New York ISO
Independent System Operator

2022 Preliminary Long Term Baseline Forecast

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Demand Forecasting and Analysis

LFTF/ESPWG

March 24, 2022

Agenda

- Forecast Components
- Baseline Energy Forecast
- Baseline Summer Peak Forecast
- Baseline Winter Peak Forecast
- DER Forecast Summaries

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Forecast Components

- Statistically Adjusted End-Use (SAE) models – produce monthly energy and peak forecasts by historical load growth, economic variables, end-use or appliance saturations, efficiency improvement trends in appliances and building shells, and trended weather normals from the 2019 Climate Study.

Exogenous load reducing modifiers:

- Additional energy efficiency gains
- BTM solar impacts
- BTM distributed generation impacts
- BTM storage peak reductions

Exogenous load increasing modifiers:

- Electric vehicle impacts
- Heating and base load electrification
- Energy storage net energy usage
- Interconnecting large loads

- **Energy Forecast = SAE Model – EE – BTM PV – BTM DG + Storage + EV + Electrification + LL**
- **Peak Forecast = SAE Model – EE – BTM PV – BTM DG – BTM Storage + EV + Electrification + LL**

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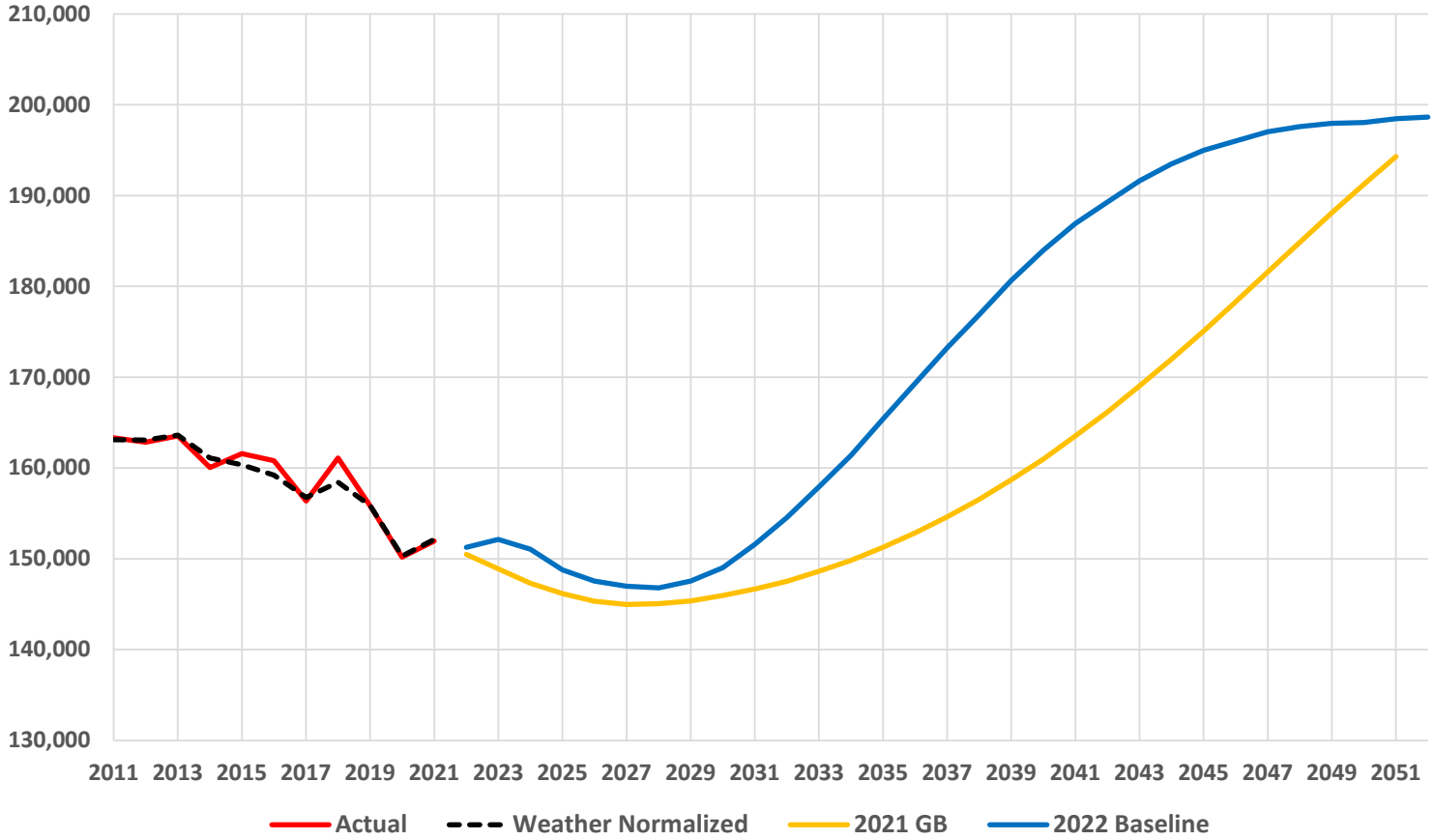
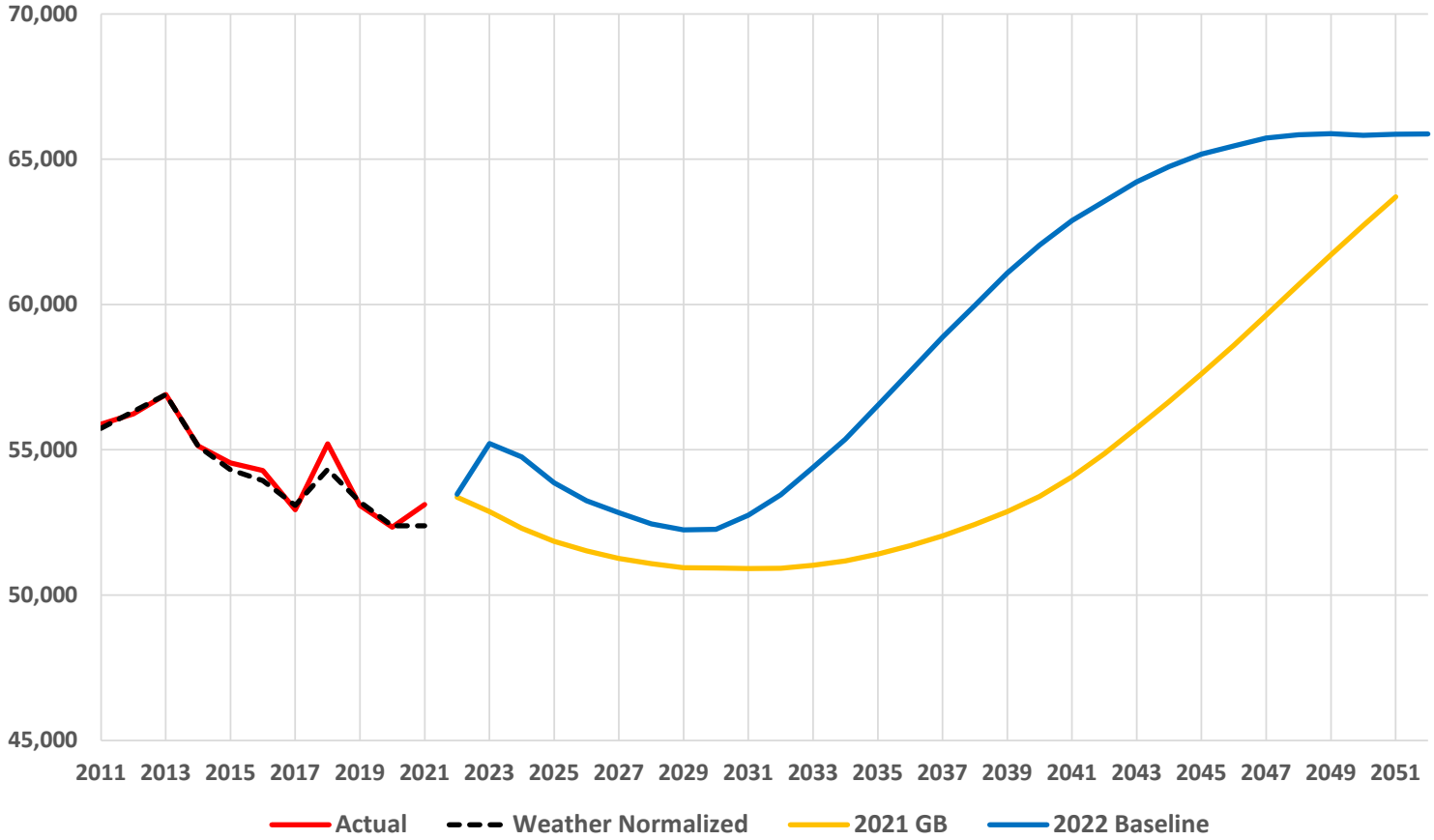
Baseline Energy Forecast

