

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND)	DOCKETS UE-240004,
TRANSPORTATION COMMISSION,)	UG-240005, and UE-230810
)	(<i>Consolidated</i>)
Complainant,)	
)	
v.)	
)	
PUGET SOUND ENERGY,)	
)	
Respondent.)	
_____)	
)	
In the Matter of the Petition of)	
)	
PUGET SOUND ENERGY)	
)	
Petitioner,)	
)	
For an Accounting Order Authorizing)	
deferred accounting treatment of)	
purchased power agreement expenses)	
pursuant to RCW 80.28.410)	
_____)	

EXHIBIT LDK-3R
DISCOVERY RESPONSES
(REDACTED)

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 002:

RE: Gas Depreciation Study

Please refer to Exh. NWA-1T, page 20, lines 18 to 19:

- a. If heat electrification is implemented with gas backup or hybrid heat pumps, will electrification cause shorter service lives for gas services, meters, and meter installations? If yes, why?
- b. Is the Company currently planning to achieve Net Zero by 2050 through cold climate heat pumps, hybrid heat pumps, or a combination?

Response:

- a. Yes. First, even with the availability of backup or hybrid heat pumps, some customers may decide, of their own volition, to leave the gas system, which would shorten service lives of gas services, meters, and meter installations. Second, even if customers did not leave, the utilization of these assets would decrease significantly if gas were used primarily as a backup fuel. As discussed in Mr. Allis's testimony, the Units of Production method would likely be most appropriate in such a situation.
- b. The decision on what kind of heating equipment customers will choose is not a planning decision that Puget Sound Energy ("PSE") can make. PSE is obligated to provide energy as demanded by its customers based on the appliances they choose to install. PSE has examined the impact of different choices by customers including cold climate heat pumps, standard heat pumps, and hybrid heating systems (heat pump with natural gas back-up instead of resistance heat back-up) in the Gas Decarbonization Study filed in 2023, per Stipulation O in PSE's last general rate case filing. Note, after 2030, PSE will not be able to provide customers with rebates and incentives for heat pumps with natural gas back-up according to House Bill 1589, section 8. This will make it less likely customers will choose hybrid heating systems in the future.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 006:

RE: Gas Depreciation Study

Please refer to Exh. NWA-1T, page 31, lines 14 to 19:

- a. What electrification scenario serves as the basis for the 59 percent decline?
- b. Please provide a page citation to the decarbonization study supporting the decrease in customers to 360,020.
- c. For each scenario in the decarbonization study, please provide the customers, annual throughput, and peak demand by year and gas service schedule. Please include the baseline of no electrification. If the Company cannot provide such data by service schedule, please provide such data separately for customer classes with space heat electrification and customer classes without space heat electrification.
- d. Which scenario in the decarbonization study does PSE find to be most economical? Please explain.
- e. What decarbonization strategy does PSE intend to pursue?

Response:

- a. The 59 percent decline refers to the decrease in customers under Scenarios 1 Air Source Heat Pump (ASHP) and 2 Cold Climate Heat Pump (CCHP). Under each, total customers go from 882,960 in 2024 to 360,020 by 2050.
- b. Please refer to the attachment provided in Puget Sound Energy's ("PSE") Response to JEA Data Request No. 02 titled "240004-05 PSE Resp JEA DR 002_Attach A".
- c. Please refer to the attachment provided in PSE's Response to JEA Request No. 02 titled "240004-05 PSE Resp JEA DR 002_Attach A".

- d. PSE objects to this question because it is too vague, as “economical” has not been defined and could be interpreted from several different perspectives. Without waiving this objection and subject thereto, PSE responds as follows. PSE’s integrated resource planning is developed following existing rules and frameworks to establish a least cost solution for customers. In contrast, the decarbonization study was an independent study, and as such, did not follow the requirements of a traditional Integrated Resource Plan. Therefore, PSE would not consider this study as the sole source for making any specific decision or preference.
- e. Please refer to PSE’s Response to AWEK Data Request No. 2, subpart b. The different pathways examined in the gas decarbonization study were scenarios which considered external factors, they were not a set of assumptions that PSE can directly pursue, as PSE does not decide what kind of appliances that customers will purchase.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 008:

RE: Gas Depreciation Study

Please refer to Exh. NWA-1T, page 35, lines 7 to 14:

- a. Please explain why future customers would pay an excessive share of costs if the assets serving the electrifying customer are retired after electrification.
- b. If the costs of the retired assets serving the electrifying customer were recovered from the electrifying customer, would future customers pay an excessive share of costs? If yes, why?

Response:

- a. If the assets serving an electrifying customer are retired after electrification, but before recovery through depreciation, then the remaining customers have to pay both depreciation (including any decommissioning or retirement costs) and the return on rate base for the unrecovered costs. Paying the cost of assets that only served customers who no longer receive service would be an excessive cost.
- b. If the costs of the retired assets serving the electrified customers were fully recovered from the electrifying customers, there would be no further costs to recover from future customers.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 022:

RE: Power Costs

Please refer to BDM-1T at 21:15 to 22:6. Based on current estimates, please provide the cost associated with PSE's procurement (if any) of short-term wholesale market purchases that PSE anticipates making in order to achieve its 2025 CETA interim target.

Response:

Puget Sound Energy ("PSE") objects to AWEC Data Request No. 022 to the extent it requests information that is publicly available or obtainable from some other source that is more convenient, less burdensome, or less expensive. Notwithstanding these objections, and subject thereto, PSE responds as follows:

Please see row 18 in the tab named "CETA (C)" in the workpaper *240004-05-PSE-WP-BDM-POWER-COST-IMPACT-OF-NEW-RESOURCES-24GRC-02_1843315_1* for PSE's estimate of the incremental cost of clean energy PSE will need to acquire to achieve its 2025 CETA interim targets.

PSE has executed new short-term purchases since the time of this estimate including the 2024 short-term RFP agreements, the 2025 EWEB Grant Meaningful Priority, and the Grant annual slice auction, as discussed in PSE's Responses to AWEC Data Request Nos. 019 and 020. Based on the actual cost of these recent acquisitions and PSE's understanding of the current market for short-term clean energy resources, the incremental clean energy cost estimates in the above-referenced workpaper and the Prefiled Direct Testimony of Brennan D. Mueller, Exh. BDM-1T are too low. PSE estimates the current premium associated with short-term CETA-eligible energy supply is approximately double that shown in row 15 of the workpaper.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 024:

RE: Target Electrification Pilot

Please refer to Exh. JM-1CT at Table 3. Please provide the projected budget for targeted electrification pilot phase 2 for industrial customers as a separate row in Table 3 from the “commercial & industrial” row.

Response:

The program concept does not include a specific breakout between commercial and industrial budgets. The Targeted Electrification Pilot program for commercial/ industrial customers will likely employ an RFP process like the Large Power User Program in the Energy Efficiency Portfolio. Customers will be asked to provide their project concepts with pricing and estimated gas savings (and increased electrical or other energy usage). A cap amount per project has not yet been determined but will be needed to right size the project specific grants for the total budget proposed.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 025:

RE: Target Electrification Pilot

Please refer to Exh. JM-1CT at 23:9-24:15. Please provide a narrative description and any quantitative analysis of both direct and indirect benefits of PSE's Targeted Electrification Pilot Phase 2 to:

- a. Choice/Retail Wheeling Customers (Schedules 449/459)
- b. Natural gas transportation-only schedules

Response:

- a. Puget Sound Energy ("PSE") is still evaluating the eligibility for unbundled gas customers. The Targeted Electrification Pilot Phase 2 work will be focused on dual-fuel electric and gas customers, so no direct benefits are applicable unless a Choice/Retail Wheeling Customer is also a PSE gas customer and participates in Pilot Phase 2. Benefit quantitative analysis was not performed for these customers.
- b. PSE is still evaluating the eligibility for unbundled gas customers. The Targeted Electrification Pilot Phase 2 work will be focused on PSE dual-fuel electric and gas customers. These customers may benefit from pilot program insights for future program design if unbundled customers are not eligible to participate. Benefit quantitative analysis was not performed for these customers.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 026:

RE: Target Electrification Pilot

Please refer to Exh. JM-1CT at 20:1-16. Please provide a narrative description and supporting documentation of all outreach done to PSE's industrial customers in an effort to "make electrification economically viable...."

Response:

Puget Sound Energy's ("PSE") industrial customers have not been a focus of the Phase 1 Targeted Electrification Pilot work, and if/when the Targeted Electrification Pilot Phase 2 is approved, PSE would conduct outreach with eligible customers. The incentives from Pilot Phase 2 are expected to help "make electrification economically viable".

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 027:

RE: Target Electrification Pilot

Please refer to Exh. JM-1CT at 20:1-16. Does PSE anticipate any industrial locations to electrify over calendar years 2025 and 2026? Please explain.

Response:

Puget Sound Energy (“PSE”) plans to support both commercial and industrial dual fuel (both PSE electric and PSE gas) customers in Targeted Electrification Pilot Phase 2, in project upgrades that will electrify specific loads and/or processes in 2025 and 2026. It is unlikely that an entire industrial customer location will be electrified during this timeframe; it is more reasonable to expect specific loads or processes to be addressed with these upgrades.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 060:

RE: Depreciation

Please refer to PSE's response to AWEC Data Request 006 which states, "PSE would not consider this study as the sole source for making any specific decision or preference."

- a. Has PSE made any specific decisions, preferences, or plans regarding electrification or methods to achieve "Net Zero by 2050"? If yes, please provide such decisions and preferences. If no, when does PSE intend to make such decisions, preferences, or plans?
- b. What sources, other than the decarbonization study, has PSE used or intends to use for making specific decarbonization decisions or preferences? Please provide such sources.

Response:

Puget Sound Energy ("PSE") objects to AWEC Data Request No. 060 to the extent it requests information that is publicly available or obtainable from some other source that is more convenient, less burdensome, or less expensive. Notwithstanding these objections, and subject thereto, PSE responds as follows:

- a. In August of 2023, PSE adopted a preference for a policy scenario that supports hybrid heating systems; that is, electric heat pumps with natural gas furnace as the back-up heat instead of resistance heat. The passage of HB 1589 will impact this preference by prohibiting PSE from providing any financial incentives for hybrid heating systems after 2030¹. Other electrification plans are described in the Prefiled Direct Testimony of John Mannetti, Exh. JM-1CT, pages 2 through 24. Additionally, PSE is acquiring renewable natural gas and exploring the impacts on the natural gas system for increased concentrations of green

¹ See Section 8, House Bill 1589, Large Combination Utilities – Decarbonization Act 2024.

hydrogen as described in the Prefiled Direct Testimony of Joshua J. Jacobs, Exh. JJJ-1T, pages 31-32.

