COMMONWEALTH EDISON COMPANY

Load Forecast for Five-Year Planning Period
June 2023 – May 2028

July 15, 2022

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I. INTRODUCTION AND SUMMARY

The Public Utilities Act ("PUA") provides that beginning in 2008 electric utilities in Illinois shall provide a range of load forecasts to the Illinois Power Agency ("IPA") by July 15th of each year. The PUA further provides that these load forecasts shall cover the 5-year planning period for the next procurement plan and shall include hourly data representing high-load, low-load and expected-load scenarios for the load of eligible retail customers ("Eligible Retail Customers"). The electric utility is also to provide supporting data and assumptions (220 ILCS 5/16-111.5(d)(2)). This document presents Commonwealth Edison Company's ("ComEd") load forecast for the planning period of June 2023 through May 2028.

ComEd's 5-year hourly load forecast ("Forecast") is based on the PUA's definition of Eligible Retail Customers. Eligible Retail Customers include Residential and non-Residential customers who purchase power and energy from ComEd under fixed-price bundled service ("Blended Service") tariffs, other than those customers whose service has been declared competitive. Because service to certain classes of customers has been declared competitive either by statute or by the Illinois Commerce Commission ("ICC"), only Residential and non-Residential customers below 100 kW in size are eligible for Blended Service.[1]

The Forecast includes the effects of energy efficiency, demand response and renewable energy resources programs. The Forecast anticipates that these programs will be observed in full compliance with the PUA's requirements, subject to the defined rate impact test.

II. LOAD FORECAST

A. Purpose and Summary

This section of the Forecast provides forecasted energy usage for the Eligible Retail Customers within ComEd's service territory for the 5-year procurement planning period beginning on June 1, 2023. In accordance with Section 16-111.5(b) of the PUA, the Forecast includes a multi-year historical analysis of hourly loads, a review of switching trends and competitive retail market development, a discussion of known and projected changes to future loads and growth forecasts by customer classes. The Forecast also addresses the impacts of demand response and energy efficiency programs on the forecast. Lastly, this Forecast discusses any supply side needs that are projected to be offset by the purchase of renewable energy resources.

B. Development of the Five-Year Load Forecast (June 1, 2023 – May 31, 2028)

The hourly load analysis provides the means to determine the on-peak and off-peak quantities needed in the procurement process. In presenting the Forecast, this document focuses on average usage or load during the 12 monthly on-peak and off-peak periods during a year. For the purposes of this Forecast, the definitions of the on-peak and off-peak periods are consistent

[1] There is one exception to this statement. The common area accounts for the condominium associations are exempted from this competitive declaration (see Section 16-103.1 of the PUA).

with those commonly used in the wholesale power markets, and on trading platforms such as the New York Mercantile Exchange ("NYMEX") and the Intercontinental Exchange, Inc. ("ICE"). The on-peak period consists of the weekday period from 6 a.m. to 10 p.m. CPT excluding NERC holidays (this is referred to as the 5X16 peak period). The off-peak period consists of all other hours (this is referred to as the off-peak "wrap" period). The Forecast therefore has been summarized as load requirements using the 24 different time periods covered by these standard products. This is the same approach that was presented in past forecasts and approved by the ICC. The hourly load data is being supplied with the supporting data and assumptions materials.

1. Hourly Load Analysis

a. Multi-year historical analysis of hourly load

The 2022 multi-year historical analysis of hourly load is very similar to the approach used in past procurement filings. The expanding deployment of Advanced Metering Infrastructure ("AMI") within ComEd's service territory has provided the Company with the ability to enhance its standard hourly load profiles. Data from AMI meters were utilized to develop delivery class hourly load profiles for 2015 to 2021. This data was used in the typical hourly models that have been developed and refined over the past few years. These models continue to perform well.

The 2022 multi-year historical analysis of load during the 24 monthly on-peak and off-peak periods is based on hourly profile data for the period from January 2015 to December 2021. These are the same profiles used in ComEd's cost of service studies. As discussed in greater detail below, the profiles show distinct and stable weather-related usage patterns that are indicative of how Residential and small non-Residential customers use electricity. The customer load profiles provide reliable information on the historical hourly usage of customers.

Using the hourly load profiles and actual customer aggregate usage, Table II-1 depicts the historical on-peak and off-peak hourly usage of the major customer groups within the Eligible Retail Customers for the period from January 2019 to December 2021.

Table II-1
Load Forecast Table (Historical Detail 2019-2021)

ComEd Historical Actual Usage

Historical Energy Usage in MWh for Eligible Retail Customers (Line Loss Adjusted)

		Residential Load		Watthour		Small Load (0 to 100kW)		Street Lighting Load		Total Load (MWh)	
Year	Month	On-Peak	Off-Peak	On-Peak	Off-Peak	On-Peak	Off-Peak	On-Peak	Off-Peak	On-Peak	Off-Peak
2019	1	830,679	859,668	8,629	8,391	233,125	192,170	408	839	1,072,841	1,061,068
2019	2	717,754	761,529	7,891	7,780	209,252	171,508	897	1,942	935,793	942,760
2019	3	665,359	793,227	7,868	8,413	214,800	190,316	-163	-430	887,864	991,525
2019	4	563,763	563,665	7,230	6,594	202,848	149,423	245	764	774,085	720,445
2019	5	564,786	595,083	7,129	6,739	200,269	150,686	204	913	772,388	753,422
2019	6	707,371	791,817	6,579	6,794	197,517	165,836	174	857	911,641	965,304
2019	7	1,252,621	1,207,143	8,853	8,036	272,227	203,739	181	788	1,533,882	1,419,707
2019	8	1,011,566	920,696	8,429	7,614	253,554	188,402	205	850	1,273,754	1,117,563
2019	9	771,483	806,075	6,918	7,215	205,625	171,871	254	765	984,279	985,926
2019	10	673,281	618,514	7,451	6,576	202,540	141,896	326	745	883,598	767,731
2019	11	672,180	791,537	7,773	8,572	191,493	172,318	356	753	871,801	973,181
2019	12	747,045	845,208	8,389	9,056	213,918	193,618	409	748	969,762	1,048,629
	Totals	**9,177,888**	**9,554,163**	**93,138**	**91,782**	**2,597,168**	**2,091,782**	**3,496**	**9,534**	**11,871,689**	**11,747,261**
2020	1	765,635	830,757	8,834	8,753	223,327	186,110	366	743	998,162	1,026,363
2020	2	694,399	766,718	8,126	8,473	202,226	177,453	314	675	905,065	953,319
2020	3	651,025	678,495	7,991	8,151	202,356	173,911	310	766	861,681	861,323
2020	4	637,981	589,756	6,989	6,971	153,868	128,565	248	749	799,087	726,041
2020	5	663,183	771,841	6,642	8,099	145,043	147,166	174	776	815,042	927,881
2020	6	1,155,008	933,880	8,702	7,738	199,306	143,689	172	770	1,363,187	1,086,076
2020	7	1,503,208	1,277,450	9,837	8,359	254,336	182,856	197	849	1,767,578	1,469,515
2020	8	1,187,088	1,191,407	8,663	8,878	221,576	190,143	215	866	1,417,542	1,391,293
2020	9	715,690	713,562	7,644	7,657	191,133	155,432	260	749	914,726	877,401
2020	10	657,445	655,487	7,737	7,734	165,834	135,557	297	675	831,312	799,452
2020	11	635,144	729,224	7,853	8,916	161,426	152,014	401	850	804,823	891,004
2020	12	876,113	884,975	9,095	9,173	195,184	168,358	400	709	1,080,793	1,063,216
	Totals	**10,141,918**	**10,023,552**	**98,112**	**98,901**	**2,315,614**	**1,941,254**	**3,353**	**9,178**	**12,558,997**	**12,072,885**
2021	1	794,945	962,847	8,278	9,893	187,013	192,023	496	1,038	990,732	1,165,801
2021	2	860,734	891,440	9,505	9,645	198,321	174,232	472	988	1,069,032	1,076,305
2021	3	720,658	665,915	9,373	8,637	202,222	156,147	415	1,016	932,669	831,716
2021	4	633,369	595,759	8,296	7,846	181,895	139,089	333	990	823,894	743,684
2021	5	657,254	765,384	7,782	9,107	170,797	162,458	245	1,089	836,078	938,039
2021	6	1,153,028	1,117,910	9,030	8,188	237,283	178,869	240	1,049	1,399,581	1,306,015
2021	7	1,159,775	1,196,569	7,444	7,606	227,477	194,022	303	1,324	1,394,999	1,399,522
2021	8	1,412,679	1,306,885	7,774	7,222	261,428	202,950	250	963	1,682,130	1,518,021
2021	9	862,019	880,491	7,287	7,179	221,590	177,630	367	1,036	1,091,262	1,066,336
2021	10	674,001	784,241	7,804	8,499	180,543	160,051	444	1,017	862,791	953,809
2021	11	734,541	783,092	7,950	8,242	180,966	155,492	465	948	923,922	947,773
2021	12	939,102	871,301	9,324	8,627	220,332	171,343	570	985	1,169,328	1,052,255
	Totals	**10,602,105**	**10,821,835**	**99,848**	**100,691**	**2,469,866**	**2,064,307**	**4,599**	**12,443**	**13,176,417**	**12,999,276**

Table II-2 carries forward the total load in MWh from Table II-1 and then provides the average load for each period in MW, which is useful in determining the required volume of standard wholesale energy products.

Table II-2

Load Forecast Table (Historical Summary 2019-2021)

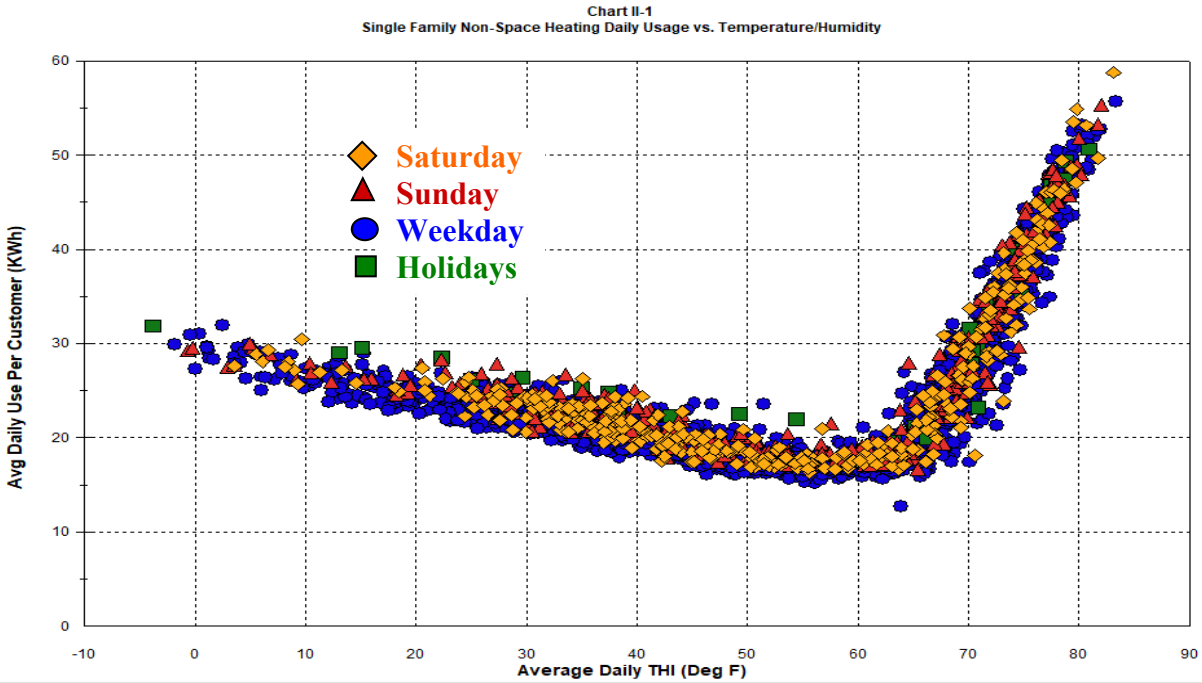
ComEd Historical Actual Usage
Historical Energy Usage for Eligible Retail Customers
(Line Loss Adjusted)

Year	Month	Total Load (MWh)		Average Load (MW)	
		On-Peak	Off-Peak	On-Peak	Off-Peak
2019	1	1,072,841	1,061,068	3,048	2,707
2019	2	935,793	942,760	2,924	2,678
2019	3	887,864	991,525	2,642	2,430
2019	4	774,085	720,445	2,199	1,958
2019	5	772,388	753,422	2,194	1,922
2019	6	911,641	965,304	2,849	2,413
2019	7	1,533,882	1,419,707	4,358	3,622
2019	8	1,273,754	1,117,563	3,619	2,851
2019	9	984,279	985,926	3,076	2,465
2019	10	883,598	767,731	2,401	2,042
2019	11	871,801	973,181	2,724	2,433
2019	12	969,762	1,048,629	2,886	2,570
Totals		**11,871,689**	**11,747,261**		
2020	1	998,162	1,026,363	2,836	2,618
2020	2	905,065	953,319	2,828	2,535
2020	3	861,681	861,323	2,448	2,197
2020	4	799,087	726,041	2,270	1,973
2020	5	815,042	927,881	2,547	2,188
2020	6	1,363,187	1,086,076	3,873	2,951
2020	7	1,767,578	1,469,515	4,803	3,908
2020	8	1,417,542	1,391,293	4,219	3,410
2020	9	914,726	877,401	2,722	2,285
2020	10	831,312	799,452	2,362	2,039
2020	11	804,823	891,004	2,515	2,228
2020	12	1,080,793	1,063,216	3,070	2,712
Totals		**12,558,997**	**12,072,885**		
2021	1	990,732	1,165,801	3,096	2,750
2021	2	1,069,032	1,076,305	3,341	3,058
2021	3	932,669	831,716	2,534	2,212
2021	4	823,894	743,684	2,341	2,021
2021	5	836,078	938,039	2,613	2,212
2021	6	1,399,581	1,306,015	3,976	3,549
2021	7	1,394,999	1,399,522	4,152	3,430
2021	8	1,682,130	1,518,021	4,779	3,873
2021	9	1,091,262	1,066,336	3,248	2,777
2021	10	862,791	953,809	2,568	2,338
2021	11	923,922	947,773	2,750	2,468
2021	12	1,169,328	1,052,255	3,178	2,799
Totals		**13,176,417**	**12,999,276**		

ComEd analyzed the hourly load profiles for all the major customer groups within the Eligible Retail Customers. As a result of that analysis, ComEd developed hourly load models for those major customer groups that determined the average percentage of monthly usage that each customer group used in each hour of that month. Those hourly models were then used to develop the monthly on-peak and off-peak usage percentages for the planning periods. These percentages were applied to ComEd's forecasted monthly usage to obtain the forecasted procurement quantities. In the following section, the hourly analysis of the Residential single-family non-space heating customer segment is described. This class represents approximately half of the annual usage of the Eligible Retail Customer segment and provides a good example of how the hourly load profile data were analyzed and modeled.