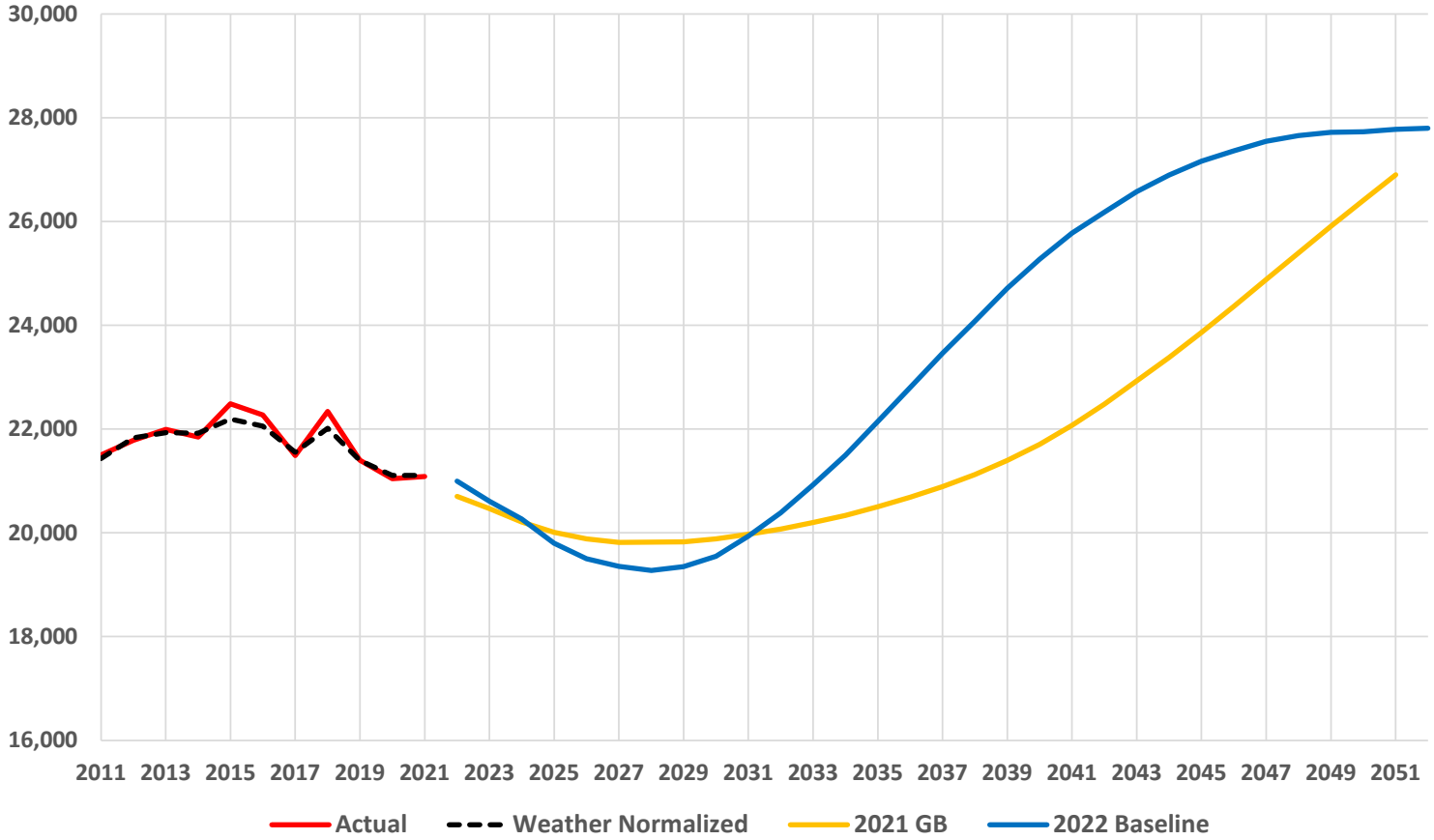
NYCA Baseline Annual Energy (GWh)



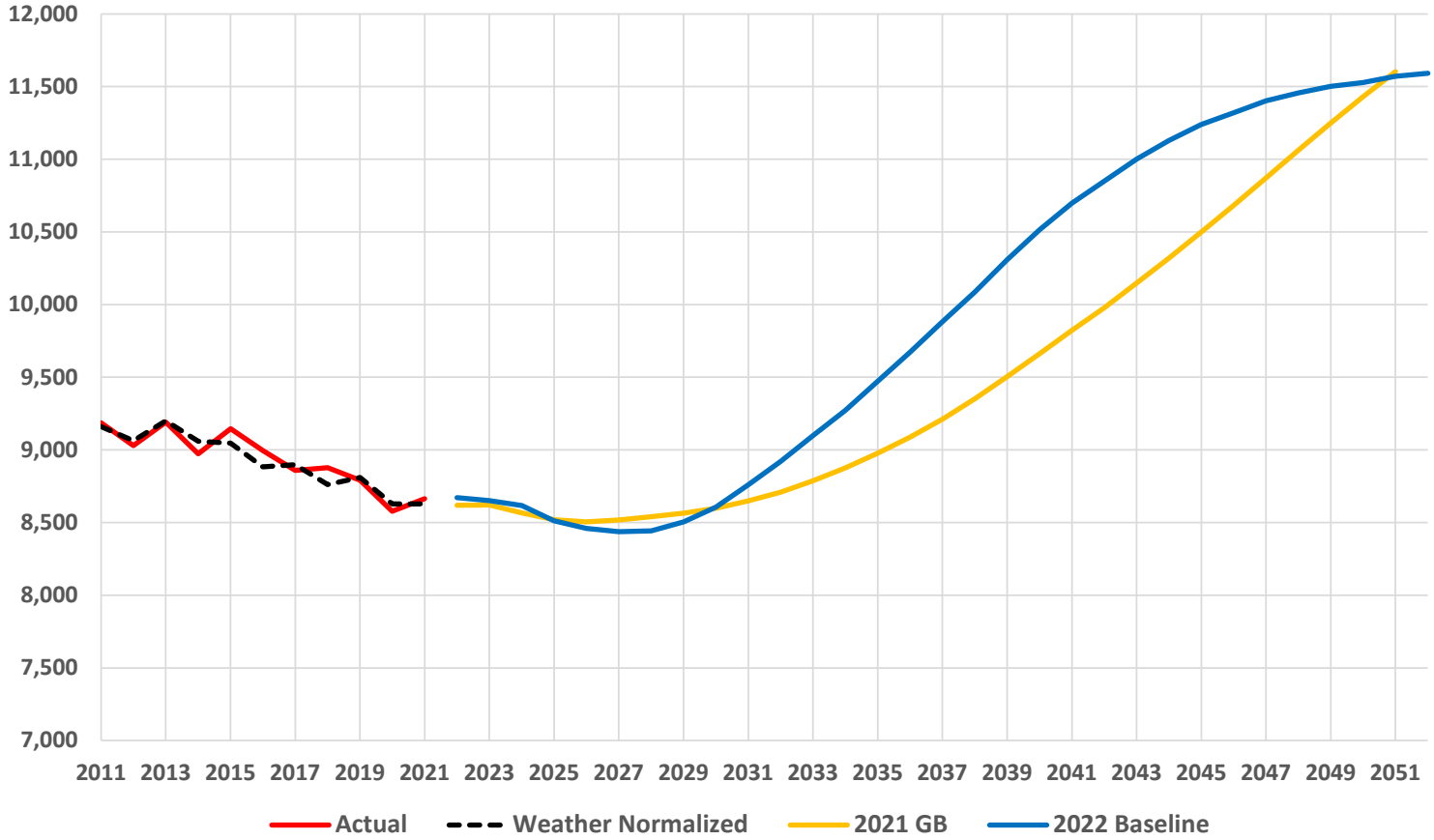
Zones A to E Baseline Annual Energy (GWh)



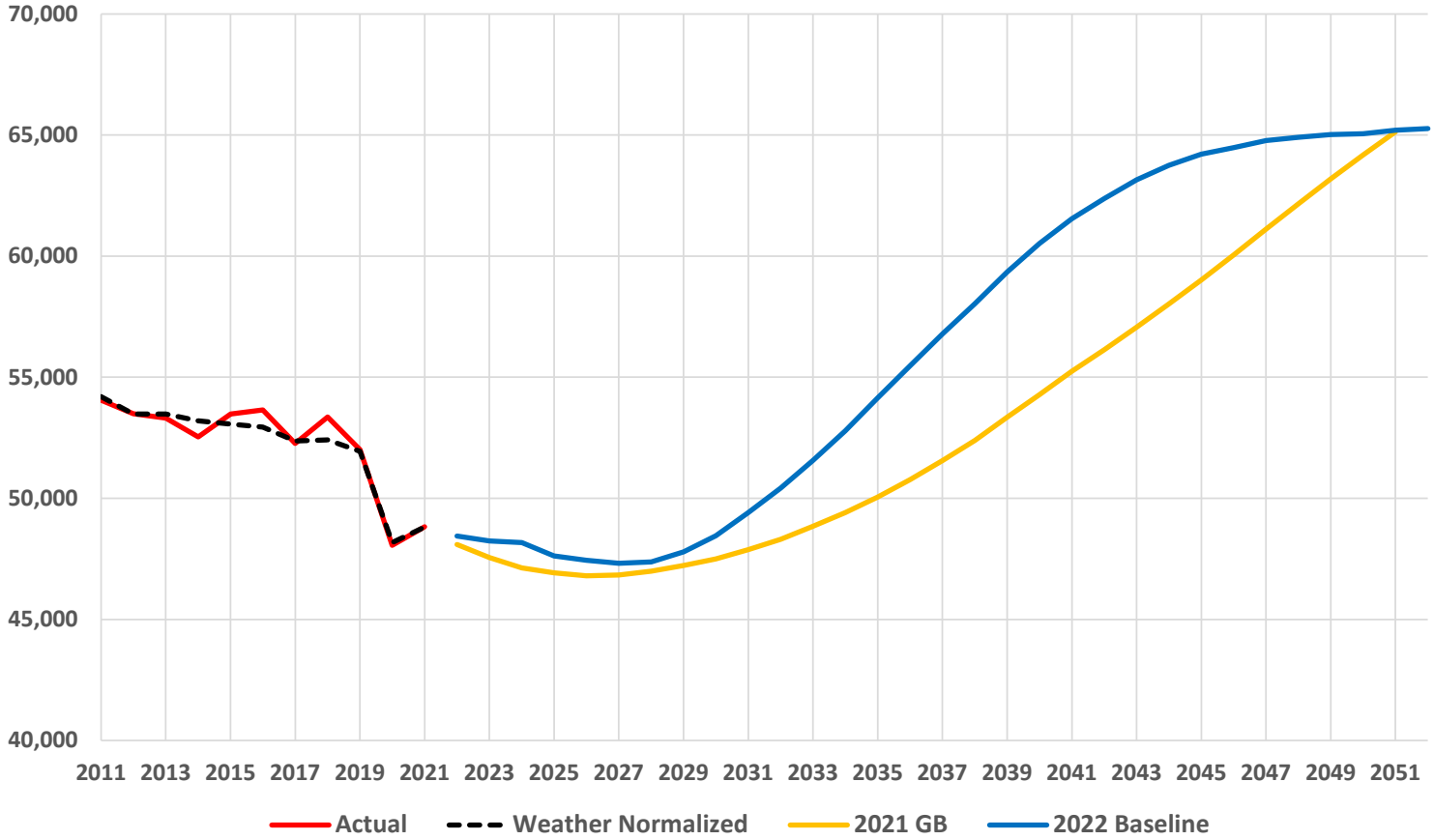
Zones F&G Baseline Annual Energy (GWh)