- b. The decarbonization study is a study, not a plan. The study has not been used to make any decarbonization decisions. The study has been used to provide guidance on areas to further investigate. PSE anticipates its upcoming 2027 Integrated System Plan will establish longer-term, executable plans to reduce emissions from PSE's natural gas system.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 063

“CONFIDENTIAL” Table of Contents

	“CONFIDENTIAL” Material
Data Request No. 063	Shaded information is designated as CONFIDENTIAL per Protective Order in Dockets UE-240004 and UG-240005 as marked in Puget Sound Energy’s Response to AWEC Data Request No. 063 Attachments A – K.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 063:

RE: Cost of Service

For each Schedule 87 or 87T customer, please provide a scaled diagram of all 4 inch or larger pipe connected to the customer to a citygate. Please identify the pipe size and material. Please include any lateral pipes that do not directly serve the customer. Please provide each data using customer numbers that are consistent with PSE's response to Nucor Data Request 008.

Response:

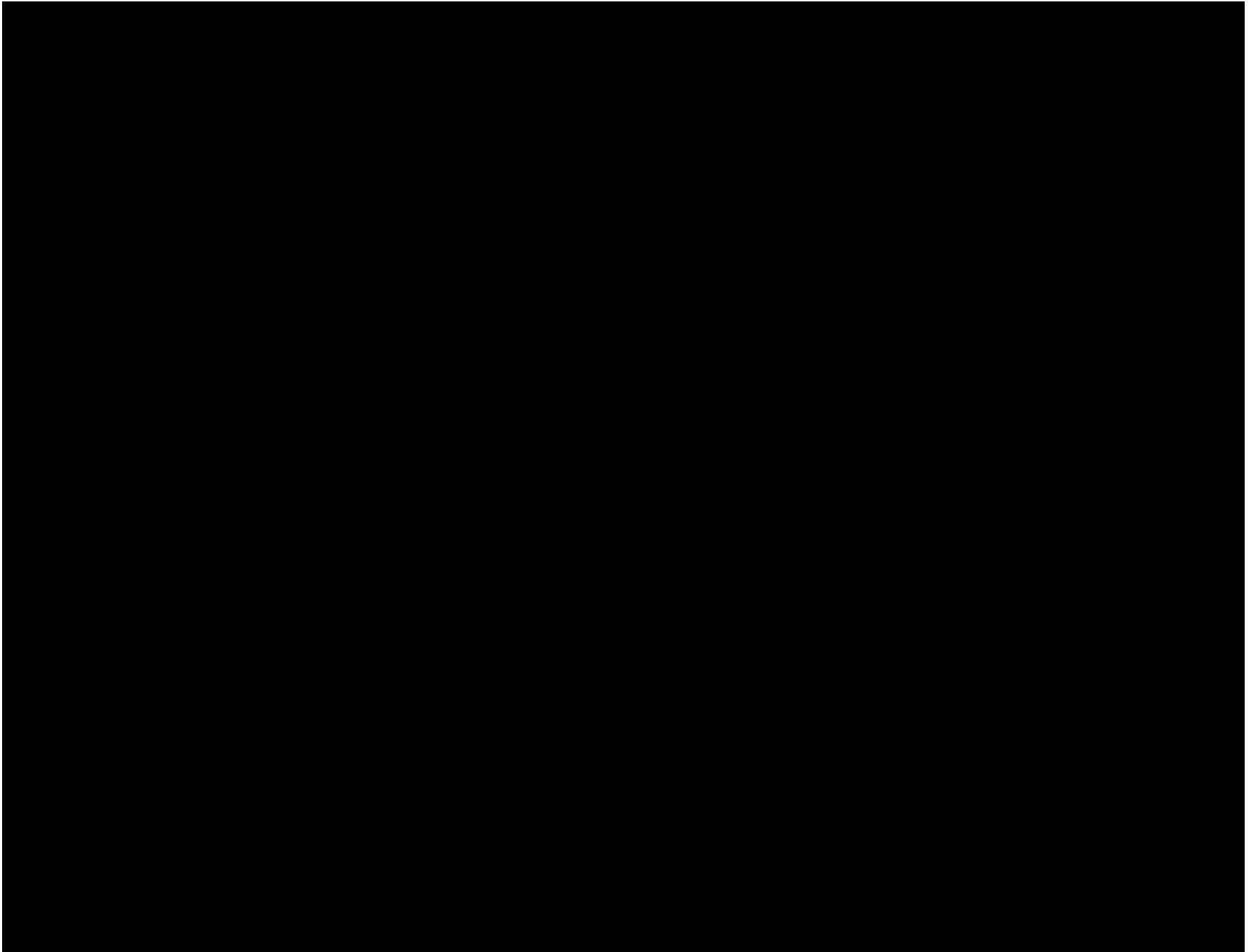
Puget Sound Energy ("PSE") objects to AWEC Data Request No. 063 as overbroad and unduly burdensome as it requests PSE to provide scaled diagrams for all Schedule 87 or 87T customers that include four-inch or larger pipe connected to the customer to a citygate, pipe size, material, and any lateral pipes that do not directly serve the customer. Notwithstanding these objections, and subject thereto, PSE responds as follows:

Please see Attachments A through K for scaled diagrams produced from PSE's geospatial information system based on readily available mapping layers that illustrate the piping network in the vicinity of the customer location and nearest gate or limit station and identify pipe that is four inches or larger diameter and reference customer numbers consistent with PSE's Response to Nucor Data Request No. 008.

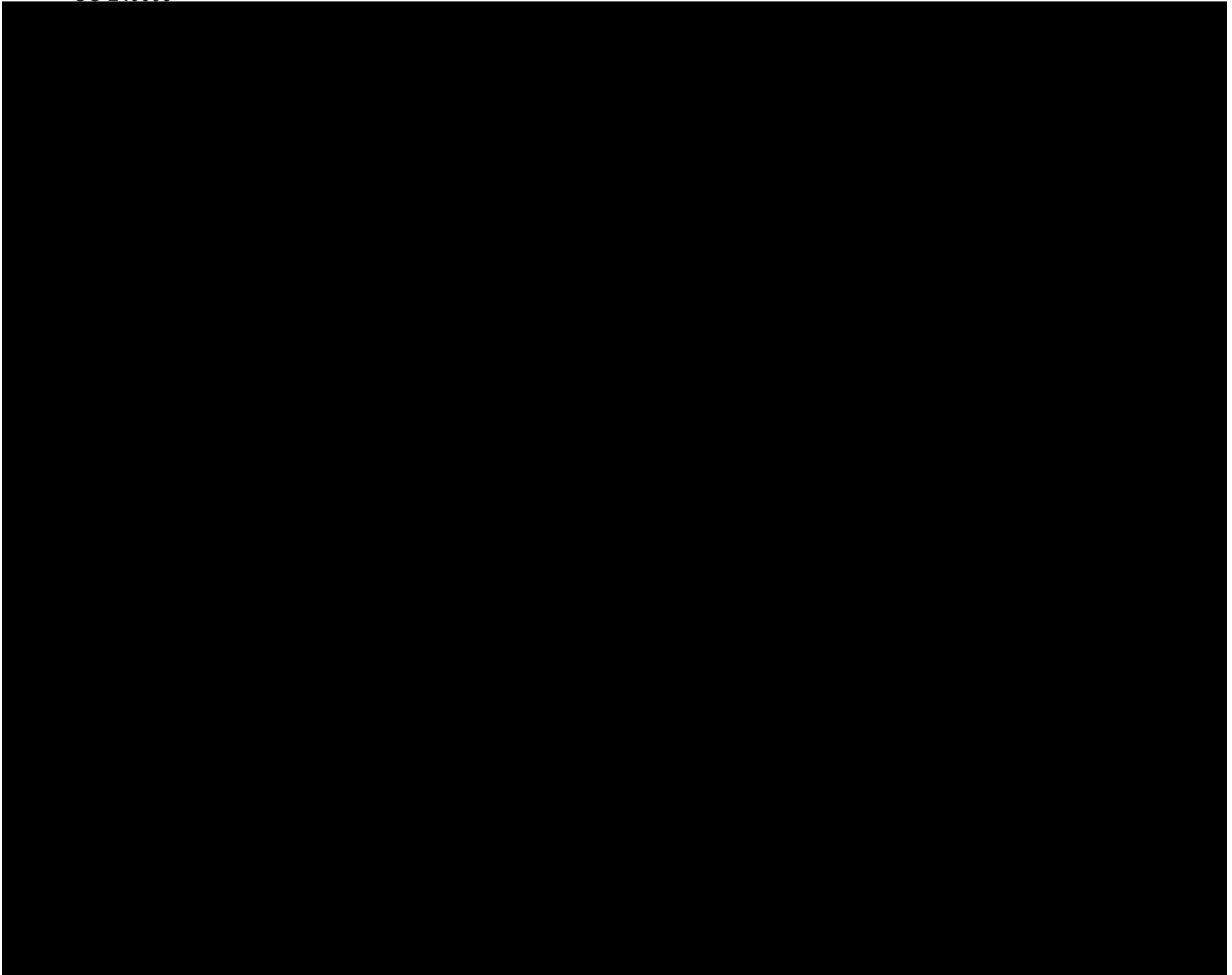
Shaded information is designated as CONFIDENTIAL per Protective Order in Dockets UE-240004 and UG-240005 as marked in PSE's Response to AWEC Data Request No. 063 Attachments A – K

