advantage.	Indefinite

Confidential Attachment A

Redline Version, Appendix G and Appendix S

Confidential Attachment B

Clean Version, Appendix G and Appendix S

Attachment C

**Redline Version, Appendix S
(Public Version)**



APPENDIX S
SALES FRAMEWORK

CONFIDENTIAL



A. Introduction/Background

This Appendix describes the standards and criteria for Pacific Gas and Electric Company's (PG&E's) management and sales of physical energy-only products, Forward Energy from non-Renewables Portfolio Standard (non-RPS) eligible hydro resources or nuclear resources (Carbon Free Energy), Resource Adequacy (RA) Products, and Import Capacity Counting Rights. Due to customer load departure, PG&E may encounter scenarios in which portfolio products exceed the requirements of the portfolio. In these situations, the Sales Framework guides actions PG&E will take. In addition, any transactions under this Sales Framework Appendix will be filed for approval through the Quarterly Compliance Reports (QCR), as required by the Bundled Procurement Plan (BPP).

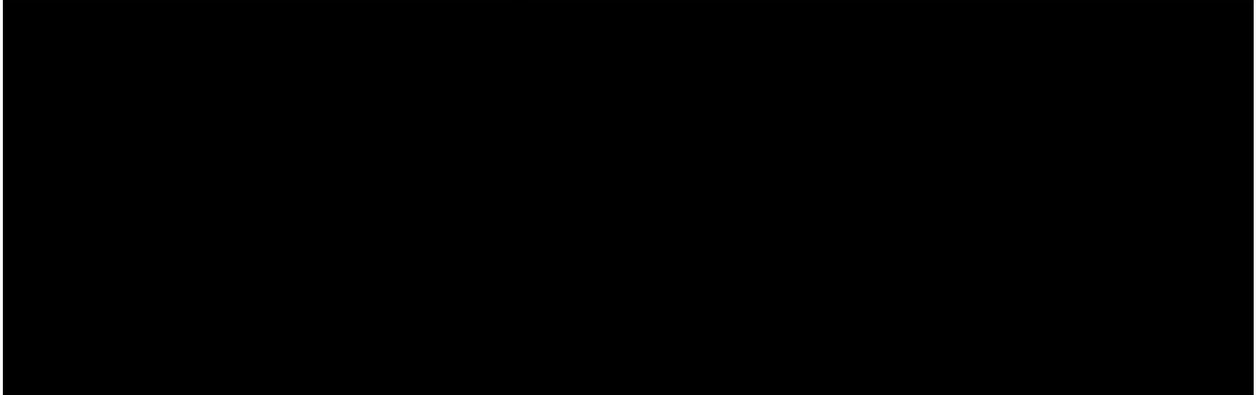
B. Overview of Sales Framework

This section provides a description of the commercial processes and activities that PG&E will pursue to manage any sales of its portfolio of physical energy, carbon free energy, RA Product, and Import Capacity Counting Rights. These processes and activities include: (1) product terms and volumes; (2) commercial processes; and (3) evaluation methodologies. PG&E will offer resource adequacy capacity from resources located in Local Reliability Areas¹ for delivery periods covering all three years in the multiyear framework adopted in Decision (D.) 19-02-022.

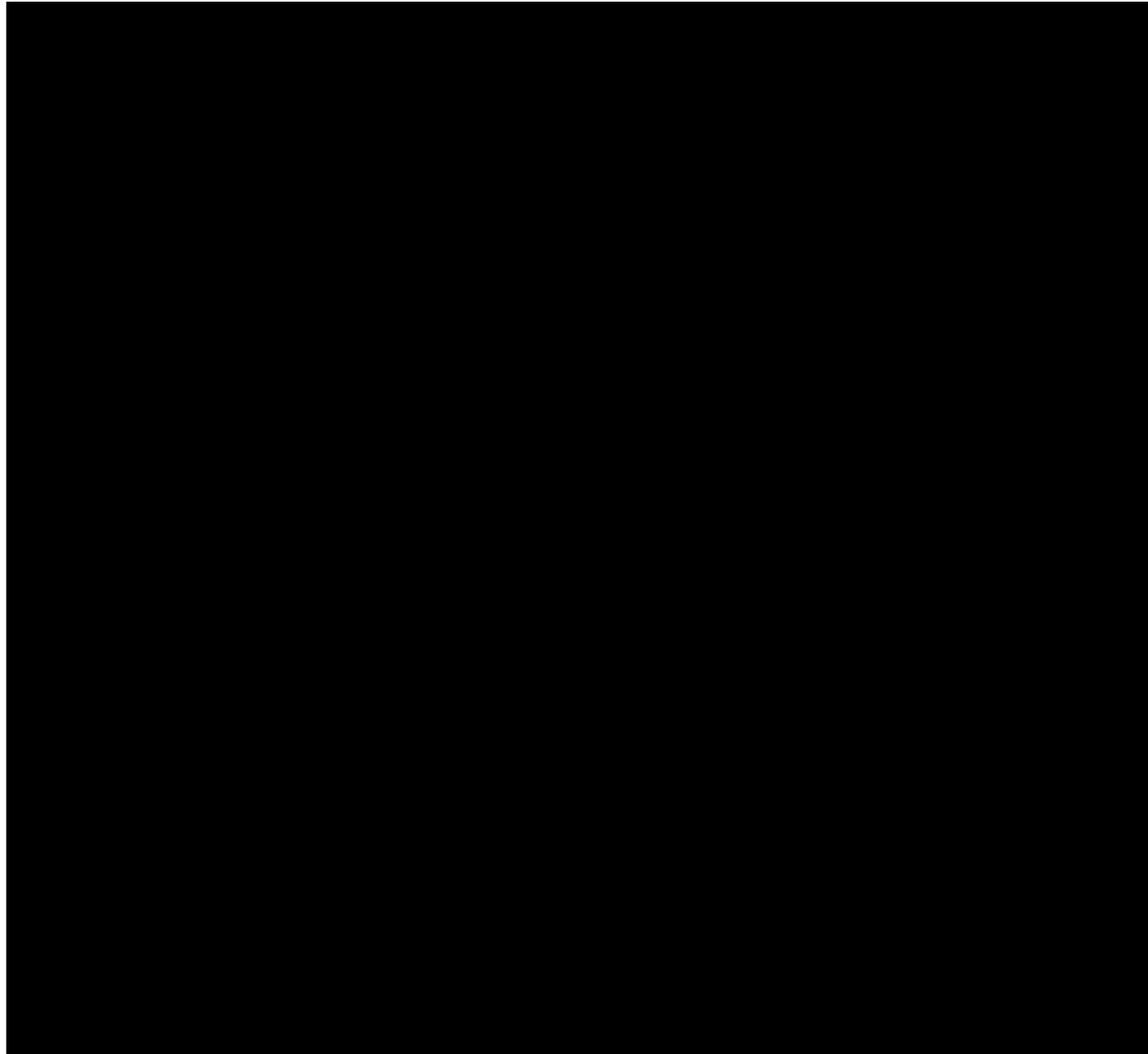
¹ Local Reliability Areas refers to Bay Area, Humboldt, North Coast / North Bay, Sierra, Stockton, Greater Fresno, and Kern local areas (or any subsequently defined Local Reliability Areas in the PG&E Transmission Access Charge area) for program year 2020 forward.



1. Physical Energy-only Sales



2. Carbon Free Energy



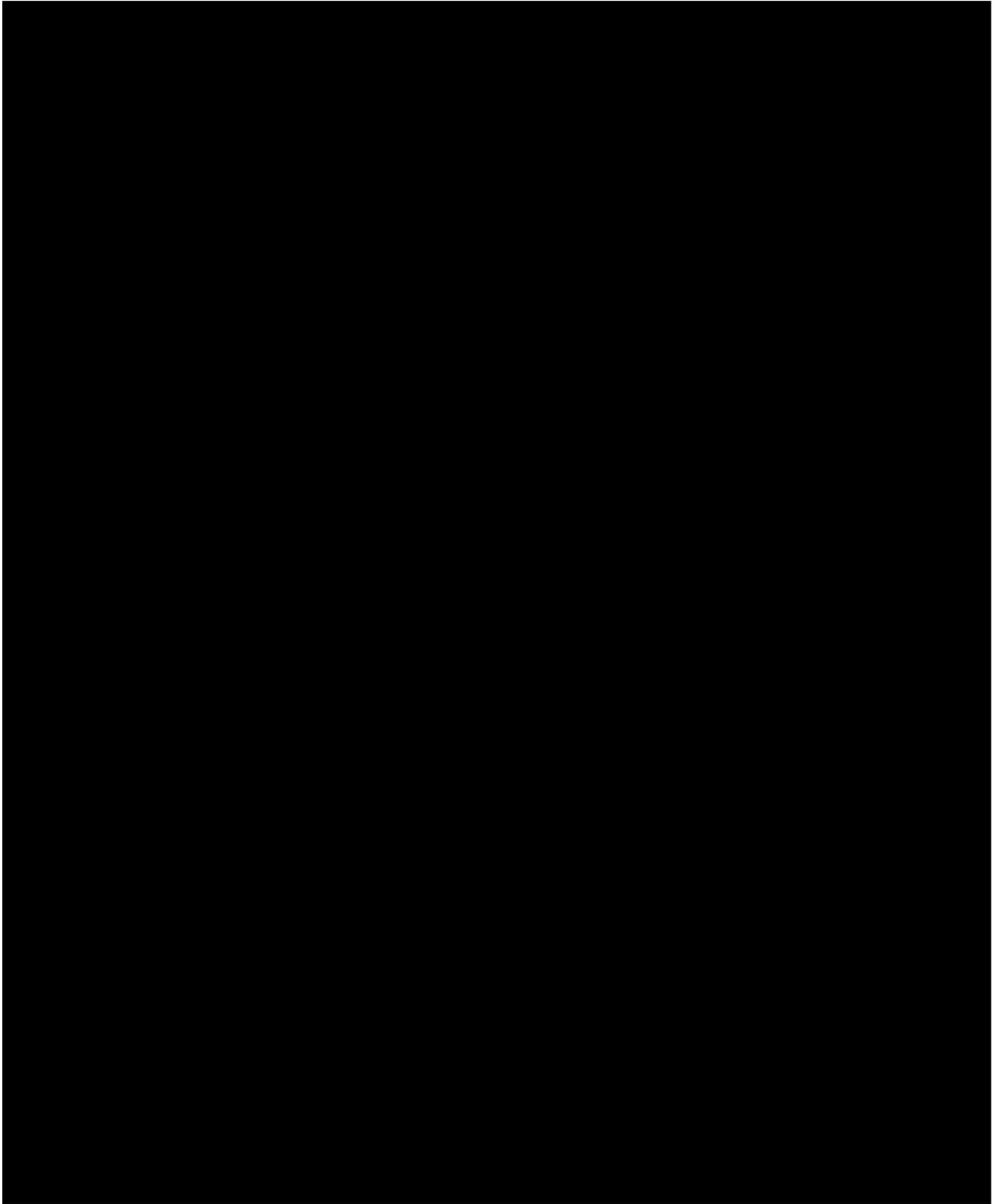
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3. RA Product and Import Capacity Counting Right



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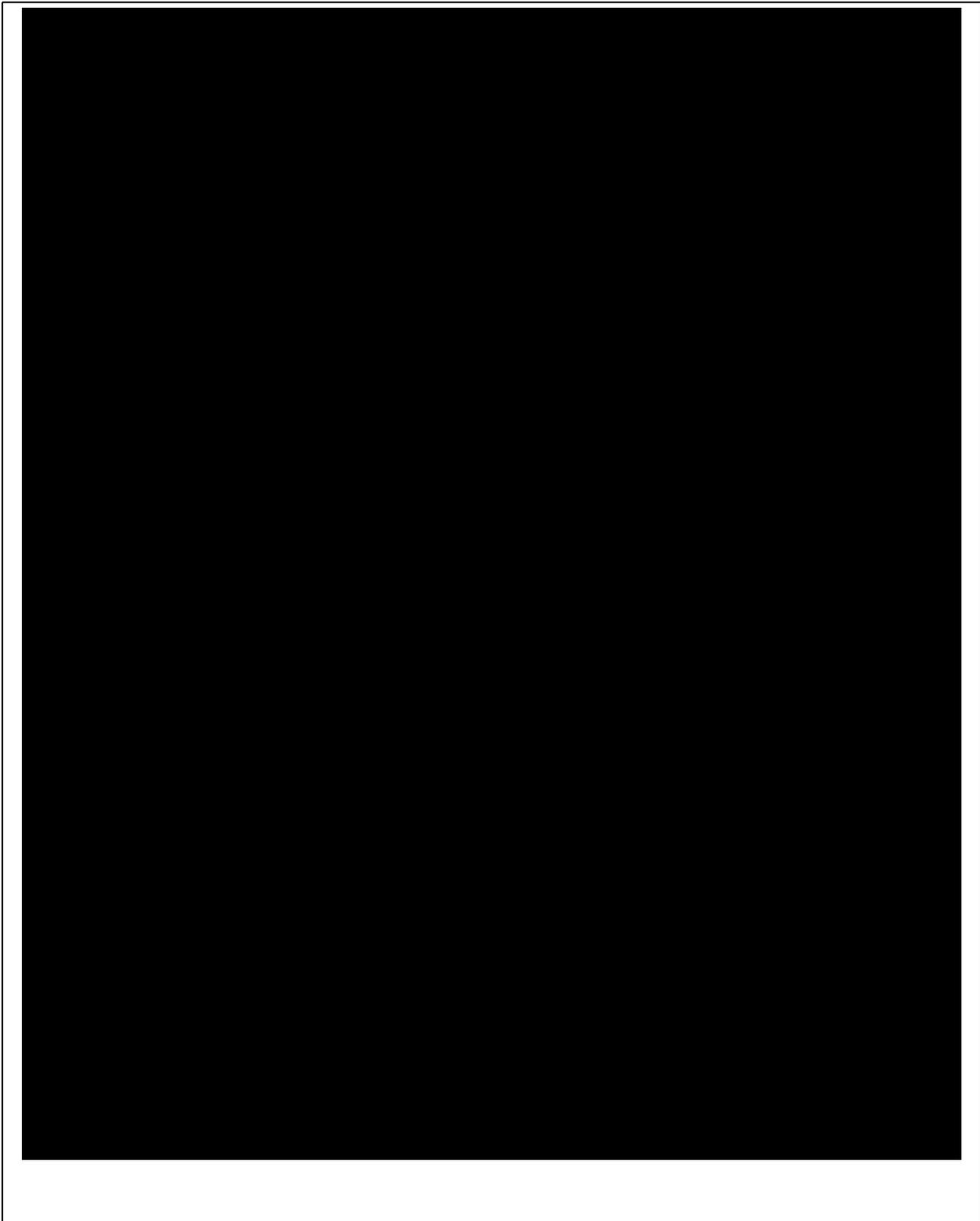
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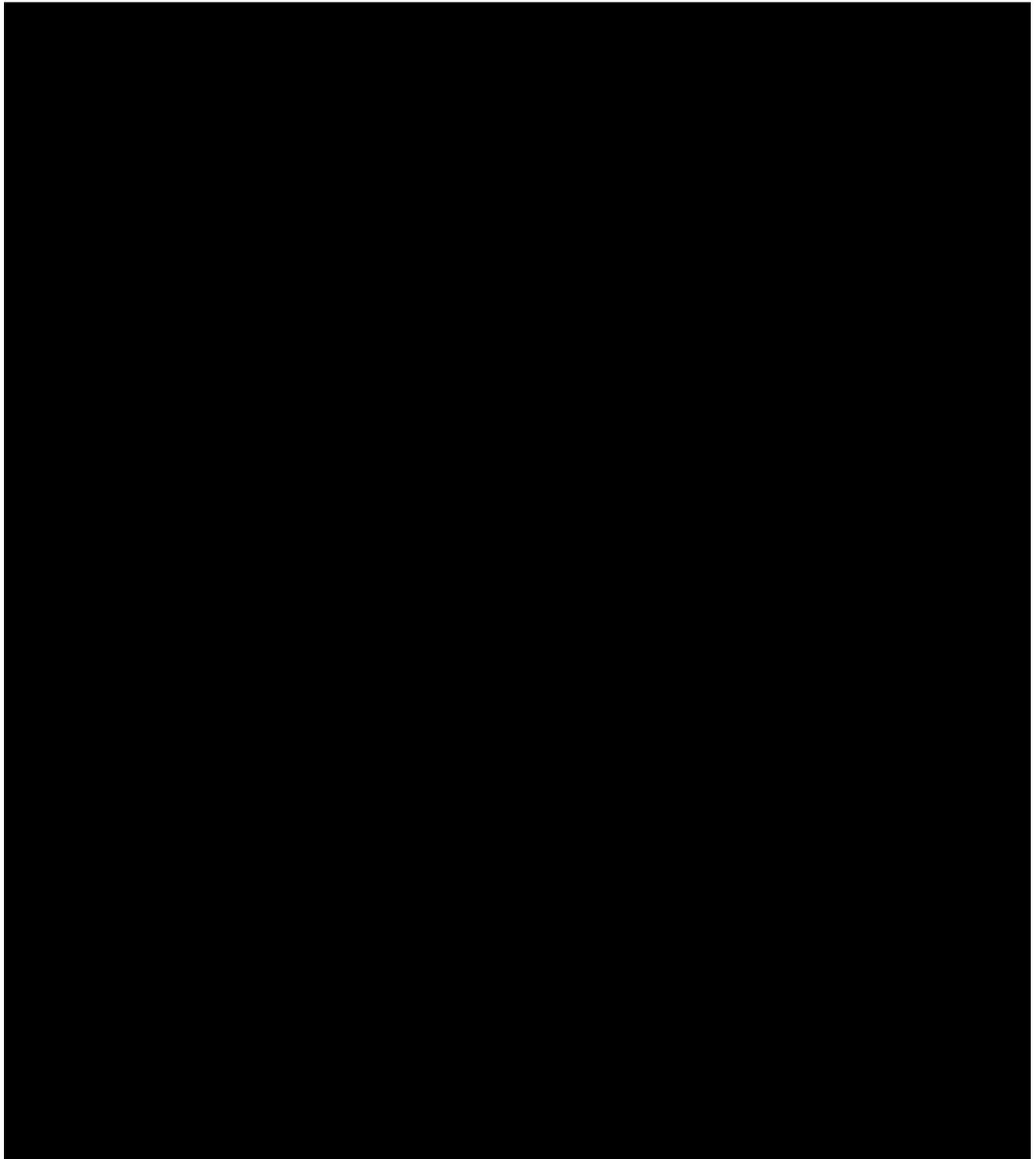
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2 [Redacted]

3 [Redacted]

4 Local Area refers to the separate Bay Area, Humboldt, North Coast / North Bay, Sierra, Stockton, Greater Fresno, and Kern local areas (or any subsequently defined Local Reliability Areas in the PG&E Transmission Access Charge area) for program year 2020 forward.