(i) Residential Single-Family Hourly Load Profile Analysis

One of the most significant and easily understood determinants of Residential energy usage is weather. The "scatter plot" shown below (Chart II-1) demonstrates the significant relationship that exists between weather and usage for the single-family non-space heating Residential customer segment.



A scatter plot shows the relationship between two variables. Each point represents a single observation (a day in this case). In this chart, the values shown on the vertical or Y-axis are daily usage per customer ("UPC"). The values shown on the horizontal or X-axis are the daily average temperature-humidity index ("THI"). The graph shows daily UPC based on observations from January 2015 to December 2021 and the average THI on those days. THI, rather than temperature alone, is used because Residential usage is sensitive to humidity. Different geometric shapes and colors are used to distinguish points representing weekdays from those depicting Saturday, Sunday, or holiday usage.

The scatter plot is very useful in understanding the relationship between customer usage and weather. If a relationship between usage and weather did not exist, then the graph would not display a clear pattern. The right side of the graph at the high end of the horizontal axis shows the days on which THI was the highest. The points at that end of the graph indicate that the highest UPC occurred when THI levels were at their peak of 75 plus degrees. Moving to the left, the points show UPC declining rapidly as the THI decreases until the 60-degree level is reached at which a base usage level appears. From that base level, UPC gradually increases as colder temperatures are experienced.

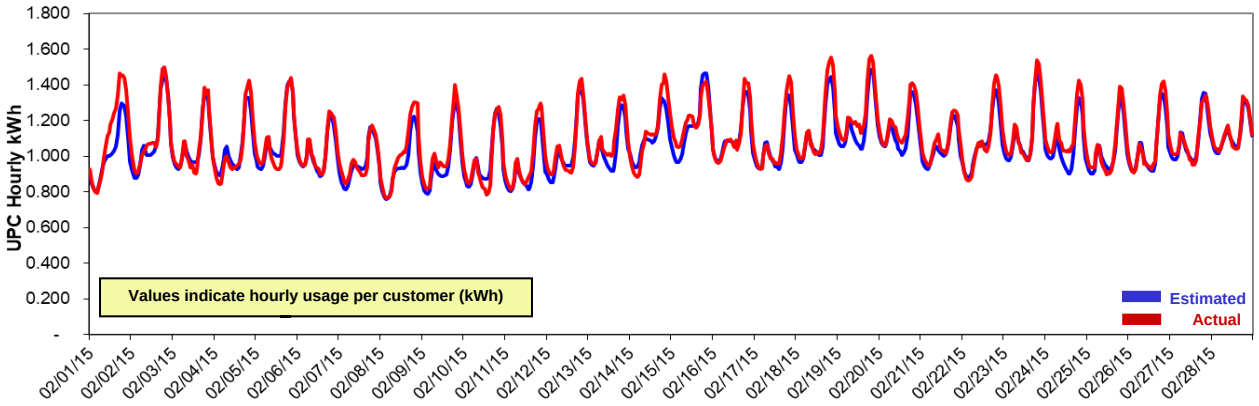
Hourly models were developed to account for the strong weather relationship shown in the graph and to account for numerous other factors that influence Residential usage. The models explicitly account for the differing effects of energy use at various temperatures. Variables are included to allow for seasonal usage patterns in water heating, refrigeration, and other seasonal uses. Weekend and holiday variables are included to allow for behavioral differences on those days relative to weekdays. Weather variables for prior days are included in the model to account for the dynamic effects of temperature buildup. The full list of variables included in the Residential single-family model is shown in Appendix A-1.

One way to visualize the model's performance is to look at plots of actual and estimated[2] values for the historical estimation period. The following charts demonstrate the performance of the model over four time periods at the hourly level during winter and summer months with warmer or colder than normal weather conditions. The four months are February 2015 (cold winter); December 2015 (warm winter); June 2015 (cool summer) and August 2018 (warm summer). The charts illustrate the model's ability to accurately estimate under varying weather conditions. The heating degree days ("HDD") in February 2015 were 1,405 (above the normal HDD of 1,046) and December 2015 was 800 (below the normal HDD of 1,069). The cooling degree days ("CDD") in June 2015 were 118 (below the normal CDD of 200) and August 2018 was 356 (above the normal CDD of 275).

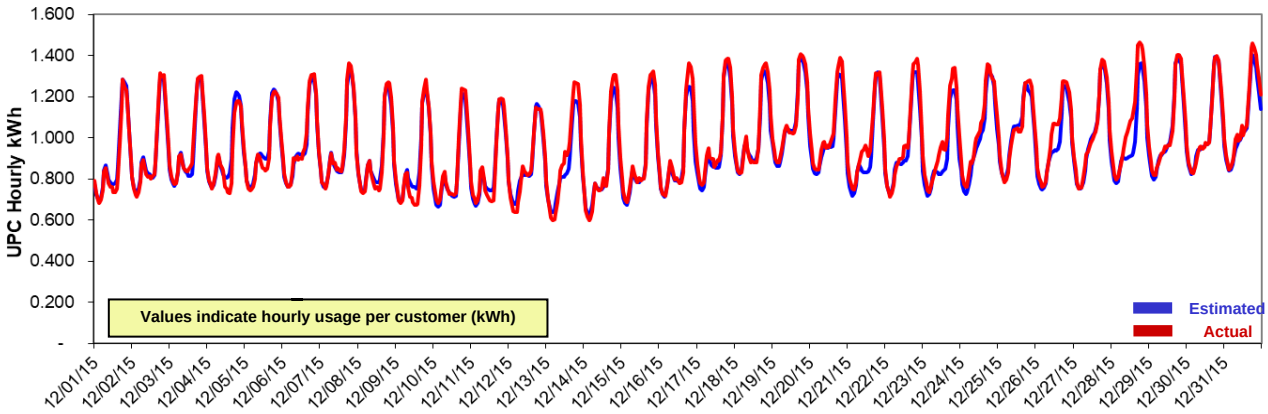
[2] The estimated data in Chart II-2 is based on the actual weather experienced over the relevant period.

Chart II-2
ComEd Single Family Profile: Estimated vs. Actual

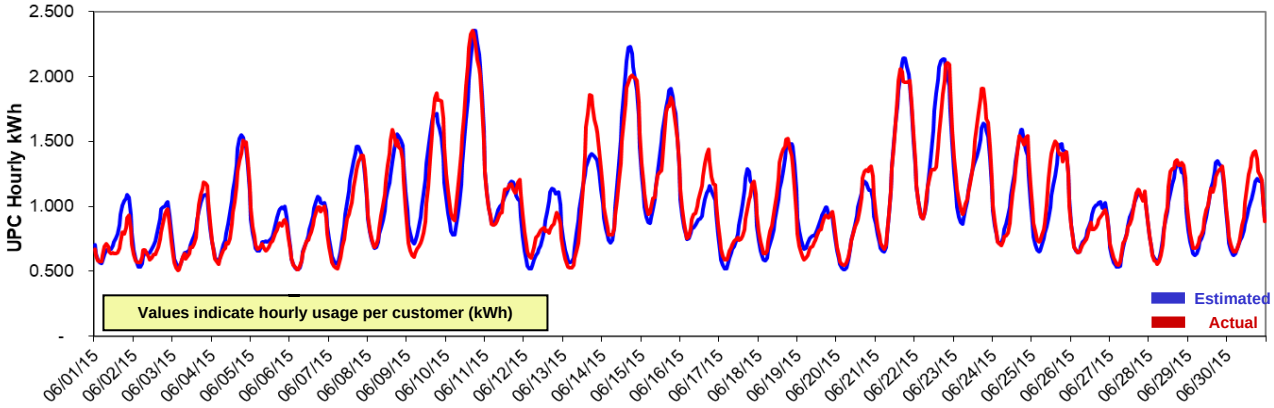
February 2015 Hourly Actual vs. Estimated UPC



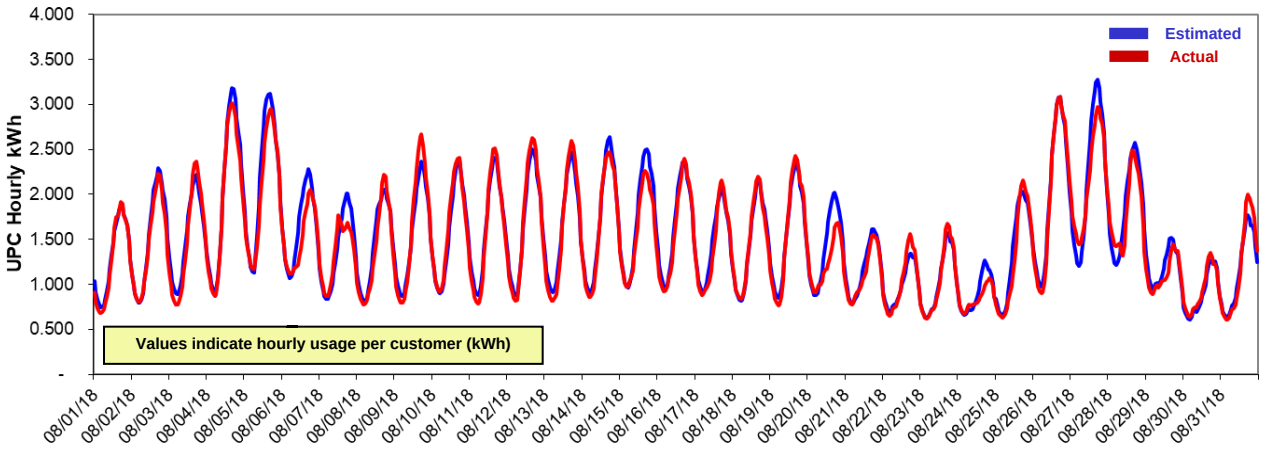
December 2015 Hourly Actual vs. Estimated UPC



June 2015 Hourly Actual vs. Estimated UPC



August 2018 Hourly Actual vs. Estimated UPC



In all the graphs above in Chart II-2, the red line indicates the "actual" load data and the blue line indicates the model's estimated values, adjusted for actual weather. The charts demonstrate that the model's estimated usage closely mirrors the actual usage and the model is effective in estimating variations in electrical usage patterns that are significantly influenced by weather conditions.

b. Switching Trends and Competitive Retail Market Analysis

In determining the expected load requirements for which standard wholesale products will be procured, it is important to provide the best possible estimate of the number of Eligible Retail Customers that are likely to be served by Retail Electric Suppliers ("RES"). That issue is considered in the following discussion, which reviews retail development in ComEd's

service territory, the entry of RES, the rate of customer switching in the past, future trends affecting customer choice and ComEd's 5-year forecast of the percentage of load from various customer segments that will continue to be served with supply procured by ComEd.

(i) Introduction and Brief Overview of Retail Development

Retail choice is very active within ComEd's service territory as demonstrated in several ways:

1. A large number of Residential customers have participated in customer choice over the past few years. Approximately 720,000 Residential customers in the ComEd service territory were taking RES supply as of May 2022 or 19.5% of total Residential customers. RES participation was higher in the past with a monthly average of approximately 2.4 million Residential customers taking RES supply from March 2013 to May 2014, which equated to approximately 69% of total Residential customers. This high level of engagement denotes meaningful customer choice activity within the ComEd service territory over the past several years.

2. Municipal Aggregation ("Muni Agg") has been an important factor in the expansion of Residential RES supply over time. In total there are still approximately 359 governmental entities (i.e., municipalities, townships, or counties, hereinafter jointly referred to as "Communities") within the ComEd service territory that had approved a Muni Agg referendum as of June 2022. Approximately 197 of those Communities (or 55% of the total) were being served under a Muni Agg contract as of June 2022. There are no new referendums that we are aware of currently.

3. As noted below, there are many Residential retailers in the ComEd service territory.

4. Since 2020 a limited number of Residential customers have an additional supply option. The Commission approved Rate RTOUPP (Residential Time of Use Pricing Pilot) on October 2, 2019 in ICC Docket No. 18-1824. This is a four-year pilot program offering an elective time of use Residential rate option and is available to no more than 1,900 Residential customers. Applicable customers can elect to take service beginning June 1, 2020. While limited in scope and overall impact to procurement volumes, it illustrates the varied supply options available to Residential customers.

5. Non-Residential customers are actively participating in customer choice including smaller-sized customers. Approximately 91% of ComEd's entire non-Residential usage is supplied through either RES or Hourly service as of May 2022. There is also meaningful participation by the smaller-sized non-Residential customers as approximately 60% of the 0 to 100 kW non-Residential delivery class was taking RES or Hourly supply in May 2022. These large and steady percentages illustrate that customer choice is very

active among a variety of non-Residential customers within the ComEd service territory.

In summary, customers are actively engaged in retail choice within the ComEd service territory.