**ATTACHMENTS A – K
to PSE’s Response to
AWEK Data Request No. 063**

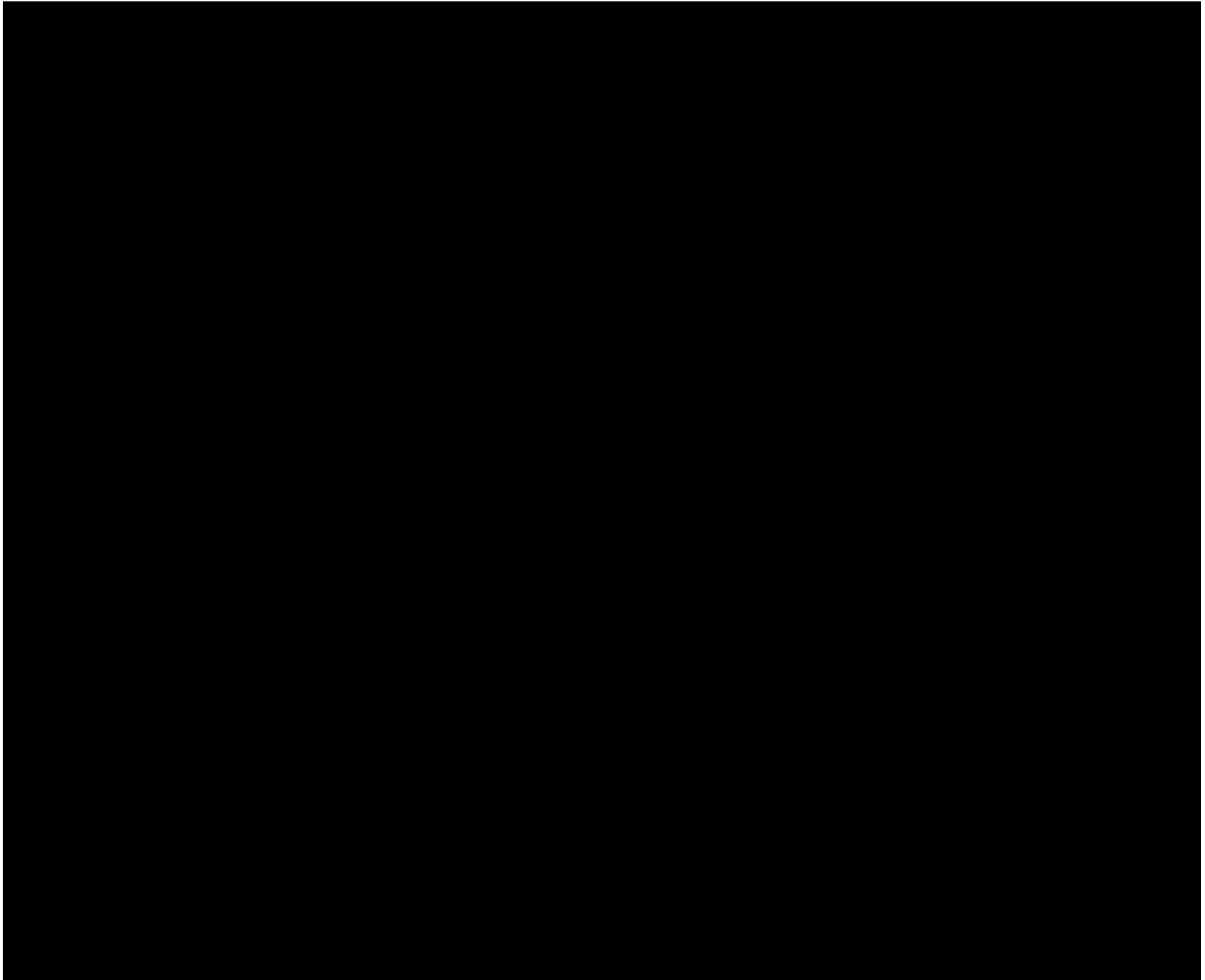
**Shaded Information is Designated as
Confidential per Protective Order in
Dockets UE-240004 and UG-240005**