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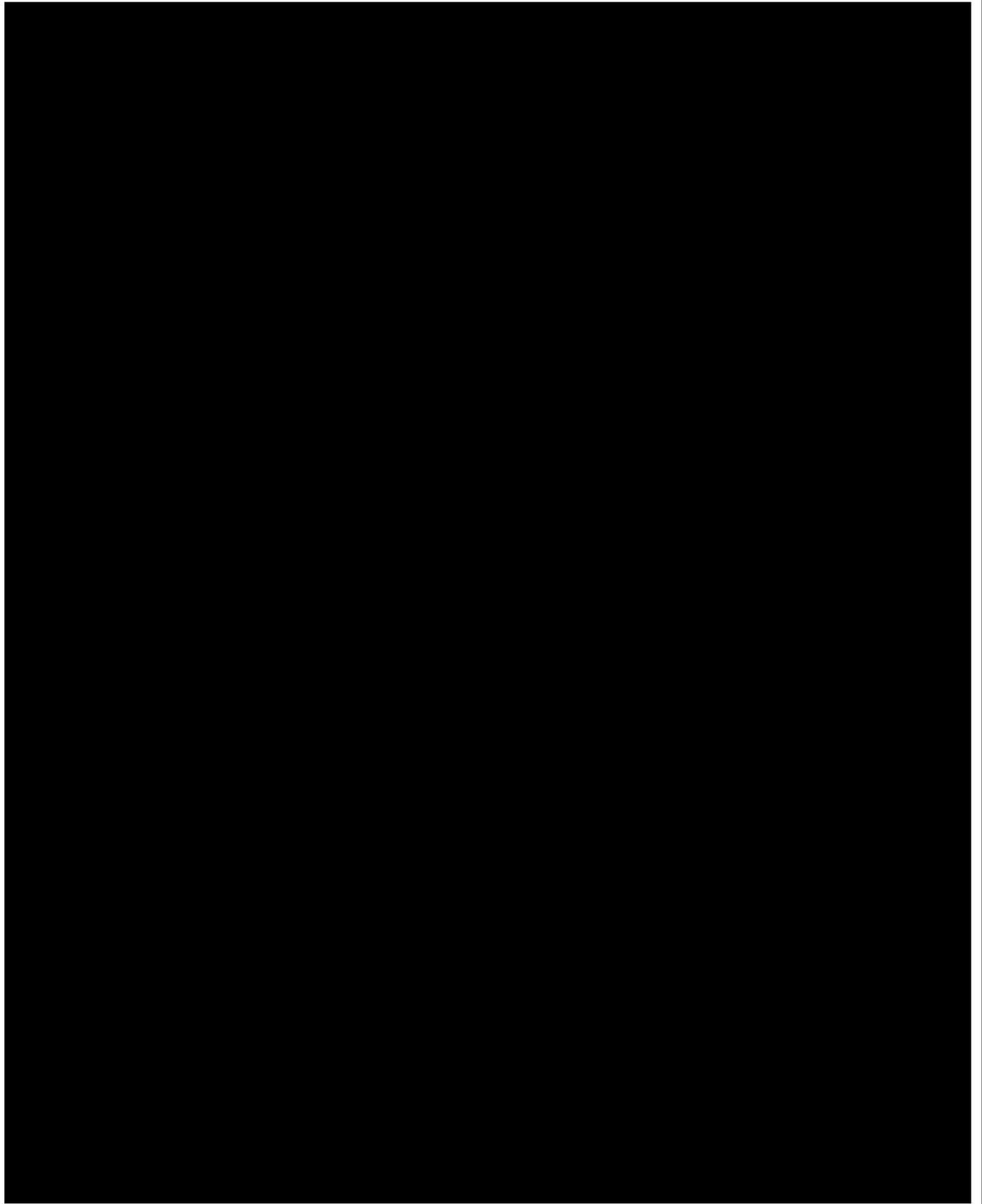
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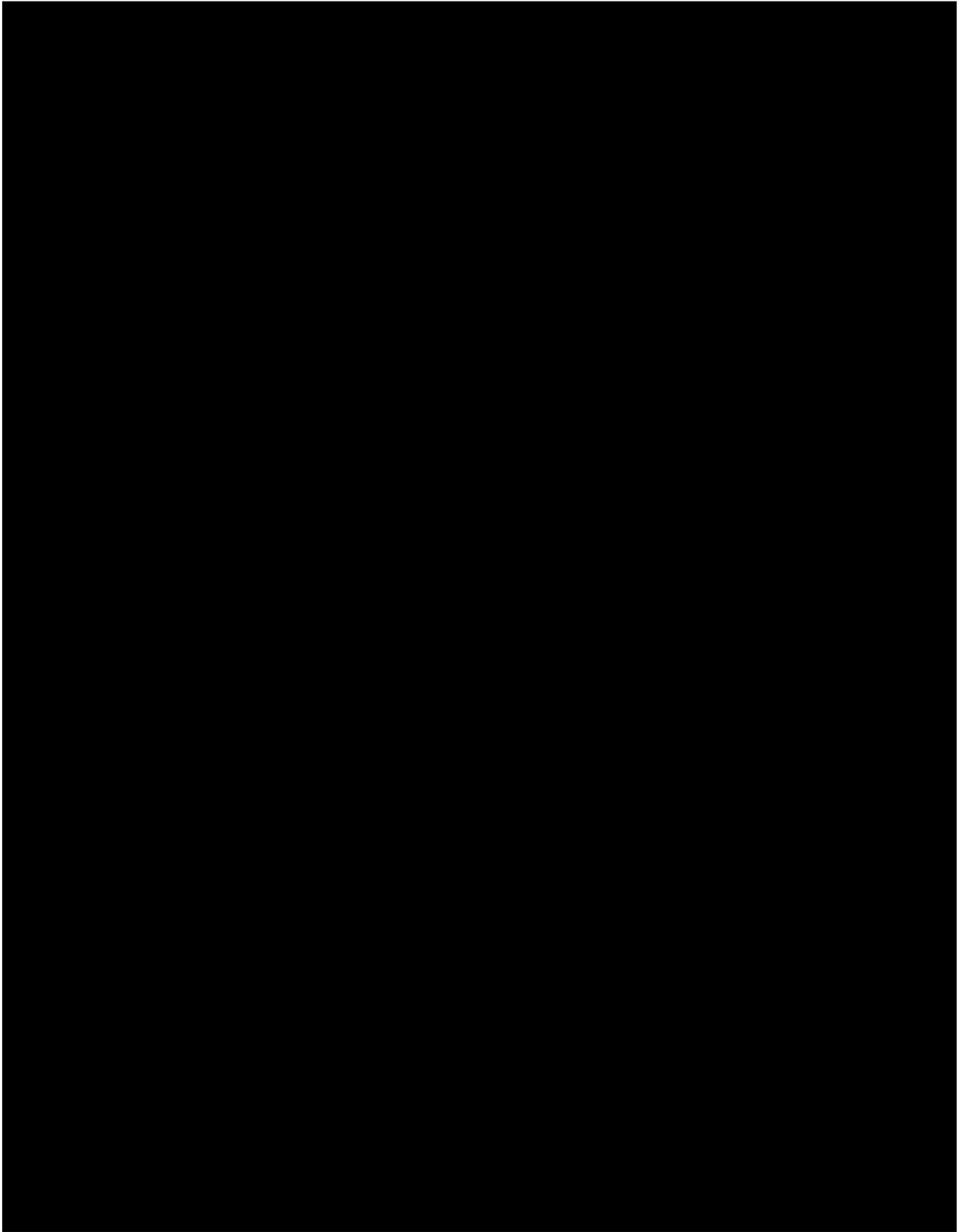
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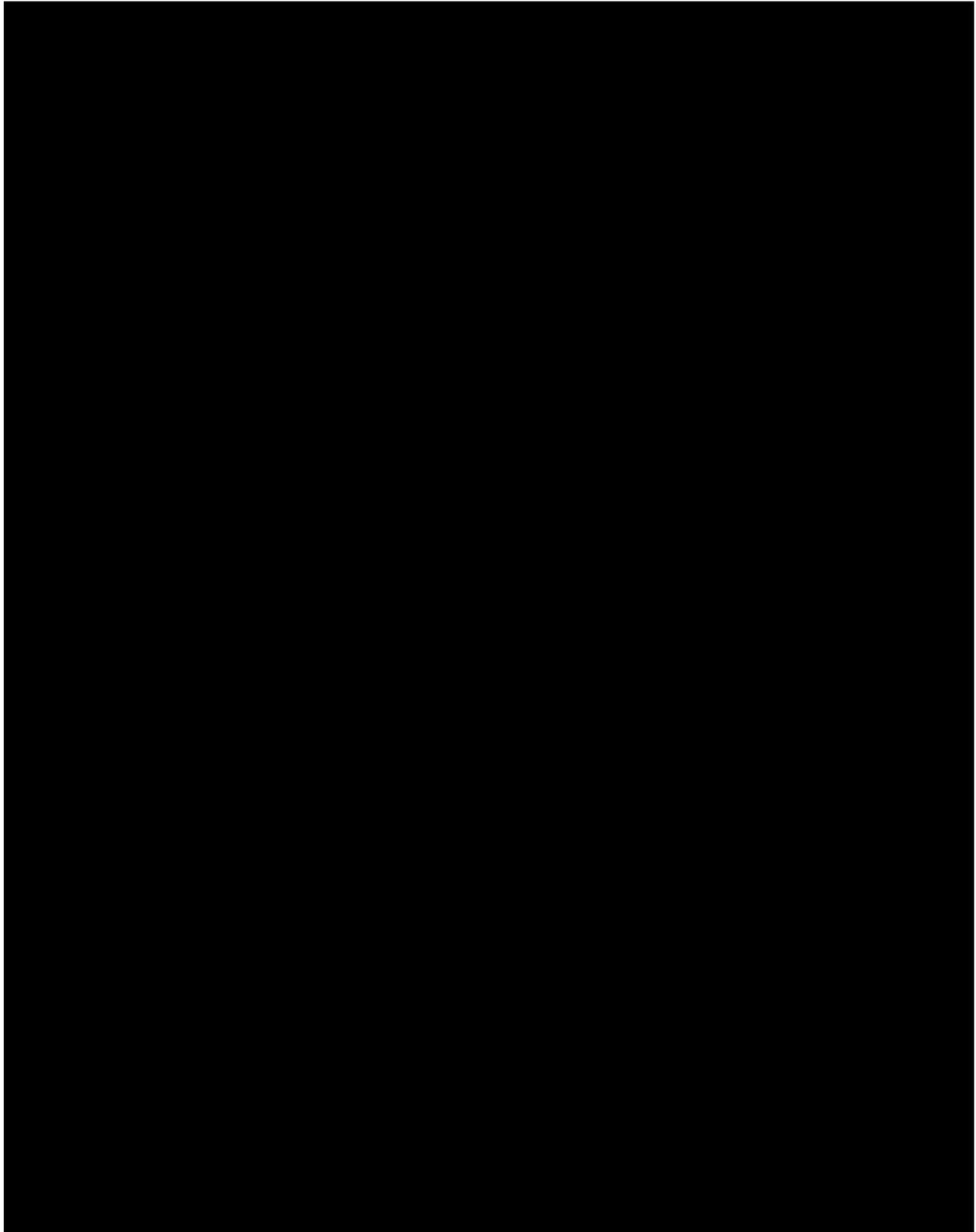
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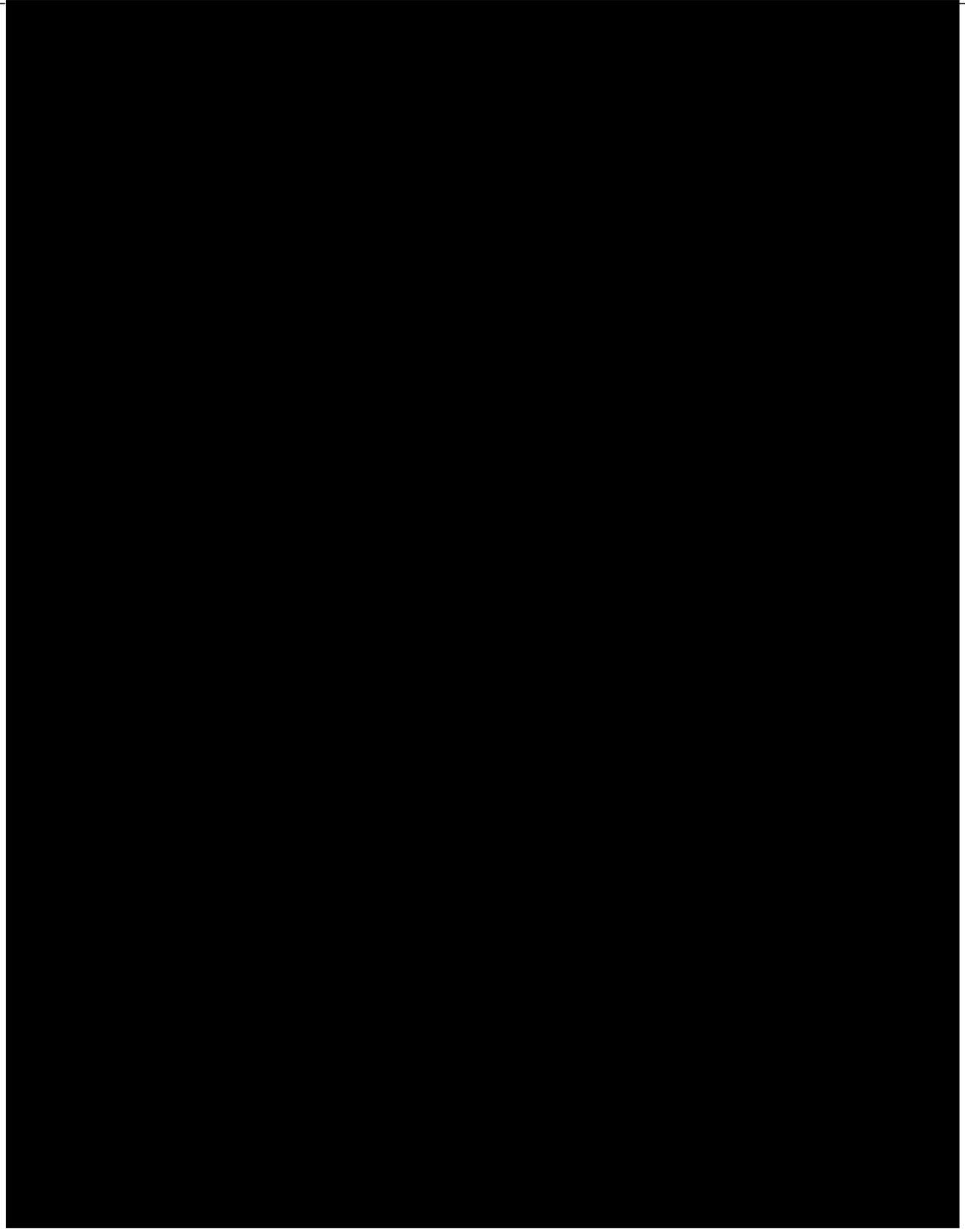
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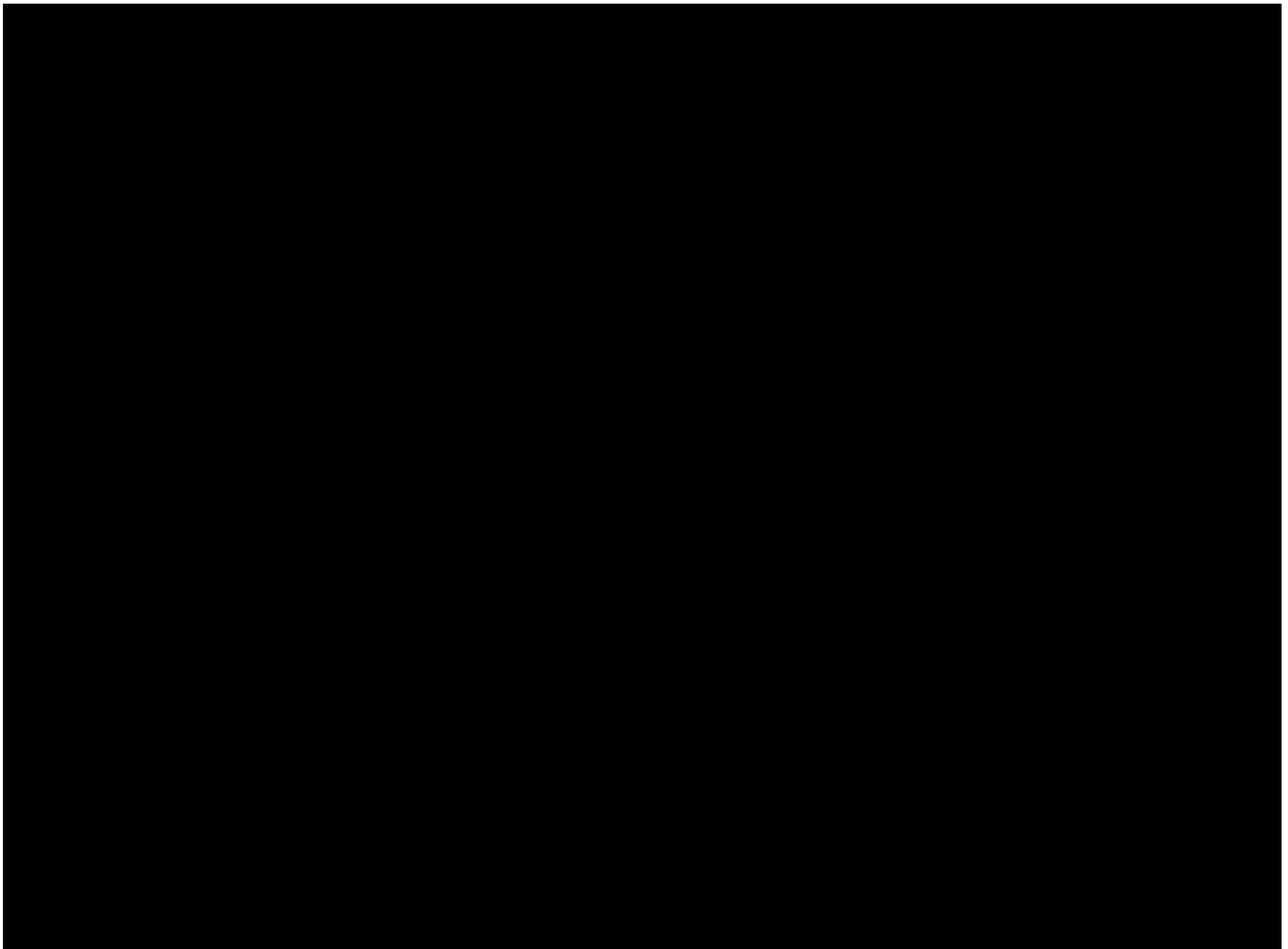
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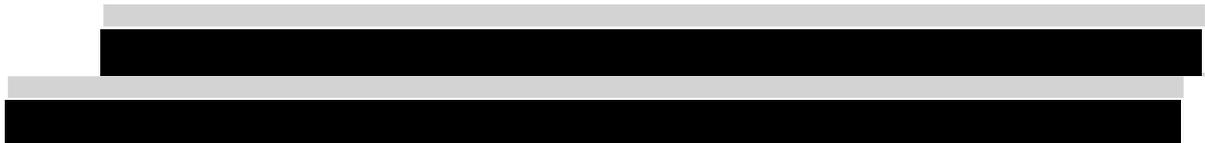
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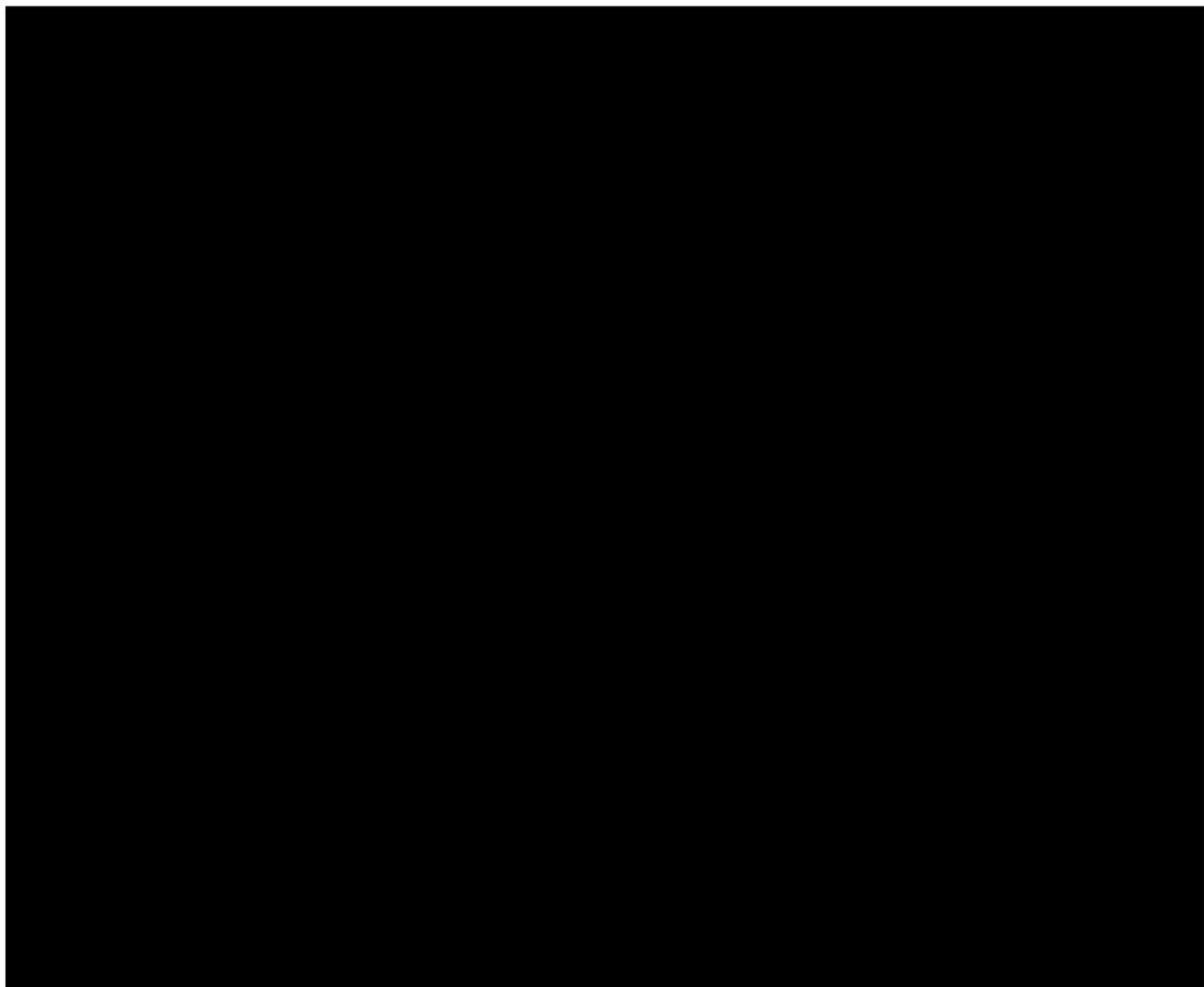