(ii) RES Development

There continues to be many RESs within the ComEd service territory. The number of RESs over time is shown in the table below:

Table II-3
RES Development in the ComEd Service Territory

RES Category	May 2016	May 2017	May 2018	May 2019	May 2020	May 2021	May 2022
Number of Active RESs[3]	74	81	90	90	91	94	95
Number of RESs approved to serve Residential customers	63	64	74	78	74	79	87

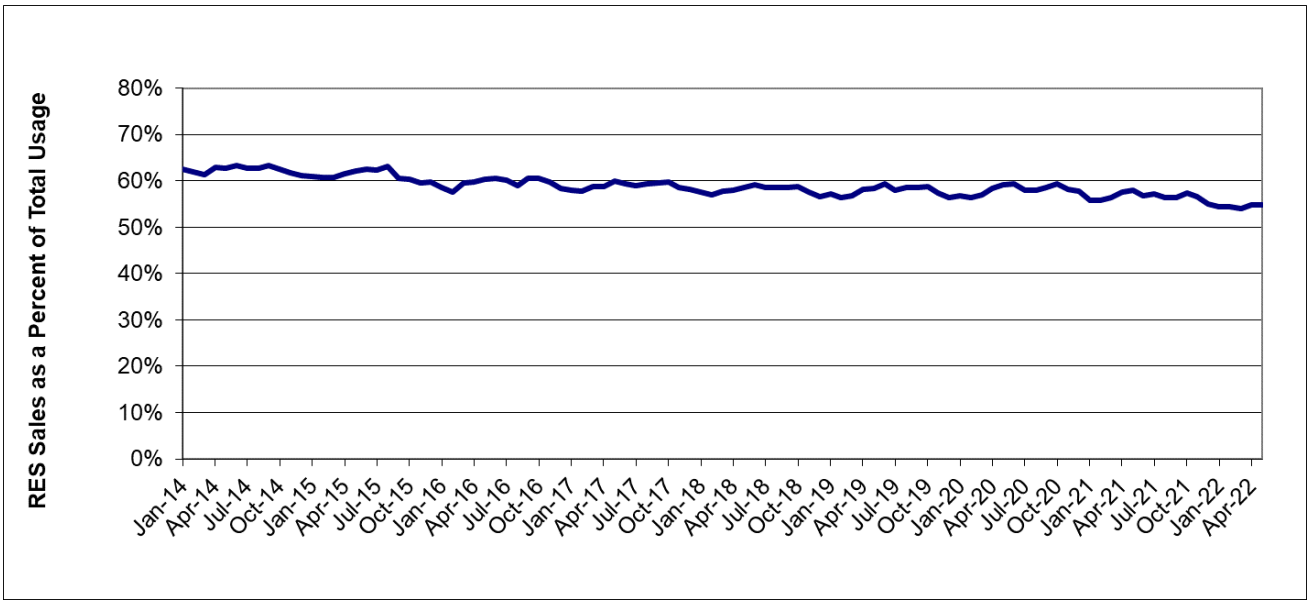
From May 2016 to May 2022 there has been an approximately 28% increase in the number of active RESs in the ComEd service territory. A rather meaningful increase for a market that already had a great deal of switching activity in the year 2013. Also, the increase in the number of RESs approved to serve Residential customers has shown a substantial increase over time but has stabilized in recent years. This large number of RESs and overall growth in the number of RESs highlights the active retail market in ComEd's service territory.

(iii) Future Trends

The future trends reflect an active retail market for several reasons. First, RES supply to customers in the 0 to 100 kW class continues to be significant. Chart II-3 contains the monthly percentage of usage by RES customers from January 2014 through May 2022. The RES percentage is at a substantial level with an average of 56.8% RES usage from January 2020 to May 2022. In addition, the percentage of RES usage has been steady over that time ranging from a high of 59.3% to a low of 53.9% although it has been declining over the last half year. It is 54.8% as of May 2022.

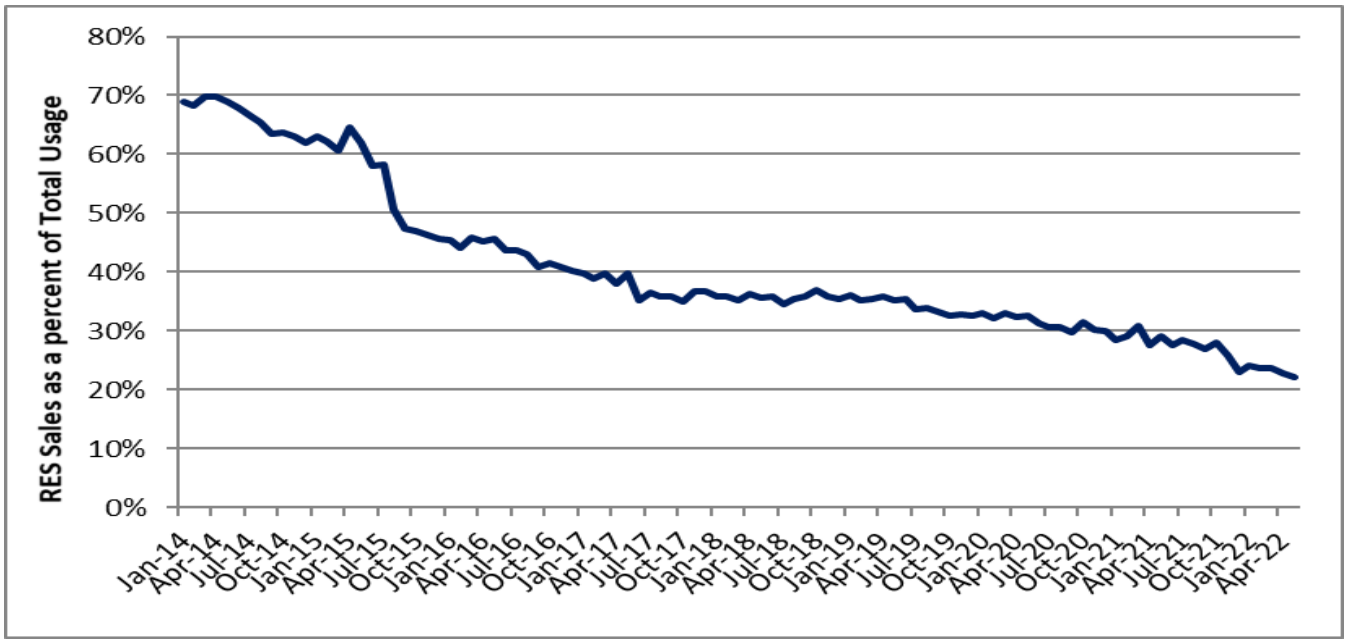
[3] An "Active RES" is defined as an ICC-approved RES that has passed ComEd's certification process.

Chart II-3
0 to 100 kW Switching Statistics



Second, the retail market for Residential customers continues to be at a meaningful level but has been steadily declining. Chart II-4 contains the monthly percentage of usage by RES customers from January 2014 to May 2022. A little over one-fifth (22%) of Residential customers based on usage are taking RES supply as of May 2022. This is down from 29% in May 2021 and down from the over two-thirds taking RES supply in late 2013 as various Muni Agg Communities have suspended their programs. However, for the purposes of judging the acceptance and engagement in retail choice by Residential customers, Chart II-4 highlights that Residential customers have been active participants in the retail markets.

Chart II-4
Residential Switching Statistics



Third, Muni Agg over the past years highlights an engaged customer base related to retail choice. Approximately 359 Communities have passed a Muni Agg referendum within the ComEd service territory. Muni Agg by its very nature requires engagement not only by public officials within each community, but also by the citizens of the community that approve the Muni Agg referendums. This large number of Communities is another indicator of an engaged customer base that is active in retail choice.

For these reasons, we expect retail markets to continue to reflect a meaningful level of engagement during the Forecast period.

(iv) Forecasted Retail Usage

The forecast percentages of Blended Service usage are shown below, along with some historical perspective.

Table II-4
Percentage of Blended Service Usage

Month	Residential	Watthour	0-100 kW
Jun-15	41.6%	27.0%	34.4%
Jun-16	55.9%	38.8%	36.6%
Jun-17	64.3%	41.9%	37.5%
Jun-18	63.2%	43.0%	36.9%
Jun-19	63.6%	43.0%	36.9%
Jun-20	67.5%	48.4%	36.6%
Jun-21	71.1%	49.7%	38.7%
May-22	76.3%	46.2%	40.3%
Jun-23	78.6%	49.4%	40.9%
Jun-24	79.5%	49.7%	41.2%
Jun-25	80.0%	49.7%	41.3%
Jun-26	80.0%	49.7%	41.3%
Jun-27	80.0%	49.7%	41.3%

The main drivers of this forecast are:

1. Residential Blended supply is expected to increase modestly in the near-term reflecting year-to-date activity. The percentage of Residential usage that is Blended supply averaged 75.6% for the three months ending May 2022 and is expected to increase to 77.3% by December 2022. The monthly Blended percentage has averaged 71.0% for the past two years (June 2020 to May 2022). This movement reflects the recent increases in wholesale natural gas prices which have contributed to increased wholesale electricity prices as well as the popularity of the price to compare contract in Residential, which has the effect of increasing Blended usage and is discussed in more detail on page 14. There are some offsetting dynamics (e.g., a community suspending its Muni Agg program while another renews its previously suspended program, etc.) but the overall net result is a modest increase in the Blended percentage over the Forecast period.

   Muni Agg results for the first half of 2022 illustrate this offsetting dynamic. We continue to utilize town-code level data related to Muni Agg Communities with contract renewals in 2022. This data reflects recent Muni Agg Communities usages and decisions as of mid-June 2022 and that data can be found in the spreadsheet entitled "2022 Muni Agg Renewal Tracking.xlsx". Granted, only 10% of Muni Agg decisions have been made so far in the first half of 2022 based on load so one needs to be cautious in the use of these early results.

   Approximately 32% of the Muni Agg Communities based on usage with a contract renewal in 2022 that have decided as of mid-June 2022 have opted to suspend their program. This is consistent with the trend observed for all

of 2021 which was 27%. The assumption for the remainder of 2022 is a 25% suspension rate which is reflective of the increasing suspension rate over the last year.

So far in 2022 there have not been any community decisions to re-start their programs. There is 50 GWh projected in 2022 to re-start Muni Agg which reflects the decreasing number of restarts observed over the last few years. To put this in context, only 107 GWh restarted in 2021 which was down from 235 GWh in 2020. We anticipate a similar year-over-year decline in restarts for 2022.

We continue to assume the City of Chicago will not reactivate its municipal aggregation program with the City's level of Residential switching remaining flat.

A development in 2019 is the increased number of communities that are choosing a pricing option where the Muni Agg pricing is set to match the ComEd price to compare. The benefit to the customers is that the RES purchases renewable energy credits for the eligible customers, with some options offering 100% Green supply. Under this product not all customers are moved to RES supply. On balance, once the program has been implemented, we find the percentage of usage on RES supply drops by approximately 30 percentage points. In other words, it goes from roughly 80% RES usage to 50% RES. This has the effect of increasing Blended usage even though a community is renewing their Muni Agg program. So far in 2022 of the handful of communities that have decided none have chosen this option for the first time, but most communities have yet to decide. In 2021 approximately 20% of the total usage up for renewal chose this option for the first time which is down from roughly 40% in 2020. We expect around 15% in 2022 given the popularity of this option over the last several years and thus the shrinking pool of communities that can choose this option for the first time. Consequently, approximately 140 GWh of usage is projected to move to Blended supply in 2022 due to this dynamic (15% of the approximately 3,100 GWh of total usage up for renewal will decide on this option with a corresponding 30% movement to Blended usage). This pricing product adds another layer of complexity to the switching forecast and, as in the past, we will continue to monitor it and keep the IPA informed of further developments. In total, expectations for Muni Agg activity in 2022 translate to an approximately 1% increase in the projected Blended supply percentage.

The last component is the switching change in non-Muni Agg communities, which includes communities that have never implemented a Muni Agg program as well as communities that have at some point in time but are currently not on a Muni Agg program. An examination of 2021 and 2022 data for these communities shows continued movement to Blended supply which translates to an approximately 3% increase in the projected Blended supply percentage due to these communities.

2. The Muni Agg switching environment experienced in 2021 and continuing in the first half of 2022 is expected to persist into the remaining years of the Forecast. A higher suspension rate due to energy pricing dynamics mentioned above and the continued popularity of the price to compare option has had the effect of increasing Blended usage substantially over the last year and is forecasted to reach 78.6% in Residential by June 2023. Lastly, no Muni Agg referendums are anticipated in the future as there have not been any in the past several years.

3. Non-Muni Agg Residential switching activity is also expected to increase over the Forecast reflecting their trend in switching results over the last year. Of the Communities that have never implemented a Muni Agg program approximately 83.5% of their Residential usage was Blended as of May 2022. This is modestly higher than the 82.0% Blended as of May 2021 and thus an increased Residential Blended percentage of a similar magnitude is anticipated among the customers outside Muni Agg communities going forward.

   Based on these considerations, for the years 2023 and thereafter, an increased Residential Blended percentage is anticipated reflecting the recent dynamic of higher suspension rates and the price to compare option in Muni Agg contracts as well as lower non-Muni Agg switching activity.

4. Regarding the non-Residential customer forecast there are two distinct groups. The 0 to 100 kW customer group is marginally influenced by Muni Agg activity and the Blended percentage has held rather steady the past three years although has seen a recent uptick consistent with trends observed in Residential: 0 to 100 kW Blended usage in 2019 averaged 38.1%; 2020 averaged 37.5%; and 2021 averaged 38.6%. So far year-to-date we have observed a 40.5% average Blended usage and subsequently anticipate a slightly higher forecast of 40.8% by December 2022 with a stable but slightly increasing percentage thereafter consistent with recent trend. The Watt-hour customer group is influenced by Muni Agg activity. The percentage of Blended supplied usage for the watt-hour group often follows the same general pattern as the Residential customer group. The Watthour Blended percentage averaged 47.5% for 2020, 48.7% in 2021 and is projected to be 49.2% by December 2022 and largely reflects the anticipated Residential environment.