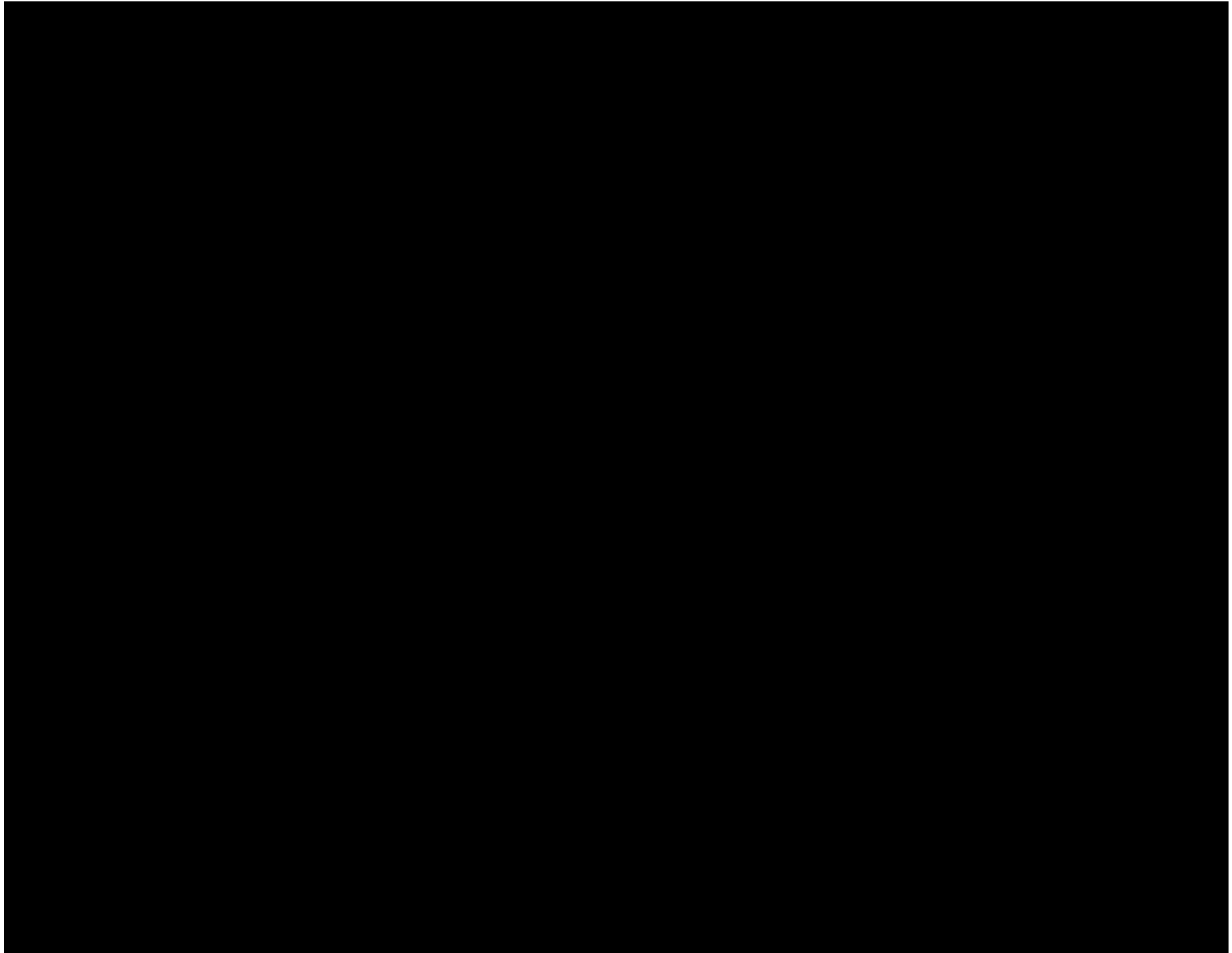
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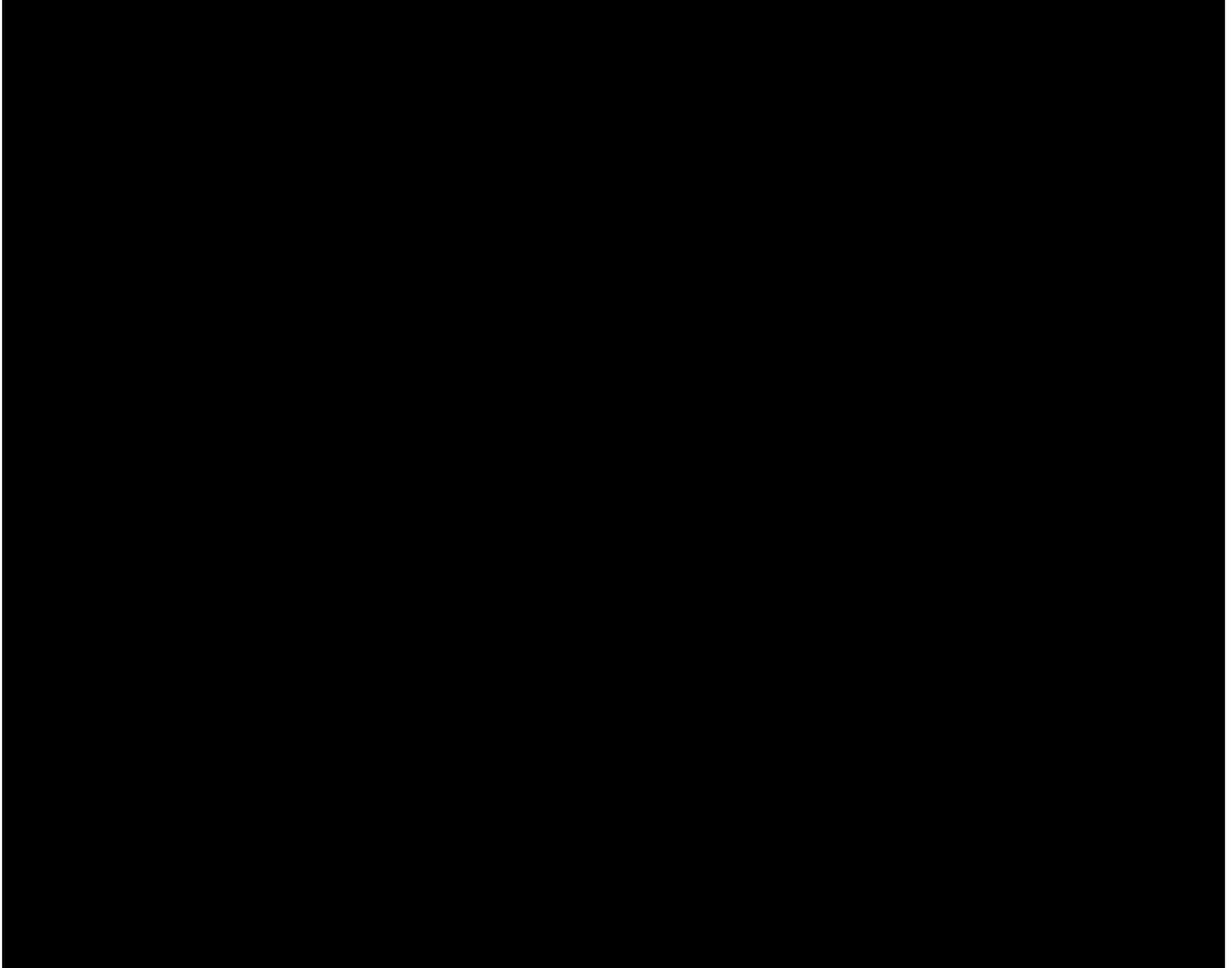
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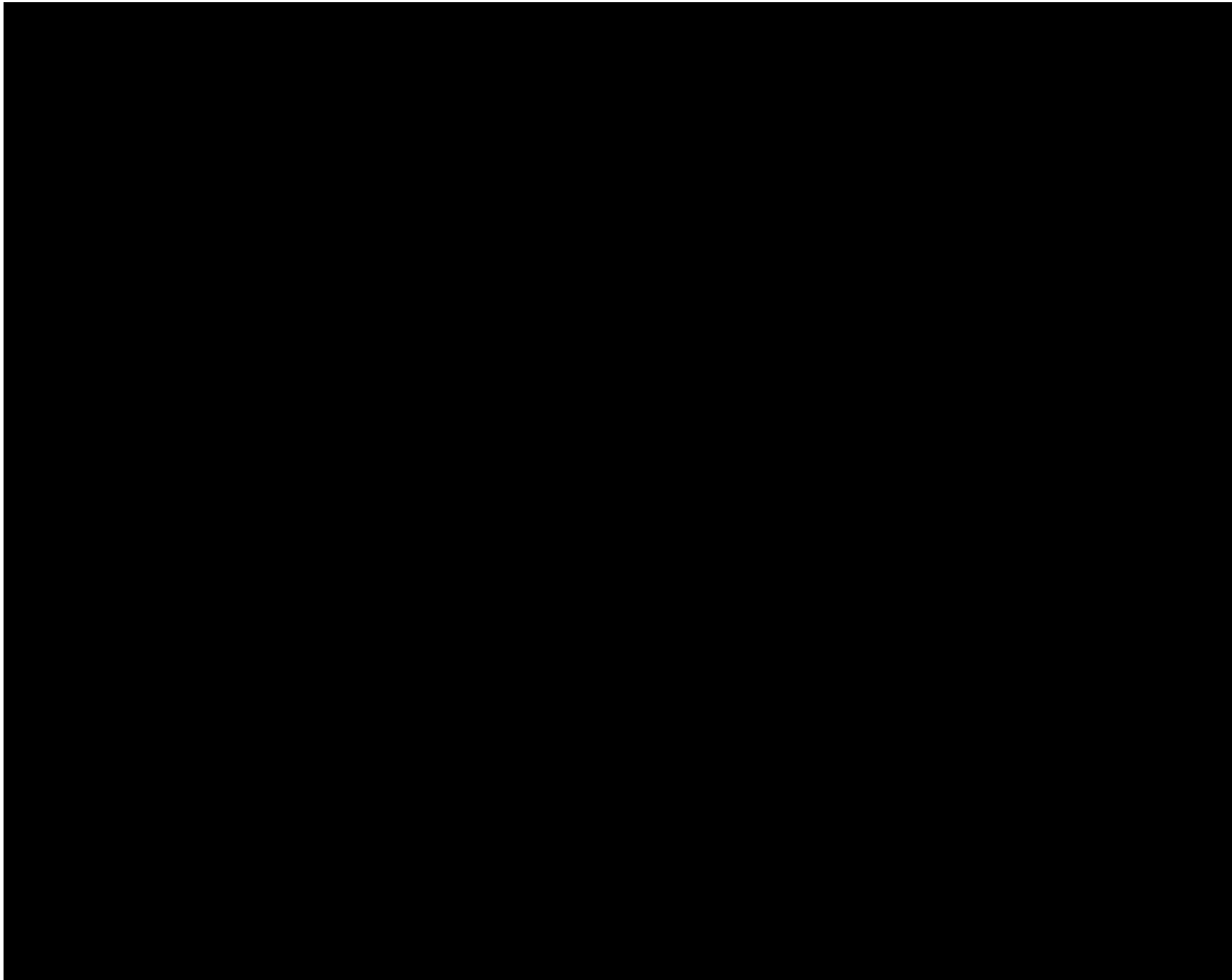
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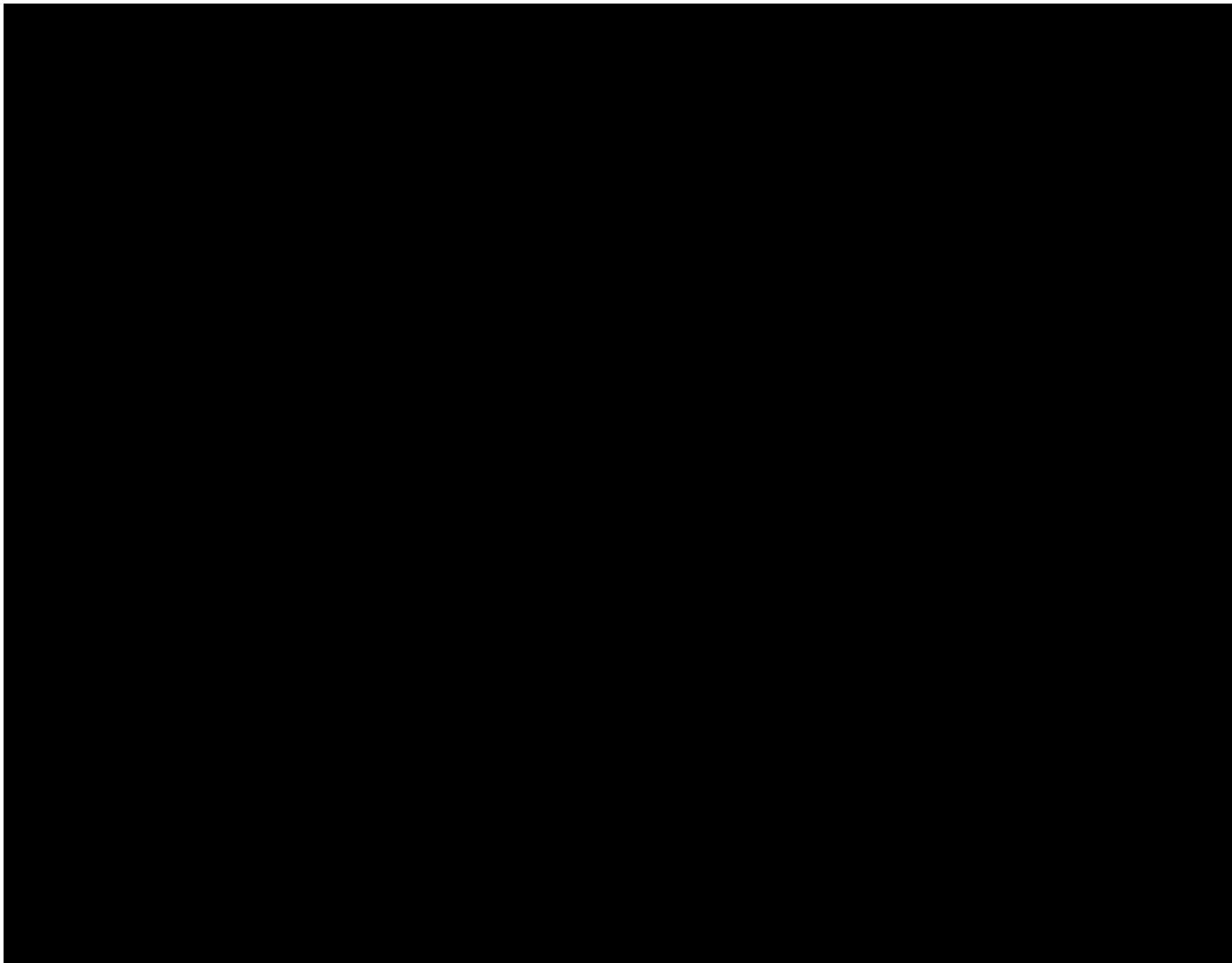
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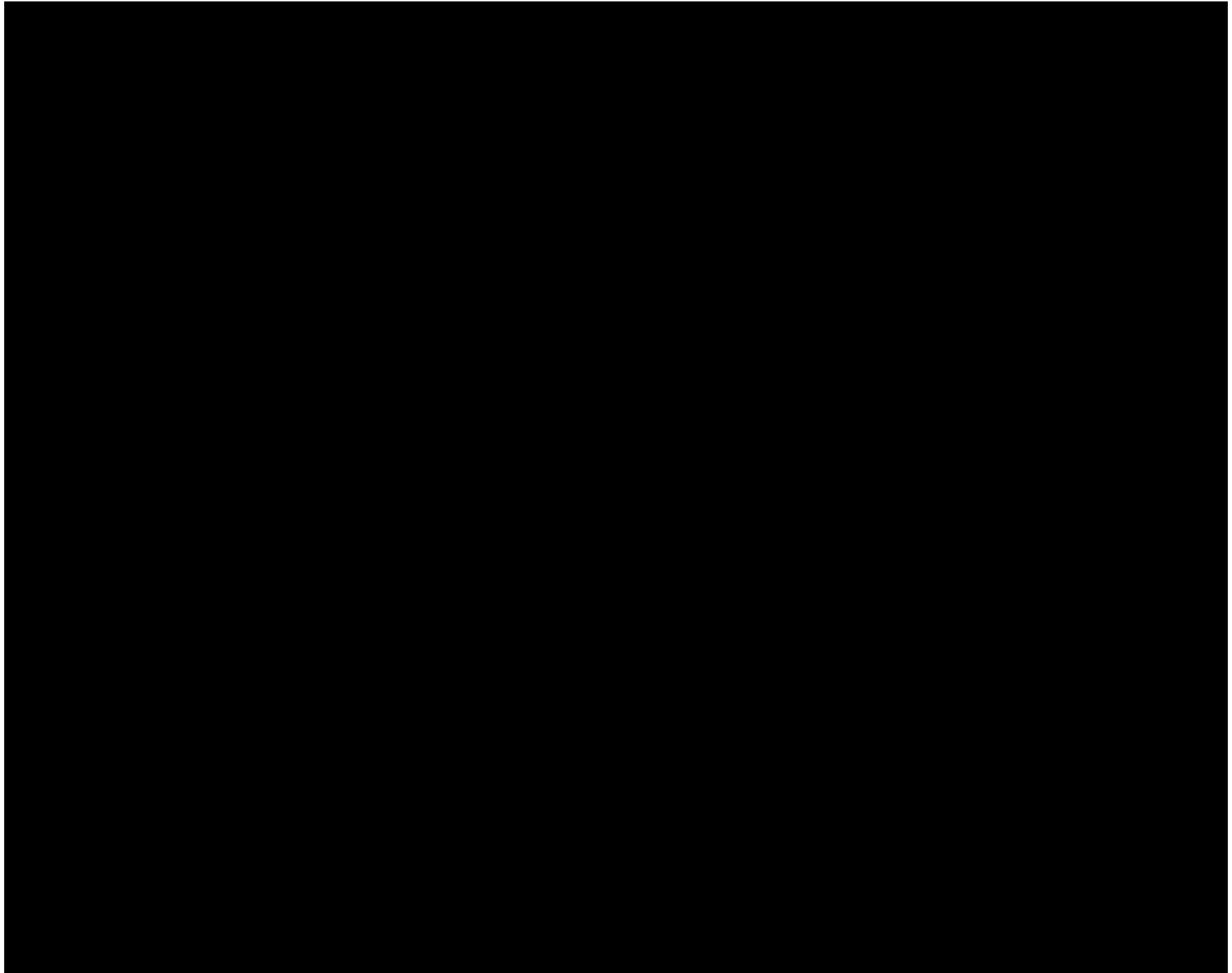