c. Contract Terms

PG&E will only sell RA products using an Edison Energy Institute (EEI) enabling agreement and a PG&E RA confirmation agreement. Sale transactions of RA products will not be facilitated through a Western Systems Power Pool (WSPP) enabling agreement. Additionally, PG&E will not post collateral or performance assurance for any RA product sales.

d. Commercial Process





The table below outlines the schedule in which PG&E solicitations will be issued. Updates to the table will be posted to PG&E's website and submitted to the CPUC via Tier 1 Advice Letter, at least annually, which will cover delivery periods for the current and upcoming calendar years.

PG&E's RA SOLICITATION SCHEDULE

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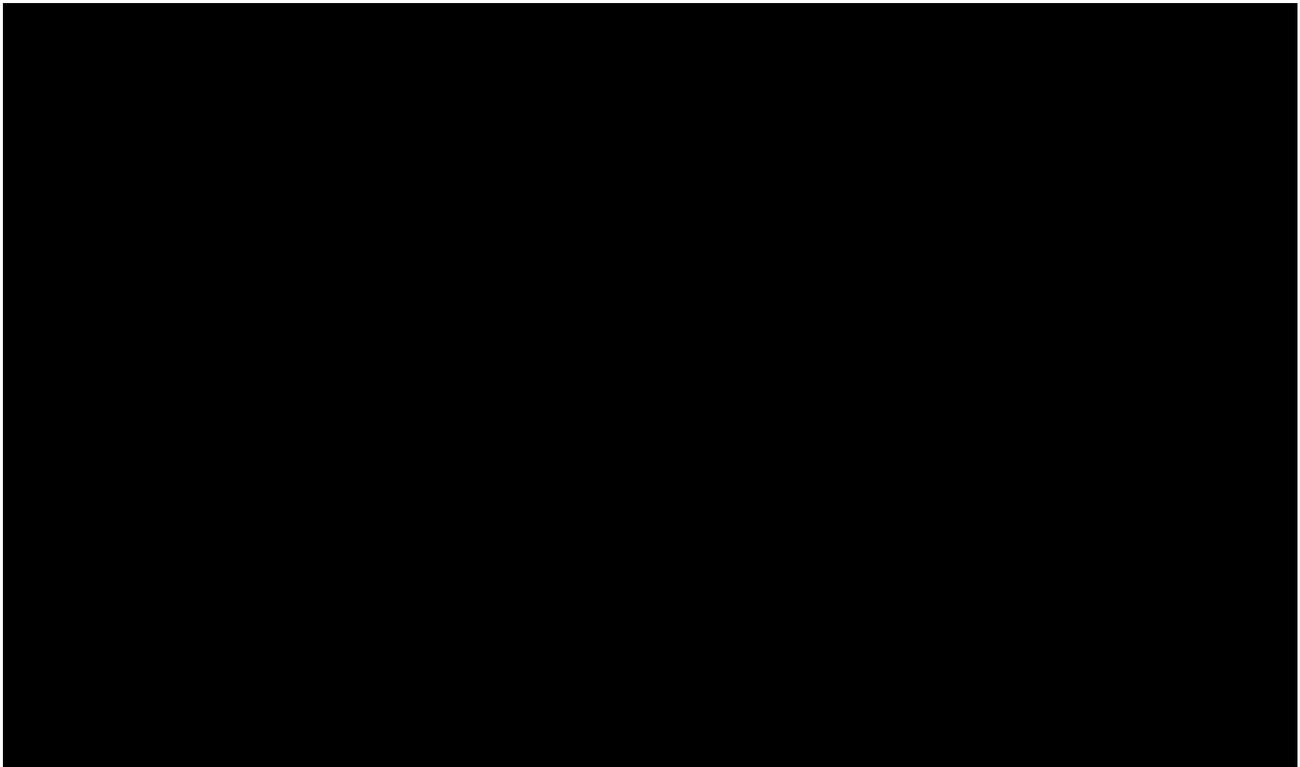


Solicitation ⁵	Delivery Term ⁶	Products	Anticipated Date
May through Balance of Year 2019	Monthly, through December 2019	System RA with/without Flex Local RA with/without Flex Import Capacity Counting Rights RA Swaps	January/February 2019
Q3 through Balance of Year 2019	Monthly, through December 2019	System RA with/without Flex Local RA with/without Flex Import Capacity Counting Rights RA Swaps	April/May 2019
Q4 through Balance of Year 2019	Monthly, through December 2019	System RA with/without Flex Local RA with/without Flex Import Capacity Counting Rights RA Swaps	July/August 2019
Annual <u>Multiyear</u> (2020 – 2022)	Annual 2020 Strips Monthly, January through December (2020 – 2022)	System RA with/without Flex Import Capacity Counting Rights Local RA with/without Flex (if and only if implementation of central buyer is deferred) RA Swaps	September/October Q3 2019 ⁷
Next Q <u>February</u> through Balance of Year 2020	Monthly, <u>February</u> through December 2020	System RA with/without Flex Import Capacity Counting Right Local RA with/without Flex (if and only if implementation of central buyer is deferred) RA Swaps	October November 2019
<u>Q2 through Balance of Year 2020</u>	<u>Monthly, through December 2020</u>	<u>System RA with/without Flex Local RA with/without Flex Import Capacity Counting Rights RA Swaps</u>	<u>January 2020</u>
<u>Q3 through Balance of Year 2020</u>	<u>Monthly, through December 2020</u>	<u>System RA with/without Flex Local RA with/without Flex Import Capacity Counting Rights RA Swaps</u>	<u>April 2020</u>

⁵ If PG&E does not have available products to sell, PG&E will not issue a solicitation.



<u>Q4 through Balance of Year 2020</u>	<u>Monthly, through December 2020</u>	<u>System RA with/without Flex</u> <u>Local RA with/without Flex</u> <u>Import Capacity Counting Rights</u> <u>RA Swaps</u>	<u>July/August 2020</u>
<u>Annual Multiyear (2021 – 2023)</u>	<u>Monthly, January through December (2021 – 2023)</u>	<u>System RA with/without Flex</u> <u>Import Capacity Counting Rights</u> <u>Local RA with/without Flex</u> <u>RA Swaps</u>	<u>Q3 2020⁸</u>
<u>February through Balance of Year 2021</u>	<u>Monthly, February through December 2021</u>	<u>System RA with/without Flex</u> <u>Import Capacity Counting Right</u> <u>Local RA with/without Flex</u> <u>RA Swaps</u>	<u>November 2020</u>



⁶ This table does not guarantee availability of product for the delivery period offered. Quantity is subject to meeting the requirements as described in this Appendix.

⁷ PG&E will issue at least one solicitation to cover the delivery term of three years under the multiyear framework.

⁸ PG&E will issue at least one solicitation to cover the delivery term of three years under the multiyear framework.