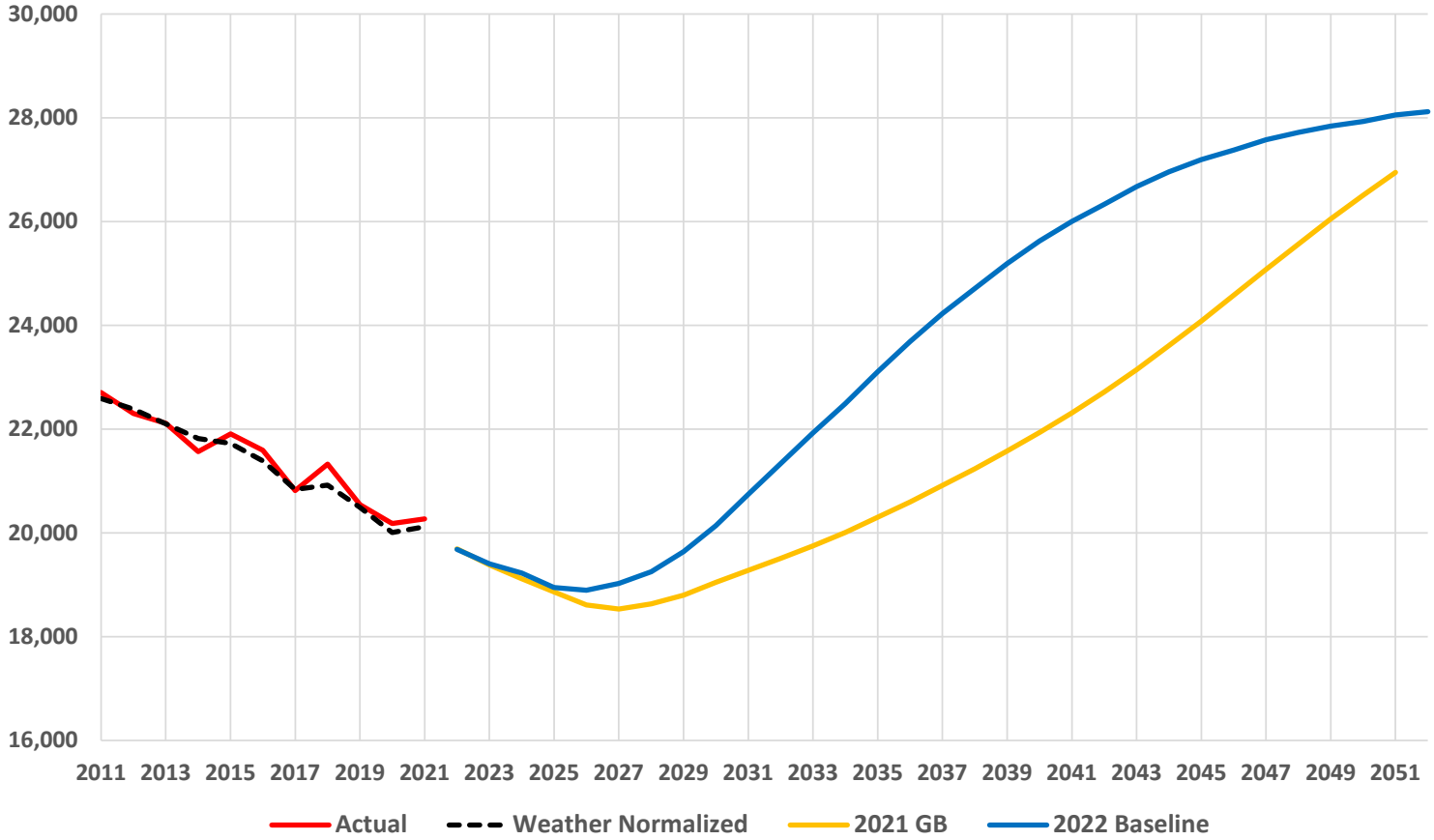
Zones H&I Baseline Annual Energy (GWh)



Zone J Baseline Annual Energy (GWh)



Zone K Baseline Annual Energy (GWh)



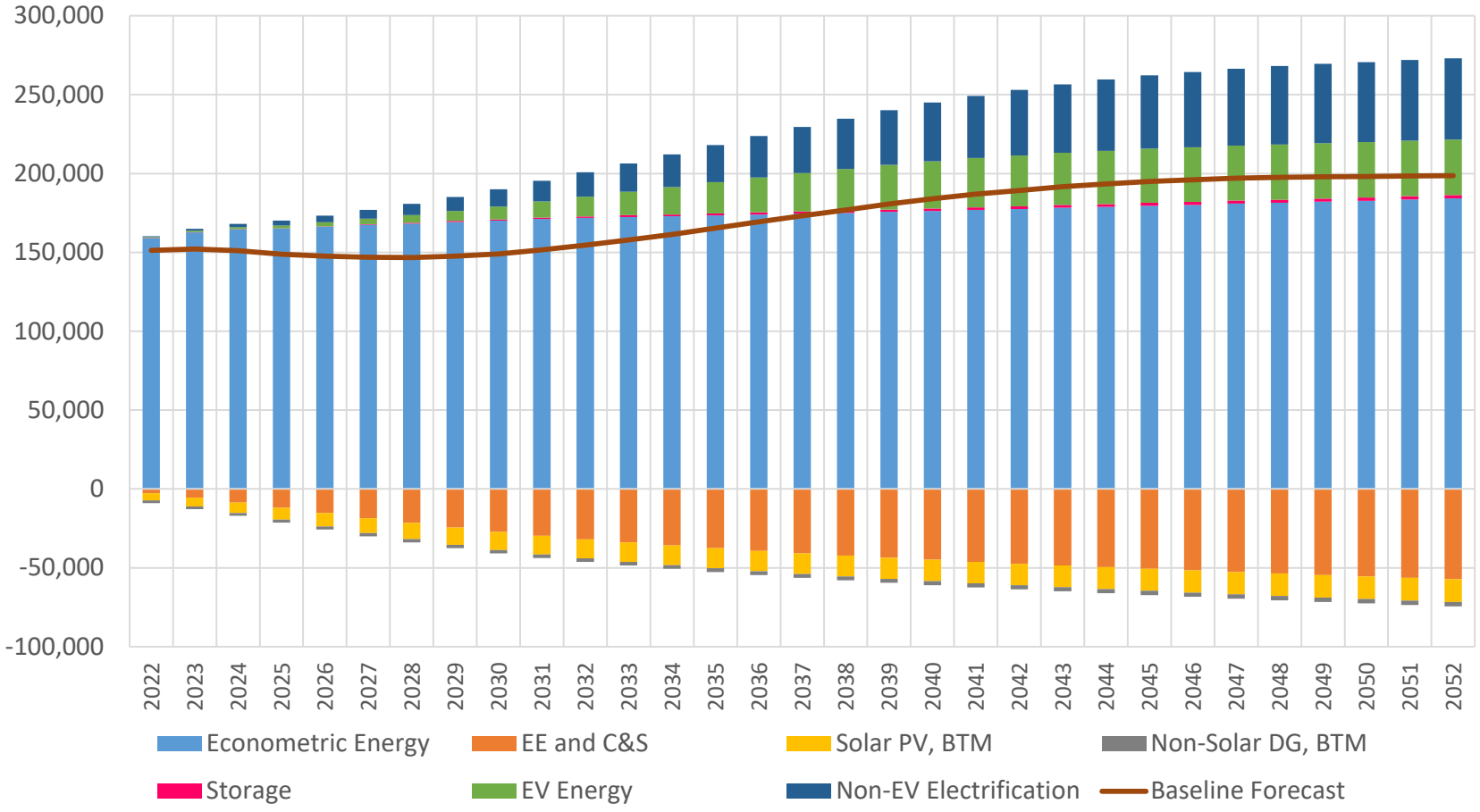
Baseline Annual Energy Forecast by Zone - GWh