5. This Forecast is based on a combination of actual results over several years, recent switching activity and granular data (e.g., community level information). ComEd will continue to monitor and analyze Muni Agg activity (along with other switching activities) and keep the IPA informed of any developments. The best approach in forecasting switching activity, especially in a market that is responding to changing conditions, is to provide regular updates. ComEd will provide a forecast update in March 2023 and July 2023. In addition, any meaningful development related to

switching activity during the remainder of 2021 will be communicated to the IPA.

In summary, the effects of those switching drivers by customer group are as follows:

1. The Blended Service portion of the Residential customer class is expected to be 77.3% by December 2022 increasing thereafter by about 1% per year on average and stabilizing around 80%.

2. The Blended Service portion of the 0 to 100 kW customer class is expected to be 40.8% by December 2022 increasing slighting thereafter and stabilizing around 41.3% during the Forecast period.

3. The Blended Service portion of the Watthour customer class is expected to be 49.2% by December 2022 with this percentage increasing slightly but holding steady around 49.7% during the Forecast period.

c. Known or Projected Changes to Future Load

Typically, when ComEd forecasts future loads, it considers whether there are any known major customer decisions that would impact load, such as the relocation of part or all of a business. For the Eligible Retail Customers, other than the factors we have discussed elsewhere, e.g., switching, energy efficiency measures, growth, etc., there is only one known or projected change that ComEd is aware of that is different from past conditions and could affect future loads for this group of customers. This is the Residential real-time pricing program ("RRTP").

In compliance with Section 16-107(b-5) of the PUA, ComEd received ICC approval to implement an RRTP program for a four-year period,[4] and, more recently, to continue the program post-2016.[5] Given the most recent trends in switching activity and a general preference for Blended supply, ComEd now anticipates RRTP customers to stabilize after several years of strong expansion. The recent number of Residential RRTP customers has fallen from around 37,500 in 2021 to 35,600 so far in 2022. The expectation is for RRTP customers to grow only slightly from approximately 35,600 in May 2022 to approximately 37,250 by the end of the year 2027.

[4] See ICC Order of December 20, 2006, in Docket No. 06-0617.

[5] See ICC Order of January 20, 2016 in Docket No. 15-0602.

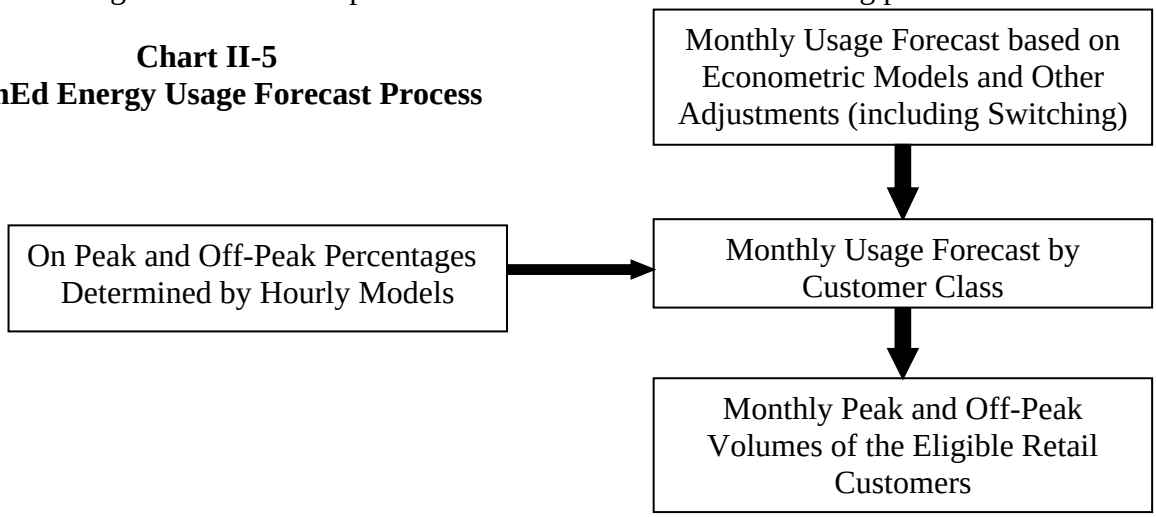
d. Growth Forecast by Customer Class

(i) Introduction

This section describes ComEd's growth forecast by customer class for the 5-year procurement planning period beginning on June 1, 2023. Section II(B)(1) discussed the hourly customer load profiles used by ComEd to develop models to present the historical load analysis required by the PUA and to predict UPC, or usage per customer. As indicated in this section, in arriving at a growth forecast by customer class, there are additional models beyond those customer-level hourly models that are used to forecast future customer class usage. These other models play an important role in determining expected load during the 5-year planning period among the Eligible Retail Customer groups.

The following illustrates the steps in the normal ComEd load forecasting process.

Chart II-5
ComEd Energy Usage Forecast Process

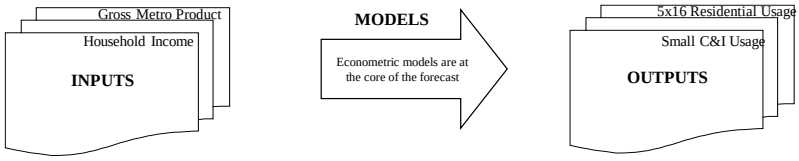


The forecasting process is model-based subject to adjustments and judgment. A suite of econometric models is used to produce monthly usage forecasts for ComEd's revenue customer classes. The two major customer classes applicable to this Forecast are Residential and Small C&I. That monthly forecast is adjusted for other considerations (e.g., switching activity) and allocated to more granular delivery service classes (e.g., the Residential customer class is composed of four delivery service classes). The forecast usage is combined with the input from the hourly models to obtain on-peak and off-peak quantities for each month and delivery service class.

The econometric modeling portion of the process is described in the following chart:

Chart
II-6

Econometric Modeling Process



Economic Forecasts
- Chicago Gross Metro Product
- Real Income per Household
- Household Growth

Switching Forecast
- RES Activity
- Market Developments

Top Down Approach
- Zone output modeled using historical weather and economic variables
- Customer class usage modeled using historic weather data and economic variables for each class
- Customer class forecast calibrated to equal zone output forecast (less line loss)
- Other research and judgment used to determine final energy forecast (e.g., effects from new energy efficiency programs)
- Usage forecast adjusted for projected switching activity
- Hourly customer class models used to determine on-peak and off-peak usage

Sales and Load Forecasts
- ComEd Zone Output
- Customer Class Usage
- Procurement Eligible Usage by On-Peak and Off-Peak Usage

As the chart indicates, ComEd's forecasts of usage for its service territory are based on a "top-down" approach. The top-down approach provides a forecast of total usage for the entire service territory and allocates the usage to various customer classes using the models specific to each class. The allocation is achieved by reducing the forecasted zone usage by the inherent difference between zone and customer class usage (in particular, line loss) and then calibrating the forecasted customer class usage to equal the system-wide at the meter usage. The econometric models are based on monthly data and have very robust characteristics. Subsequent sections describe the significant relationship between energy usage and other independent variables. For example, the zone model contains sophisticated variables to reflect the effects of temperature and humidity, as well as seasonal usage patterns and other factors. The zone model includes an energy efficiency variable to capture the relationship of ComEd's energy efficiency efforts in reducing usage. Economic variables are also included. Again, by way of example, the gross metropolitan product ("GMP") for the Chicago and other metropolitan areas within ComEd's service territory is a useful measure of economic activity of the service territory. As GMP (which is expressed in billions of dollars) increases, use of electric energy rises as well. There are other economic variables used in the econometric models and those are described below. The economic assumptions (i.e., economic outlook) related to the economic variables are shown in Table II-5.

The COVID-19 pandemic has impacted load both at the home and business and the Company is utilizing similar independent variables presented in last year's filing within our models to estimate the GWh impact by customer class from dynamics like social distancing, mandated business closures, and remote work. The COVID-19 forecast impacts leveraged our experience in actual load from 2020 through year-to-date May 2022 with projections tapering from current levels to overall load recovery consistent with economic conditions over the Forecast period.

Table II-5

Chicago Area Economic Forecasts - IHS Markit (May 2022)

Economic Variables	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Gross Metro Product (Billions)	$ 596	$ 611	$ 617	$ 583	$ 614	$ 627	$ 638	$ 649	$ 658	$ 669	$ 683	$ 696
# of Households (Thousands)	3,524	3,567	3,585	3,565	3,589	3,601	3,606	3,616	3,627	3,640	3,655	3,671
Total Employment (Thousands)	4,617	4,656	4,681	4,340	4,433	4,619	4,638	4,627	4,623	4,640	4,679	4,720
Non-Manufacturing	4,200	4,232	4,257	3,938	4,032	4,203	4,219	4,207	4,204	4,223	4,263	4,304
Manufacturing	417	424	424	402	401	416	419	420	419	417	416	415
U.S. GDP	17,933	18,446	18,870	18,224	19,258	19,728	20,199	20,687	21,158	21,696	22,260	22,798

Growth Rate	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Gross Metro Product	1.5%	2.6%	1.0%	(5.6%)	5.3%	2.2%	1.8%	1.6%	1.4%	1.8%	2.1%	1.9%
# of Households	0.4%	1.2%	0.5%	(0.6%)	0.7%	0.3%	0.1%	0.3%	0.3%	0.4%	0.4%	0.4%
Total Employment	0.8%	0.9%	0.5%	(7.3%)	2.1%	4.2%	0.4%	(0.2%)	(0.1%)	0.4%	0.8%	0.9%
Non-Manufacturing	0.9%	0.8%	0.6%	(7.5%)	2.4%	4.2%	0.4%	(0.3%)	(0.1%)	0.4%	0.9%	1.0%
Manufacturing	0.3%	1.7%	(0.2%)	(5.1%)	(0.1%)	3.7%	0.7%	0.3%	(0.3%)	(0.5%)	(0.2%)	(0.1%)
U.S. GDP	2.3%	2.9%	2.3%	(3.4%)	5.7%	2.4%	2.4%	2.4%	2.3%	2.5%	2.6%	2.4%

Source: IHS Markit

All the variables used in each of the models in the forecasting process are identified in Appendix A-4.[6]

The remainder of this section will provide a brief description of the models, starting with the ComEd's Monthly Zone energy usage model ("Monthly Zone Model") and proceeding to the three customer-level models for monthly Residential bill-cycle energy usage ("Monthly Residential Model"), Monthly Small C&I bill-cycle energy usage ("Monthly Small C&I Model") and Monthly Street Lighting bill-cycle energy usage (Monthly Street Lighting Model").

(ii) ComEd Monthly Zone Model

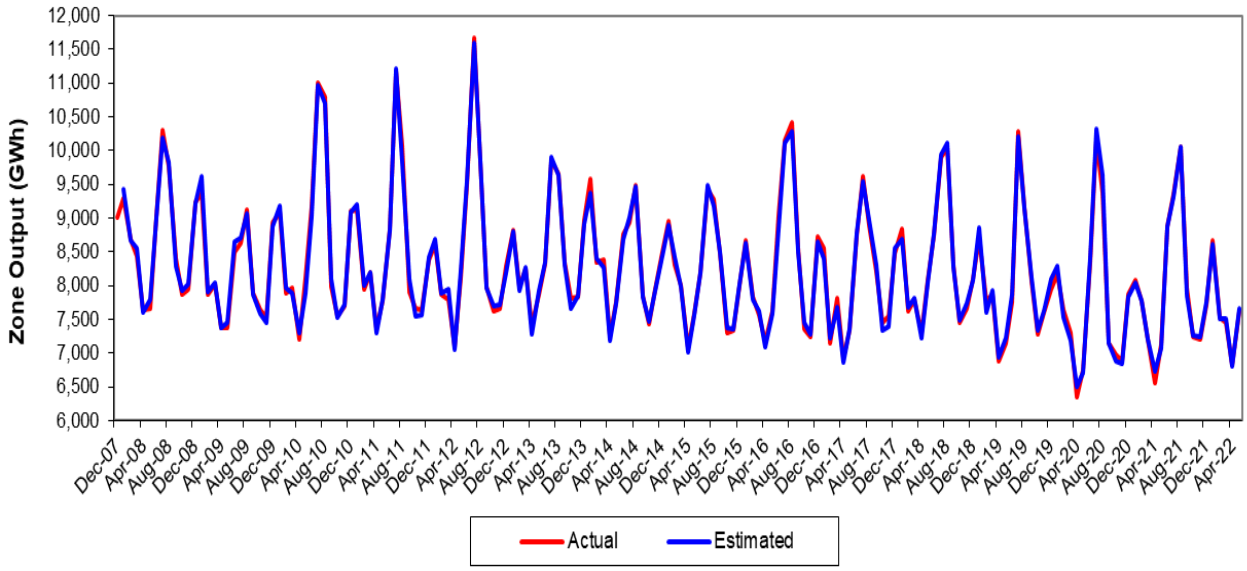
The Monthly Zone Model forecasts energy usage in gigawatt hours (GWh) for the entire ComEd service territory. The following chart shows the performance of the ComEd Monthly Zone Model by comparing actual zone output to the estimates[7] from that model for each calendar month from January 2008 through May 2022.

[6] Technical information about the model coefficients and regression statistics are included in Appendix A-2 and A-3.

[7] Once again, for purposes of this Forecast, the estimates used in Charts II-7, II-8 and II-9 are based on actual weather.