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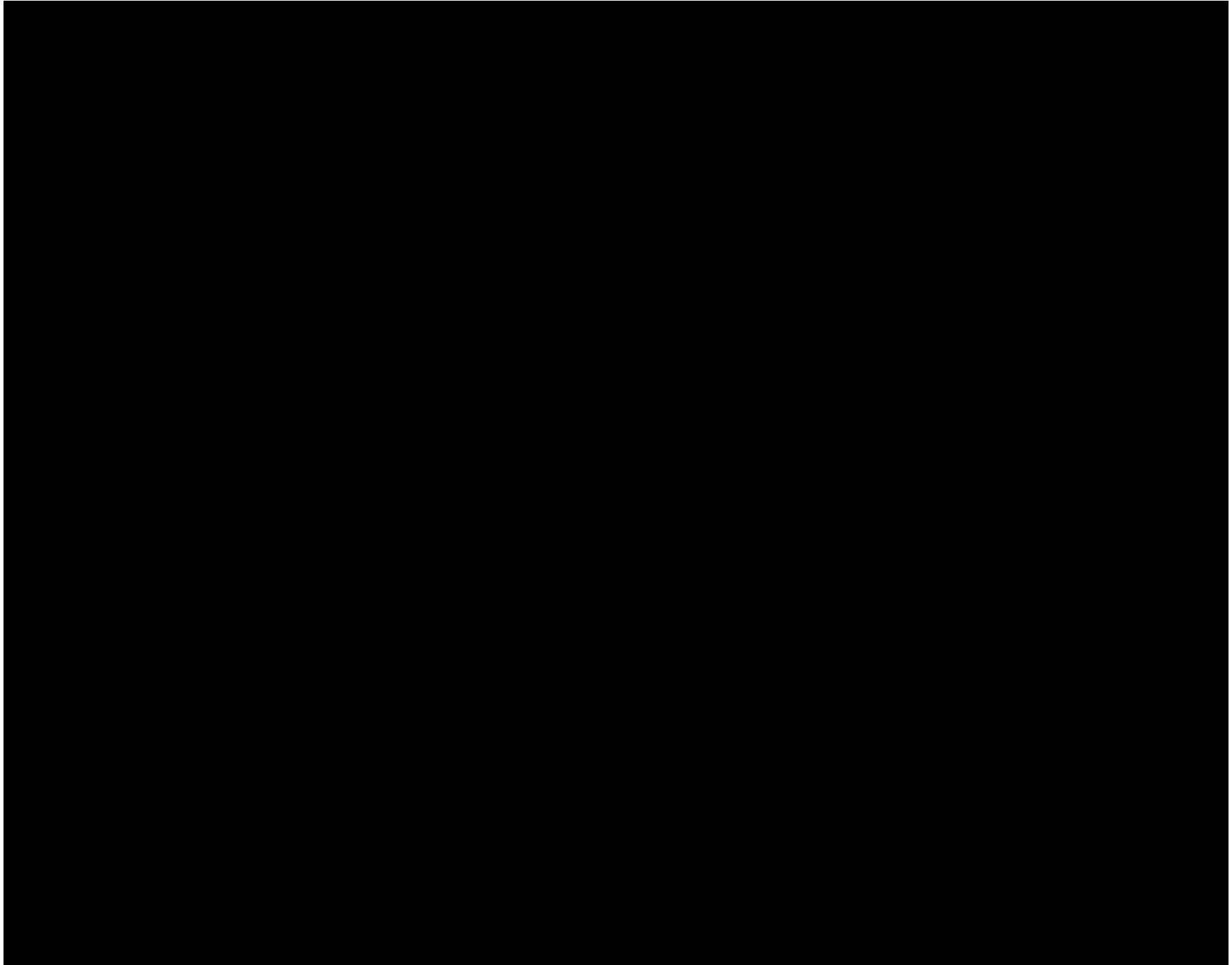
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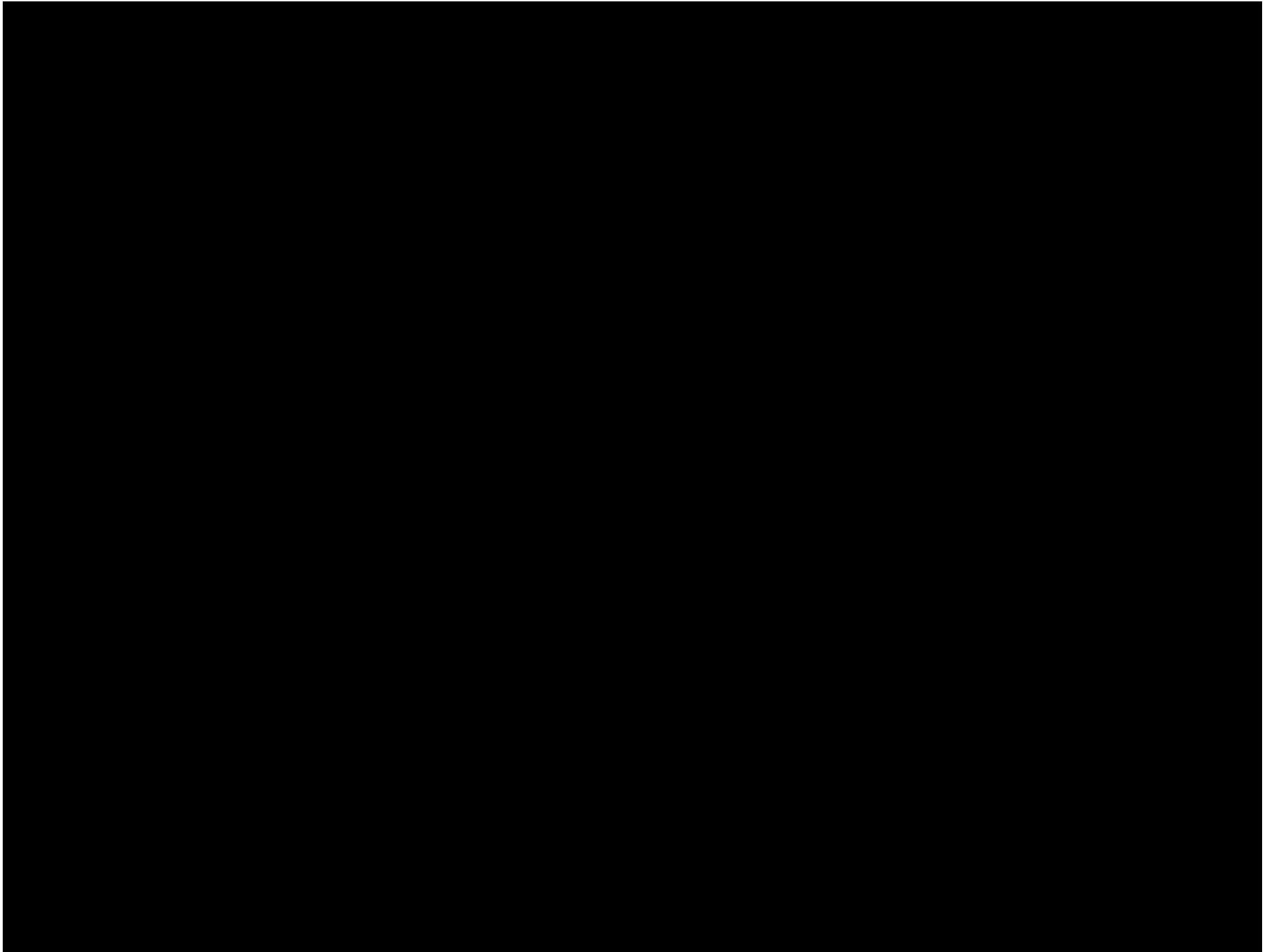
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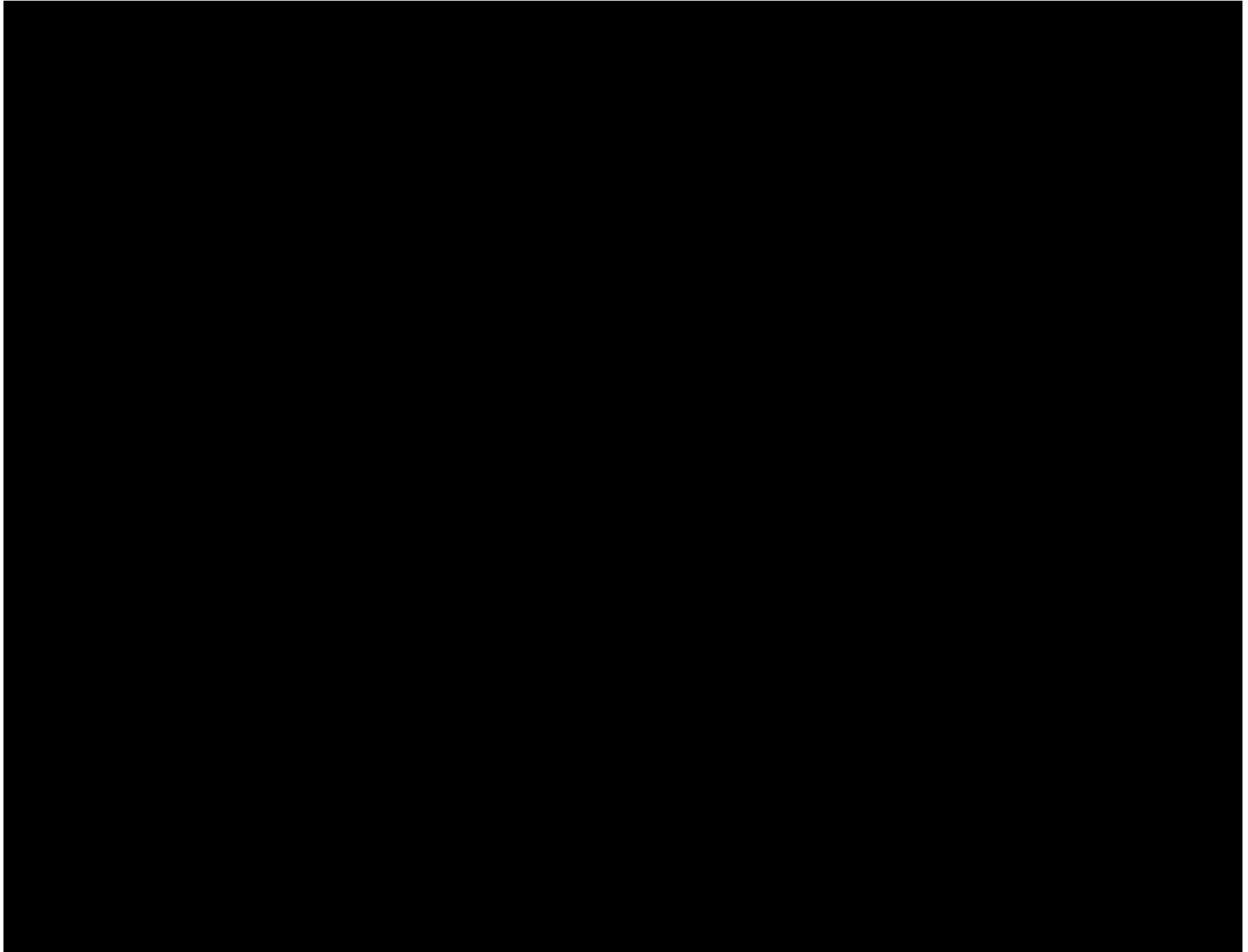
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BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