Year	A	B	C	D	E	F	G	H	I	J	K	NYCA
2022	14,966	9,813	15,490	5,593	7,608	11,860	9,135	2,881	5,791	48,439	19,684	151,260
2023	16,331	9,725	15,819	5,944	7,397	11,597	9,010	2,885	5,766	48,240	19,406	152,120
2024	16,173	9,633	15,832	5,936	7,185	11,354	8,912	2,876	5,742	48,169	19,228	151,040
2025	16,081	9,486	15,458	5,911	6,934	11,050	8,751	2,841	5,672	47,626	18,950	148,760
2026	16,088	9,391	15,159	5,869	6,745	10,839	8,663	2,820	5,639	47,442	18,895	147,550
2027	16,113	9,336	14,937	5,849	6,603	10,703	8,650	2,821	5,616	47,317	19,025	146,970
2028	16,105	9,292	14,738	5,828	6,484	10,600	8,673	2,828	5,615	47,374	19,253	146,790
2029	16,112	9,290	14,612	5,813	6,421	10,578	8,771	2,847	5,658	47,795	19,643	147,540
2030	16,162	9,335	14,558	5,802	6,410	10,628	8,921	2,873	5,732	48,460	20,139	149,020
2031	16,343	9,466	14,651	5,805	6,483	10,784	9,150	2,920	5,839	49,407	20,742	151,590
2032	16,588	9,634	14,821	5,813	6,601	10,980	9,409	2,973	5,947	50,420	21,334	154,520
2033	16,896	9,831	15,068	5,831	6,761	11,218	9,707	3,035	6,063	51,572	21,928	157,910
2034	17,222	10,033	15,324	5,849	6,935	11,470	10,023	3,094	6,178	52,784	22,488	161,400
2035	17,609	10,271	15,635	5,872	7,140	11,772	10,374	3,161	6,311	54,142	23,103	165,390
2036	17,999	10,509	15,952	5,895	7,347	12,078	10,725	3,228	6,444	55,468	23,685	169,330
2037	18,388	10,749	16,268	5,918	7,557	12,389	11,073	3,297	6,585	56,790	24,226	173,240
2038	18,743	10,971	16,564	5,939	7,750	12,679	11,398	3,363	6,724	58,040	24,709	176,880
2039	19,106	11,203	16,868	5,961	7,947	12,984	11,729	3,432	6,876	59,344	25,190	180,640
2040	19,419	11,404	17,131	5,979	8,118	13,250	12,024	3,494	7,020	60,519	25,622	183,980
2041	19,696	11,579	17,355	5,995	8,269	13,488	12,289	3,548	7,149	61,549	26,003	186,920
2042	19,915	11,718	17,525	6,006	8,390	13,677	12,504	3,593	7,257	62,373	26,332	189,290
2043	20,131	11,856	17,704	6,018	8,508	13,864	12,708	3,638	7,363	63,155	26,675	191,620
2044	20,304	11,966	17,843	6,027	8,603	14,019	12,876	3,675	7,453	63,749	26,955	193,470
2045	20,446	12,057	17,957	6,033	8,679	14,148	13,016	3,707	7,532	64,212	27,193	194,980
2046	20,543	12,119	18,026	6,036	8,731	14,240	13,121	3,731	7,589	64,478	27,376	195,990
2047	20,637	12,181	18,095	6,041	8,779	14,329	13,219	3,754	7,649	64,772	27,574	197,030
2048	20,678	12,209	18,115	6,040	8,801	14,376	13,278	3,768	7,689	64,911	27,715	197,580
2049	20,696	12,224	18,120	6,037	8,806	14,403	13,315	3,777	7,724	65,020	27,838	197,960
2050	20,685	12,219	18,089	6,032	8,797	14,404	13,323	3,783	7,745	65,048	27,925	198,050
2051	20,704	12,233	18,094	6,031	8,800	14,429	13,349	3,793	7,778	65,195	28,054	198,460
2052	20,711	12,239	18,088	6,031	8,800	14,439	13,359	3,799	7,793	65,264	28,117	198,640

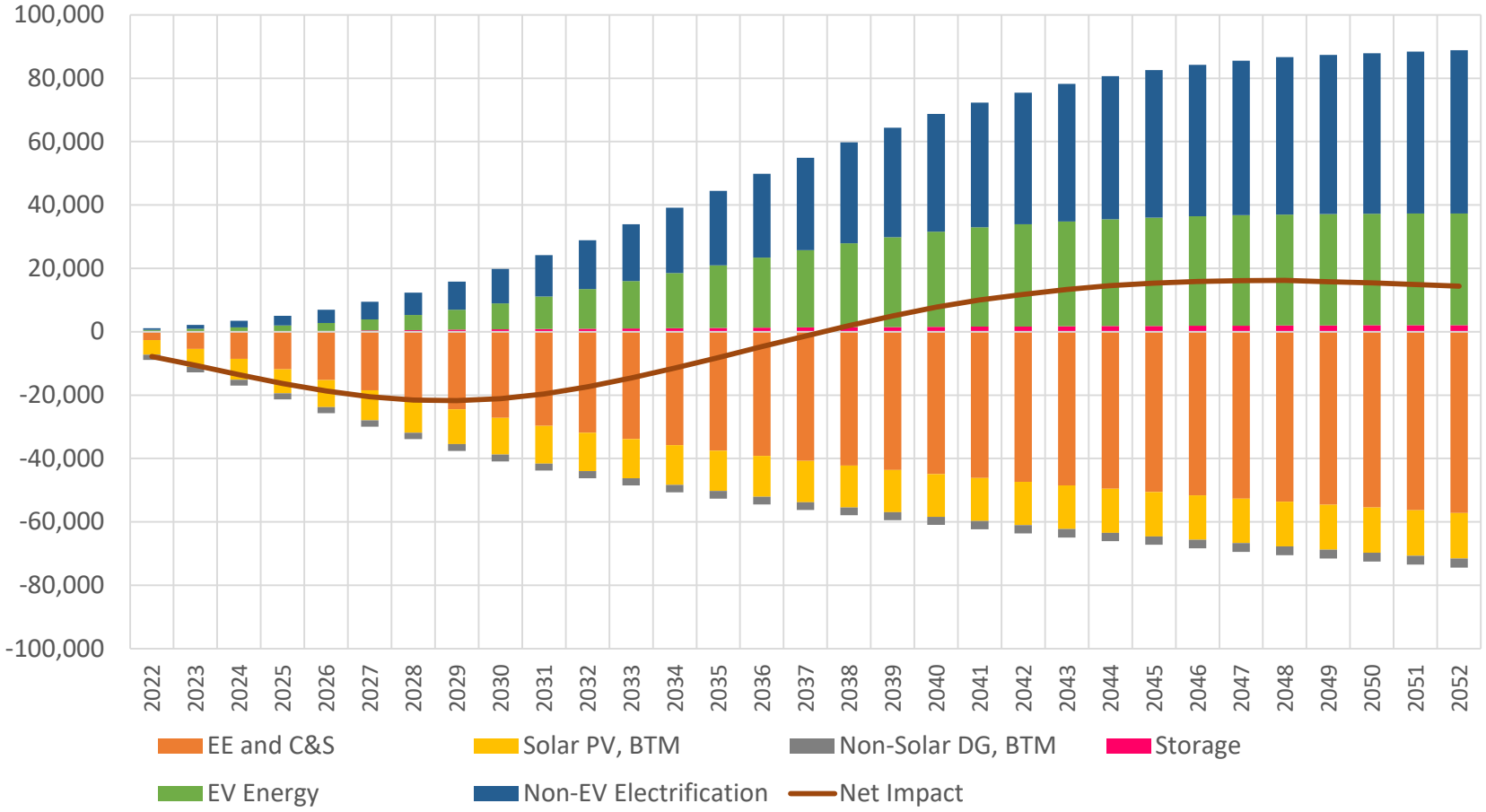
Table I-1b: Summary of NYCA Baseline Annual Energy Forecasts - GWh

Year	(a) Econometric Energy (Includes Large Loads)	(b) (-) EE and C&S	(c) = a - b End-Use Energy	(d) (-) Solar PV, BTM	(e) (-) Non-Solar DG, BTM	(f) (+) Storage Net Energy Consumption	(g) (+) EV Energy	(h) (+) Non-EV Electrification	(i) = c-d-e+f+g+h Baseline Annual Energy Forecast
2022	159,065	2,616	156,449	4,635	1,656	47	567	488	151,260
2023	162,750	5,458	157,292	5,605	1,739	70	868	1,234	152,120
2024	164,563	8,557	156,006	6,616	1,840	117	1,263	2,110	151,040
2025	165,064	11,862	153,202	7,559	1,900	184	1,795	3,038	148,760
2026	166,282	15,218	151,064	8,532	1,964	275	2,523	4,184	147,550
2027	167,490	18,466	149,024	9,462	2,019	383	3,503	5,541	146,970
2028	168,320	21,545	146,775	10,298	2,068	510	4,762	7,109	146,790
2029	169,296	24,447	144,849	11,016	2,118	645	6,313	8,867	147,540
2030	170,130	27,186	142,944	11,538	2,171	786	8,151	10,848	149,020
2031	171,242	29,735	141,507	11,853	2,224	891	10,240	13,029	151,590
2032	171,863	31,883	139,980	12,108	2,263	980	12,518	15,413	154,520
2033	172,502	33,894	138,608	12,330	2,302	1,062	14,912	17,960	157,910
2034	172,883	35,770	137,113	12,535	2,344	1,143	17,350	20,673	161,400
2035	173,530	37,527	136,003	12,724	2,385	1,222	19,775	23,499	165,390
2036	174,010	39,182	134,828	12,900	2,417	1,295	22,131	26,393	169,330
2037	174,597	40,736	133,861	13,063	2,453	1,366	24,372	29,157	173,240
2038	174,982	42,205	132,777	13,220	2,478	1,436	26,460	31,905	176,880
2039	175,689	43,590	132,099	13,363	2,519	1,499	28,359	34,565	180,640
2040	176,199	44,906	131,293	13,500	2,547	1,560	30,037	37,137	183,980
2041	176,913	46,163	130,750	13,604	2,568	1,622	31,318	39,402	186,920
2042	177,492	47,360	130,132	13,701	2,606	1,673	32,254	41,538	189,290
2043	178,315	48,497	129,818	13,788	2,633	1,728	33,045	43,450	191,620
2044	178,883	49,578	129,305	13,870	2,649	1,779	33,695	45,210	193,470
2045	179,641	50,627	129,014	13,949	2,678	1,829	34,215	46,549	194,980
2046	180,129	51,641	128,488	14,019	2,705	1,874	34,606	47,746	195,990
2047	180,922	52,642	128,280	14,087	2,728	1,917	34,880	48,768	197,030
2048	181,407	53,614	127,793	14,152	2,757	1,958	35,054	49,684	197,580
2049	182,145	54,556	127,589	14,218	2,776	1,999	35,150	50,216	197,960
2050	182,656	55,451	127,205	14,272	2,798	2,036	35,200	50,679	198,050
2051	183,577	56,348	127,229	14,329	2,826	2,069	35,207	51,110	198,460
2052	184,230	57,200	127,030	14,381	2,840	2,103	35,181	51,547	198,640