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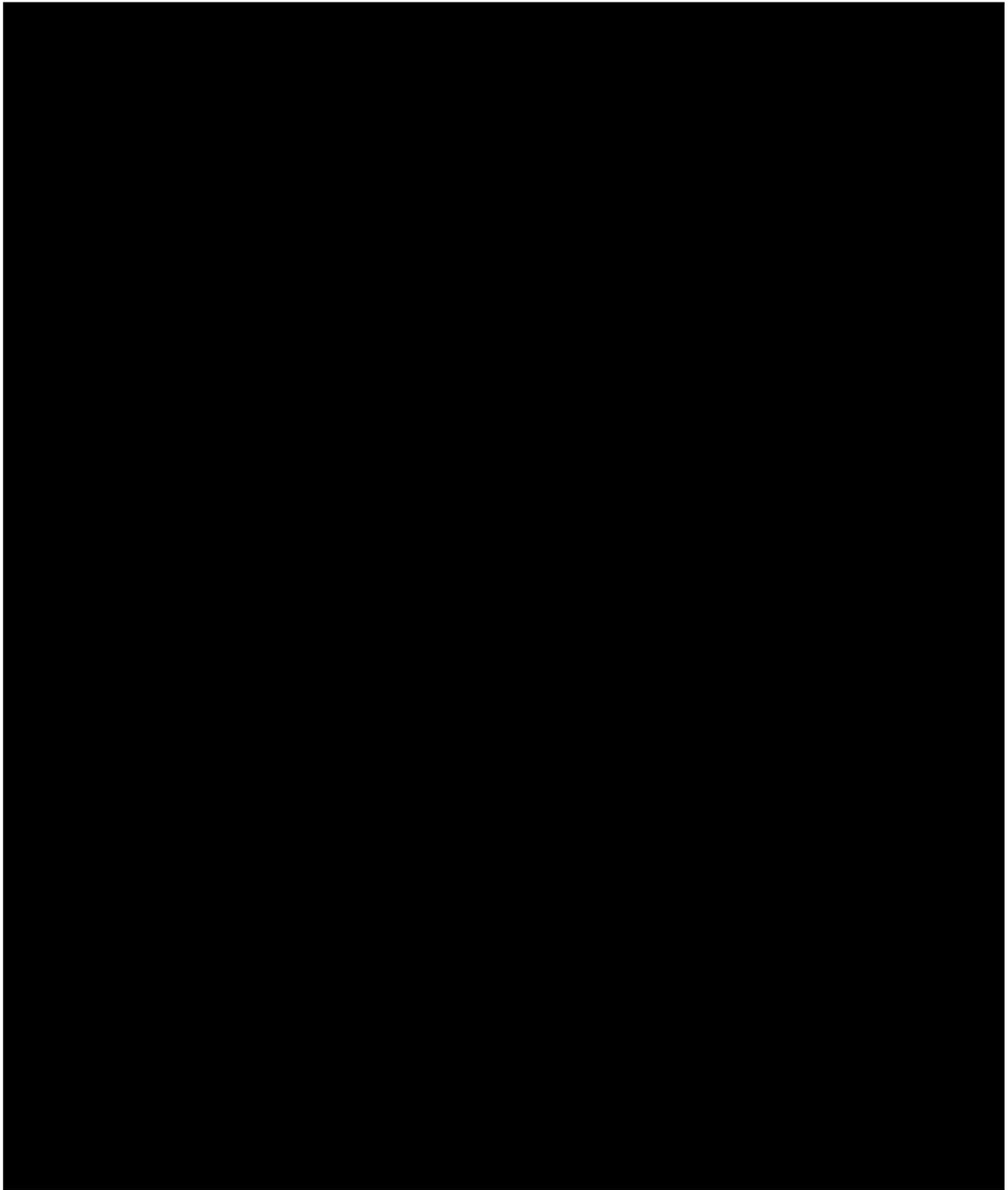
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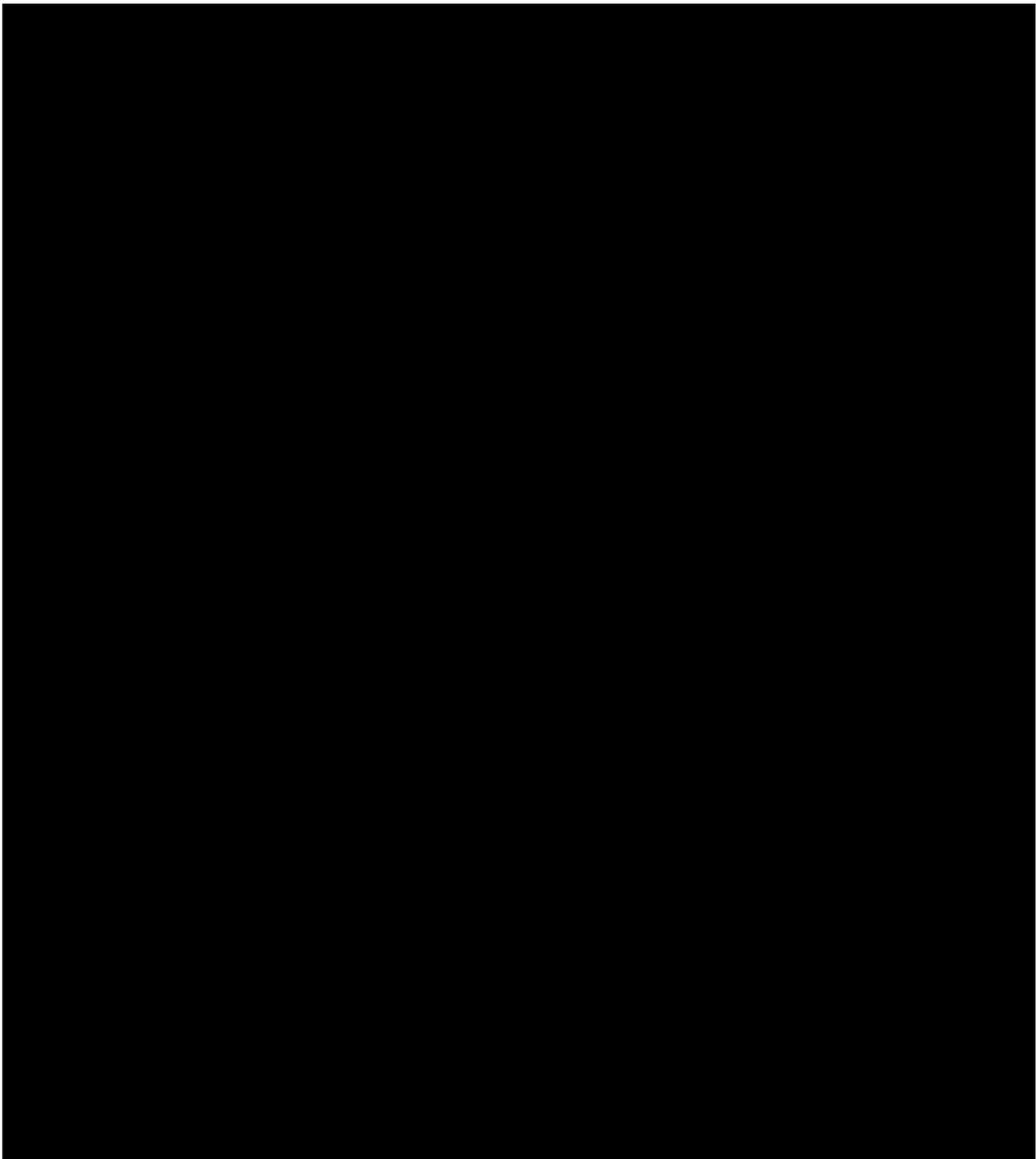
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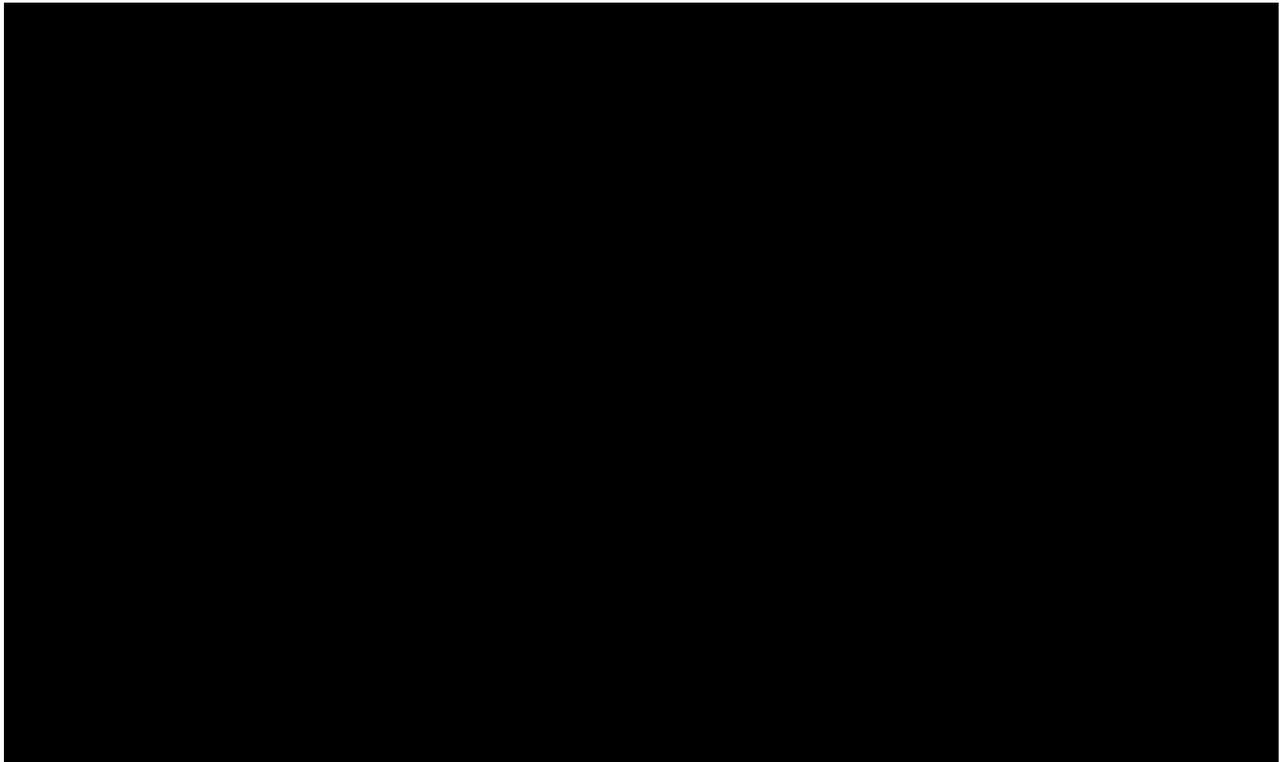
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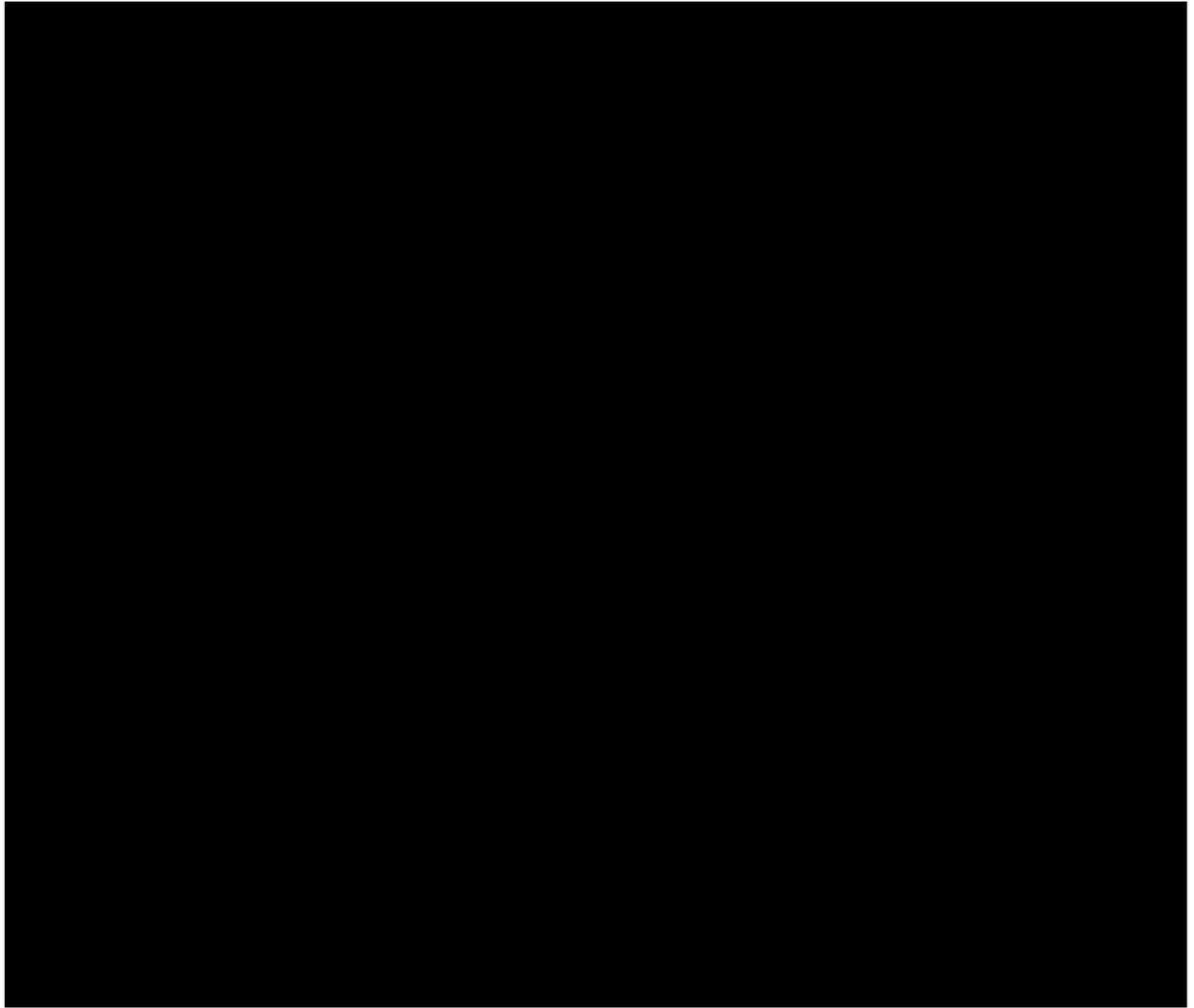
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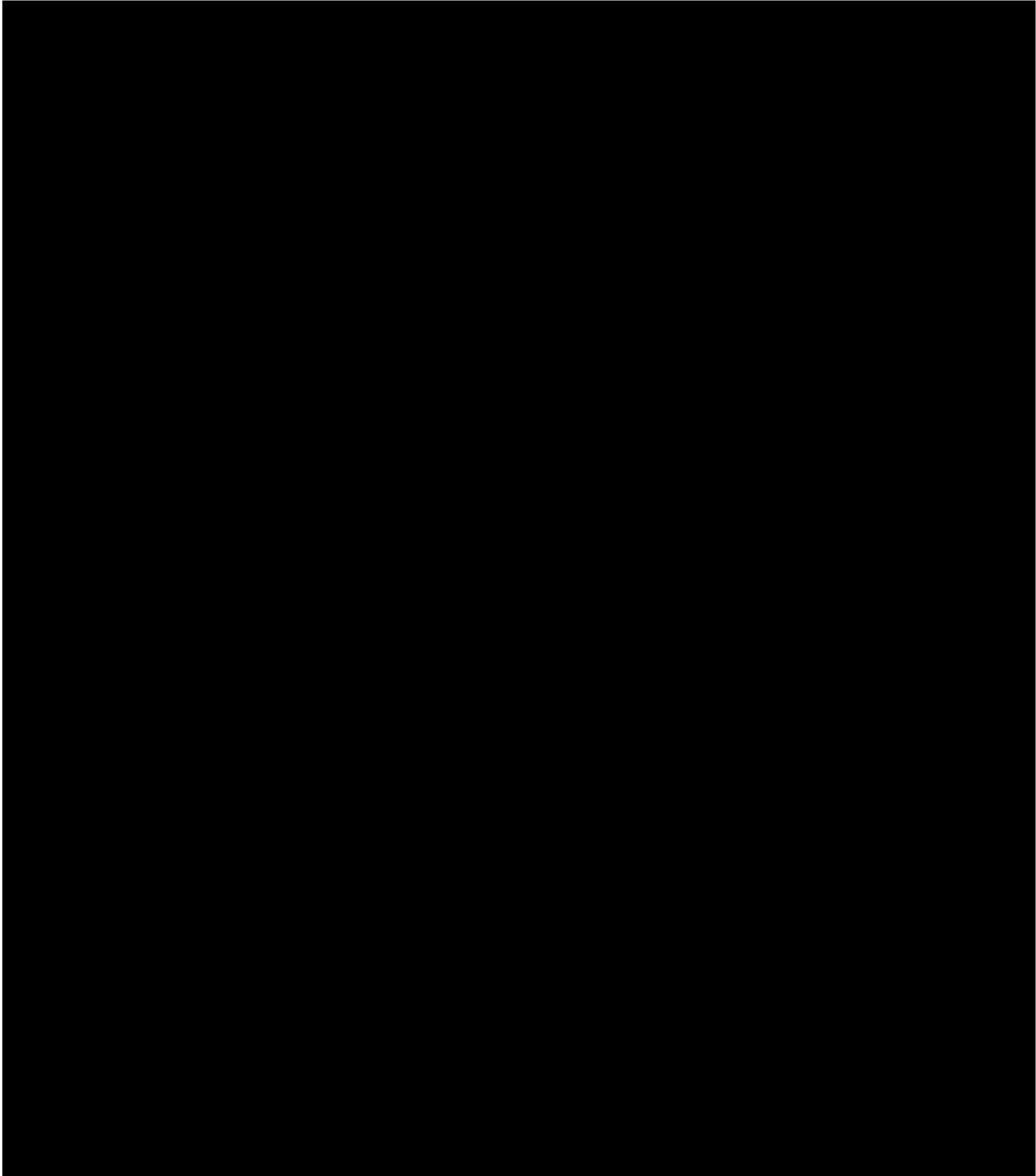
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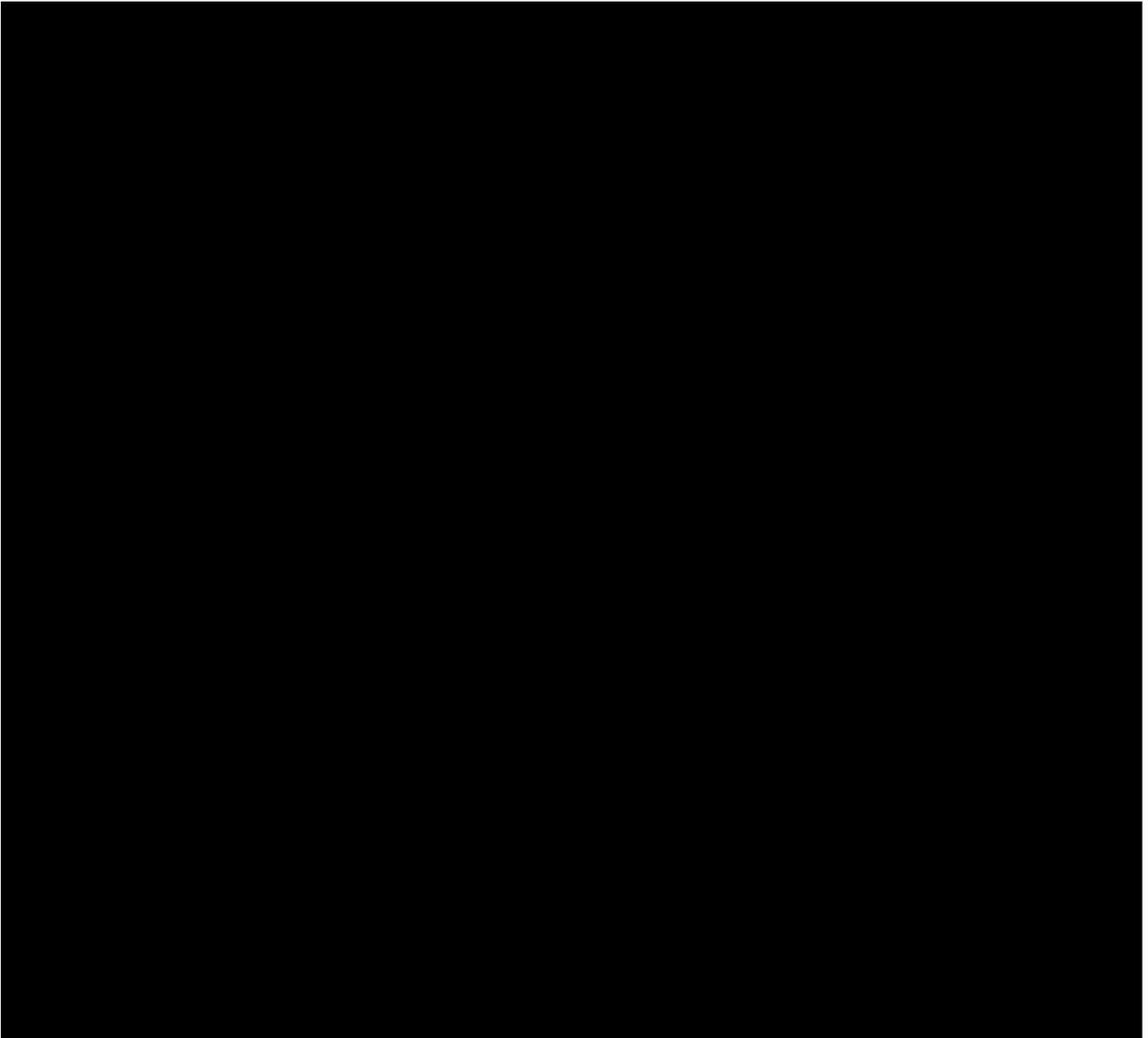
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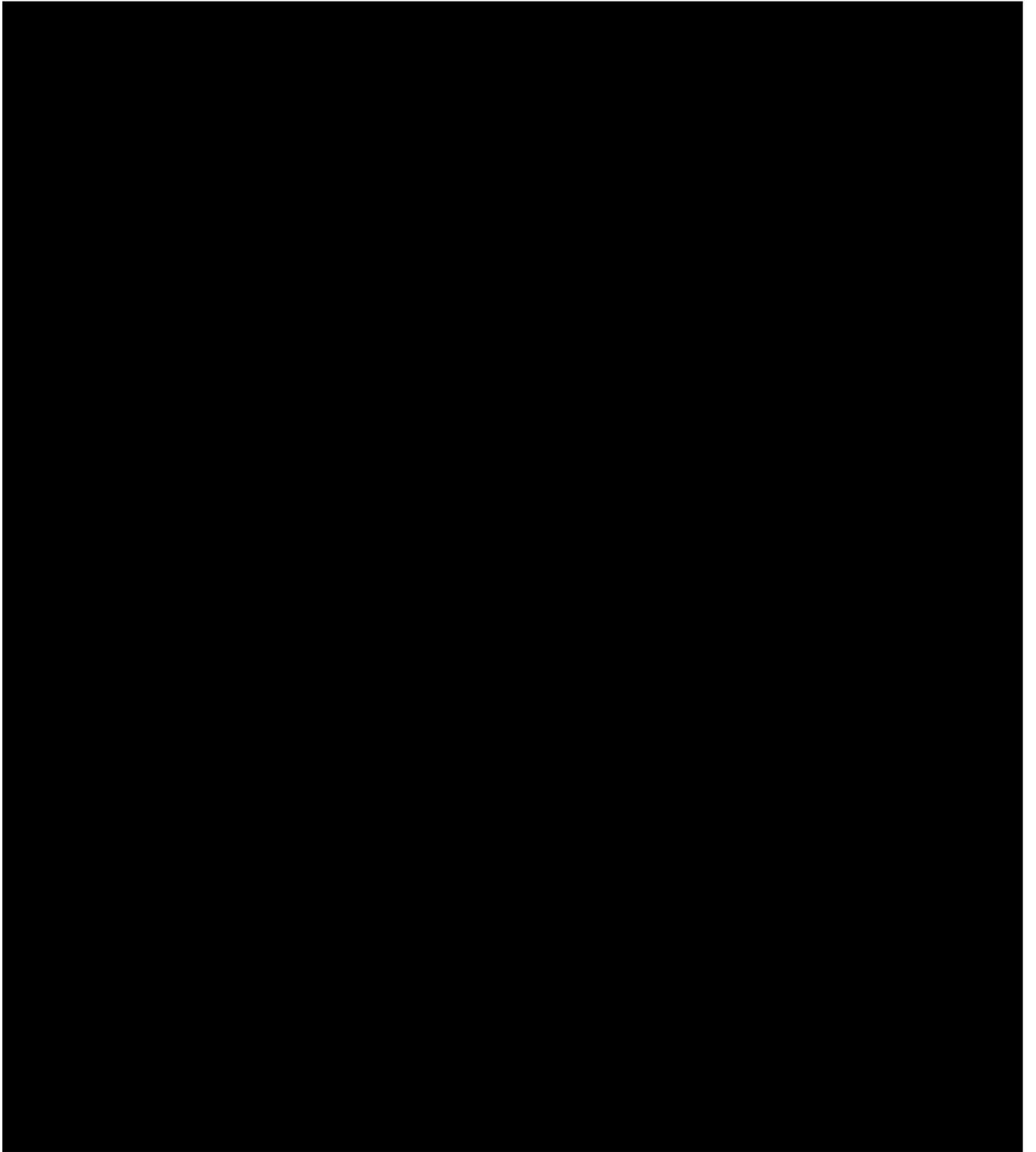
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Attachment D

**Clean Version, Appendix G and
Appendix S (Public Version)**



APPENDIX G
GREENHOUSE GAS PROCUREMENT PLAN

CONFIDENTIAL



A. Background

1. California Air Resource Board's Cap-and-Trade Regulations

Assembly Bill ("AB") 32 is California's Greenhouse Gas ("GHG") legislation that requires the reduction of statewide GHG emissions to 1990 levels by 2020. To this end, the California Air Resources Board ("CARB") proposed a statewide Cap-and-Trade regulation and other programmatic measures, including a Renewables Energy Standard, Customer Energy Efficiency, and Combined Heat and Power, to achieve these emissions reductions. The Cap-and-Trade regulation, which became effective on January 1, 2012, is intended to establish a market-based price for GHG emissions and, over time, provide market signals for efficient resource utilization and procurement activities to reduce GHG emissions.

Compliance with the emissions cap established in the CARB Cap-and-Trade regulation began in 2013 and is broken up into compliance periods. The first compliance period—for the years 2013 through 2014—began on January 1, 2013. In 2017, AB398 extended the Cap-and-Trade program to cover emissions through 2030. Covered entities include operators of any facility that annually emits at least 25,000 metric tons of carbon dioxide equivalent ("mtCO₂e").¹ Operators are required to obtain and surrender compliance instruments equivalent to the annual GHG emissions for each such facility. Importers of electricity into California are also responsible for obtaining and retiring compliance instruments for GHG emissions deemed to be associated with electricity imports for purposes of compliance with Cap-and-Trade.