Chart II-7

ComEd Monthly Zone Model: Estimated vs. Actual



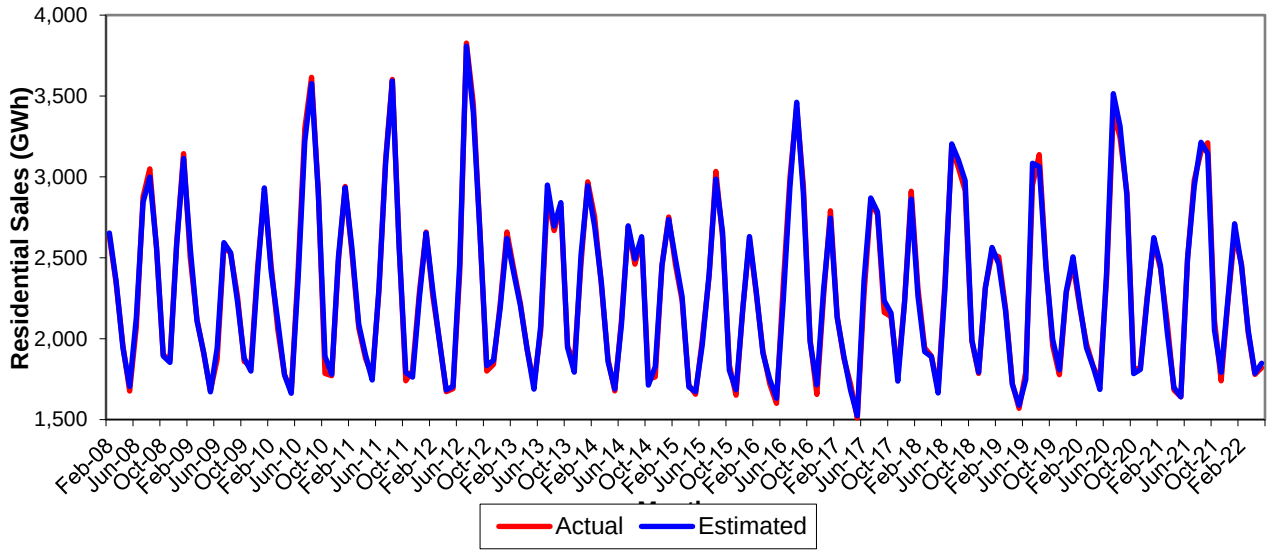
The graph line depicting the Monthly Zone Model's estimated usage (based on actual weather) and the line showing actual usage for the period are nearly identical.

(iii) ComEd Monthly Residential Model

The Monthly Residential Model forecasts monthly Residential bill-cycle usage expressed in kWh per customer per day. The Monthly Residential Model is also very useful in understanding energy usage for this customer segment. The following chart compares the monthly energy usage for Residential customers estimated by the Monthly Residential Model to the actual Residential usage for the time period of January 2008 to May 2022. The graph line depicting the model's estimated usage and the line with actual usage for the period are highly correlated.

Chart II-8

ComEd Monthly Residential Model: Estimated vs. Actual

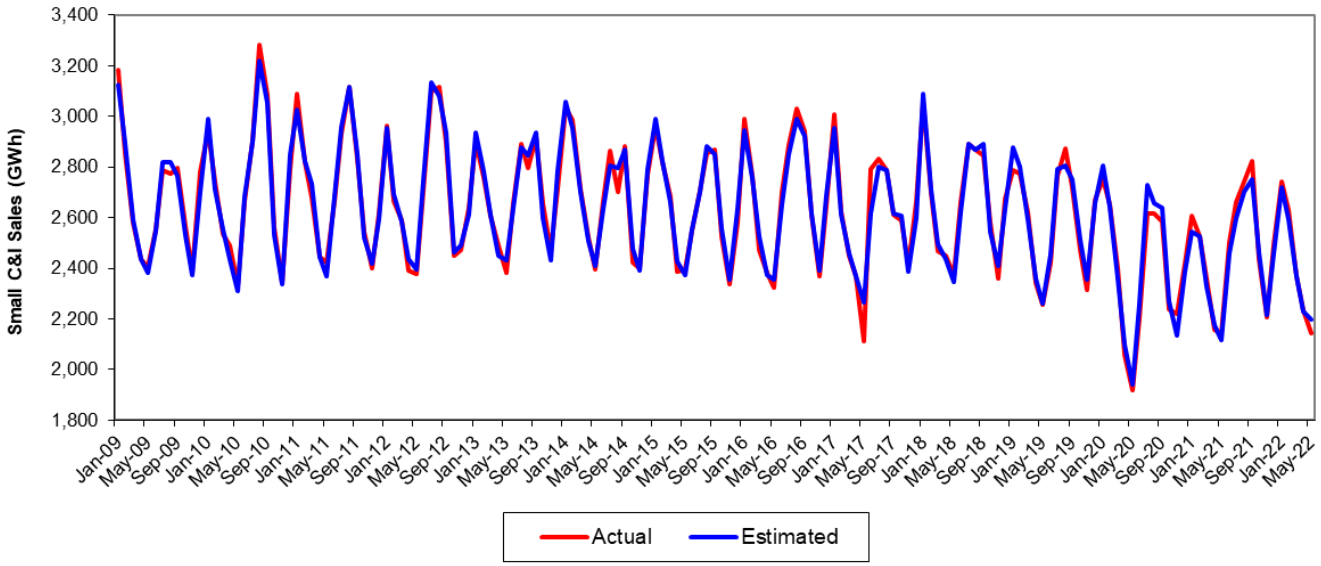


(iv) ComEd Monthly Small C&I Model

The Monthly Small C&I Model forecasts monthly Small C&I bill-cycle usage. Chart II-9 shows an estimated versus actual comparison demonstrating the model's effectiveness.

Chart II-9

ComEd Monthly Small C&I Model: Estimated vs. Actual



(v) ComEd Monthly Street Light Model

The Monthly Street Lighting Model forecasts monthly bill-cycle usage related to street lighting. This final model estimates use per day in GWh.

(vi) Growth Forecast

The forecast reflects the above assumptions and a progressively greater adoption of solar generation in the coming years.

In the case of forecasting solar adoption by retail customers, the approach is to consider as many factors as reasonably possible while acknowledging that solar penetration is still in the early stages within the ComEd service territory. Along these lines, ComEd's solar forecast uses the System Dynamics model to account for various factors influencing solar adoption (this is the same model used in the March 2022 forecast update provided to the IPA). The model captures inputs related to recent IPA decisions, federal tax reform, and expected PV costs. Most recently it captures the changes due to the newly passed Clean Energy Law as of September 2021. Thus, a significant increase in solar adoption is expected due to provisions in the law, including, but not limited to an extension in the net metering program, increased capacity limits for installed PV systems to be eligible for net metering, and increases in solar rebates. Given these various factors and decisions, the resulting forecast of solar impacts for the Residential and Small C&I customer classes is shown in Table II-5(a). Community solar remains a large portion of the solar outlook. Technically, community solar does not reduce customer usage, but for the purposes of this Forecast it was included as a reduction to usage to reflect the ultimate quantities the IPA needs to procure.

Table II-5(a)

	Residential Solar (GWh)			Small C&I Solar (GWh)		
Calendar Year	Rooftop	Community	Total Solar	Rooftop	Community	Total Solar
2022	326.9	190.3	517.3	147.5	31.7	179.3
2023	441.3	338.8	780.1	201.3	56.5	257.8
2024	548.0	509.5	1,057.5	239.8	84.9	324.7
2025	650.7	668.7	1,319.4	276.6	111.4	388.0
2026	754.0	812.3	1,566.2	310.7	135.4	446.1
2027	856.4	947.7	1,804.1	345.7	158.0	503.6
2028	960.7	1,086.3	2,047.0	384.9	181.1	565.9

ComEd's historical and forecasted weather-adjusted energy usage for the Residential and Small C&I customer classes are shown in Table II-5(b) and include the above solar assumptions.

Table II-5(b)

ComEd Weather Adjusted Annual Energy Usage				
	Residential		Small C&I	
Year	Usage (GWh)	Percent Growth	Usage (GWh)	Percent Growth
2013	27,353	(0.0%)	32,149	(0.5%)
2014	27,447	0.3%	32,046	(0.3%)
2015	27,038	(1.5%)	31,771	(0.9%)
2016	26,888	(0.6%)	31,664	(0.3%)
2017	26,637	(0.9%)	31,455	(0.7%)
2018	26,573	(0.2%)	31,460	0.0%
2019	26,671	0.4%	30,853	(1.9%)
2020	26,894	0.8%	28,529	(7.5%)
2021	27,321	1.6%	29,521	3.5%
2022	27,140	(0.7%)	29,436	(0.3%)
2023	27,021	(0.4%)	28,820	(2.1%)
2024	27,257	0.9%	28,454	(1.3%)
2025	27,224	(0.1%)	27,875	(2.0%)
2026	27,250	0.1%	27,978	0.4%
2027	27,447	0.7%	27,827	(0.5%)
2028	27,749	1.1%	27,619	(0.7%)

2. Impact of Demand Side and Energy Efficiency Initiatives

The PUA sets out annual targets for the implementation of cost-effective demand side and energy efficiency measures.

a. Impact of demand response programs, current and projected

(i) Background

ComEd is a strong supporter of the use of demand response to actively manage peak demands. Use of demand response resources grew in the mid to late 1990s, and ComEd has maintained a large portfolio of demand response resources, with participation from Residential, commercial, and industrial customers. ComEd is a leader in the development and management of demand response resources and will increase participation in appropriate programs to meet the requirements of the PUA.

The 2022-2023 (i.e., 6/1/22 to 5/31/23) portfolio of ComEd programs includes the following:

- **Direct Load Control ("DLC"):** ComEd's Residential central air conditioning cycling program includes two DLC switch options (i.e., 50% and 100% options) with 65,000 customers. The total reduction potential for the program is estimated to be 65 MW

- **Voluntary Load Reduction ("VLR") Program:** VLR is a demand response program that provides fixed compensation amounts to customers for the energy (kWh) they reduce during curtailment events. This program provides for transmission and distribution ("T&D") compensation based on the local conditions of the T&D network. The portfolio has 933 MW of potential load reduction (ComEd Rider VLR).

- **Hourly Pricing (formerly known as Residential Real-Time Pricing - RRTP) Program:** ComEd Residential supply customers have the option to select Hourly Pricing (i.e., Rate BESH), provided they have a smart meter. The Hourly Pricing program gives customers access to hourly electricity prices that are based on the Residual ComEd Zone PJM wholesale market prices. These prices vary from hour to hour and day to day according to the actual market price of power. This program has 35,600 customers and a load reduction potential of 2.14 MW.

- **Peak Time Savings (PTS) Program:** This program is required by Section 16-108.6(g) of the PUA and was approved by the ICC in Docket No. 12-0484. The PTS program is an opt-in, market-based demand response program for customers with smart meters. Under the program, customers receive bill credits for kWh usage reduction during curtailment periods. Enrollment in Peak Time Savings has grown to more than 348,000 customers enabling ComEd to clear 90 MW of summer only capacity from the program into the PJM capacity auction for the 2022-2023 Delivery Year, and 135.5 MW for the total portfolio in the 2023-2024 Planning Year.

(ii) Legislative Requirement

Section 8-103B(f)(4.5) of the PUA establishes a goal to implement demand response measures, providing that:

> (c) Implement cost-effective demand-response measures to reduce peak demand by 0.1% over the prior year for eligible retail customers, as defined in Section 16-111.5 of this Act, and for customers that elect hourly service from the utility pursuant to Section 16-107 of this Act, provided those customers have not been declared competitive. This requirement continues until December 31, 2026.

Section 1-10 of the Illinois Power Agency Act defines demand response as "measures that decrease peak demand or shifts demand from peak to off-peak periods."

Table II-6 shows the estimated annual MWs of demand response measures that will need to be implemented over the Five-year Forecast period to meet the goals set forth in the PUA:

Table II-6
Estimated Annual Level of Demand Response Measures

Planning Year	Peak Load (Prior Year) (MW)	Annual Goal	Annual Goal (MW)
2023[8]	8,238	0.1%	8.24
2024	8,412	0.1%	8.41
2025	8,501	0.1%	8.50
2026	8,506	0.1%	8.51
2027	8,496	0.1%	8.50

(iii) Impact of Demand Response Programs

Demand response programs do not impact ComEd's load forecasts. Load forecasts are made on a weather normalized, unrestricted basis. Since demand response measures are called on days when the temperature is hotter than "normal," the avoided capacity and energy associated with these resources is incremental to the weather normal forecast, and thus is not factored into the load forecasts. In fact, when developing forecasts, any impact on energy usage from implementing a demand response measure in a prior year is added back into that prior year's usage data and then weather normalized before being used to assist in the forecasting process. This assures that the forecast represents a complete picture of the unrestricted demands on the system.

[8] ComEd's filed Energy Efficiency Plan in ICC Docket 17-0312 is a four-year plan, 2018-2021. For 2022 through 2026, which is not covered in the Plan, the goal is projected in a manner consistent with the Plan.

b. Impact of Energy Efficiency Programs

The PUA has several provisions regarding various types of energy efficiency programs. This section discusses the impact of each of these programs on the Forecast.

(i) Section 8-103B Energy Efficiency Measures

As of June 1, 2018, Section 8-103 of the PUA is superseded by Section 8-103B which has new energy efficiency requirements for ComEd. Section 8-103B requires ComEd to implement cost-effective energy efficiency measures beginning January 1, 2018. This provision provides cumulative kWh targets based on a percentage of the deemed average weather normalized sales of electric power and energy during calendar years 2014, 2015, and 2016 of 88,000 GWh. Additionally, there is a spending cap that limits the amount of expenditures on energy efficiency measures in any year.