AWEC DATA REQUEST NO. 069:

RE: Cost of Capital

Please provide each forecast for long term GDP growth used by PSE for planning, load forecasting, budgeting or other business functions. Please provide the most current forecast for each distinct source or forecasting method and indicate how the forecast is used.

Response:

Puget Sound Energy ("PSE") objects to AWEC Data Request No. 069 as vague and ambiguous as to the phrase "Gross Domestic Product ("GDP") growth" for the stated purposes, as well as the phrase "other business functions." For purposes of its response, PSE defines GDP as the measure of overall economic activity and does not include indices that provide measures of the inflation associated with GDP such as gross domestic product implicit price deflator ("GDP-IPD").

PSE also objects to this request as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. This request asks for "each" forecast of long-term GDP and "other business functions" without limitation. PSE also objects to the extent it requests information that is publicly available or obtainable from some other source that is more convenient, less burdensome, or less expensive. Notwithstanding these objections, and subject thereto, PSE responds as follows:

Please see the Prefiled Direct Testimony of Joshua A. Kensok, Exh-JAK-1CT, pages 10-13, for information related to dynamic cost escalation and the Prefiled Direct Testimony of Dr. Mark N. Lowry, Exh-MNL-1T, page 15, for a discussion of the custom material and service ("M&S") price index.

PSE's electric load forecast has leveraged GDP growth to forecast residential and commercial customer growth, as well as industrial usage within the PSE service area. The electric load forecast is included in the Electric Progress Report and is also an input into the Five-Year Financial Plan, specifically to calculate the revenue forecast.

Attached as Attachment A to PSE's Response to AWEC Data Request No. 069 is an MS Excel file that includes long-term forecasts of GDP used in PSE's planning processes. The 2023 Electric Progress Report uses Moody's Analytics US GDP forecast from November 2021. The F23 load forecast (used in the Five-Year Financial

Plan) uses Moody's Analytics US GDP forecast from January 2023. Additionally, in Attachment A is the Moody's Analytics forecast of GDP from July 2024. Please note the July 2024 forecast is deflated with a different base year.

Shaded information is designated as CONFIDENTIAL per Protective Order in Dockets UE-240004 and UG-240005 as marked in Puget Sound Energy's Response to AWEC Data Request No. 069 (Attachment A)

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

JEA DATA REQUEST NO. 002:

Re: Depreciation Expense

Referring to NWA-3, Pages 34-35 of 332, the Company states, “Service life estimates are based not only on the analysis of historical data but also on the outlook for the future. In Puget Sound Energy’s case, the future of the gas industry will be very different from the past due to Washington’s decarbonization goals, which include net zero carbon emissions by 2050. Gannett Fleming has reviewed forecasts of future gas demand and number of gas customers over the next three decades and has incorporated information from these analyses and discussions with Company subject matter experts into the service life estimates in this study.” Please provide the forecasts of future natural gas demand and the number of gas customers that Gannett Fleming reviewed in an electronic spreadsheet format in preparation for the depreciation study.

Response:

Attached as Attachments A and B to Puget Sound Energy’s Response to JEA Data Request No. 002, please find the forecasts of future natural gas demand and the number of gas customers that Gannett Fleming reviewed in an electronic spreadsheet format in preparation for the depreciation study.

ATTACHMENT A to PSE's Response to JEA Data Request No. 002

Case	Customer Zone	Number of Customers
Residential SC 1	PSE Gas	Residential
Residential SC 1	PSE Gas	Commercial
Residential SC 1	PSE Gas	Industrial
SC1 Total Customers		
YOY- Incremental change from F22		
Annual Change from basecase		
Cumulative Change from F22		

Case	Customer Zone	Number of Customers
Residential SC 2	PSE Gas	Residential
Residential SC 2	PSE Gas	Commercial
Residential SC 2	PSE Gas	Industrial
SC2 Total Customers		
YOY- Incremental change from F22		
Annual Change from basecase		
Cumulative Change from F22		

Case	Customer Zone	Number of Customers
Residential SC 3	PSE Electric	Residential
Residential SC 3	PSE Electric	Commercial
Residential SC 3	PSE Electric	Industrial
SC3 Total Customers		
YOY- Incremental change from F22		
Annual Change from basecase		
Cumulative Change from F22		

Case	Customer Zone	Number of Customers
Residential SC 4	PSE Gas	Residential
Residential SC 4	PSE Gas	Commercial
Residential SC 4	PSE Gas	Industrial
SC4 Total Customers		
YOY- Incremental change from F22		
Annual Change from basecase		
Cumulative Change from F22		

F22		
Case	Customer Zone	Number of Customers
Residential	PSE Gas	Residential
Commercial	PSE Gas	Commercial
Industrial	PSE Gas	Industrial
Total Customer count		

PSE Response JEA DR 002_Attach A

2024	2025	2026	2027	2028	2029	2030	2031
822,683	819,833	812,394	799,702	781,410	757,358	727,826	693,591
58,064	58,061	57,942	57,727	57,401	56,931	56,277	55,442
2,213	2,174	2,134	2,096	2,036	1,999	1,961	1,924
882,960	880,068	872,470	859,525	840,847	816,287	786,065	750,957
	-0.33%	-0.86%	-1.48%	-2.17%	-2.9%	-3.7%	-4.5%
-0.9%	-2.3%	-4.1%	-6.5%	-9.5%	-13.0%	-17.0%	-21.5%
-0.9%	-1.3%	-2.1%	-3.6%	-5.7%	-8.4%	-11.8%	-15.8%

2024	2025	2026	2027	2028	2029	2030	2031
822,683	819,833	812,394	799,702	781,410	757,358	727,826	693,591
58,064	58,061	57,942	57,727	57,401	56,931	56,277	55,442
2,213	2,174	2,134	2,096	2,036	1,999	1,961	1,924
882,960	880,068	872,470	859,525	840,847	816,287	786,065	750,957
	-0.33%	-0.9%	-1.5%	-2.2%	-2.9%	-3.7%	-4.5%
-0.9%	-2.3%	-4.1%	-6.5%	-9.5%	-13.0%	-17.0%	-21.5%
-0.9%	-1.3%	-2.1%	-3.6%	-5.7%	-8.4%	-11.8%	-15.8%

2024	2025	2026	2027	2028	2029	2030	2031
831,024	840,393	849,568	858,634	867,814	877,075	886,322	895,574
58,064	58,061	57,942	57,727	57,401	56,931	56,277	55,442
2,213	2,174	2,134	2,096	2,036	1,999	1,961	1,924
891,301	900,628	909,644	918,456	927,251	936,004	944,560	952,940
	1.05%	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%
0.0%	0.0%	-0.1%	-0.1%	-0.2%	-0.2%	-0.3%	-0.4%
0.0%	1.0%	2.0%	3.0%	4.0%	5.0%	6.0%	6.9%