¹ Units of GHG are typically measured in terms of mtCO₂e.



This plan only covers procurement activities necessary to comply with Pacific Gas and Electric Company's ("PG&E") direct obligations related to electric procurement. Additional procurement necessary to meet PG&E's compliance obligations as a natural gas supplier and the associated cost recovery is authorized through California Public Utilities Commission ("CPUC" or "Commission") Order Instituting Rulemaking ("R.") 14-03-003 or subsequent Commission proceedings.

There are two types of compliance instruments:

- i. **Allowances** are limited tradable authorizations accepted by CARB to emit up to one mtCO₂e. Allowances are year-specific and can be used for an annual compliance filing for the year it was issued or for any subsequent compliance filing. An Allowance can be bought, sold, transferred, or "banked" for use in a particular compliance period. Allowances are available via direct allocation² by CARB, auctions conducted under the auspices of CARB, and the Allowance Price Containment Reserve³ ("APCR") established by CARB. CARB auctions are held quarterly. Allowances are also available in the market.
- ii. **Offset Credits** ("Offsets") are tradable compliance instruments accepted by CARB that represent verified reductions of one mtCO₂e from projects whose emissions or avoided emissions are not from a source covered under the Cap-and-Trade Program. For compliance purposes, an Offset and an Allowance are virtually interchangeable for the year issued, however, an entity can only use Offsets to meet up to a quantitative usage limit quantity⁴ of its compliance obligation in any compliance period. In addition, CARB's Cap-and-Trade regulation allows CARB to invalidate an Offset for errors, regulatory violations or fraud. CARB has adopted specific rules for

² According to the Cap-and-Trade regulation, the Investor-Owned Utilities ("IOU") are required to consign 100 percent of their Electric Distribution Utility ("EDU") directly allocated Allowances to the auctions in the allocation year. An IOU cannot use directly allocated EDU Allowances to satisfy its compliance obligation.

³ The CARB APCR is populated with a finite quantity of Allowances available for purchase at fixed prices and only by covered entities.

⁴ Quantitative usage limit is based on and defined in the Cap-and-Trade regulation § 95854.



using Offsets for Cap-and-Trade compliance, including the types of projects that qualify and the process for Offset verification, issuance, and registration.

Allowances and Offsets may also be available from external GHG Emissions Trading Systems to which California has linked.⁵

PG&E's actual Cap-and-Trade compliance obligation for a given year is determined by the GHG emissions reported annually to CARB per the Mandatory Reporting Rule.⁶ Annual reports are due to CARB in the calendar year following the emission year for facility operators or suppliers and electric power entities.

Cap-and-Trade compliance showings are made annually and at the end of each compliance period. In order to demonstrate compliance in a given year, PG&E must surrender enough compliance instruments to cover 30 percent of its qualifying emissions by November 1 of the following calendar year ("annual surrender date"). In addition, PG&E must surrender enough compliance instruments to cover the balance of its qualifying emissions over a multi-year compliance period by November 1 of the calendar year following the end of each compliance period ("compliance period surrender date").

PG&E receives an allocation of Allowances associated with its business as an EDU directly from CARB annually; however, these Allowances cannot be used directly by PG&E to satisfy its compliance obligation.

All directly-allocated electric Allowances must be consigned by PG&E into one or more of the auctions. In each year, Allowances consigned at least 75 days prior to a

⁵ CARB's Board-approved amendments allowing for the use of compliance instruments issued by linked jurisdictions on May 10, 2013. California is currently linked with Quebec.

⁶ Regulation for the Mandatory Reporting of GHG Emissions (Division 3, Chapter 1, Subchapter 10, Article 2, Sections 95100-95133, title 17, California Code of Regulations).



quarterly auction will be offered for sale at that auction and each consigning entity agrees to accept the auction settlement price for Allowances sold at auction.

2. Greenhouse Gas Compliance Instruments and CARB Auctions

A description of the authorized GHG compliance instruments is provided in Appendix A. A description of the CARB Auction and APCR process is provided in Appendix B of the Bundled Procurement Plan (“BPP”).

B. PG&E’s Allowance Consignment

[Redacted text block]

C. PG&E’s Potential Greenhouse Gas Risks

1. Greenhouse Gas Obligations

PG&E is required by CARB’s Cap-and-Trade regulation to surrender compliance instruments for its qualifying Utility-Owned Generation (“UOG”) and imports. PG&E also has contractual obligations associated with certain tolling agreements (all obligations described in this paragraph are collectively referred as “direct” obligations).

a. Tolling & other Power Purchase Agreements (PPAs)

PG&E has contractual obligations associated with certain power purchase agreements that require it to either: (1) provide the counterparty with compliance

⁷ The quantity that PG&E will consign in each quarterly auction will be [Redacted]



instruments corresponding to the facility's operation under contract; or (2) reimburse the counterparty for the Cap-and-Trade compliance costs associated with its facility's operation under the contract ("financially settle").



2. Cap-and-Trade Penalties

PG&E could face CARB penalties for failure to surrender an adequate number of compliance instruments for which it has a compliance obligation. CARB's Cap-and-Trade rule imposes a four-time excess emissions penalty resulting from "untimely surrender" of Allowances. This penalty would be assessed by requiring that additional compliance instruments be surrendered, rather than by cash payment. In addition, if an entity fails to surrender the required compliance instruments within five days of the first auction or reserve sale conducted by CARB following the applicable surrender date, whichever is the latter, and for which the registration deadline has not passed when the untimely surrender obligation is assessed, CARB's Cap-and-Trade rule would treat each ton of GHG emissions for which a compliance instrument was not surrendered as a separate violation for each day the violation continues.

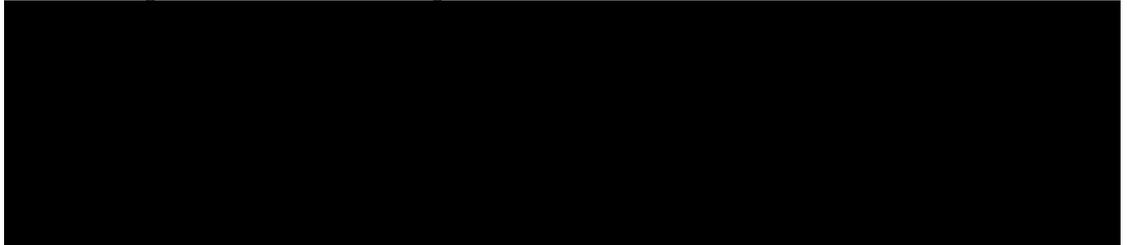
3. Offset Credits

CARB's Cap-and-Trade regulation allows CARB to invalidate an Offset for errors, regulatory violations, or fraud. In the case where an Offset is used to meet a compliance requirement and is later invalidated, the complying entity must replace the invalidated Offset with a valid compliance instrument within six months of notification by CARB of



the Offset’s invalidation or be subject to compliance penalties. To mitigate these risks, PG&E will only purchase Offsets:

- if the purchase contract requires the seller to assume the risk of invalidation;



D. PG&E’s GHG-Related Product Procurement

This GHG Procurement Plan addresses the GHG-related procurement authority necessary for PG&E to comply with the obligations associated with emissions from electricity sectors covered by Cap-and-Trade Program, namely facilities with GHG emissions greater than or equal to 25,000 mtCO₂e per year and imported electricity. As an entity that is required to comply with Cap-and-Trade, PG&E will need to procure compliance instruments to meet the compliance requirements associated with its own facilities and imports, as well as the GHG contractual obligations associated with Power Purchase Agreements with third parties that require PG&E to procure GHG compliance products or assume GHG compliance costs for such parties. Below, PG&E describes its GHG obligations and GHG procurement strategy. As noted below, Commission-approved GHG-related products (“GHG Products”), procurement processes, and GHG Procurement Limits are provided in Appendices A, B and C, respectively, of this BPP. The products, procurement processes, GHG Procurement Limits, and GHG procurement strategy establish the upfront achievable standards for PG&E’s procurement activities consistent with AB 57.



1. Greenhouse Gas Obligations

PG&E's primary need to procure GHG compliance instruments and engage in GHG transactions arises in connection with the following:

- Utility-Owned Facilities: Generation facilities owned by PG&E that are either operating or under construction and that emit at least 25,000 mtCO_{2e} per year, such as the Humboldt Generating Station, Colusa Generating Station, and Gateway Generating Station, will have a compliance obligation under Cap-and-Trade.
- Certain Power Purchase Agreements: Contracts that allocate to PG&E or where PG&E is contractually obligated to assume the GHG compliance instrument procurement responsibility.
- Electricity Imports: PG&E is responsible for GHG emissions deemed to be associated with its electricity imports for purposes of compliance with Cap-and-Trade.

2. Greenhouse Gas-Related Products

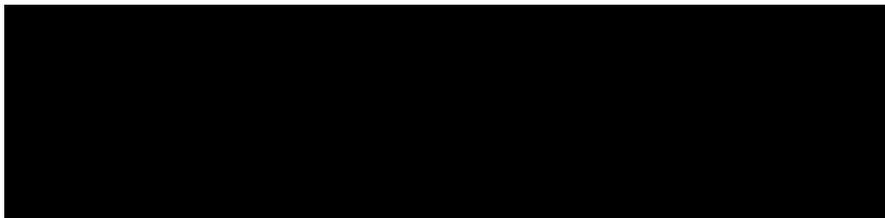
GHG Products approved by the Commission are listed in Appendix A.

3. Greenhouse Gas-Related Processes

PG&E will procure GHG Products using the procurement methods and processes in accordance with Appendix B.

4. Greenhouse Gas Procurement Strategy

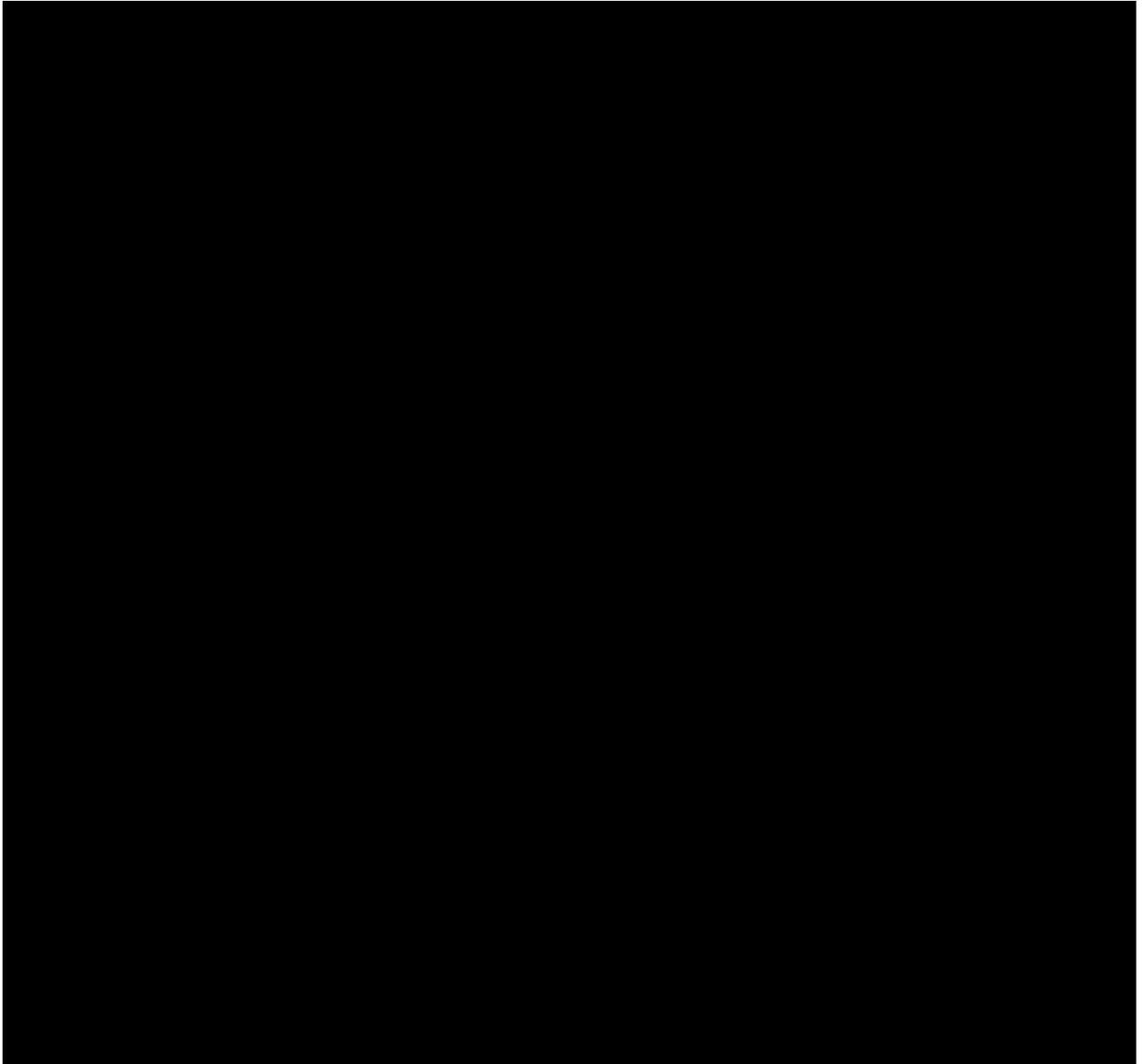
PG&E will procure sufficient GHG Products during each compliance period to meet its GHG obligations. PG&E's procurement strategy includes the following key elements:

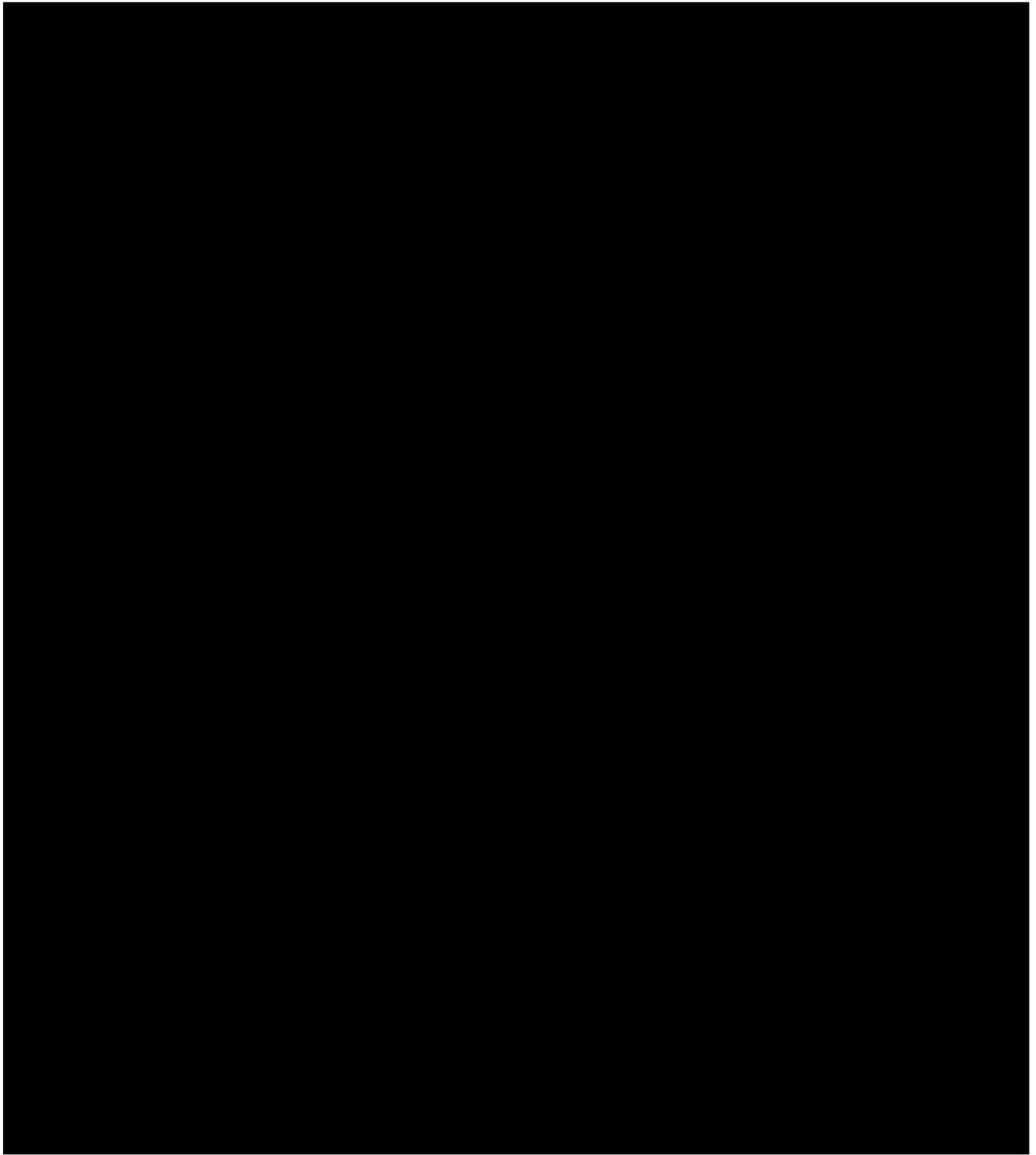




h. GHG Procurement Limits

Each of these elements is described in more detail below.







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h. GHG Procurement Limits

GHG Procurement limits are provided in Appendix C.

5. Procurement Review Group Consultation

PG&E's consultation with the PRG is addressed in Appendix M.

6. Cost Recovery

Cost recovery of GHG Products is discussed in Section IV.C of the BPP

7. Approval for Contract Term Duration

CPUC approval of transactions is discussed in Section V of the BPP



8. Independent Evaluator

Independent Evaluator requirements are discussed in Appendix M.



APPENDIX S
SALES FRAMEWORK

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A. Introduction/Background

This Appendix describes the standards and criteria for Pacific Gas and Electric Company’s (PG&E’s) management and sales of physical energy-only products, Forward Energy from non-Renewables Portfolio Standard (non-RPS) eligible hydro resources or nuclear resources (Carbon Free Energy), Resource Adequacy (RA) Products, and Import Capacity Counting Rights. Due to customer load departure, PG&E may encounter scenarios in which portfolio products exceed the requirements of the portfolio. In these situations, the Sales Framework guides actions PG&E will take. In addition, any transactions under this Sales Framework Appendix will be filed for approval through the Quarterly Compliance Reports (QCR), as required by the Bundled Procurement Plan (BPP).