(A) kWh Targets

The kWh target for energy efficiency is based on a percentage of the deemed average weather normalized sales of electric power and energy during calendar years 2014, 2015, and 2016 of 88,000 GWh, as reduced by the number of GWh equal to the sum of the annual consumption of eligible large private retail customers that have opted out of applicable subsections averaged across calendar years 2014, 2015, and 2016. Previously, the kWh target was an annual goal based on first year savings. Starting in 2018 under Section 8-103B, the kWh targets will be based on cumulative persisting annual savings ("CPAS") which is defined as the total electric energy savings in a given year from measures installed in that year or in previous years, but no earlier than January 1, 2012, that are still operational and providing savings in that year because the measures have not yet reached the end of their useful lives. The table below shows the target percentages:

Table II-7
Target Cumulative Persisting Annual Savings ("CPAS") Percentages to Meet Energy Efficiency Goals

Year	Annual CPAS Percent Reduction in Energy Delivered
2018	7.8%
2019	9.1%
2020	10.4%
2021	11.8%
2022	13.1%
2023	14.4%
2024	15.7%
2025	17.0%
2026	17.9%
2027	18.8%
2028	19.7%
2029	20.6%
2030	21.5%

(B) Projected Overall Goals

The annual energy efficiency goals were determined based on the kWh targets and the rate impact criteria. ComEd has filed its first plan under Section 8-103B on June 30, 2017 (Docket 17-0312) and was approved by the ICC on September 11, 2017. Also, for purposes of this Forecast only,[9] the allocation of the energy (kWh) targets to the various customer classes (as shown in Table II-8) was based on several years of historical data and judgment.

The above percentages represent the CPAS goal to be achieved by the end of each year for all delivery services customers (excluding some very large customers). Since the various energy efficiency measures will be implemented and phased in over the course of each Planning Year and since Eligible Retail Customers are only a subset of delivery service customers, the actual amount of GWh for Eligible Retail Customers that is impacted in each Planning Year is somewhat offsetting between customer types (as shown in Table II-8, below).

(C) Impact on Forecasts

Energy efficiency measures directly impact the amount of energy used by customers throughout the year. As such, they will directly impact the forecasts of future load. The following chart depicts the cumulative impacts of these measures on the Forecast:

[9] The PUA does not prescribe how the kWh targets are to be apportioned among the customer classes, and the energy efficiency plan did not set goals on a customer class basis.

Table II-8
Cumulative Impacts of EE on Load Forecast by Customer Type[10]

Planning Year	Residential Allocation (GWh)	Watt-Hour Allocation (GWh)	0-100 kW Allocation (GWh)
2023	3,845	57	1,344
2024	3,751	61	1,460
2025	3,744	64	1,518
2026	3,851	65	1,542
2027	3,783	69	1,636

c. Impact of Renewable Energy Resources

Section 1-75(c) of the IPA Act (20 ILCS 3855/1-75(c)) establishes goals and cost thresholds for cost effective renewable energy resources. However, other than the impact of DG solar which was discussed earlier in this document and the energy prices hedging impact related to the 2010 Long Term Renewable contracts, there is no impact on the amount of energy ComEd must procure for Eligible Retail Customers.

[10] These amounts are cumulative from 2008, when the statutory program began.

3. Five-Year Monthly Load Forecast

Based on all the factors discussed in this section, ComEd has developed the following forecast of projected energy usage of Eligible Retail Customers for the period from June 1, 2023 through May 31, 2024:

Table II-9

ComEd Procurement Period Load Forecast (Expected Load) Projected Energy Usage and Average Demand For Eligible Retail Customers (Weather Normal, Line Loss and DSM Adjusted)					
Year	**Month**	**Total Load (MWh)**		**Average Load (MW)**	
		On-Peak	**Off-Peak**	**On-Peak**	**Off-Peak**
2023	6	1,329,564	1,138,272	3,777	3,093
2023	7	1,456,655	1,602,389	4,552	3,779
2023	8	1,575,050	1,317,960	4,280	3,505
2023	9	987,148	1,091,993	3,085	2,730
2023	10	939,874	930,096	2,670	2,373
2023	11	1,001,654	1,036,006	2,981	2,691
2023	12	1,098,102	1,337,018	3,432	3,153
2024	1	1,269,016	1,294,531	3,605	3,302
2024	2	1,114,173	1,117,701	3,316	3,105
2024	3	971,324	1,105,448	2,891	2,716
2024	4	897,839	871,985	2,551	2,370
2024	5	918,257	917,460	2,609	2,340
Totals		**13,558,656**	**13,760,859**		

The forecast set forth above shows ComEd's expected load for the 2023 Planning Year. The PUA requires that the forecast cover a 5-year planning period. The forecast for ComEd's expected load for the 5-year planning period is set forth in Appendix B-1. The PUA also requires ComEd to provide low-load and high-load scenarios. That information for the 2023 Planning Year is set forth in Tables II-10 and II-11. The low-load and high-load scenarios for the 5-year planning period are set forth in Appendix B-2 and Appendix B-3, respectively. In all the forecasted usage tables, "line loss" refers only to distribution losses.

Table II-10

ComEd Procurement Period Load Forecast (Low Load) Projected Energy Usage and Average Demand For Eligible Retail Customers (Line Loss and DSM Adjusted)					
Year	**Month**	**Total Load (MWh)**		**Average Load (MW)**	
		On-Peak	**Off-Peak**	**On-Peak**	**Off-Peak**
2023	6	1,198,670	956,453	3,405	2,599
2023	7	1,207,840	1,309,851	3,775	3,089
2023	8	1,253,103	1,022,976	3,405	2,721
2023	9	966,585	1,039,103	3,021	2,598
2023	10	891,720	866,041	2,533	2,209
2023	11	933,059	947,046	2,777	2,460
2023	12	1,057,843	1,271,017	3,306	2,998
2024	1	1,250,007	1,270,268	3,551	3,240
2024	2	1,059,342	1,055,508	3,153	2,932
2024	3	897,413	996,563	2,671	2,449
2024	4	865,560	796,086	2,459	2,163
2024	5	877,592	826,813	2,493	2,109
Totals		**12,458,734**	**12,357,725**		

Table II-11

ComEd Procurement Period Load Forecast (High Load) Projected Energy Usage and Average Demand For Eligible Retail Customers (Line Loss and DSM Adjusted)					
Year	**Month**	**Total Load (MWh)**		**Average Load (MW)**	
		On-Peak	**Off-Peak**	**On-Peak**	**Off-Peak**
2023	6	1,397,426	1,206,808	3,970	3,279
2023	7	1,735,197	1,832,445	5,422	4,322
2023	8	1,916,588	1,551,106	5,208	4,125
2023	9	1,000,229	1,083,754	3,126	2,709
2023	10	979,808	944,445	2,784	2,409
2023	11	1,043,024	1,072,837	3,104	2,787
2023	12	1,252,348	1,468,642	3,914	3,464
2024	1	1,374,580	1,386,037	3,905	3,536
2024	2	1,195,790	1,178,581	3,559	3,274
2024	3	1,015,231	1,101,682	3,022	2,707
2024	4	950,075	870,926	2,699	2,367
2024	5	1,040,941	1,020,306	2,957	2,603
Totals		**14,901,237**	**14,717,569**		

The low-load and the high-load scenarios are based upon a change to three of the main variables impacting load: weather, switching and load growth.

The Low-Load Forecast assumes that the summer weather is cooler than normal, that load growth occurs at a rate 2% less than the Expected Load Forecast and higher RES service relative to the Expected Load Forecast shown in Table II-9. In this scenario for switching purposes, Residential, Watt-Hour and 0 to 100 kW Blended usage is reduced by a total of four percentage points over the course of the calendar years 2023 and 2024. This switching change equates to approximately (700) GWh for Program Year 2023 and (1,400) GWh for Program Year 2024. The percentage of Eligible Retail Customers taking Blended Service in this switching scenario is 65% (based on usage) as of December 2024 compared to 69% in the Expected Load Forecast.

The High-Load Forecast assumes that the summer weather is hotter than normal, that load growth occurs at a rate 2% more than is expected, and lower RES service. In this scenario for switching purposes, Residential, Watt-Hour and 0 to 100 kW Blended usage is increased by a total of four percentage points over the course of the calendar years 2022 and 2023. This switching change equates to approximately 700 GWh for Program Year 2022 and 1,400 GWh for Program Year 2023. The percentage of Eligible Retail Customers taking Blended Service in this switching scenario is 73% as of December 2024 compared to 69% in the Expected Load Forecast.

The +/- 2% load growth assumption in both scenarios reflects the current economic uncertainty.

ComEd's intention is to keep the IPA informed of significant changes in its forecast during the procurement proceeding.

III. CONCLUSION

For all the reasons described here, ComEd believes that its Forecast for the period June 1, 2023 through May 31, 2028 is consistent with the requirements of the PUA and provides an appropriate approach to develop the procurement plan to acquire supply for the Eligible Retail Customers.

Appendices

A. Load Forecast Models

1. Residential Single-Family Model (Hour 16)
2. ComEd Model Coefficients
3. ComEd Model Regression Statistics
4. Detailed Description of Variables Used In Forecast Models

B. Five-Year Load Forecast

1. Expected load
2. Low Load
3. High Load

Appendix A-1

Residential Single Family Model (Hour 16)			
Variable	**Coefficient**	**T-Stat**	**Notes**
Constant	0.866	23.10	Constant term
Monday Binary	-0.103	-9.31	Daily Binary - Monday
Tuesday Binary	-0.106	-8.74	Daily Binary - Tuesday
Wednesday Binary	-0.105	-8.43	Daily Binary - Wednesday
Thursday Binary	-0.113	-9.11	Daily Binary - Thursday
Friday Binary	-0.115	-9.39	Daily Binary - Friday
Saturday Binary	-0.036	-4.41	Daily Binary - Saturday
MLK Binary	0.083	1.68	Martin Luther King's Day
Presidents Day Binary	0.091	1.86	President's Day
GoodFriday Binary	0.007	0.16	Good Friday
Memorial Day Binary	0.132	2.62	Memorial Day
July4th Binary	0.107	1.74	July 4th.
LaborDay Binary	0.340	6.73	Labor Day
Thanksgiving Binary	0.173	3.37	Thanksgiving Day
FriAThanks Binary	0.071	1.32	Friday after Thanksgiving Day
XMasWeek Before Binary	0.071	1.12	Week before Christmas
XMasEve Binary	0.230	3.22	Christmas Eve
XMasDay Binary	0.162	2.62	Christmas Day
XMasWeek Binary	0.098	1.40	Christmas Week
New Years Eve Binary	0.129	1.65	New Year's Eve Day
New Years Day Binary	0.129	2.11	New Year's Day
Feb Binary	-0.043	-1.02	Monthly Binary - February
Mar Binary	-0.125	-3.07	Monthly Binary - March
MarDLS Binary	0.008	0.20	Day That Daylight Savings Begins In March
Apr Binary	-0.127	-2.97	Monthly Binary - April
May Binary	-0.174	-3.96	Monthly Binary - May
Jun Binary	0.169	3.70	Monthly Binary - June
Jul Binary	0.200	4.14	Monthly Binary - July
Aug Binary	0.265	5.61	Monthly Binary - August
Sep Binary	0.105	2.24	Monthly Binary - September
Oct Binary	0.029	0.64	Monthly Binary - October
NovDLS Binary	0.016	0.34	Day That Daylight Savings Ends In November
Nov Binary	-0.128	-2.74	Monthly Binary - November
Dec Binary	-0.012	-0.27	Monthly Binary - December
JanWalk	-0.001	-0.70	Monthly Time Trend - January
FebWalk	-0.003	-1.55	Monthly Time Trend - February
MarWalk	0.000	0.03	Monthly Time Trend - March
AprWalk	0.001	0.34	Monthly Time Trend - April
MayWalk	0.008	5.10	Monthly Time Trend - May
JunWalk	-0.002	-1.07	Monthly Time Trend - June

JulWalk	0.000	0.06	Monthly Time Trend - July
AugWalk	-0.004	-2.60	Monthly Time Trend - August
SepWalk	-0.002	-1.05	Monthly Time Trend - September
OctWalk	-0.004	-3.03	Monthly Time Trend - October
NovWalk	0.005	2.58	Monthly Time Trend - November
DecWalk	0.002	0.89	Monthly Time Trend - December
SeasonHDD	0.007	10.80	Seasonal Heating Degree Days Spline
LagHDD	0.000	-0.09	1 Day Lag Seasonal Heating Degree Days Spline
Lag2HDD	0.001	1.32	2 Day Lag Seasonal Heating Degree Days Spline
SeasonTDD	0.154	76.90	Seasonal Cooling Degree Days Spline
LagTDD	0.001	0.69	1 Day Lag Seasonal Cooling Degree Days Spline
Lag2TDD	0.015	7.71	2 Day Lag Seasonal Cooling Degree Days Spline
HDDWkEnd	0.000	0.52	Weekend Seasonal Heating Degree Days Spline
TDDWkEnd	0.002	0.90	Weekend Seasonal Cooling Degree Days Spline
Shift2016	0.023	1.92	An End Shift to describe usage for 2016
Shift2017	-0.012	-0.99	An End Shift to describe usage for 2017
Shift2020	0.013	1.05	An End Shift to describe usage for 2020
AR(1)	0.378	20.14	Autoregressive Term

The coefficients provide the effect that each variable has on the hourly usage for a single hour (Hour 16 which includes the load from 3 p.m. to 4 p.m. in the afternoon). The "T-Stat" provides the statistical significance of the variable, with a value generally greater than +/- two (2) indicating that the coefficient is significantly different from zero. The hourly model for Hour 16 has an adjusted R-squared of 0.95, which means that 95% of the variance in the hourly data is being explained by the model.

At the daily level, the mean absolute percent error ("MAPE") for the summation of the hourly models is 3.3%. The 3.3% daily MAPE means that the average absolute percentage difference on a daily basis between the usage predicted by the model and the actual usage for that period was very small. In other words, the model can explain usage with a 97% accuracy rate. Such a high accuracy rate is particularly noteworthy because the model is dealing with very short time frames in which many factors may come into play. The high accuracy rate, the low MAPE and the high R-squared indicate that the model captures the vast majority of factors that affect electrical usage.