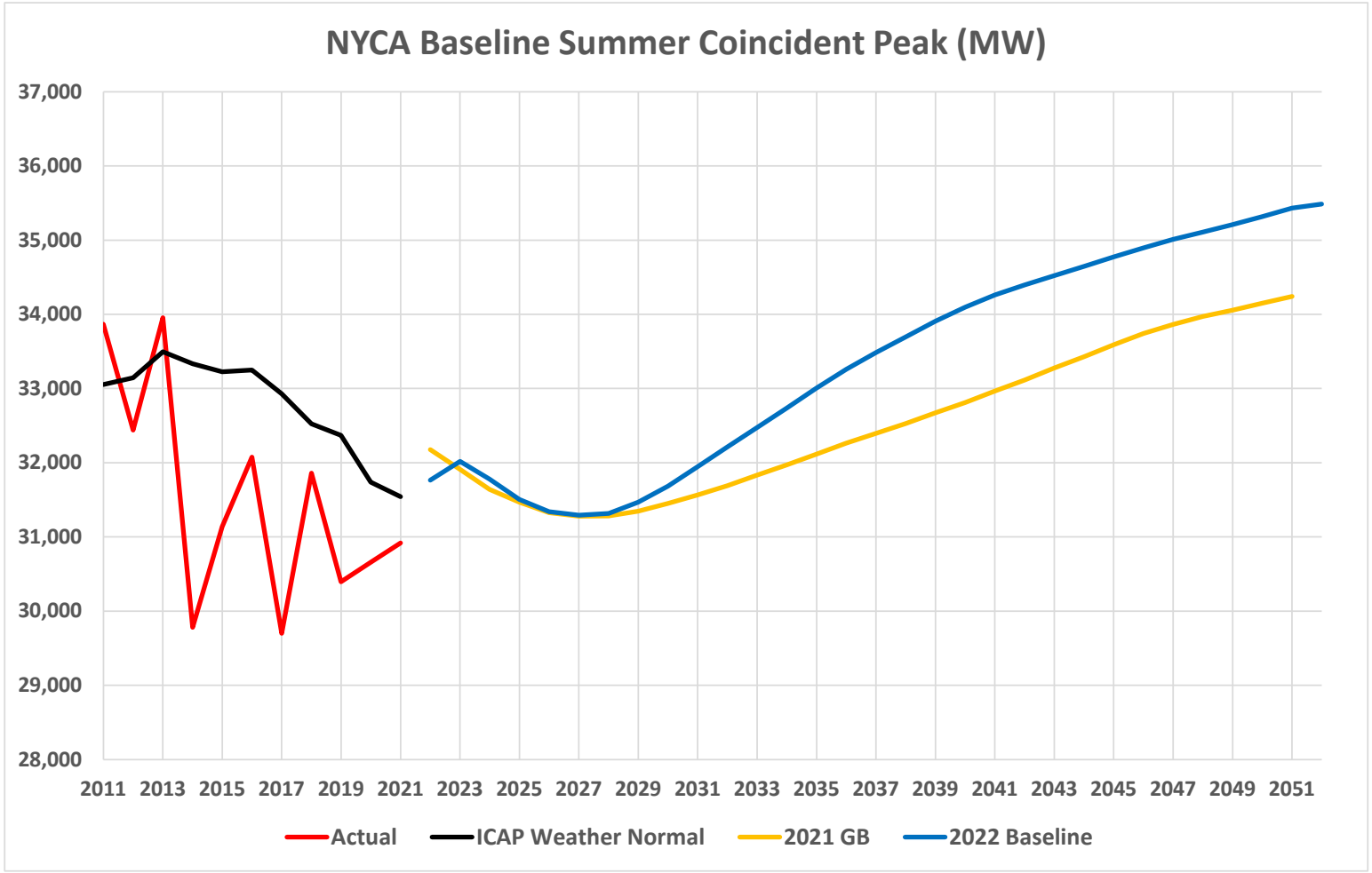
Baseline Annual Energy Forecast Components - GWh



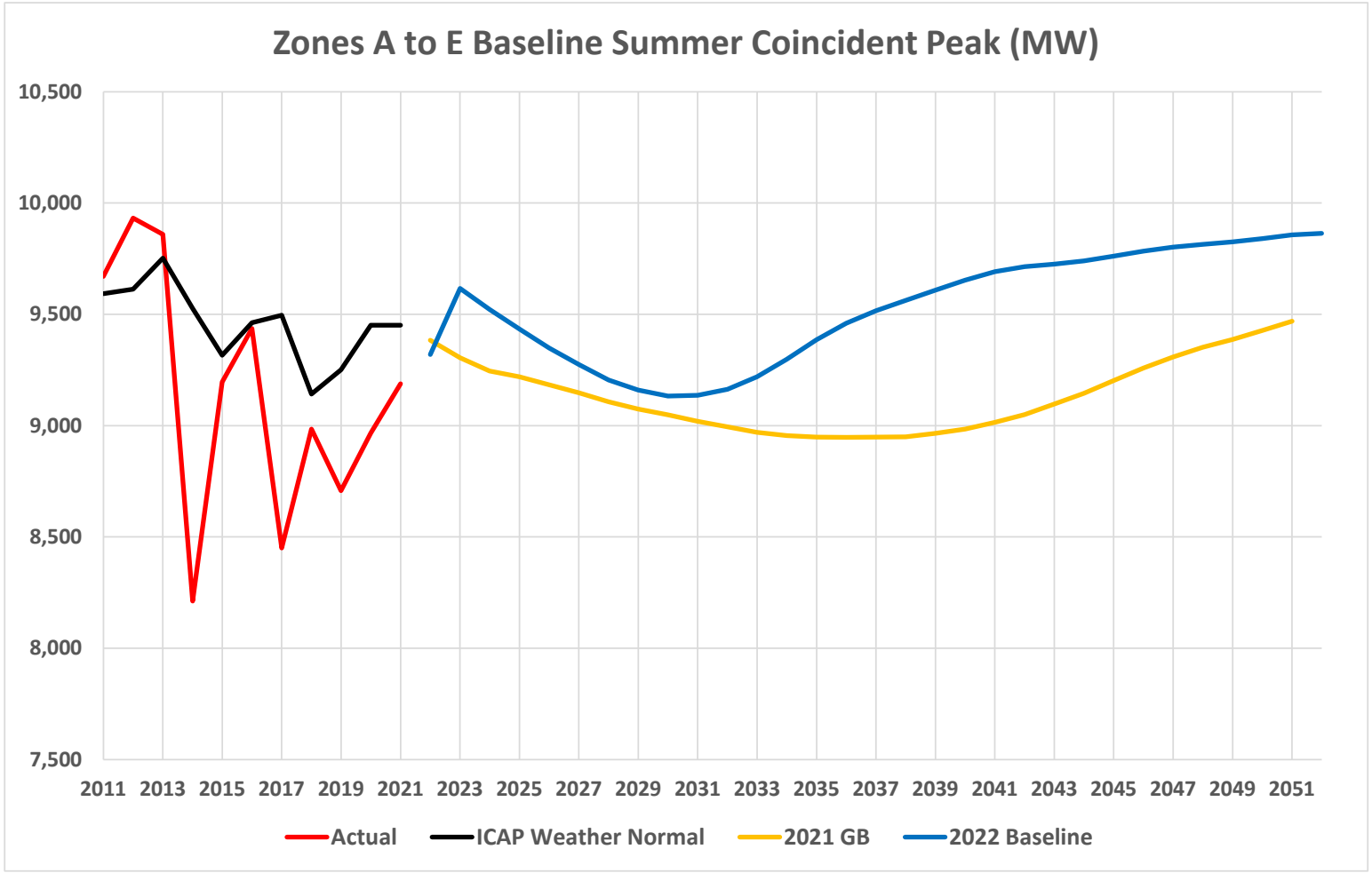
Baseline Annual Energy Forecast Net Impacts - GWh