2024	2025	2026	2027	2028	2029	2030	2031
829,925	837,705	844,757	851,073	856,741	861,712	865,971	869,627
58,064	58,061	57,942	57,727	57,401	56,931	56,277	55,442
2,213	2,174	2,134	2,096	2,036	1,999	1,961	1,924
890,202	897,939	904,833	910,895	916,179	920,641	924,210	926,993
	0.87%	0.8%	0.7%	0.6%	0.5%	0.4%	0.3%
-0.1%	-0.3%	-0.6%	-0.9%	-1.3%	-1.9%	-2.5%	-3.1%
-0.1%	0.7%	1.5%	2.2%	2.8%	3.3%	3.7%	4.0%

2024	2025	2026	2027	2028	2029	2030	2031
831,024	840,393	849,568	858,634	867,814	877,075	886,322	895,574
58,134	58,278	58,405	58,553	58,725	58,910	59,079	59,238
2,235	2,218	2,200	2,183	2,166	2,149	2,132	2,114
891,393	900,889	910,173	919,370	928,705	938,134	947,533	956,926

PSE Response JEA DR 002_Attach A

2032	2033	2034	2035	2036	2037	2038	2039
655,715	615,322	573,426	530,814	488,184	445,533	413,498	385,309
54,430	53,284	52,028	50,686	49,290	47,862	46,433	45,003
1,887	1,851	1,815	1,780	1,744	1,709	1,675	1,641
712,032	670,457	627,269	583,280	539,218	495,105	461,605	431,954
-5.2%	-5.8%	-6.4%	-7.0%	-7.6%	-8.2%	-6.8%	-6.4%
-26.3%	-31.3%	-36.3%	-41.3%	-46.3%	-51.1%	-54.8%	-58.1%
-20.1%	-24.8%	-29.6%	-34.6%	-39.5%	-44.5%	-48.2%	-51.5%

2032	2033	2034	2035	2036	2037	2038	2039
655,715	615,322	573,426	530,814	488,184	445,533	413,498	385,309
54,430	53,284	52,028	50,686	49,290	47,862	46,433	45,003
1,887	1,851	1,815	1,780	1,744	1,709	1,675	1,641
712,032	670,457	627,269	583,280	539,218	495,105	461,605	431,954
-5.2%	-5.8%	-6.4%	-7.0%	-7.6%	-8.2%	-6.8%	-6.4%
-26.3%	-31.3%	-36.3%	-41.3%	-46.3%	-51.1%	-54.8%	-58.1%
-20.1%	-24.8%	-29.6%	-34.6%	-39.5%	-44.5%	-48.2%	-51.5%

2032	2033	2034	2035	2036	2037	2038	2039
904,826	914,017	923,176	932,272	941,303	950,259	959,165	968,016
54,430	53,284	52,028	50,686	49,290	47,862	46,433	45,003
1,887	1,851	1,815	1,780	1,744	1,709	1,675	1,641
961,143	969,153	977,020	984,738	992,337	999,830	1,007,272	1,014,660
0.9%	0.8%	0.8%	0.8%	0.8%	0.8%	0.7%	0.7%
-0.5%	-0.7%	-0.8%	-0.9%	-1.1%	-1.2%	-1.4%	-1.5%
7.8%	8.7%	9.6%	10.5%	11.3%	12.2%	13.0%	13.8%

2032	2033	2034	2035	2036	2037	2038	2039
872,815	875,662	878,309	880,849	883,371	885,872	888,359	890,831
54,430	53,284	52,028	50,686	49,290	47,862	46,433	45,003
1,887	1,851	1,815	1,780	1,744	1,709	1,675	1,641
929,132	930,797	932,153	933,315	934,405	935,443	936,467	937,475
0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
-3.8%	-4.6%	-5.4%	-6.1%	-6.9%	-7.6%	-8.3%	-9.0%
4.2%	4.4%	4.6%	4.7%	4.8%	4.9%	5.1%	5.2%

2032	2033	2034	2035	2036	2037	2038	2039
904,826	914,017	923,176	932,272	941,303	950,259	959,165	968,016
59,376	59,525	59,671	59,797	59,907	60,000	60,091	60,181
2,097	2,080	2,063	2,046	2,028	2,011	1,994	1,977
966,299	975,622	984,910	994,115	1,003,238	1,012,270	1,021,250	1,030,174

PSE Response JEA DR 002_Attach A

2040	2041	2042	2043	2044	2045	2046	2047
361,637	342,935	329,291	320,422	316,293	318,787	321,269	323,722
43,594	42,203	40,823	39,455	38,106	36,780	35,474	34,230
1,607	1,573	1,540	1,507	1,456	1,424	1,392	1,361
406,838	386,710	371,654	361,385	355,855	356,992	358,134	359,312
-5.8%	-4.9%	-3.9%	-2.8%	-1.5%	0.3%	0.3%	0.3%
-60.8%	-63.1%	-64.8%	-66.1%	-66.9%	-67.1%	-67.2%	-67.4%
-54.4%	-56.6%	-58.3%	-59.5%	-60.1%	-60.0%	-59.8%	-59.7%

2040	2041	2042	2043	2044	2045	2046	2047
361,637	342,935	329,291	320,422	316,293	318,787	321,269	323,722
43,594	42,203	40,823	39,455	38,106	36,780	35,474	34,230
1,607	1,573	1,540	1,507	1,456	1,424	1,392	1,361
406,838	386,710	371,654	361,385	355,855	356,992	358,134	359,312
-5.8%	-4.9%	-3.9%	-2.8%	-1.5%	0.3%	0.3%	0.3%
-60.8%	-63.1%	-64.8%	-66.1%	-66.9%	-67.1%	-67.2%	-67.4%
-54.4%	-56.6%	-58.3%	-59.5%	-60.1%	-60.0%	-59.8%	-59.7%

2040	2041	2042	2043	2044	2045	2046	2047
976,869	985,778	994,680	1,003,601	1,012,544	1,021,477	1,030,362	1,039,146
43,594	42,203	40,823	39,455	38,106	36,780	35,474	34,230
1,607	1,573	1,540	1,507	1,456	1,424	1,392	1,361
1,022,069	1,029,554	1,037,043	1,044,564	1,052,106	1,059,681	1,067,227	1,074,737
0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
-1.6%	-1.8%	-1.9%	-2.0%	-2.1%	-2.2%	-2.4%	-2.5%
14.7%	15.5%	16.3%	17.2%	18.0%	18.9%	19.7%	20.6%

2040	2041	2042	2043	2044	2045	2046	2047
893,303	895,791	898,277	900,768	903,266	905,760	908,241	910,695
43,594	42,203	40,823	39,455	38,106	36,780	35,474	34,230
1,607	1,573	1,540	1,507	1,456	1,424	1,392	1,361
938,504	939,567	940,640	941,731	942,827	943,965	945,107	946,285
0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
-9.7%	-10.4%	-11.0%	-11.7%	-12.3%	-12.9%	-13.5%	-14.1%
5.3%	5.4%	5.5%	5.6%	5.8%	5.9%	6.0%	6.2%

2040	2041	2042	2043	2044	2045	2046	2047
976,869	985,778	994,680	1,003,601	1,012,544	1,021,477	1,030,362	1,039,146
60,272	60,371	60,464	60,547	60,627	60,710	60,786	60,825
1,960	1,942	1,925	1,908	1,891	1,874	1,856	1,839
1,039,101	1,048,091	1,057,069	1,066,056	1,075,062	1,084,061	1,093,004	1,101,810

PSE Response JEA DR 002_Attach A

2048	2049	2050
326,022	327,890	327,895
33,040	31,910	30,855
1,330	1,300	1,269
360,392	361,100	360,020
0.3%	0.2%	-0.3%
-67.5%	-67.7%	-68.1%
-59.6%	-59.5%	-59.6%

2048	2049	2050
326,022	327,890	327,895
33,040	31,910	30,855
1,330	1,300	1,269
360,392	361,100	360,020
0.3%	0.2%	-0.3%
-67.5%	-67.7%	-68.1%
-59.6%	-59.5%	-59.6%

2048	2049	2050
1,047,807	1,056,308	1,064,610
33,040	31,910	30,855
1,330	1,300	1,269
1,082,177	1,089,517	1,096,734
0.7%	0.7%	0.7%
-2.5%	-2.6%	-2.7%
21.4%	22.2%	23.0%

2048	2049	2050
912,995	914,863	916,688
33,040	31,910	30,855
1,330	1,300	1,269
947,365	948,073	948,813
0.1%	0.1%	0.1%
-14.7%	-15.3%	-15.8%
6.3%	6.4%	6.4%

2048	2049	2050
1,047,807	1,056,308	1,064,610
60,852	60,871	60,878
1,822	1,805	1,788
1,110,481	1,118,984	1,127,276

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

JEA DATA REQUEST NO. 012:

Re: Manetti Testimony

Please refer to JM-1CT, 22:6 – 9, where the witness writes, “The projected budget to implement the Targeted Electrification Pilot Phase 2 through the end of 2026 is \$22,300,000.”

- a. If the Company spends more than in the projected budget, will it seek to recover the additional costs? If yes, through what regulatory mechanism (e.g., 141DCARB in a general rate case)?
- b. If the Company spends less than in the project budget, will the Company propose to return the money to customers? If yes, through what regulatory mechanism (e.g., 141DCARB in a general rate case)? If not, please explain why not.

Response:

- a. The Targeted Electrification Pilot Phase 2 budget is capped at \$22,300,000. Puget Sound Energy (“PSE”) does not expect to incur any additional costs above this amount. However, the proposed Schedule 141DCARB tariff provides for a true-up to forecasted amounts used to set rates. Therefore, under the proposed tariff language, were PSE to prudently spend greater than the existing budget, the additional amount would be requested in the next annual filing.
- b. If PSE spends less than the projected budget, the money will be returned to customers through the true-up in its next annual 141DCARB filing as described in the proposed Schedule 141DCARB tariff sheets.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

JEA DATA REQUEST NO. 043:

Re: Decarbonization

Please refer to Mannetti Direct, Exh. JM-1CT, 3:10 – 15 where the witness writes, “Targeted Electrification Strategy. PSE would incorporate a targeted electrification strategy, based on the findings of the updated decarbonization study and electrification pilot, into its next natural gas Integrated Resource Plan and Biennial Conservation Plan following the conclusion of the study and pilot.”

On June 5, PSE filed a petition (UE-240433 and UG-240434) with the Commission to extend the filing and reporting requirements for the Company’s 2025 natural gas IRP until 2027 when the Company will file an integrated system plan.