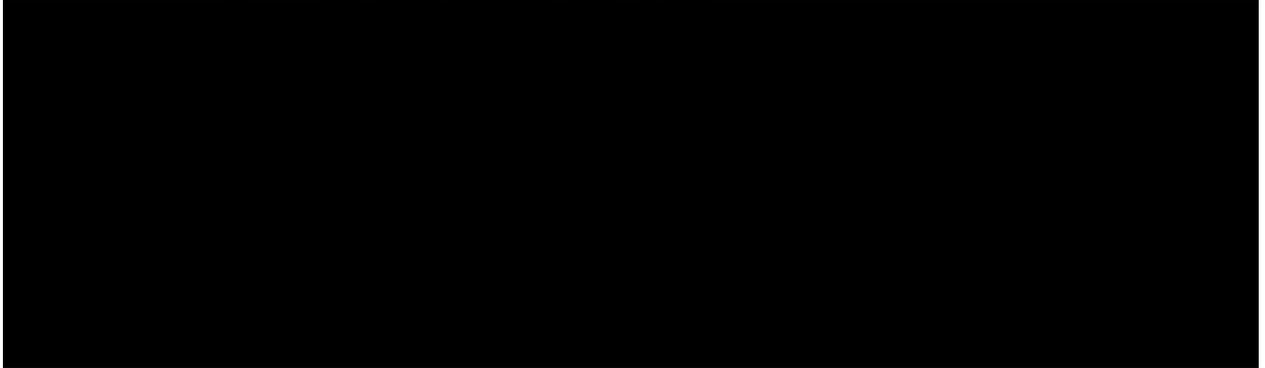
B. Overview of Sales Framework

This section provides a description of the commercial processes and activities that PG&E will pursue to manage any sales of its portfolio of physical energy, carbon free energy, RA Product, and Import Capacity Counting Rights. These processes and activities include: (1) product terms and volumes; (2) commercial processes; and (3) evaluation methodologies. PG&E will offer resource adequacy capacity from resources located in Local Reliability Areas¹ for delivery periods covering all three years in the multiyear framework adopted in Decision (D.) 19-02-022.

¹ Local Reliability Areas refers to Bay Area, Humboldt, North Coast / North Bay, Sierra, Stockton, Greater Fresno, and Kern local areas (or any subsequently defined Local Reliability Areas in the PG&E Transmission Access Charge area) for program year 2020 forward.



1. Physical Energy-only Sales



2. Carbon Free Energy



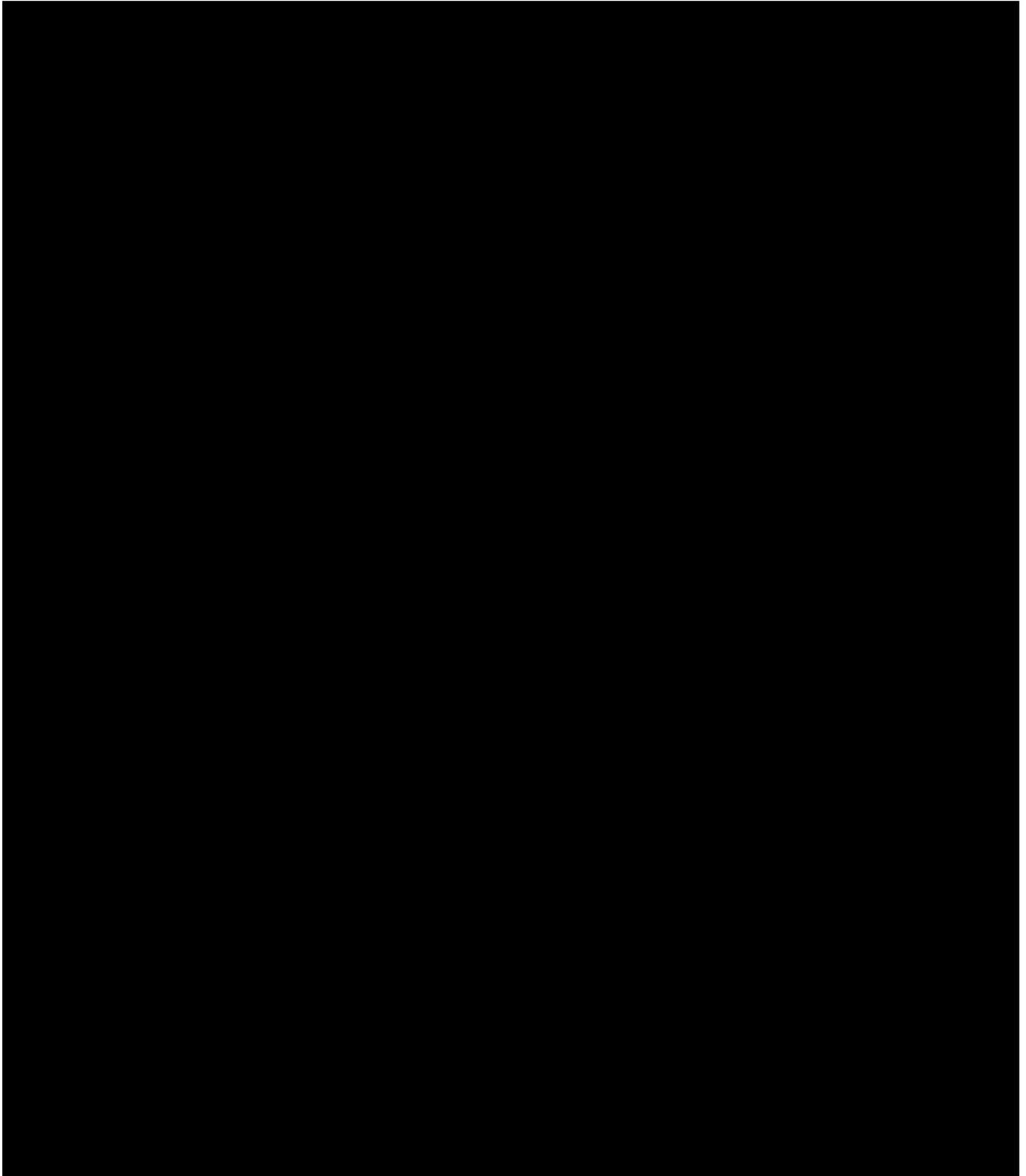
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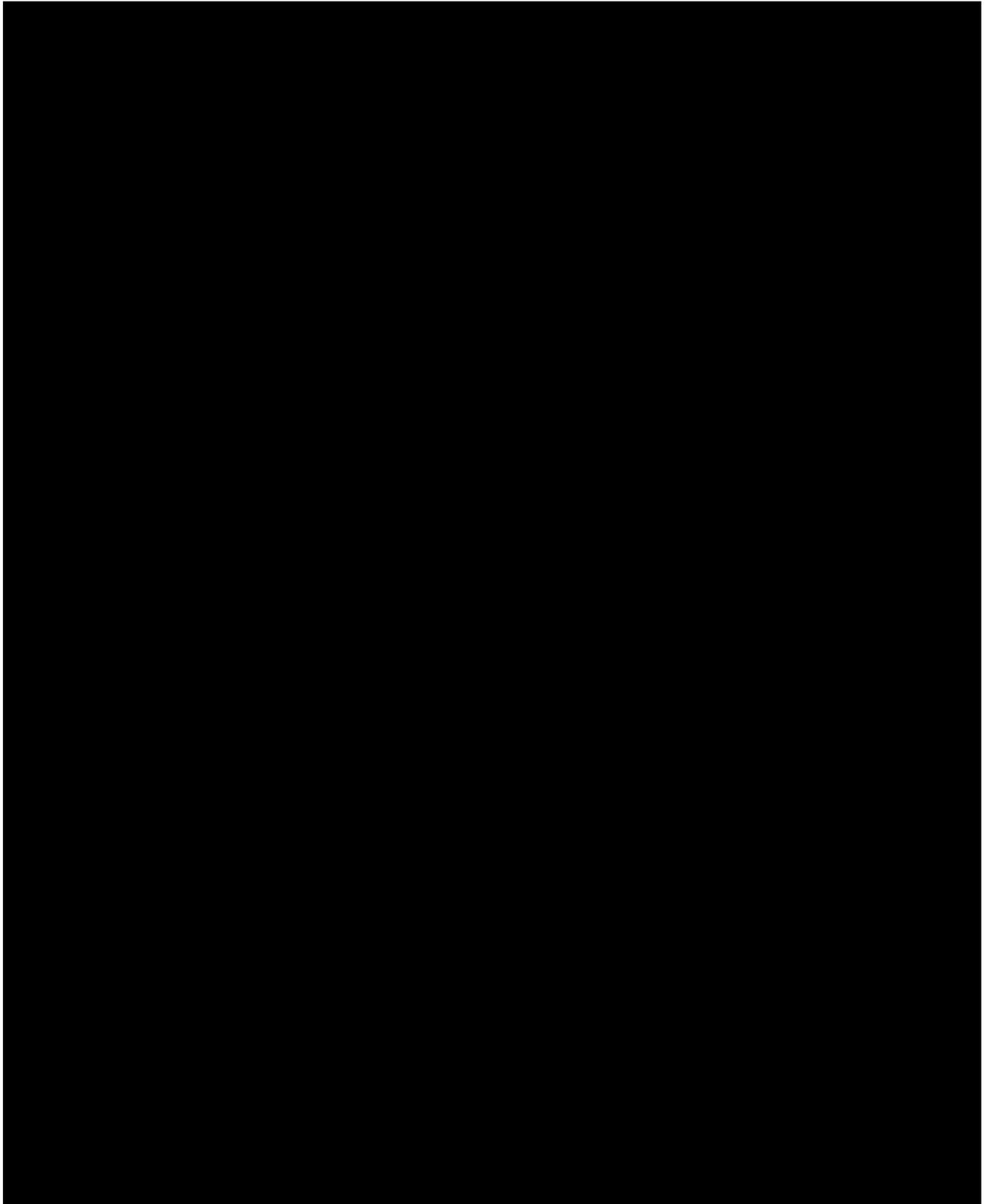
3. RA Product and Import Capacity Counting Right



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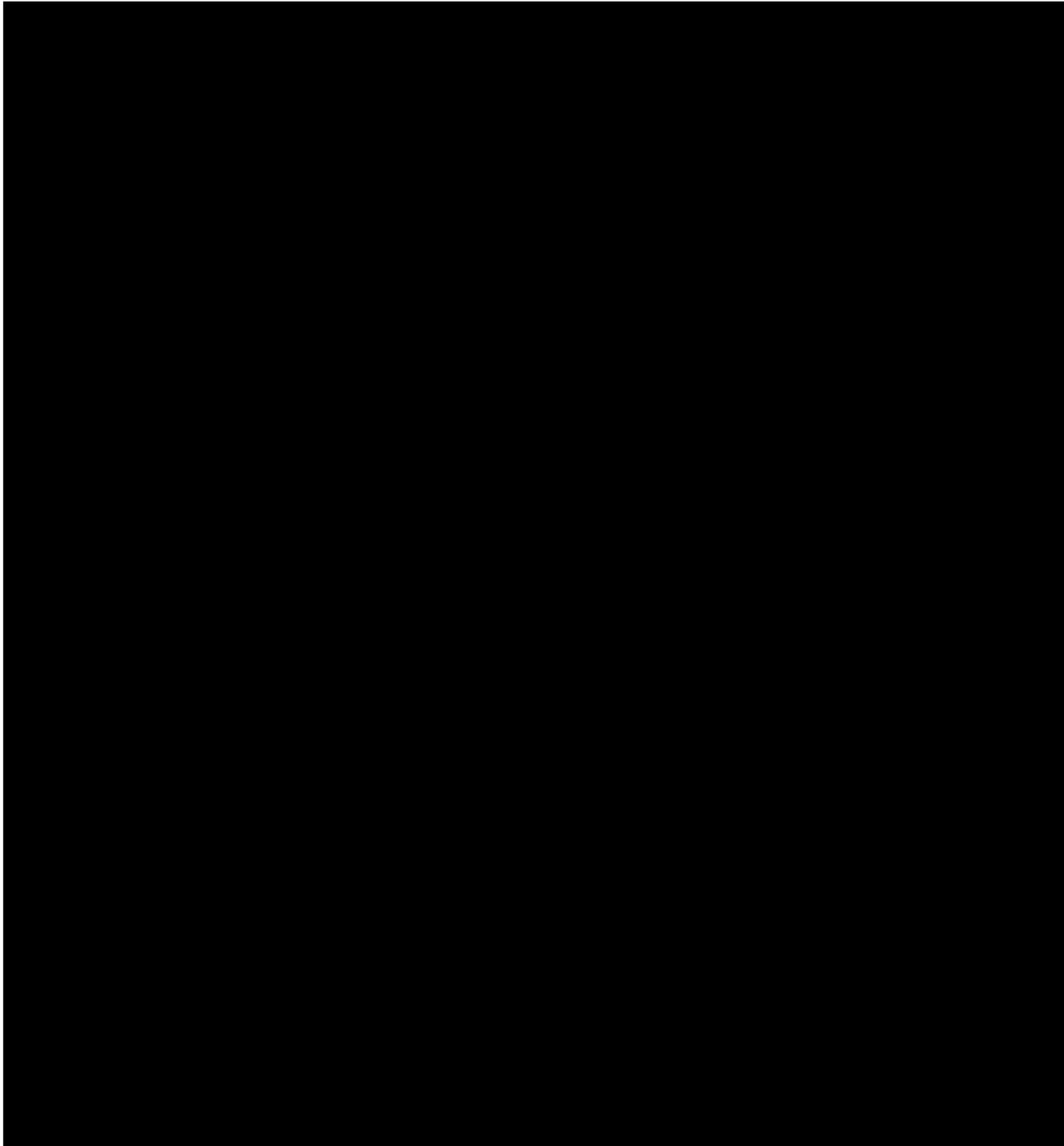
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⁴ Local Area refers to the separate Bay Area, Humboldt, North Coast / North Bay, Sierra, Stockton, Greater Fresno, and Kern local areas (or any subsequently defined Local Reliability Areas in the PG&E Transmission Access Charge area) for program year 2020 forward.

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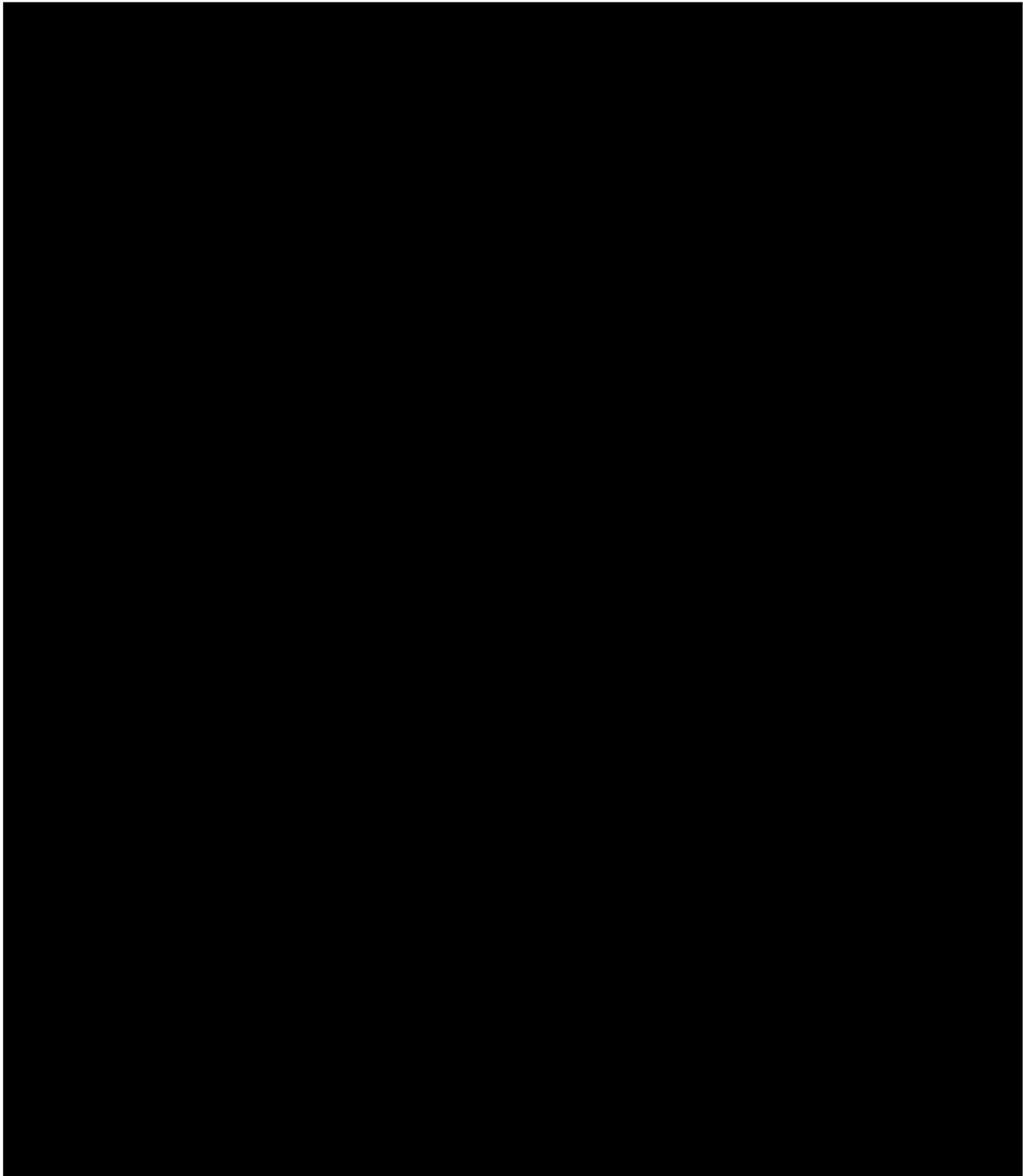
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Pacific Gas and Electric Company
San Francisco, California

Cal. P.U.C. Sheet No.
Pacific Gas and Electric Company
2014 Bundled Procurement Plan