Baseline Summer Peak Forecast

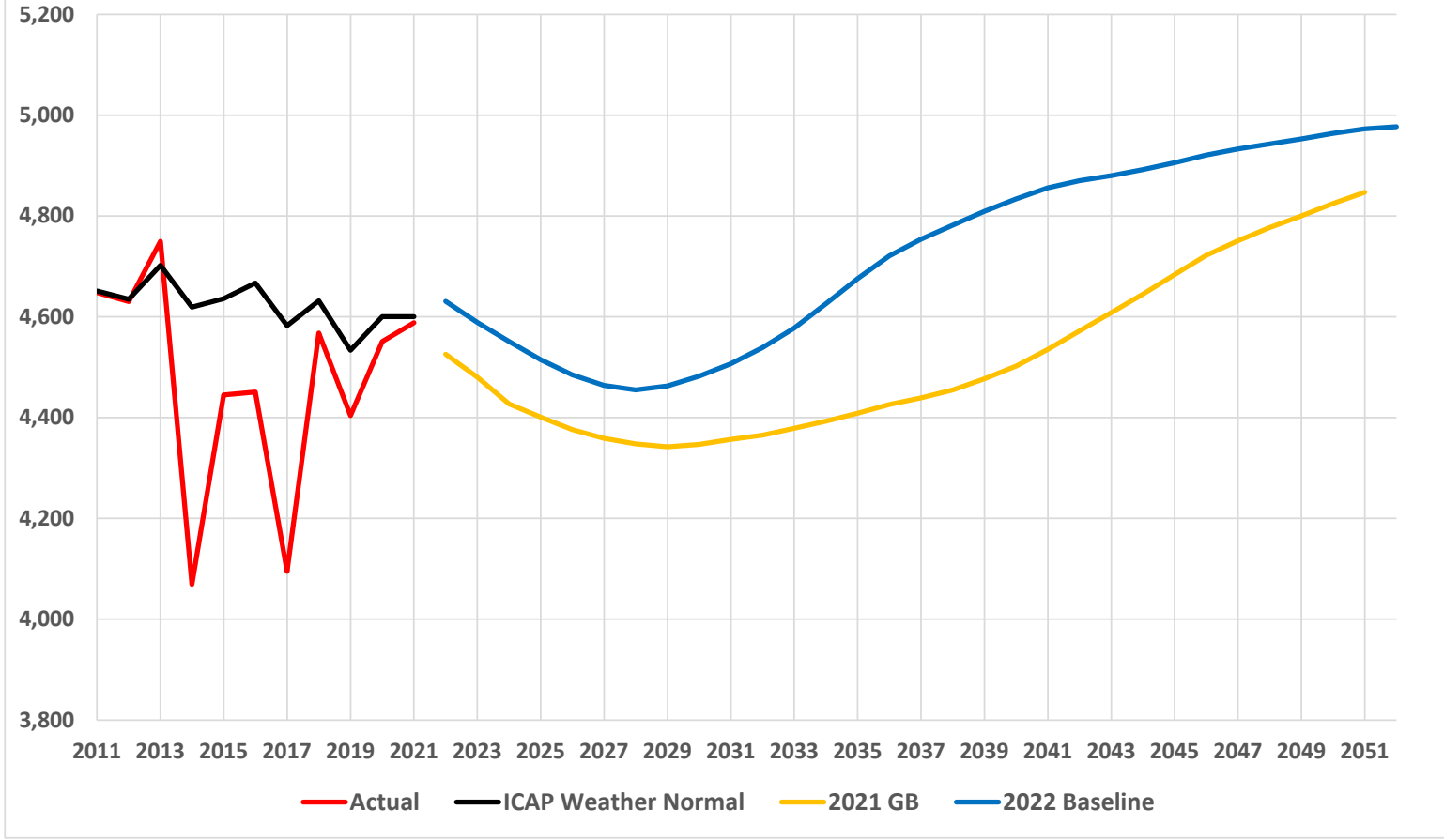


- Actual historical values reflect metered load.
- ICAP weather normal values include demand response added back onto the load, and reflect the adjusted load at design weather conditions. The NYCA aggregate design condition is the 57th percentile.
- Forecast values assume no reductions due to demand response and assume trended 57th percentile weather.

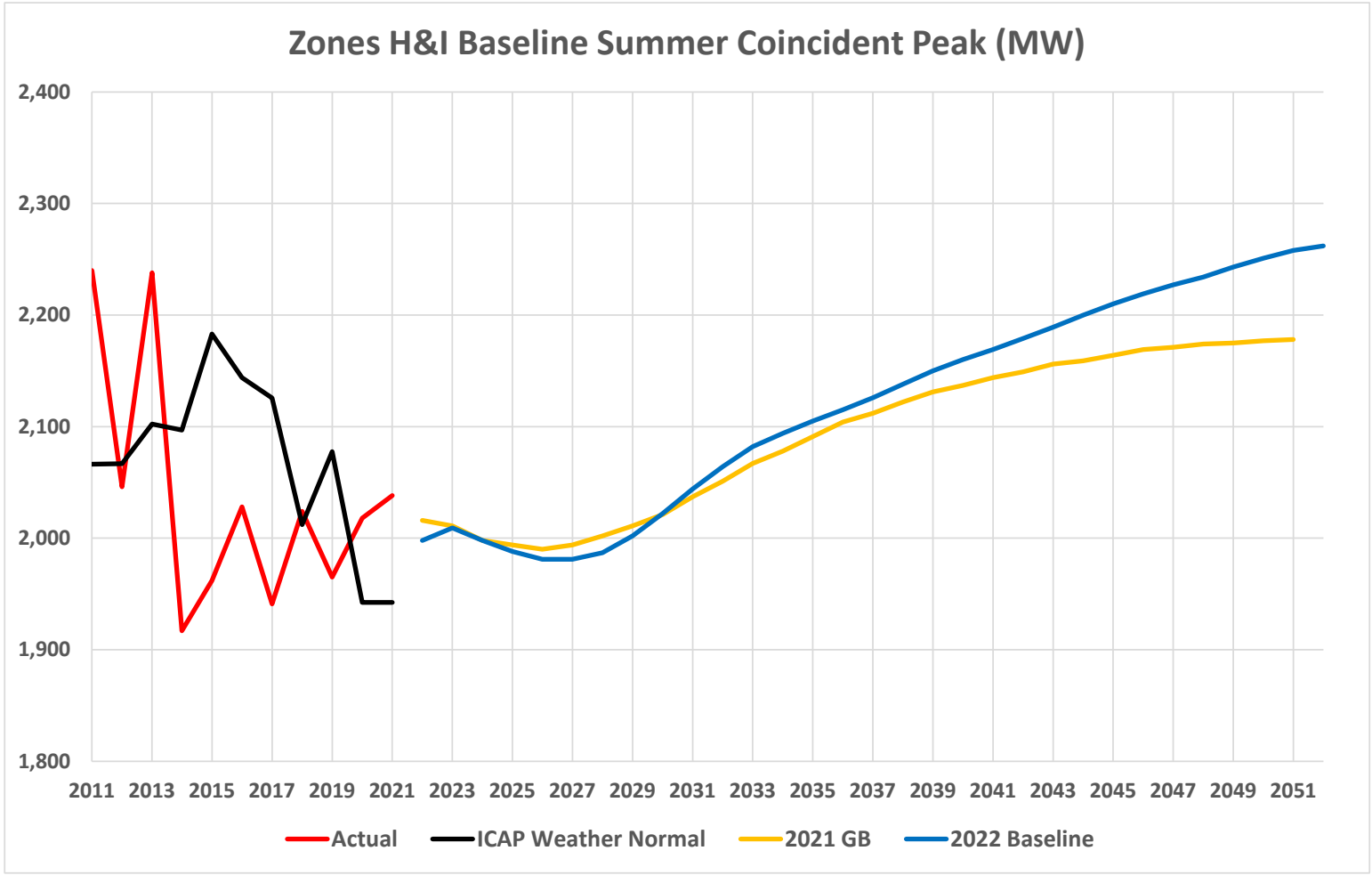


- Actual historical values reflect metered load.
- ICAP weather normal values include demand response added back onto the load, and reflect the adjusted load at design weather conditions. The Zones A to E design condition is the 50th percentile.
- Forecast values assume no reductions due to demand response and assume trended 50th percentile weather.

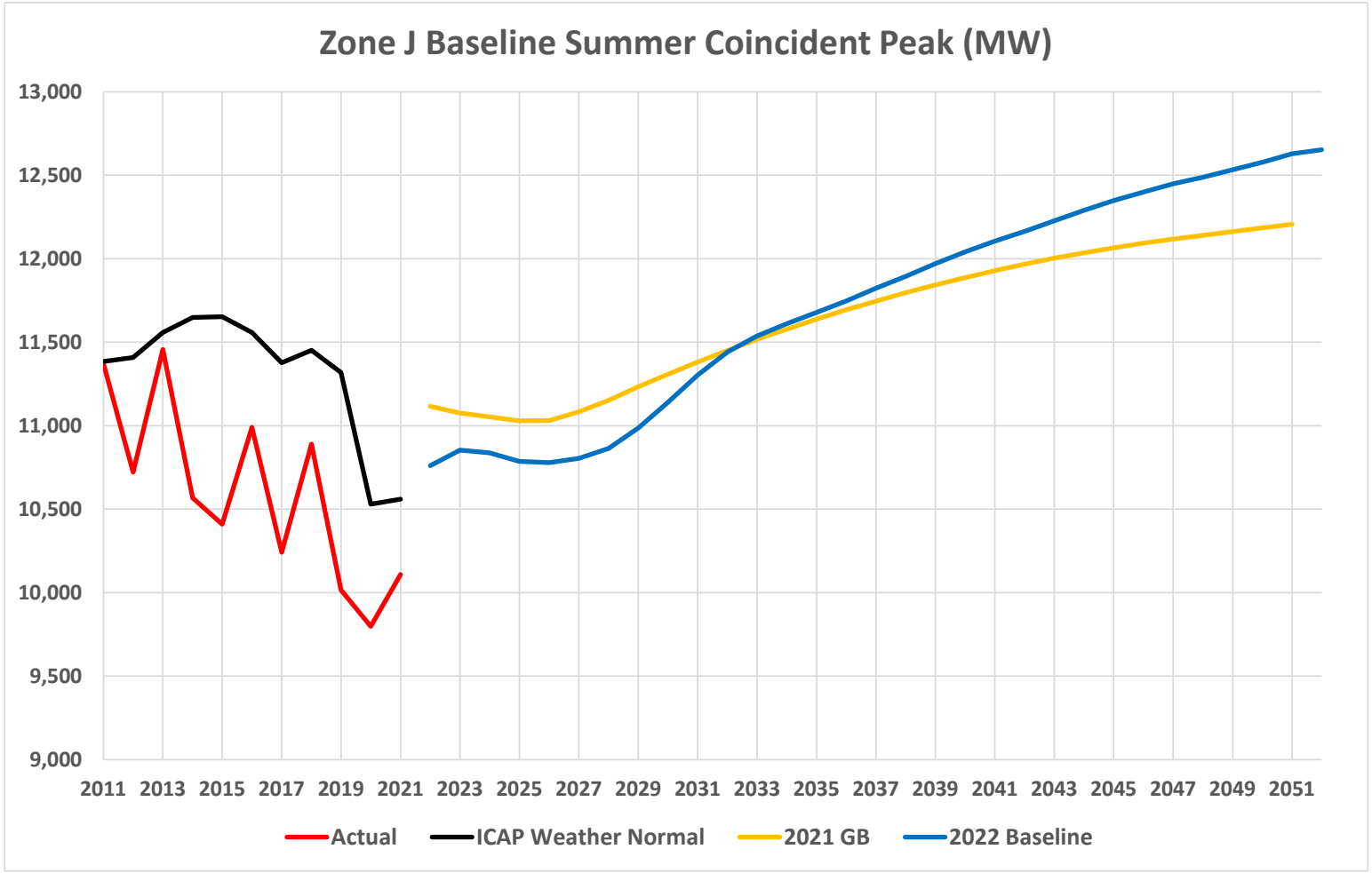
Zones F&G Baseline Summer Coincident Peak (MW)