Appendix A-2

ComEd Model Coefficients

ComEd Zone Model			
Variable	**Coefficient**	**StdErr**	**T-Stat**
CONST	2477.081	591.450	4.188
CalVars.Jan	73.531	33.297	2.208
CalVars.Feb	-231.189	64.442	-3.588
CalVars.Mar	-284.621	81.795	-3.480
CalVars.Apr	-479.038	68.800	-6.963
CalVars.May	-361.752	75.872	-4.768
CalVars.Jun	-209.608	76.700	-2.733
CalVars.Jul	-36.123	87.855	-0.411
CalVars.Aug	15.88	80.977	0.196
CalVars.Sep	-253.915	68.388	-3.713
CalVars.Oct	-270.005	70.465	-3.832
CalVars.Nov	-286.798	83.021	-3.455
CalVars.WkEndHols	-11.839	7.625	-1.553
CalHDD.HDD_Spring	2.228	0.201	11.061
CalHDD.HDD_Fall	2.308	0.236	9.777
CalHDD.HDD_Winter	1.871	0.093	20.016
CalCDD.SpringTDD	11.792	0.969	12.174
CalCDD.SummerTDD	13.215	0.319	41.376
CalCDD.FallTDD	9.779	2.384	4.101
Monthly.EconIndex15	5579.234	563.240	9.906
EE_Savings.Total	-0.964	0.053	-18.320
AR(1)	0.531	0.069	7.674

Residential Customer Class Model			
Variable	**Coefficient**	**StdErr**	**T-Stat**
Monthly.Jan	18.965	0.908	20.898
Monthly.Feb	17.922	0.92	19.491
Monthly.Mar	17.417	0.863	20.182
Monthly.Apr	16.864	0.839	20.110
Monthly.May	16.925	0.791	21.384
Monthly.Jun	17.903	0.788	22.715
Monthly.Jul	20.217	0.79	25.577
Monthly.Aug	20.33	0.802	25.336
Monthly.Sep	19.309	0.812	23.785
Monthly.Oct	18.276	0.784	23.301
Monthly.Nov	17.679	0.855	20.675
Monthly.Dec	18.314	0.852	21.493
CycWthrT.ResHDD_Spring	0.263	0.029	8.956
CycWthrT.ResHDD_Fall	0.230	0.042	5.517
CycWthrT.ResHDD_Winter	0.25	0.013	19.758
CycWthrT.ResCDD_Spring	1.716	0.385	4.458
CycWthrT.ResCDD_Jun	2.551	0.128	19.994
CycWthrT.ResCDD_Jul	2.196	0.062	35.569
CycWthrT.ResCDD_Aug	2.333	0.068	34.447
CycWthrT.ResCDD_Sep	2.474	0.086	28.846
CycWthrT.ResCDD_Fall	2.622	0.163	16.063
CycVars.ResEE_PerDay	-0.524	0.041	-12.782
CycVars.ResBill_MA_Index	-1.142	0.693	-1.647
Monthly.Yr2018Plus	-0.478	0.148	-3.237
Monthly.Avg_IHME_Mobility_Cyc	-0.011	0.006	-1.768
AR(1)	0.419	0.078	5.361

Small C&I Customer Class Model			
Variable	**Coefficient**	**StdErr**	**T-Stat**
Monthly.Jan	34.459	7.886	4.37
Monthly.Feb	37.58	7.915	4.748
Monthly.Mar	37.145	7.865	4.723
Monthly.Apr	36.123	7.86	4.596
Monthly.May	34.489	7.833	4.403
Monthly.Jun	34.967	7.883	4.436
Monthly.Jul	36.179	7.996	4.525
Monthly.Aug	39.51	8.028	4.922
Monthly.Sep	38.888	7.981	4.872
Monthly.Oct	38.123	7.912	4.818
Monthly.Nov	35.463	7.88	4.501
Monthly.Dec	33.362	7.912	4.216
CycWthrT.SCI_HDD	0.526	0.042	12.630
CycWthrT.SCI_CDD	2.427	0.18	13.512
CycWthrT.SCI_CDDTrend_2021_Cap	-0.039	0.010	-3.86
CycVars.SCI_Econ_Index3	45.874	8.174	5.612
SCI.DelayedBill2	-0.025	0.003	-8.285
CycVars.SCI_EEPerDay	-0.576	0.069	-8.3
Monthly.Avg_IHME_Mobility_Cyc	0.066	0.036	1.841
AR(1)	0.248	0.08	3.112

StreetLighting Class Model			
Variable	**Coefficient**	**StdErr**	**T-Stat**
Monthly.Jan	2.785	0.04	69.522
Monthly.Feb	2.691	0.042	64.677
Monthly.Mar	2.284	0.042	54.342
Monthly.Apr	2.122	0.04	52.503
Monthly.May	1.838	0.041	44.954
Monthly.Jun	1.836	0.039	46.54
Monthly.Jul	1.714	0.039	43.696
Monthly.Aug	1.81	0.037	48.375
Monthly.Sep	2.02	0.037	54.149
Monthly.Oct	2.194	0.037	58.615
Monthly.Nov	2.39	0.037	63.882
Monthly.Dec	2.559	0.037	69.657
CycVars.SL_DelayedBillsPerDay	-0.662	0.136	-4.853
CycVars.SL_DelayedBillsPerDayLag	1.016	0.05	20.21
CycVars.SL_EEPerDay	-0.774	0.073	-10.669
Monthly.Yr2019Plus	-0.105	0.057	-1.831

Appendix A-3

ComEd Model Regression Statistics

Regression Statistics	Zone	Residential	Small C&I	Street Lighting
Iterations	12	14	13	1
Adjusted Observations	173	167	170	102
Deg. of Freedom for Error	151	141	150	86
R-Squared	0.992	0.995	0.972	0.968
Adjusted R-Squared	0.991	0.994	0.968	0.962
AIC	9.18	-1.907	0.609	-4.486
BIC	9.581	-1.421	0.978	-4.075
Log-Likelihood	-1017.55	-51.74	-272.96	100.07
Model Sum of Squares	160,320,223	3,336.95	8,576.65	25.23
Sum of Squared Errors	1,301,510.13	18.17	246.96	0.84
Mean Squared Error	8,619.27	0.13	1.65	0.01
Std. Error of Regression	92.84	0.36	1.28	0.1
Mean Abs. Dev. (MAD)	68.67	0.27	0.99	0.07
Mean Abs. % Err. (MAPE)	0.83%	1.27%	1.16%	3.87%
Durbin-Watson Statistic	2.122	1.814	2.003	1.077
Ljung-Box Statistic	24.85	19.53	18.64	39.84
Prob (Ljung-Box)	0.4141	0.7234	0.771	0.0223
Prob (Jarque-Bera)	0.631	0.7905	0.5038	0.4976

Appendix A-4
Detailed Description Of Variables
Used In Forecast Models

The econometric models are statistical multi-variant regressions that determine the correlation between electrical usage (dependent variable) and weather, economic and monthly factors (independent variables). ComEd's weather normals are based on the 30-year time period of 1992 to 2021 for the forecast years of 2023 to 2027. The following models are used in producing the energy usage forecast (GWh) for the eligible customers:

Monthly Zone energy usage for the ComEd zone
Monthly Residential bill-cycle energy usage
Monthly Small C&I bill-cycle energy usage
Monthly Street Lighting bill-cycle energy usage

ComEd's Load Forecasting group with the input of industry experts developed the models. The following sections describe each model and its specifications. Appendices A-2 and A-3 contain the coefficients and other regression statistics for the models.

ComEd's Monthly Zone Model

The dependent variable in the Monthly Zone Model is monthly zone energy usage for the ComEd service territory. The monthly zone usage is in GWh units.

The independent variables within the model are:

- The monthly binary variables reflect monthly usage patterns. Customer electrical usage is a function of other items besides cooling and heating (e.g., lighting). This other usage is not constant per month and the monthly binary variables are used to account for this variability. December is excluded from the monthly binaries, as the constant term establishes December as the base from which the monthly binary variables are adjusted.

- The WkEndHols variable informs the model of the number of weekend days and holidays within each calendar month

- The EconIndex15 variable is a composite economic variable that weights the contributions of GMP, US Gross Domestic Product ("GDP"), households, manufacturing employment and non-manufacturing employment in the ComEd service territory. GMP is the gross metropolitan product for the Chicago metropolitan area and includes other metropolitan areas within ComEd's service

territory. The variable measures economic activity for the ComEd service territory. Both the GMP and GDP are adjusted for inflation and obtained from IHS Economics. Further, the variables are adjusted for the number of weekends (and holidays) and weekdays within a calendar month because overall energy usage for a given month is a function of those daily influences. The variables' units are billions of dollars. The households component is the total number of households within the ComEd service territory. This economic variable reflects the effect of a growing customer base on energy usage. This variable is also adjusted for the number of weekends, holidays, and weekdays within a calendar month. Both manufacturing and non-manufacturing employment are measured for the ComEd service territory and are also adjusted for the number of weekdays, weekends, and holidays. The five economic variables are each indexed to January 2008 and then weighted based on an exponential formula with each of these economic variables receiving a roughly one-fifth weighting.

- The EE_Savings.Total variable is composed of estimated monthly cumulative gross energy efficiency savings across ComEd's Residential, Small C&I, Large C&I and Streetlighting customer class programs. This variable is intended to capture the overall trend of energy efficiency activity in the ComEd service territory by ComEd sponsored programs (e.g., lightbulbs, home energy reports).

- The temperature and humidity degree day ("TDD") variables are weather variables designed to capture the effect on usage from cooling equipment. The TDD variable is similar in design to a cooling degree day ("CDD") variable. A CDD weather variable is often used in energy models. The standard CDD measures the difference in the average daily temperature above a specific threshold (typically 65 degrees as that is a common point at which cooling activity begins). The TDD variable provides several enhancements to the typical CDD variable as delineated below:

  The average daily temperature is the 24-hour average instead of the average of the maximum and minimum temperatures for the day. This captures frontal movements within the day.

  Humidity is included in the TDD variable as humidity does influence electrical usage.

  The TDD variable uses multiple degree bases instead of just a 65 degree-base. This captures the change in the rate at which customers use electricity at different temperature levels.

  The TDD variable is interacted with seasonal binary variables (i.e., Spring, Summer and Fall) to reflect the seasonal usage pattern related to cooling equipment.

  The TDD variable is in degree-day units.

- The HDD Spline variable is a weather variable that measures the relationship on electrical usage from space heating equipment (e.g., natural gas furnace fans and electrical space-heating equipment). The HDD Spline variable is similar in concept to the industry-standard heating degree day ("HDD") weather variable. The HDD Spline provides a couple of enhancements to the HDD weather variable:

  The average daily temperature is the 24-hour average instead of the average of the maximum and minimum temperatures for the day. This captures frontal movements within the day.

  The HDD Spline uses multiple degree bases instead of just a 65 degree-base. This captures the change in the rate at which customers use electricity at different temperature levels.

  The HDD Spline variable is in degree-day units.

The coefficient values and the standard measurements of significance within the model (e.g., T-Stats) and the overall model performance (e.g., R-squared and MAPE) are contained in Appendices A-2 and A-3.

ComEd Residential Model

The dependent variable in the Residential Model is Residential use per customer per day and the units are kWh per customer per day.

The independent variables are noted below. (Because many of the variables follow the same purpose and logic as in the Monthly Zone model, please see the Monthly Zone Model description for additional information.)

- The monthly binary variables reflect monthly usage patterns.

- The Monthly Bill (Moving Average) Index variable is a typical monthly Residential electricity bill assuming historical tariff charges and weather normal customer usage for the year 2002 (adjusted for inflation). Specifically, the historical tariff charges for a single-family and multi-family (both non-space heat) were multiplied by the weather adjusted billing units from the year 2002 for both Residential groups. The monthly bills for both Residential groups were weighted, based on energy usage, to form a single monthly bill. The monthly bill was also adjusted for the Chicago CPI-U. A 12-month moving average is calculated for each month (average of the current month and the 11 preceding months). Lastly, this variable is indexed to January 2008. This variable reflects the influence of electricity charges/prices over time related to consumer behavior.

- See EE_Savings.Total variable in the Zone Model section above for description. The ResEE_PerDay variable is a measure of gross energy efficiency savings on a per customer per day basis for the Residential customer class.

- The Year 2018 Plus variable is a binary variable designed to capture the most recent usage activity within the model. It is a binary variable with the unit one for all months beginning with January 2018 and thereafter. By forcing all the residuals to sum to zero for the months January 2018 to present, this variable is useful for forecasting purposes as it ensures that the forecasted usage is closely aligned with the most recent usage pattern.

- The Avg_IHME_Mobility_Cyc variable is designed to capture the impacts of the COVID-19 pandemic on usage. It is an estimate of the monthly percentage deviation of customer mobility (i.e., movement in and out of the household) from a pre-COVID baseline due the dynamics of social distancing, mandated business closures and remote work over the last few years.

- Weather variables used in the Residential model are similar in concept to the weather variables described in the Monthly Zone Model section and will not be repeated here.

ComEd Small C&I Model

The dependent variable in the Small C&I Model is Small C&I use per day and the units are GWh per day. The independent variables within the model are:

- The monthly binary variables, weather variables and shift variables are similar in concept to the Monthly Zone Model and will not be repeated here.

- The Small C&I Economic Index variable is a composite economic variable that weights the contributions of GMP and non-manufacturing employment in the ComEd service territory. These economic variables are each indexed to January 2008 and then weighted based on an exponential formula with a weighting of employment (80%) and GMP (20%). The GMP variable is defined in the Zone model description above and the employment variable is an economic variable that measures the total non-manufacturing employment in the Chicago area. Job growth is correlated to Small C&I development and growth.

- See EE_Savings.Total variable in the Zone Model section above for description. The SCI_EEPerDay variable is a measure of gross energy efficiency savings on a per day basis for the Small C&I customer class.