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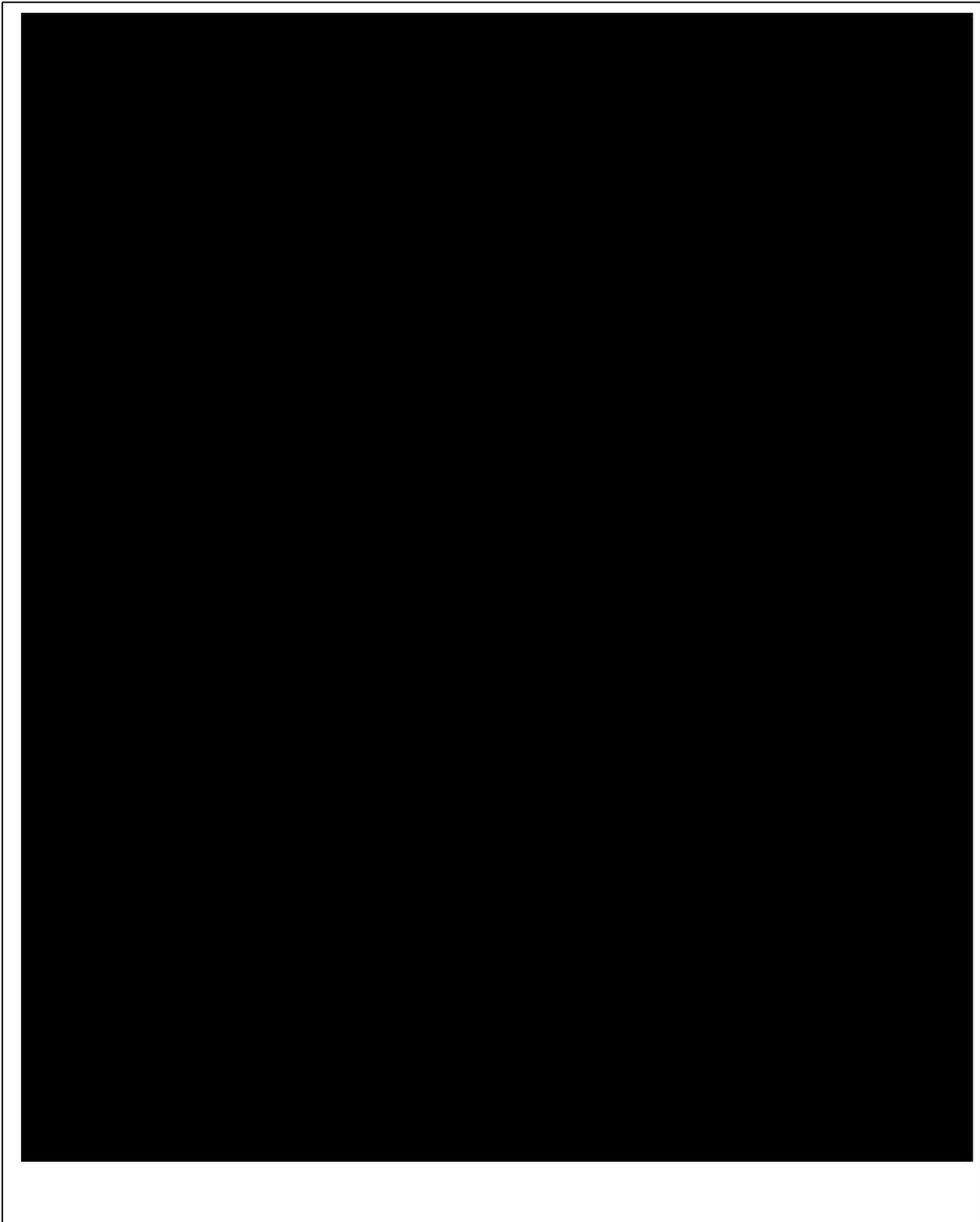
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Pacific Gas and Electric Company
San Francisco, California

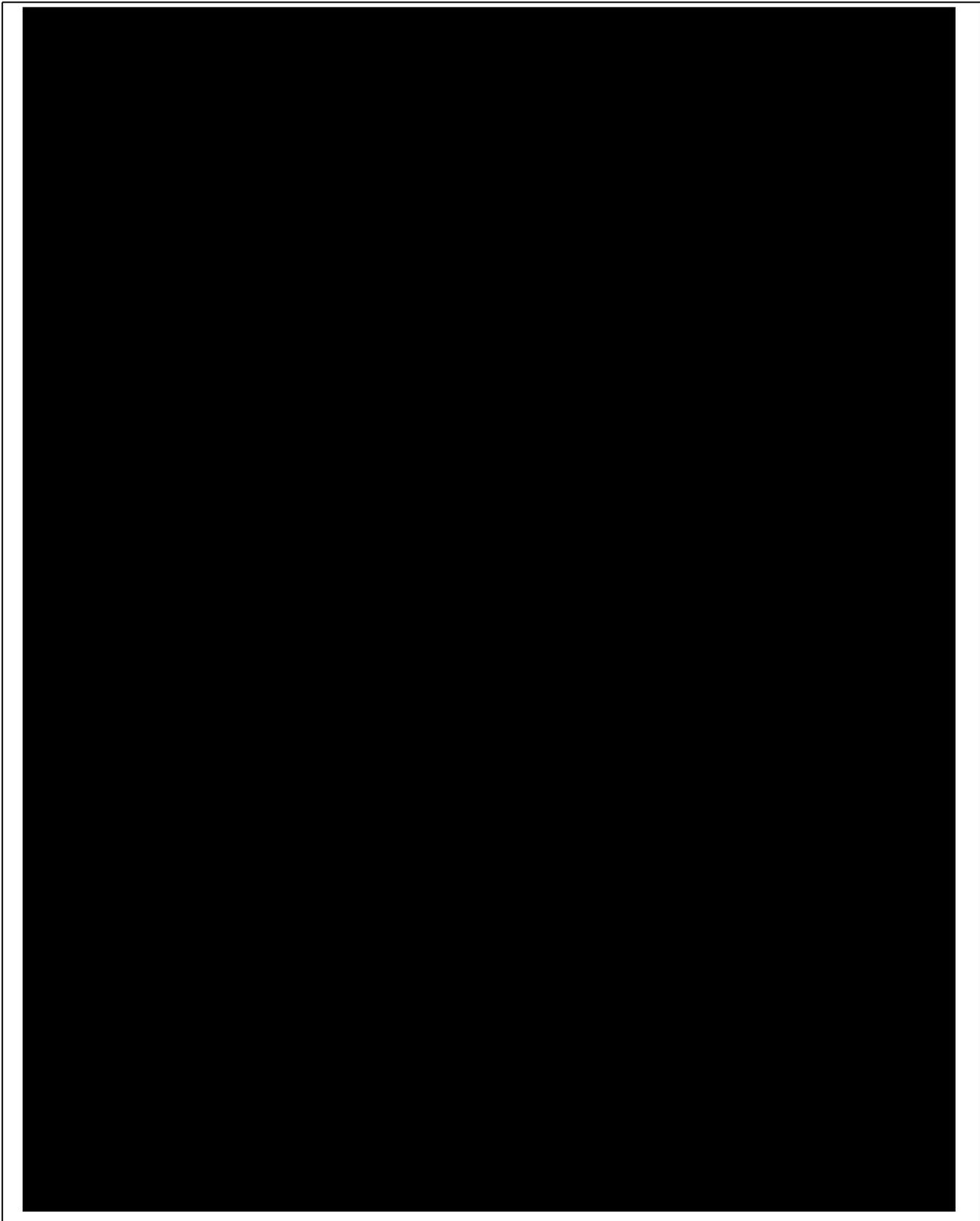
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Pacific Gas and Electric Company
2014 Bundled Procurement Plan



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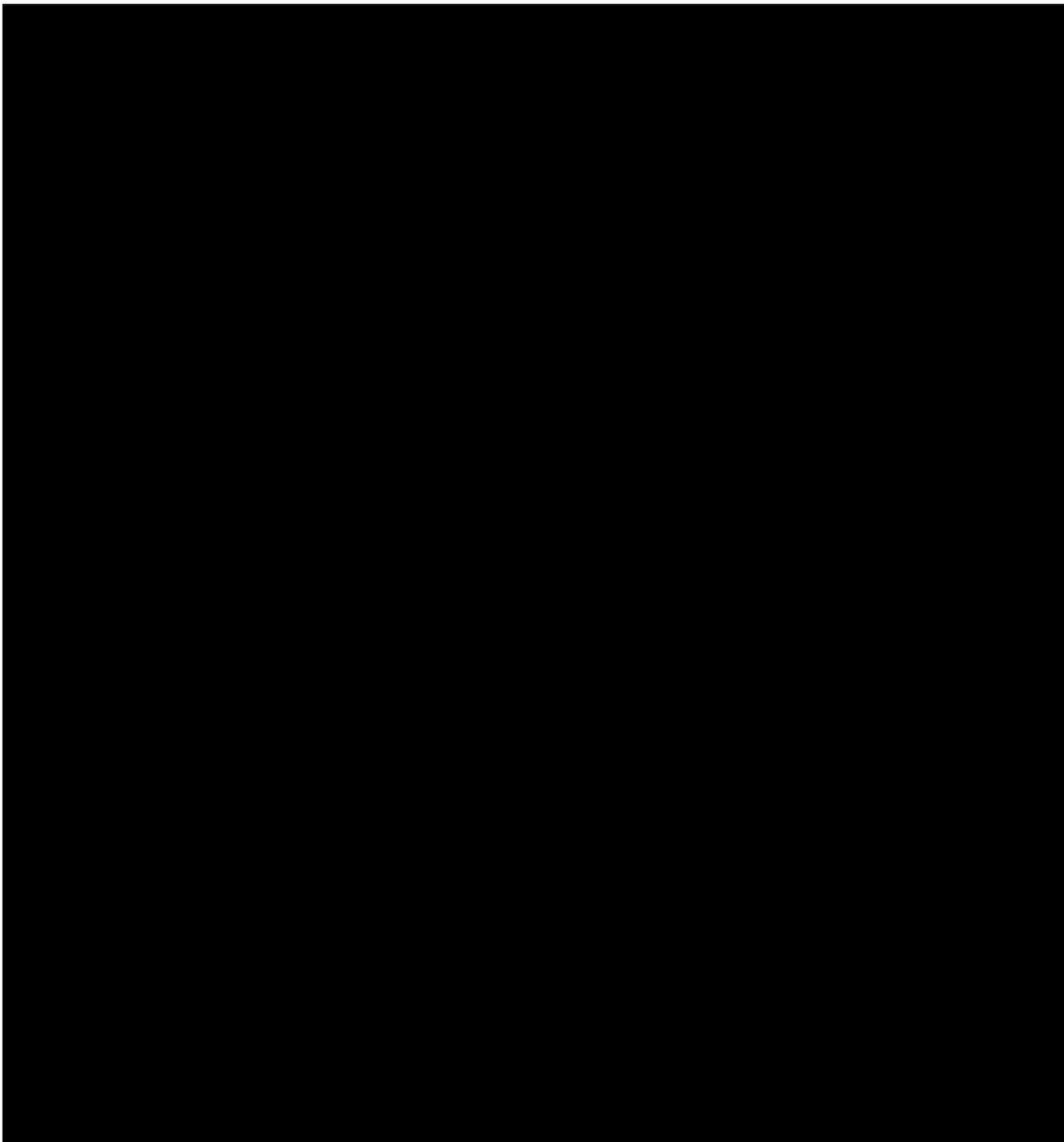
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c. Contract Terms

PG&E will only sell RA products using an Edison Energy Institute (EEI) enabling agreement and a PG&E RA confirmation agreement. Sale transactions of RA products will not be facilitated through a Western Systems Power Pool (WSPP) enabling

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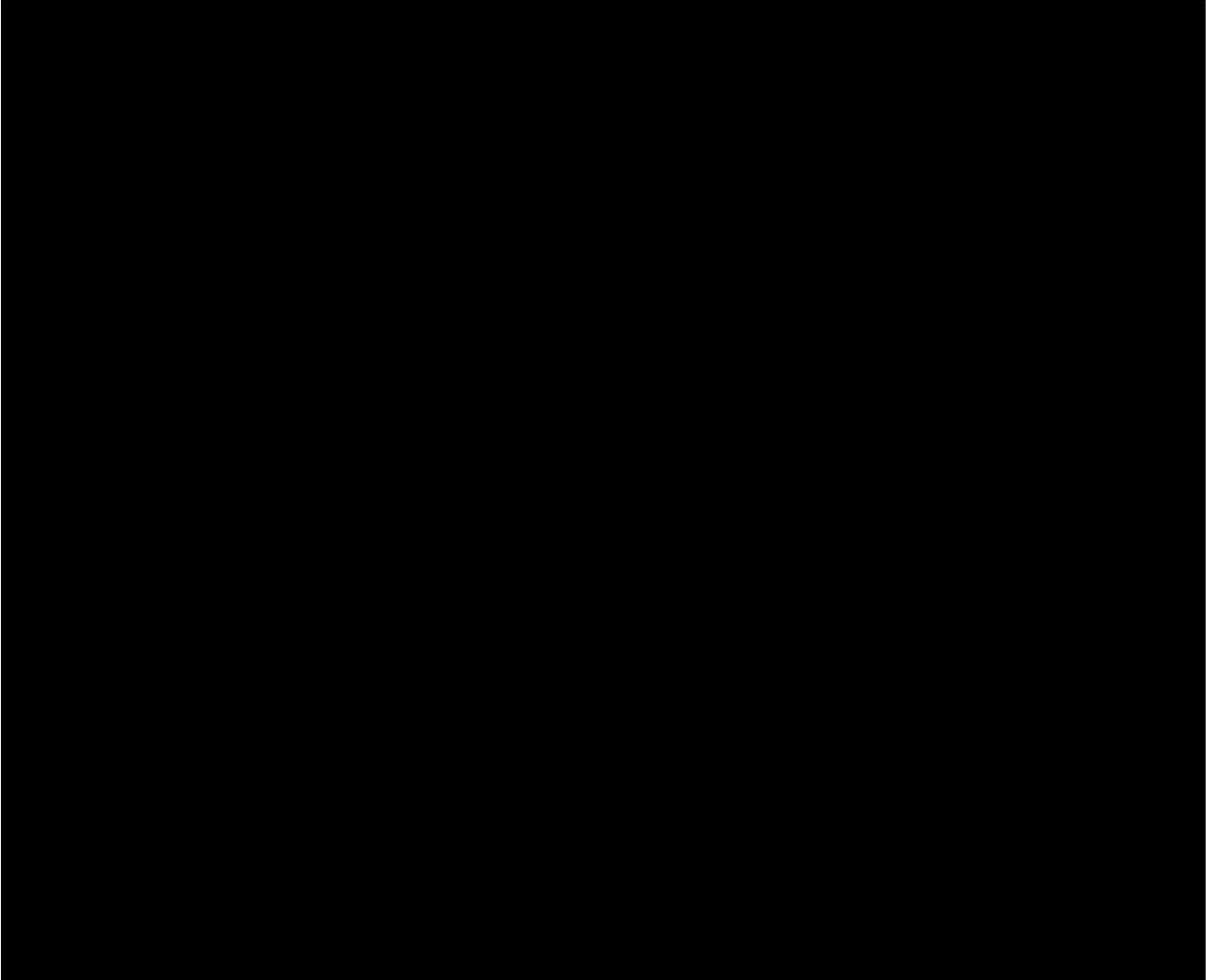
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agreement. Additionally, PG&E will not post collateral or performance assurance for any RA product sales.

d. Commercial Process



The table below outlines the schedule in which PG&E solicitations will be issued. Updates to the table will be posted to PG&E’s website and submitted to the CPUC via Tier 1 Advice Letter, at least annually, which will cover delivery periods for the current and upcoming calendar years.

PG&E’s RA SOLICITATION SCHEDULE

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Solicitation ⁵	Delivery Term ⁶	Products	Anticipated Date
Q4 through Balance of Year 2019	Monthly, through December 2019	System RA with/without Flex Local RA with/without Flex Import Capacity Counting Rights RA Swaps	July/August 2019
Annual Multiyear (2020 – 2022)	Monthly, January through December (2020 – 2022)	System RA with/without Flex Import Capacity Counting Rights Local RA with/without Flex RA Swaps	Q3 2019 ⁷
February through Balance of Year 2020	Monthly, February through December 2020	System RA with/without Flex Import Capacity Counting Right Local RA with/without Flex RA Swaps	November 2019
Q2 through Balance of Year 2020	Monthly, through December 2020	System RA with/without Flex Local RA with/without Flex Import Capacity Counting Rights RA Swaps	January 2020
Q3 through Balance of Year 2020	Monthly, through December 2020	System RA with/without Flex Local RA with/without Flex Import Capacity Counting Rights RA Swaps	April 2020
Q4 through Balance of Year 2020	Monthly, through December 2020	System RA with/without Flex Local RA with/without Flex Import Capacity Counting Rights RA Swaps	July/August 2020

⁵ If PG&E does not have available products to sell, PG&E will not issue a solicitation.

⁶ This table does not guarantee availability of product for the delivery period offered. Quantity is subject to meeting the requirements as described in this Appendix.

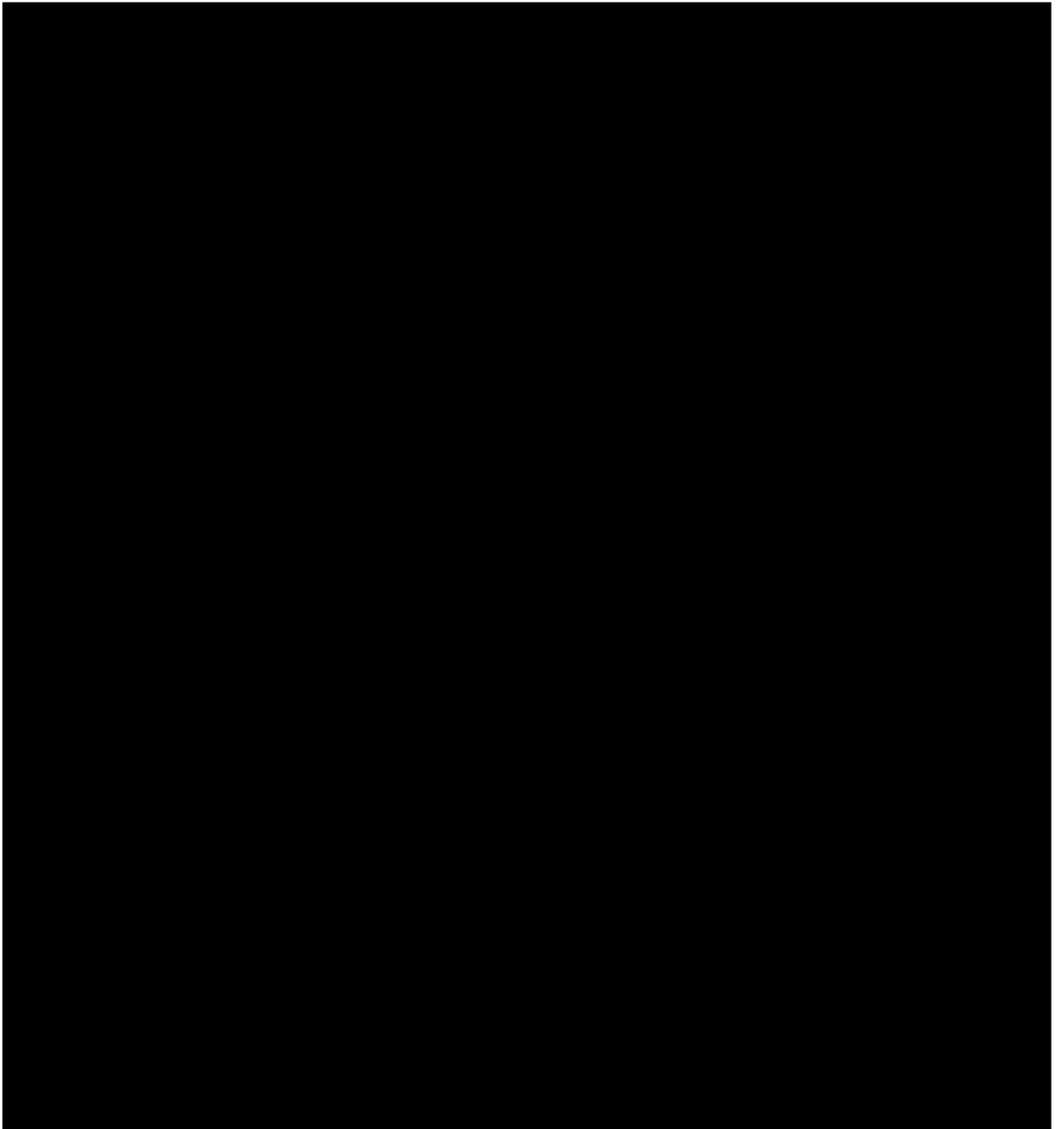
⁷ PG&E will issue at least one solicitation to cover the delivery term of three years under the multiyear framework.