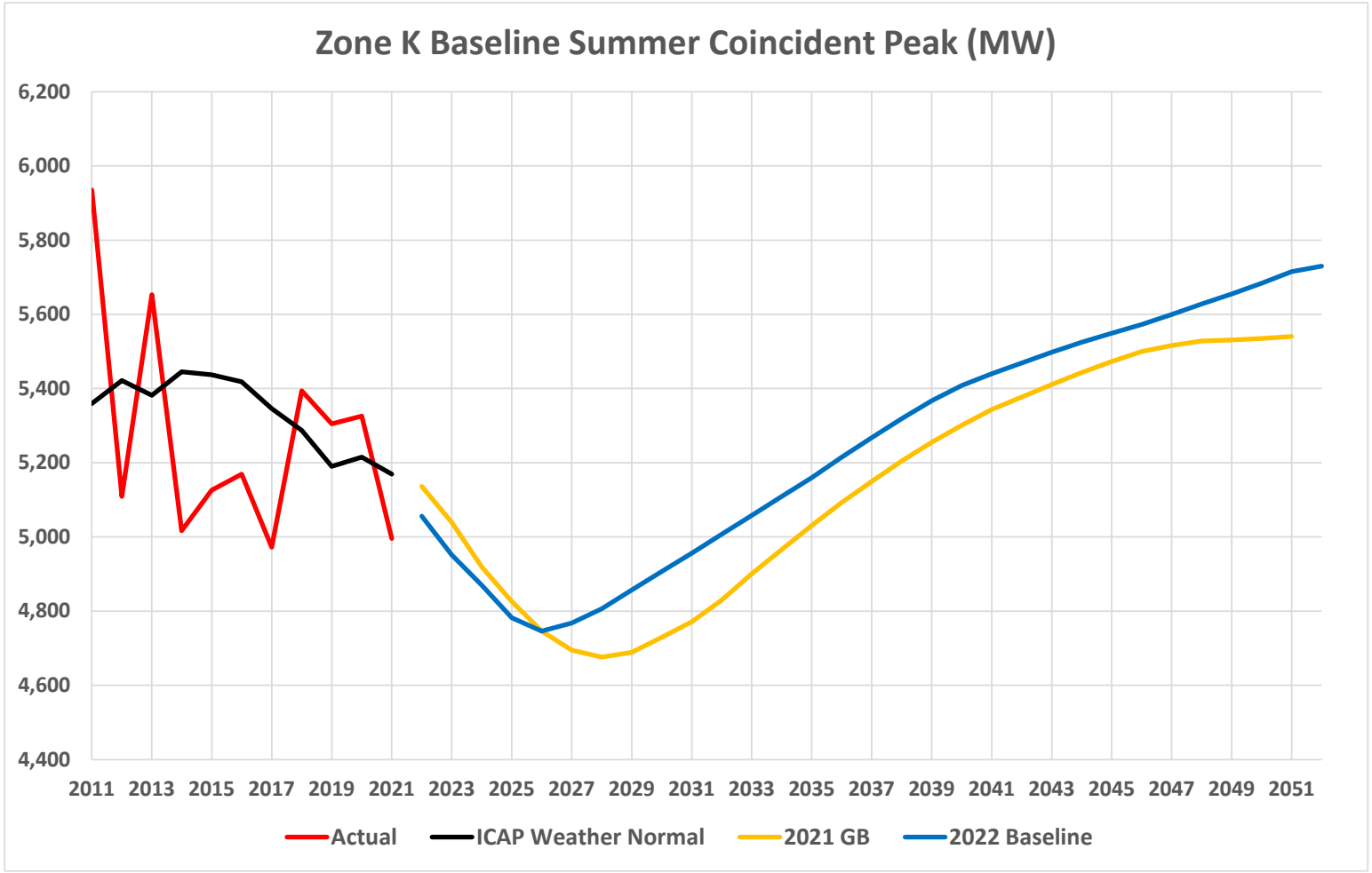
- Actual historical values reflect metered load.
- ICAP weather normal values include demand response added back onto the load, and reflect the adjusted load at design weather conditions. The Zones F&G aggregate design condition is the 54th percentile.
- Forecast values assume no reductions due to demand response and assume trended 54th percentile weather.



- Actual historical values reflect metered load.
- ICAP weather normal values include demand response added back onto the load, and reflect the adjusted load at design weather conditions. The Zones H&I aggregate design condition is the 64th percentile.
- Forecast values assume no reductions due to demand response and assume trended 64th percentile weather.



- Actual historical values reflect metered load.
- ICAP weather normal values include demand response added back onto the load, and reflect the adjusted load at design weather conditions. The Zone J design condition is the 67th percentile.
- Forecast values assume no reductions due to demand response and assume trended 67th percentile weather.



- Actual historical values reflect metered load.
- ICAP weather normal values include demand response added back onto the load, and reflect the adjusted load at design weather conditions. The Zone K design condition is the 50th percentile.
- Forecast values assume no reductions due to demand response and assume trended 50th percentile weather.

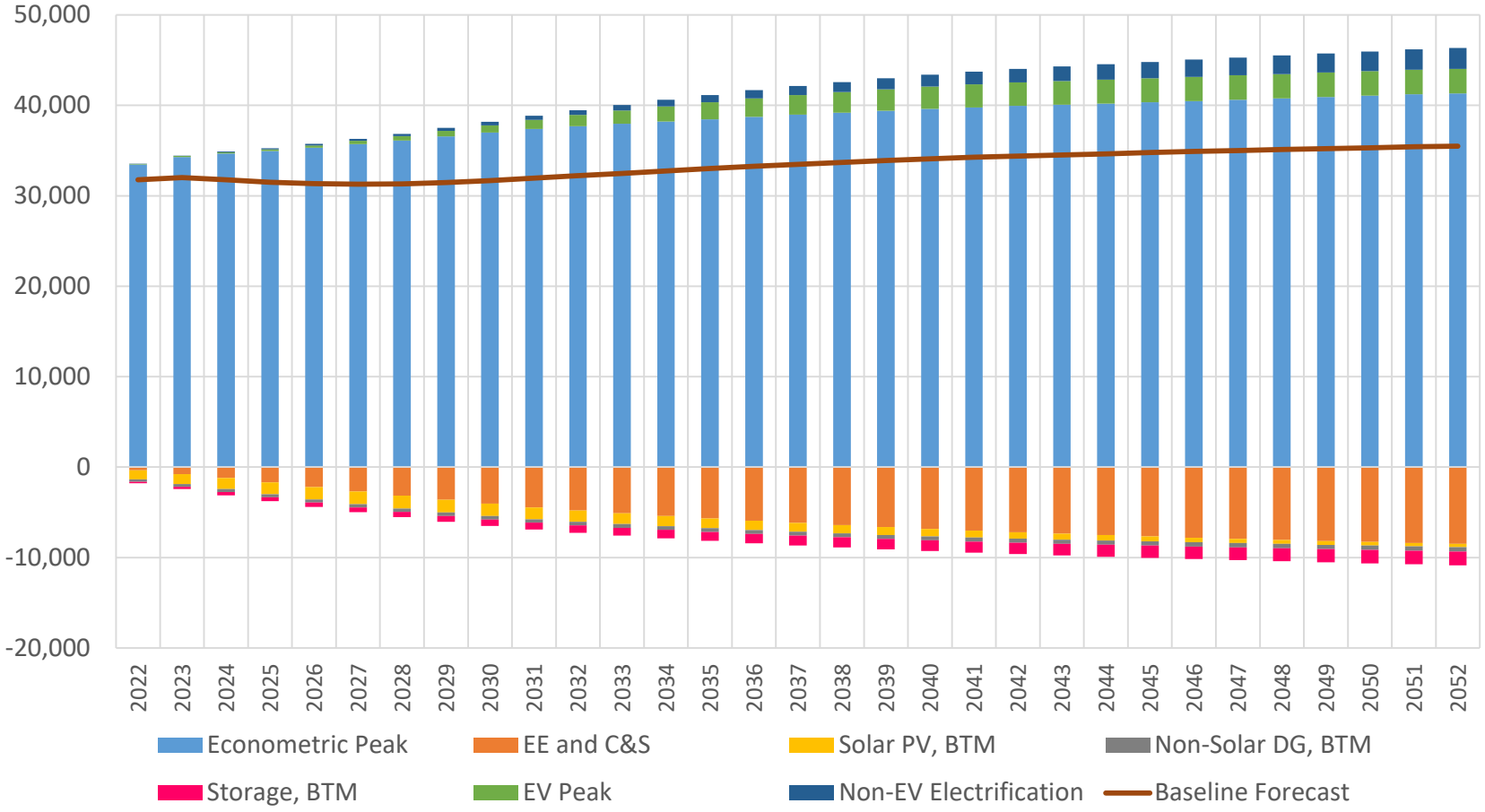
Baseline Coincident Summer Peak Demand Forecast by Zone - MW