- a. Should the Commission grant PSE’s petition, does the Company intend to delay implementing its Targeted Electrification Strategy until it files its 2027 Integrated System Plan?
- b. If no to subpart (a) please explain when the Company will begin implementing its Targeted Electrification Strategy?

Response:

- a. No, Puget Sound Energy (“PSE”) does not intend to delay implementing its Targeted Electrification Strategy (“TES”) until 2027.
- b. The Targeted Electrification Strategy will be filed in January of 2025. PSE will address questions related to the TES implementation at that time.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

NUCOR DATA REQUEST NO. 001:

RE: Gas Cost of Service Study

Please refer to 240004-05-PSE-WP-JDT-4-GCOS-MODEL- PSE-24GRC-02-2024.

- a. Please confirm that PSE's gas cost of service study includes the Non-Exclusive Interruptible classes (Schedules 87 & 87T) in the cost allocation of medium (2-3 inch) and small (<2 inch) distribution mains.
- b. If subpart a. is confirmed, please explain why PSE has departed from the approach it used to allocate distribution mains in Docket UG-190530, which excluded Non-Exclusive Interruptible classes from the allocation of small and medium-sized distribution mains.
- c. Please explain, as specifically as possible, PSE's interpretation of the requirements of WAC 480-85 regarding the allocation of small and medium-sized gas distribution mains.
- d. Please confirm that PSE excludes Schedule 88T from the general allocation of distribution mains (i.e., "Balance of Mains").
- e. If subpart d. is confirmed, please explain why PSE believes it is appropriate to exclude Schedule 88T from the general allocation of distribution mains.
- f. Does PSE believe that it is consistent with WAC 480-85 to exclude Schedule 88T from the general allocation of distribution mains? If so, please explain.

Response:

Puget Sound Energy ("PSE") objects to Nucor Data Request No. 001 to the extent it calls for a legal conclusion related to the requirements of WAC 480-85. Notwithstanding these objections, and subject thereto, PSE responds as follows:

- a. Yes, PSE's gas cost of service study allocates medium (2-3 inch) and small (<2 inch) distribution mains to the non-exclusive interruptible rate class, Schedules 87 and 87T.
- b. The prescribed methods in Washington Administrative Code ("WAC") Chapter 480-85 do not allow for the exclusion of allocating medium and small distribution mains to the non-exclusive interruptible rate class.

- c. PSE's interpretation of the requirements of WAC Chapter 480-85 regarding distribution mains allocation and whether the rules allow for excluding some customer classes from the allocation of smaller size mains is based on feedback PSE received from Washington Utilities and Transportation Commission ("WUTC") Staff in Docket UG-170003, the rulemaking for natural gas cost of service studies. Within Docket UG-170003, on February 12, 2020, the Commission issued a notice of opportunity to file written comments on the proposed cost of service rules. PSE filed written comments on March 27, 2020, including a specific comment seeking clarification if the proposed rules would allow the use of main pipe diameter to allocate costs to some customer classes but not others.¹ On July 7, 2020, the Commission issued its final order in this docket adopting the new cost of service rules. Appendix A to this order summarized all the comments the Commission received regarding the cost of service rulemaking along with WUTC Staff's response to these comments.² On page 16, WUTC Staff responded to PSE's comments seeking clarification of the mains allocation rules, stating that "[t]he rules are clear and do not allow for the use of main pipe diameter to allocate costs to some classes but not others."³
- d. Yes, PSE excluded Schedule 88T from the general allocation of distribution mains.
- e. WAC 480-85-060 rules for allocating distribution mains allow for the "direct assignment of distribution mains to a single customer class where practical." Since there is currently one customer on Schedule 88T, the distribution mains serving this customer were directly assigned to this customer class.
- f. See response to part e above.

¹ Docket UG-170003, Comments on Behalf of Puget Sound Energy at p. 8 (Mar. 27, 2020).

² Docket UG-170003, General Order R-599, Appendix A (July 7, 2020).

³ *Id.* at p. 16.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

WUTC STAFF DATA REQUEST NO. 031:

REQUESTED BY: Wesley Franks

Re: TEP Pilot Phase 2

Witness Mannetti testifies that “the projects and programs proposed in the Targeted Electrification Pilot Phase 2 help reduce Climate Commitment Act compliance obligations of gas customers.” Mannetti, Exh. JM-1CT at 21:2-10. How do the projects and programs in TEP Pilot Phase 2 help reduce CCA compliance obligations of gas customers? In responding, please quantify the reduction.

Response:

The proposed programs reduce gas use, thus reduce Puget Sound Energy’s (“PSE”) Climate Commitment Act compliance obligation (fewer allowances needed). For single-family homes that remove natural gas space heating, water heating, and cooking with efficient electric alternatives, PSE assumes 797 therms/year will be avoided at the site. For space and water heating only, PSE assumes 781 therms/year. For space heating only, PSE assumes 620 therms per year and for water heating only, PSE assumes 161 therms/year. PSE is leveraging the Regional Technical Forum Gas Furnace and Gas Water Heater workbooks for these figures. Small business and multi-family sites will be determined based on site conditions and use patterns, which vary more than the single-family building stock.

Gas Furnace workbook:

<https://rtf.nwcouncil.org/measure/residential-gas-furnaces/>

Gas Water Heating Workbook:

<https://rtf.nwcouncil.org/measure/residential-gas-water-heaters-0/>

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

WUTC STAFF DATA REQUEST NO. 036:

REQUESTED BY: Wesley Franks

Re: TEP Pilot Phase 2, Small Businesses in Named Communities Pilot

Witness Mannetti testifies that “The Small Businesses in Named Communities Pilot is targeted at small businesses in named communities in PSE’s dual fuel territory, specifically those using natural gas for space and/or water heating.” Mannetti, Exh. JM-1CT at 17:15-17.

- a. How is “small business” defined?
- b. How many small businesses are within PSE’s dual fuel territory and how many of those are within Named Communities?
- c. What is the rationale for not targeting small businesses in Named Communities outside of PSE’s dual fuel territory?

Response:

- a. The targeted customers for this pilot will largely align with the definition in the 2024-2025 Biennial Conservation Plan under Gas Docket UG-230893, file “230892-230893-PSE-BCP-2024-2025-Exhibit-3-Program-Details.pdf”, page 116:

Qualifying customers are small business owners, with appropriate building owner consent, of small- to mid-sized businesses receiving electricity through Puget Sound Energy (“PSE”) commercial Rate Schedule 24, 25 (under 10,000 sq. ft.), and 31G. An exception to the square footage requirement exists in the lodging sector where the size limit of 150 rooms or fewer has been put in place in order to qualify for the program.

Because there is a wide range of business sizes within gas Rate Schedule 31G, pilot will focus buildings smaller than 10,000 sq. ft.

- b. PSE estimates that there are roughly 3,500 businesses that reside in highly impacted communities and vulnerable populations that should be eligible for this offering. This number included a filter for businesses with fifty or fewer

employees. Customer counts, when adding numerous filters, and merging datasets, are estimates.

- c. PSE is limiting its targeted electrification pilot activities to dual fuel territory because the cost for the targeted electrification program is borne by both electric and natural gas customers. Having PSE's electric customers share the cost burden for gas only territories to electrify would be inappropriate as those costs should be allocated to and borne by the electric public utility districts/municipal utilities serving PSE's gas only territories. At this time, a mechanism to recover costs from electric public utility districts/municipal utilities does not exist. Therefore, all targeted electrification pilot programs are currently limited to PSE's dual fuel territories.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

WUTC STAFF DATA REQUEST NO. 101:

REQUESTED BY: Wesley Franks

RE: Targeted Electrification Plan (TEP) Pilot Phase 2

Please provide all cost-effectiveness evaluations and analyses related to each of the six pilot programs within the Phase 2 Targeted Electrification Pilot identified at Exh. JM-1CT at 15-16, including, but not limited to:

- Total resource cost test,
- Utility cost test,
- Participant cost test,
- Ratepayer impact measure.

Additionally, please include, where applicable and when available, the values for the impacts included in the attached spreadsheet. Please indicate whether a value is available or not in the “Yes/No” column, and include the values when available in the “Benefit” or “Cost” column. Please include any relevant notes in the “Notes” column.

Response:

Puget Sound Energy (“PSE”) objects to WUTC Staff Data Request No. 101 to the extent this request seeks a document that does not exist and is therefore not in the possession, custody, or control of PSE. PSE also objects to the extent it requests information that is publicly available or obtainable from some other source that is more convenient, less burdensome, or less expensive. Notwithstanding these objections, and subject thereto, PSE responds as follows:

PSE has not performed any cost effectiveness tests for the programs within the Phase 2 Targeted Electrification Pilot, as the purpose of the pilot is to further research targeted electrification work, program design, customer impacts, energy impacts, etc. Since PSE did not perform these tests, there are no applicable values to populate the table that was provided, and therefore PSE is not attaching the spreadsheet with this response.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Dockets UE-240004 & UG-240005
Puget Sound Energy
2024 General Rate Case**

WUTC STAFF DATA REQUEST NO. 164:

RE: Targeted Electrification Pilot Phase 2

Witness Mannetti also testifies that “these offerings, if implemented, could provide a foundation for program design, customer education, contractor training requirements, and grid integration challenges.” Mannetti, Exh. JM-1CT (R) at 21:6-8. Witness Mannetti also testifies that “customers will be benefited by PSE proactively pursuing targeted electrification programs and applying those lessons learned into future programs.” Mannetti, Exh. JM-1CT (R) at 23:12-13. Please explain how the proposed TEP 2 will help PSE overcome the current challenge of providing electrification programs cost-effectively.

Response:

Puget Sound Energy (“PSE”) objects to WUTC Staff Data Request No. 164 to the extent that it mischaracterizes Witness Mannetti’s testimony. Notwithstanding these objections, and subject thereto, PSE responds as follows:

The proposed Targeted Electrification Pilot (“TEP”) Phase 2 was not justified by cost effectiveness, rather it is a pilot program that provides equitable access to customer decarbonization. The work in the Duvall gas capacity constrained area has the potential to be cost-effective as it could mitigate the need to pursue major infrastructure upgrades there. Lessons learned in Phase 1 and Phase 2 of this Pilot work will shape ongoing program design and future program design but are not likely to solve the cost-effectiveness challenge.