- See Avg_IHME_Mobility_Cyc variable in the Residential Model section above for description. The Avg_IHME_Mobility_Cyc variable is intended to capture the impacts of the COVID-19 pandemic on Small C&I usage.

- The Delayed Bill variable is the month over month (current vs. one month prior) variance in the Small C&I's estimated usage (GWh) of bills that are delayed

beginning in October 2009. This variable is used to inform the model about an increase in delayed bill activity primarily in 2010.

ComEd Street Light Model

The dependent variable in the Street Lighting Model is Street Lighting use per day and the units are GWh per day. The independent variables are:

- Monthly binary variables and a shift variable are similar in concept to the Monthly Zone Model.
- The Delayed Bill Per Day variable is the current month's estimated Streetlight usage (GWh) of bills that are delayed beginning in January 2008 on a per day basis.
- The Delayed Bill Per Day Lag variable is the previous month's estimated Streetlight usage (GWh) of bills that are delayed beginning in January 2008 on a per day basis.
- See EE_Savings.Total variable in the Zone Model section above for description. The SL_EEPerDay variable is a measure of gross energy efficiency savings on a per day basis for the Streetlight customer class.
- The Year 2019 Plus variable is a binary variable designed to capture the most recent usage activity within the model. It is a binary variable with the unit one for all months beginning with January 2019 and thereafter. By forcing all the residuals to sum to zero for the months January 2019 to present, this variable is useful for forecasting purposes as it ensures that the forecasted usage is closely aligned with the most recent usage pattern.

Appendix B-1

ComEd Procurement Period Load Forecast (Expected Load)
Projected Energy Usage and Average Demand For Eligible Retail Customers
(Weather Normal, Line Loss and DSM Adjusted)

Year	Month	Total Load (MWh)		Average Load (MW)	
		On-Peak	Off-Peak	On-Peak	Off-Peak
2023	6	1,329,564	1,138,272	3,777	3,093
2023	7	1,456,655	1,602,389	4,552	3,779
2023	8	1,575,050	1,317,960	4,280	3,505
2023	9	987,148	1,091,993	3,085	2,730
2023	10	939,874	930,096	2,670	2,373
2023	11	1,001,654	1,036,006	2,981	2,691
2023	12	1,098,102	1,337,018	3,432	3,153
2024	1	1,269,016	1,294,531	3,605	3,302
2024	2	1,114,173	1,117,701	3,316	3,105
2024	3	971,324	1,105,448	2,891	2,716
2024	4	897,839	871,985	2,551	2,370
2024	5	918,257	917,460	2,609	2,340
2024	6	1,185,888	1,259,694	3,706	3,149
2024	7	1,610,312	1,486,183	4,575	3,791
2024	8	1,502,727	1,388,485	4,269	3,542
2024	9	986,904	1,096,720	3,084	2,742
2024	10	988,982	912,600	2,687	2,427
2024	11	959,533	1,094,788	2,999	2,730
2024	12	1,175,013	1,308,122	3,497	3,206
2025	1	1,268,148	1,311,731	3,603	3,346
2025	2	1,068,693	1,108,351	3,340	3,149
2025	3	965,418	1,110,718	2,873	2,729
2025	4	884,109	878,162	2,512	2,386
2025	5	847,985	949,159	2,524	2,326
2025	6	1,229,758	1,205,168	3,660	3,138
2025	7	1,594,508	1,478,866	4,530	3,773
2025	8	1,414,609	1,440,578	4,210	3,531
2025	9	1,031,408	1,040,471	3,070	2,710
2025	10	981,663	911,661	2,668	2,425
2025	11	896,392	1,142,368	2,949	2,739
2025	12	1,231,791	1,262,519	3,499	3,221
2026	1	1,207,753	1,369,658	3,595	3,357
2026	2	1,069,949	1,113,279	3,344	3,163
2026	3	1,012,677	1,078,234	2,877	2,758
2026	4	877,362	883,254	2,493	2,400
2026	5	769,867	968,038	2,406	2,283
2026	6	1,260,933	1,140,992	3,582	3,101
2026	7	1,626,568	1,399,557	4,420	3,722
2026	8	1,383,456	1,429,206	4,117	3,503
2026	9	1,008,881	1,024,593	3,003	2,668
2026	10	939,741	950,294	2,670	2,424

ComEd Procurement Period Load Forecast (Expected Load)
Projected Energy Usage and Average Demand For Eligible Retail Customers
(Weather Normal, Line Loss and DSM Adjusted)

Year	Month	Total Load (MWh)		Average Load (MW)	
		On-Peak	Off-Peak	On-Peak	Off-Peak
2026	11	956,446	1,108,084	2,989	2,763
2026	12	1,240,092	1,271,392	3,523	3,243
2027	1	1,144,136	1,421,237	3,575	3,352
2027	2	1,065,678	1,115,896	3,330	3,170
2027	3	1,053,916	1,042,361	2,864	2,780
2027	4	863,999	887,268	2,455	2,411
2027	5	759,490	964,998	2,373	2,276
2027	6	1,258,989	1,131,486	3,577	3,075
2027	7	1,471,151	1,530,557	4,378	3,751
2027	8	1,447,542	1,371,415	4,112	3,499
2027	9	1,003,117	1,025,002	2,985	2,669
2027	10	889,020	987,309	2,646	2,420
2027	11	1,007,320	1,073,100	2,998	2,787
2027	12	1,301,446	1,217,602	3,537	3,238
2028	1	1,205,541	1,363,158	3,588	3,341
2028	2	1,107,285	1,136,840	3,295	3,158
2028	3	1,045,784	1,046,895	2,842	2,792
2028	4	776,362	945,520	2,426	2,364
2028	5	839,059	898,527	2,384	2,292
Totals		**66,976,057**	**69,042,955**		

Appendix B-2

ComEd Procurement Period Load Forecast (Low Load)
Projected Energy Usage and Average Demand For Eligible Retail Customers
(Weather Normal, Line Loss and DSM Adjusted)

Year	Month	Total Load (MWh)		Average Load (MW)	
		On-Peak	Off-Peak	On-Peak	Off-Peak
2023	6	1,198,670	956,453	3,405	2,599
2023	7	1,207,840	1,309,851	3,775	3,089
2023	8	1,253,103	1,022,976	3,405	2,721
2023	9	966,585	1,039,103	3,021	2,598
2023	10	891,720	866,041	2,533	2,209
2023	11	933,059	947,046	2,777	2,460
2023	12	1,057,843	1,271,017	3,306	2,998
2024	1	1,250,007	1,270,268	3,551	3,240
2024	2	1,059,342	1,055,508	3,153	2,932
2024	3	897,413	996,563	2,671	2,449
2024	4	865,560	796,086	2,459	2,163
2024	5	877,592	826,813	2,493	2,109
2024	6	948,205	1,083,423	2,963	2,709
2024	7	1,217,034	1,208,221	3,457	3,082
2024	8	1,103,160	1,060,006	3,134	2,704
2024	9	919,070	992,543	2,872	2,481
2024	10	904,381	795,689	2,458	2,116
2024	11	855,564	946,716	2,674	2,361
2024	12	1,068,583	1,191,378	3,180	2,920
2025	1	1,217,423	1,201,353	3,459	3,065
2025	2	974,907	1,003,490	3,047	2,851
2025	3	857,448	957,237	2,552	2,352
2025	4	818,816	769,818	2,326	2,092
2025	5	788,926	816,535	2,348	2,001
2025	6	974,806	977,588	2,901	2,546
2025	7	1,185,062	1,144,320	3,367	2,919
2025	8	986,087	1,086,474	2,935	2,663
2025	9	939,364	909,172	2,796	2,368
2025	10	874,968	775,614	2,378	2,063
2025	11	782,095	966,455	2,573	2,318
2025	12	1,100,359	1,124,762	3,126	2,869
2026	1	1,139,285	1,228,694	3,391	3,012
2026	2	966,327	978,057	3,020	2,779
2026	3	889,518	901,846	2,527	2,307
2026	4	796,133	759,251	2,262	2,063
2026	5	706,130	814,136	2,207	1,920
2026	6	1,006,218	880,636	2,859	2,393
2026	7	1,234,328	1,012,640	3,354	2,693
2026	8	978,080	1,022,431	2,911	2,506
2026	9	899,520	877,535	2,677	2,285
2026	10	818,248	796,304	2,325	2,031

ComEd Procurement Period Load Forecast (Low Load)
Projected Energy Usage and Average Demand For Eligible Retail Customers
(Weather Normal, Line Loss and DSM Adjusted)

Year	Month	Total Load (MWh)		Average Load (MW)	
		On-Peak	Off-Peak	On-Peak	Off-Peak
2026	11	812,161	923,715	2,538	2,304
2026	12	1,080,779	1,115,198	3,070	2,845
2027	1	1,054,310	1,255,318	3,295	2,961
2027	2	959,699	944,125	2,999	2,682
2027	3	918,857	841,159	2,497	2,243
2027	4	778,304	737,687	2,211	2,005
2027	5	700,605	777,478	2,189	1,834
2027	6	1,014,680	825,083	2,883	2,242
2027	7	1,116,333	1,067,243	3,322	2,616
2027	8	1,056,860	907,546	3,002	2,315
2027	9	871,611	865,361	2,594	2,254
2027	10	759,838	810,791	2,261	1,987
2027	11	843,467	871,190	2,510	2,263
2027	12	1,121,195	1,037,557	3,047	2,759
2028	1	1,072,389	1,194,436	3,192	2,928
2028	2	970,490	942,460	2,888	2,618
2028	3	892,825	828,308	2,426	2,209
2028	4	688,284	771,911	2,151	1,930
2028	5	730,816	729,127	2,076	1,860
Totals		**57,852,282**	**58,085,742**		

Appendix B-3

ComEd Procurement Period Load Forecast (High Load)
Projected Energy Usage and Average Demand For Eligible Retail Customers
(Weather Normal, Line Loss and DSM Adjusted)

Year	Month	Total Load (MWh)		Average Load (MW)	
		On-Peak	Off-Peak	On-Peak	Off-Peak
2023	6	1,397,426	1,206,808	3,970	3,279
2023	7	1,735,197	1,832,445	5,422	4,322
2023	8	1,916,588	1,551,106	5,208	4,125
2023	9	1,000,229	1,083,754	3,126	2,709
2023	10	979,808	944,445	2,784	2,409
2023	11	1,043,024	1,072,837	3,104	2,787
2023	12	1,252,348	1,468,642	3,914	3,464
2024	1	1,374,580	1,386,037	3,905	3,536
2024	2	1,195,790	1,178,581	3,559	3,274
2024	3	1,015,231	1,101,682	3,022	2,707
2024	4	950,075	870,926	2,699	2,367
2024	5	1,040,941	1,020,306	2,957	2,603
2024	6	1,350,738	1,356,256	4,221	3,391
2024	7	1,937,352	1,848,701	5,504	4,716
2024	8	1,920,491	1,712,729	5,456	4,369
2024	9	1,006,698	1,184,053	3,146	2,960
2024	10	1,096,878	954,893	2,981	2,540
2024	11	1,054,897	1,181,530	3,297	2,946
2024	12	1,369,252	1,538,582	4,075	3,771
2025	1	1,443,029	1,462,300	4,100	3,730
2025	2	1,203,745	1,216,127	3,762	3,455
2025	3	1,044,504	1,159,436	3,109	2,849
2025	4	986,193	897,967	2,802	2,440
2025	5	964,056	1,129,036	2,869	2,767
2025	6	1,467,196	1,319,138	4,367	3,435
2025	7	2,050,647	1,824,534	5,826	4,654
2025	8	1,852,597	1,840,024	5,514	4,510
2025	9	1,086,981	1,150,199	3,235	2,995
2025	10	1,114,205	979,053	3,028	2,604
2025	11	1,019,993	1,249,064	3,355	2,995
2025	12	1,460,585	1,518,369	4,149	3,873
2026	1	1,398,193	1,562,541	4,161	3,830
2026	2	1,233,679	1,241,636	3,855	3,527
2026	3	1,120,926	1,143,068	3,184	2,923
2026	4	1,004,507	916,038	2,854	2,489
2026	5	885,246	1,180,766	2,766	2,785
2026	6	1,539,403	1,265,122	4,373	3,438
2026	7	2,163,468	1,729,046	5,879	4,599
2026	8	1,874,641	1,836,176	5,579	4,500
2026	9	1,153,551	1,087,298	3,433	2,832
2026	10	1,079,919	1,051,689	3,068	2,683

ComEd Procurement Period Load Forecast (High Load)
Projected Energy Usage and Average Demand For Eligible Retail Customers
(Weather Normal, Line Loss and DSM Adjusted)

Year	Month	Total Load (MWh)		Average Load (MW)	
		On-Peak	Off-Peak	On-Peak	Off-Peak
2026	11	1,108,041	1,235,058	3,463	3,080
2026	12	1,509,266	1,549,425	4,288	3,953
2027	1	1,349,110	1,656,826	4,216	3,908
2027	2	1,263,324	1,259,385	3,948	3,578
2027	3	1,197,164	1,117,967	3,253	2,981
2027	4	1,017,421	931,386	2,890	2,531
2027	5	960,108	1,130,792	3,000	2,667
2027	6	1,523,363	1,324,308	4,328	3,599
2027	7	1,998,540	1,940,721	5,948	4,757
2027	8	2,004,600	1,788,851	5,695	4,563
2027	9	1,198,831	1,080,779	3,568	2,815
2027	10	1,042,852	1,115,899	3,104	2,735
2027	11	1,181,989	1,226,256	3,518	3,185
2027	12	1,631,190	1,497,158	4,433	3,982
2028	1	1,456,166	1,613,413	4,334	3,954
2028	2	1,336,588	1,306,933	3,978	3,630
2028	3	1,226,860	1,130,519	3,334	3,015
2028	4	911,090	1,043,485	2,847	2,609
2028	5	1,134,992	1,013,347	3,224	2,585
Totals		**78,836,302**	**78,215,448**		