Annual Multiyear (2021 – 2023)	Monthly, January through December (2021 – 2023)	System RA with/without Flex Import Capacity Counting Rights Local RA with/without Flex RA Swaps	Q3 2020 ⁸
February through Balance of Year 2021	Monthly, February through December 2021	System RA with/without Flex Import Capacity Counting Right Local RA with/without Flex RA Swaps	November 2020



⁸ PG&E will issue at least one solicitation to cover the delivery term of three years under the multiyear framework.



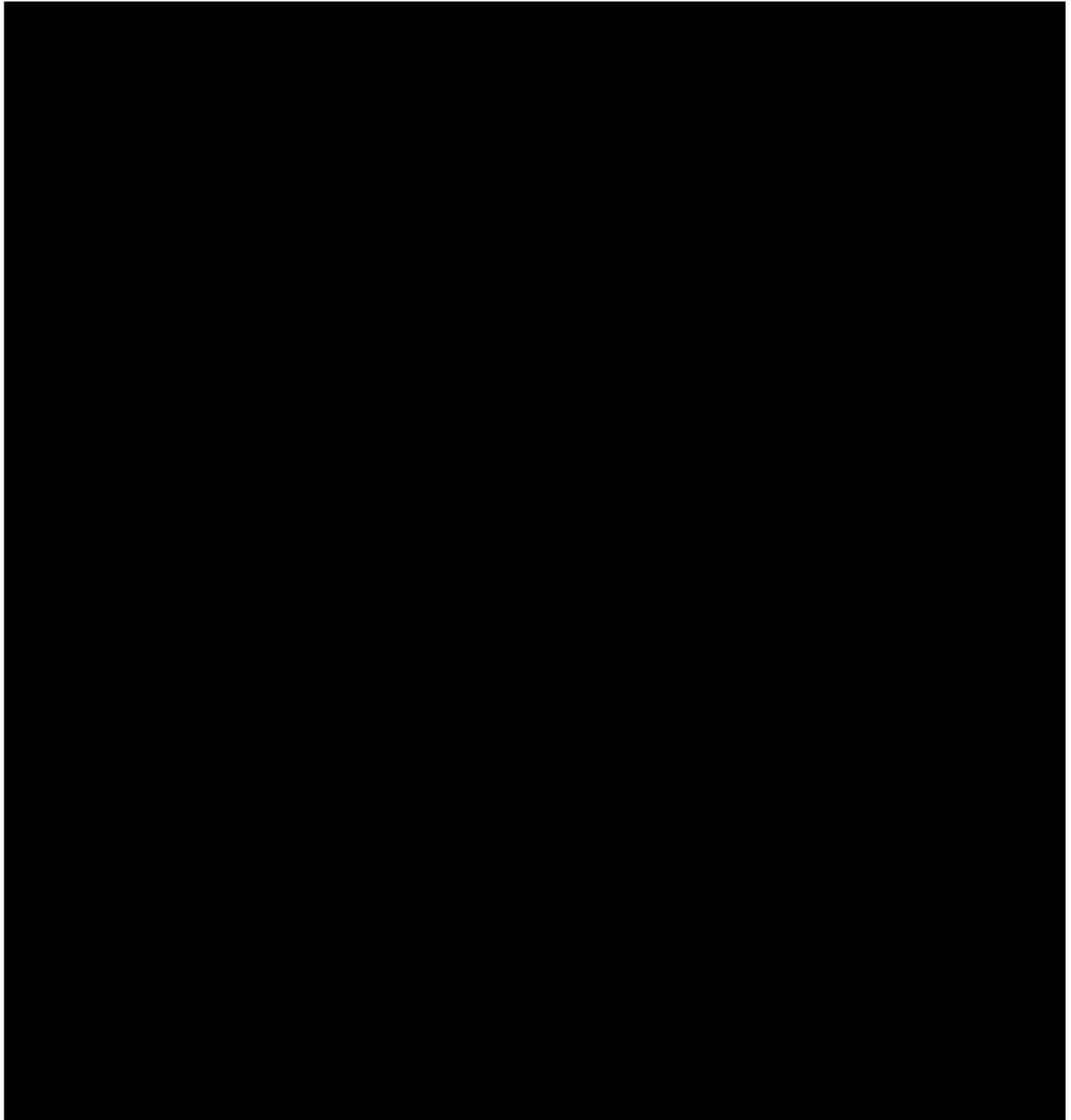
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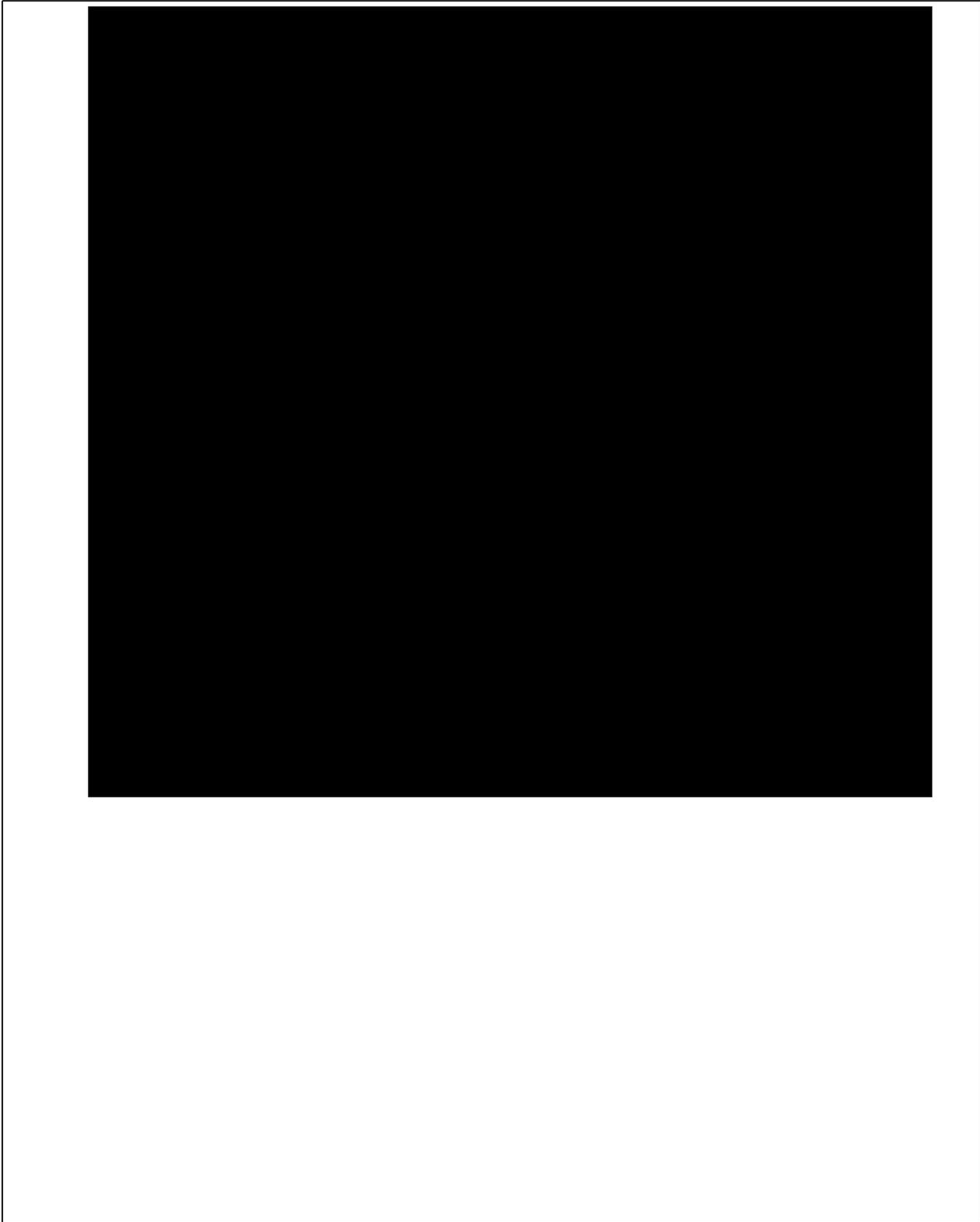
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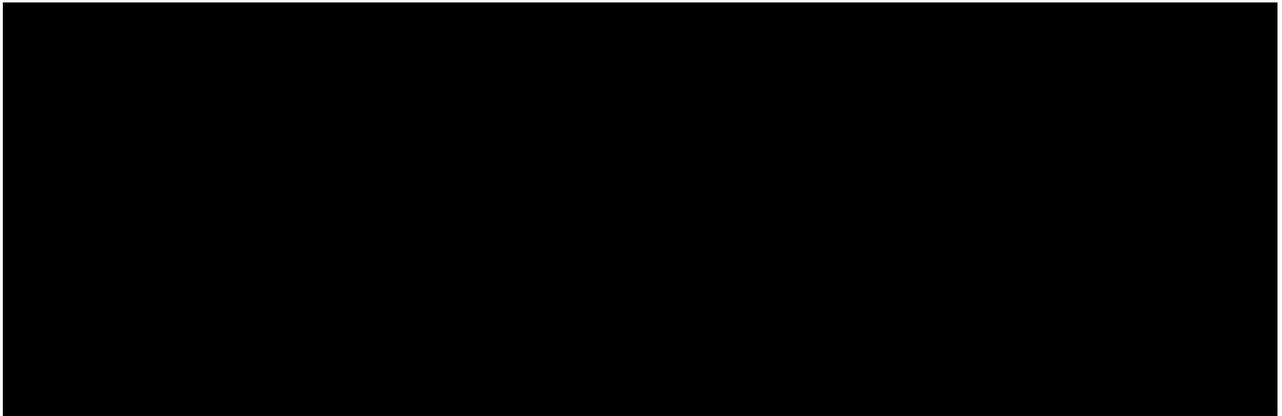
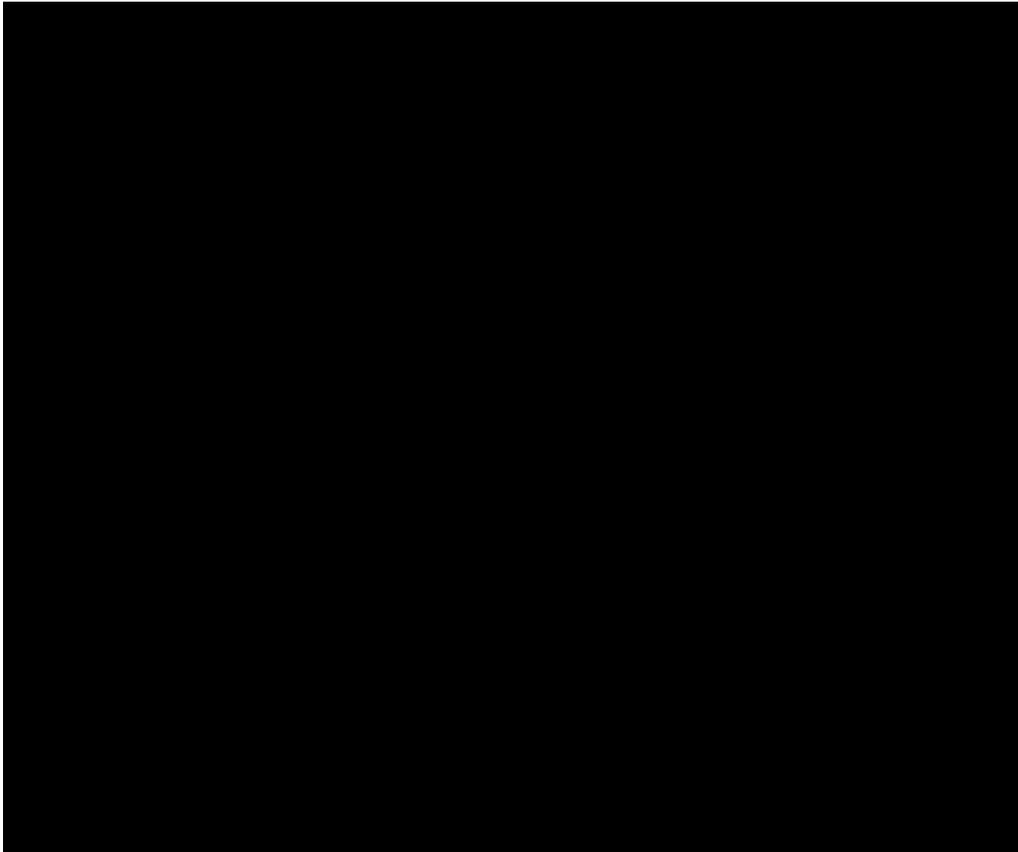
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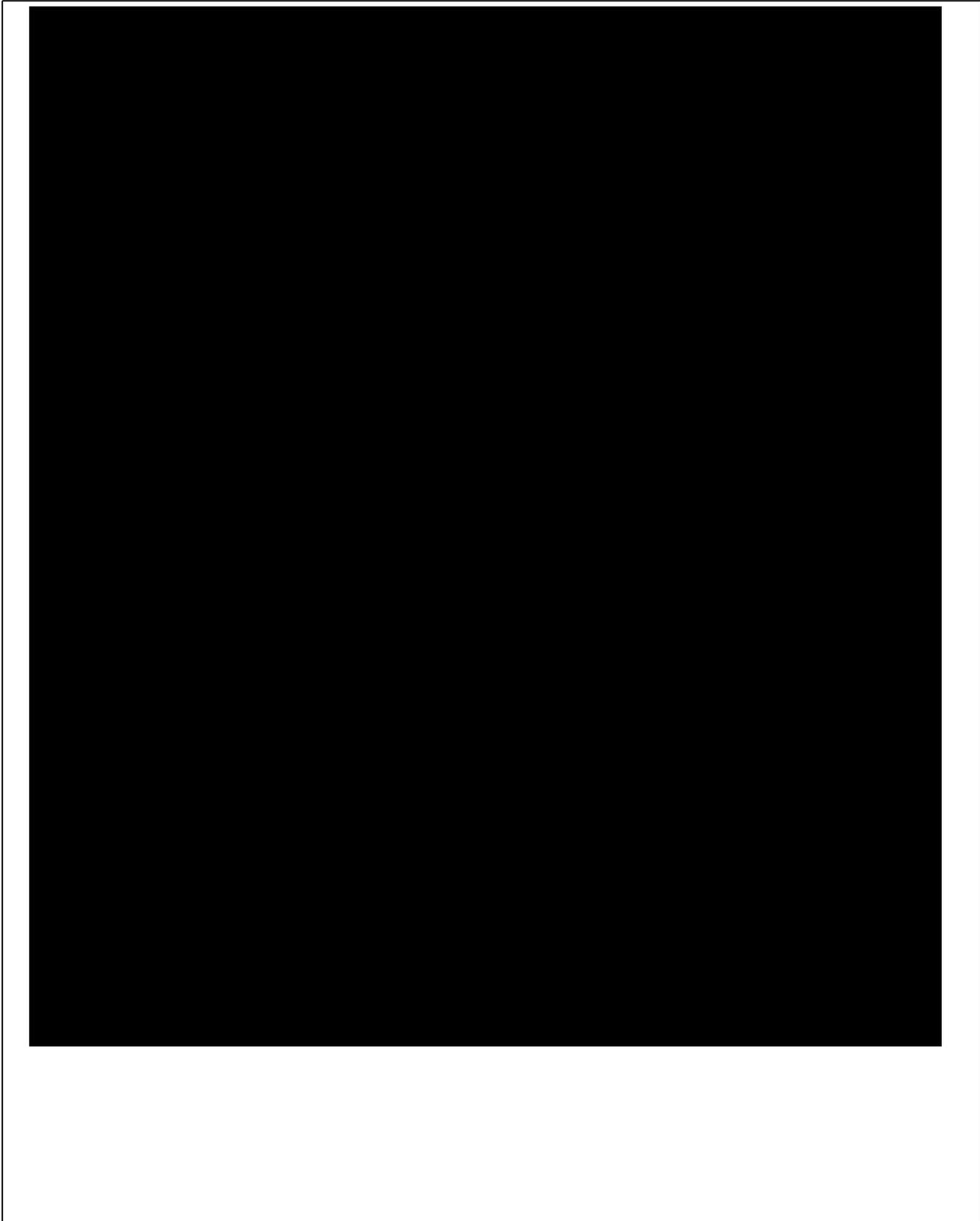
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**PG&E Gas and Electric
Advice Submittal List
General Order 96-B, Section IV**

AT&T	Downey & Brand	Pioneer Community Energy
Albion Power Company	East Bay Community Energy	Praxair
Alcantar & Kahl LLP	Ellison Schneider & Harris LLP	Regulatory & Cogeneration Service, Inc.
	Energy Management Service	SCD Energy Solutions
Alta Power Group, LLC	Engineers and Scientists of California	
Anderson & Poole	Evaluation + Strategy for Social Innovation	SCE
	GenOn Energy, Inc.	SDG&E and SoCalGas
Atlas ReFuel	Goodin, MacBride, Squeri, Schlotz & Ritchie	
BART	Green Charge Networks	SPURR
	Green Power Institute	San Francisco Water Power and Sewer
Barkovich & Yap, Inc.	Hanna & Morton	Seattle City Light
P.C. CalCom Solar	ICF	Sempra Utilities
California Cotton Ginners & Growers Assn	International Power Technology	Southern California Edison Company
California Energy Commission	Intestate Gas Services, Inc.	Southern California Gas Company
California Public Utilities Commission	Kelly Group	Spark Energy
California State Association of Counties	Ken Bohn Consulting	Sun Light & Power
Calpine	Keyes & Fox LLP	Sunshine Design
	Leviton Manufacturing Co., Inc. Linde	Tecogen, Inc.
Cameron-Daniel, P.C.	Los Angeles County Integrated Waste Management Task Force	TerraVerde Renewable Partners
Casner, Steve	Los Angeles Dept of Water & Power	Tiger Natural Gas, Inc.
Cenergy Power	MRW & Associates	
Center for Biological Diversity	Manatt Phelps Phillips	TransCanada
City of Palo Alto	Marin Energy Authority	Troutman Sanders LLP
	McKenzie & Associates	Utility Cost Management
City of San Jose	Modesto Irrigation District	Utility Power Solutions
Clean Power Research	Morgan Stanley	Utility Specialists
Coast Economic Consulting	NLine Energy, Inc.	
Commercial Energy	NRG Solar	Verizon
County of Tehama - Department of Public Works		Water and Energy Consulting
Crossborder Energy		Wellhead Electric Company
Crown Road Energy, LLC		Western Manufactured Housing Communities Association (WMA)
Davis Wright Tremaine LLP		Yep Energy
Day Carter Murphy		
	Office of Ratepayer Advocates	
Dept of General Services	OnGrid Solar	
Don Pickett & Associates, Inc.	Pacific Gas and Electric Company	
Douglass & Liddell	Peninsula Clean Energy	