Year	A	B	C	D	E	F	G	H	I	J	K	NYCA
2022	2,661	1,985	2,700	643	1,331	2,424	2,207	626	1,372	10,760	5,056	31,765
2023	2,876	1,975	2,775	687	1,303	2,390	2,199	630	1,379	10,853	4,951	32,018
2024	2,866	1,964	2,733	687	1,272	2,360	2,191	626	1,372	10,837	4,870	31,778
2025	2,861	1,952	2,691	686	1,244	2,332	2,183	623	1,365	10,786	4,782	31,505
2026	2,859	1,938	2,648	684	1,220	2,308	2,177	621	1,360	10,778	4,746	31,339
2027	2,859	1,926	2,609	681	1,200	2,290	2,174	621	1,360	10,804	4,768	31,292
2028	2,855	1,914	2,574	678	1,184	2,279	2,176	623	1,364	10,864	4,806	31,317
2029	2,853	1,908	2,549	675	1,175	2,278	2,185	627	1,375	10,986	4,857	31,468
2030	2,853	1,906	2,531	673	1,170	2,284	2,198	634	1,388	11,140	4,907	31,684
2031	2,860	1,910	2,524	670	1,172	2,294	2,213	641	1,403	11,303	4,956	31,946
2032	2,873	1,917	2,528	668	1,177	2,309	2,230	647	1,417	11,441	5,007	32,214
2033	2,894	1,929	2,541	668	1,187	2,327	2,251	652	1,430	11,537	5,058	32,474
2034	2,921	1,945	2,562	669	1,201	2,351	2,275	656	1,438	11,610	5,109	32,737
2035	2,951	1,962	2,586	672	1,215	2,375	2,301	660	1,445	11,678	5,160	33,005
2036	2,977	1,976	2,606	673	1,228	2,398	2,323	663	1,452	11,747	5,215	33,258
2037	2,997	1,986	2,622	673	1,238	2,415	2,339	666	1,460	11,823	5,268	33,487
2038	3,013	1,994	2,635	673	1,248	2,430	2,352	670	1,468	11,894	5,319	33,696
2039	3,029	2,003	2,647	673	1,257	2,445	2,364	674	1,476	11,971	5,367	33,906
2040	3,043	2,012	2,660	673	1,266	2,459	2,375	677	1,483	12,041	5,408	34,097
2041	3,055	2,019	2,671	673	1,274	2,471	2,385	680	1,489	12,105	5,440	34,262
2042	3,061	2,022	2,678	672	1,281	2,479	2,391	683	1,496	12,164	5,469	34,396
2043	3,065	2,023	2,682	670	1,286	2,485	2,395	686	1,503	12,227	5,498	34,520
2044	3,069	2,025	2,686	668	1,292	2,493	2,399	689	1,511	12,289	5,525	34,646
2045	3,075	2,028	2,693	667	1,298	2,502	2,404	693	1,517	12,348	5,549	34,774
2046	3,082	2,033	2,700	666	1,303	2,511	2,410	695	1,524	12,399	5,573	34,896
2047	3,088	2,036	2,705	665	1,308	2,518	2,415	698	1,529	12,449	5,600	35,011
2048	3,092	2,039	2,708	664	1,311	2,524	2,419	700	1,534	12,488	5,628	35,107
2049	3,097	2,042	2,711	662	1,314	2,530	2,423	703	1,540	12,532	5,655	35,209
2050	3,102	2,045	2,715	661	1,317	2,537	2,427	705	1,546	12,577	5,684	35,316
2051	3,107	2,049	2,720	660	1,321	2,542	2,431	708	1,550	12,628	5,715	35,431
2052	3,109	2,051	2,722	660	1,322	2,545	2,432	709	1,553	12,653	5,730	35,486

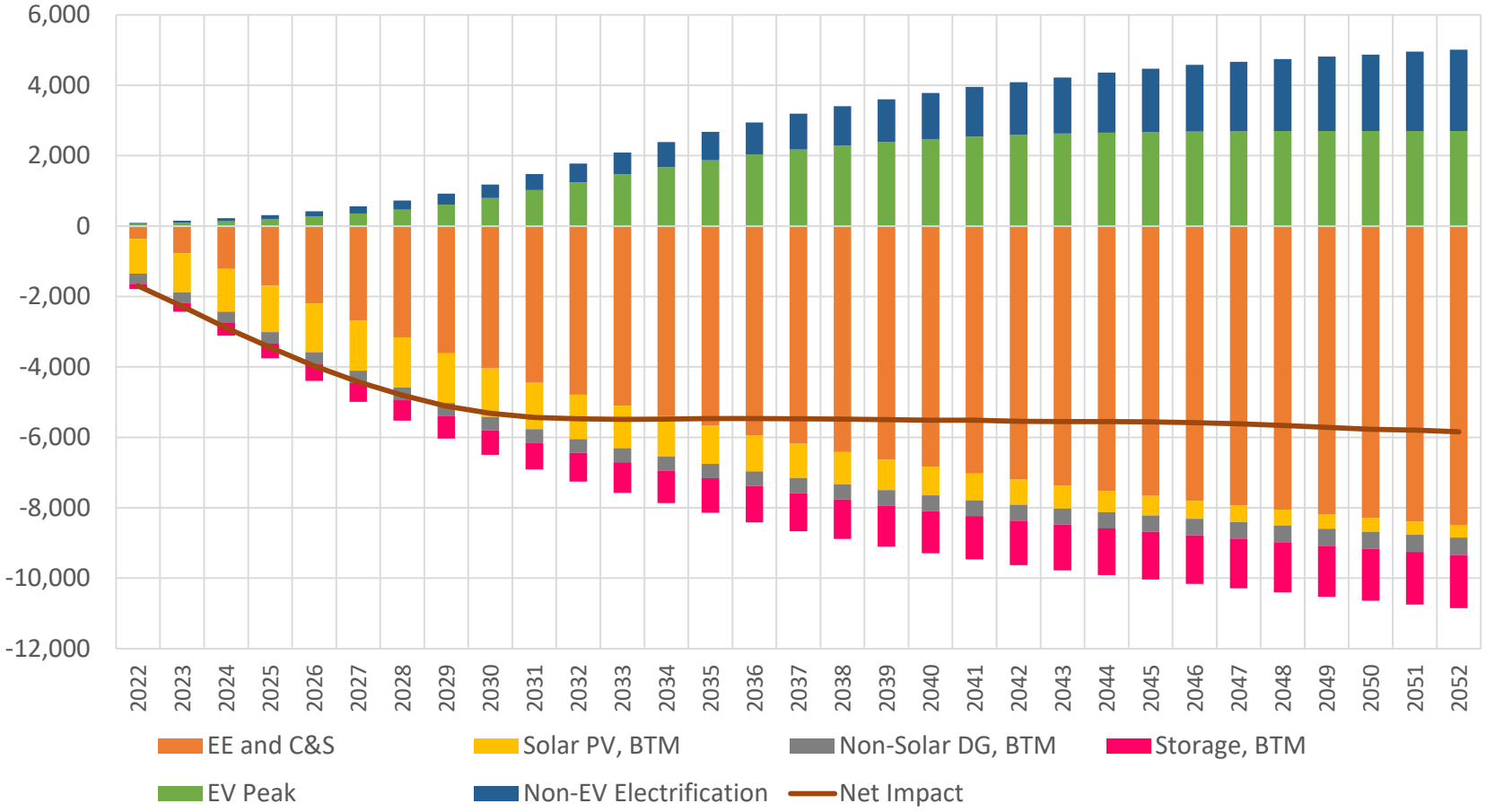
Table I-1c: Summary of NYCA Baseline Summer Coincident Peak Demand Forecasts - MW

Year	(a) Econometric Peak Demand (Incl Large Loads)	(b) (-) EE and C&S	(c) = a - b End-Use Peak Demand	(d) (-) Solar PV, BTM	(e) (-) Non-Solar DG, BTM	(f) (-) BTM Storage Peak Reductions	(g) (+) EV Peak Demand	(h) (+) Non-EV Electrification	(i) = c-d-e-f+g+h Baseline Summer Peak Forecast
2022	33,461	365	33,096	985	288	148	58	32	31,765
2023	34,295	769	33,526	1,113	304	244	96	57	32,018
2024	34,669	1,213	33,456	1,216	319	365	139	83	31,778
2025	34,946	1,696	33,250	1,314	330	416	193	122	31,505
2026	35,308	2,197	33,111	1,386	342	469	269	156	31,339
2027	35,715	2,687	33,028	1,421	352	528	359	206	31,292
2028	36,115	3,160	32,955	1,423	359	583	471	256	31,317
2029	36,577	3,610	32,967	1,416	369	640	610	316	31,468
2030	36,997	4,044	32,953	1,379	376	697	801	382	31,684
2031	37,377	4,451	32,926	1,315	386	755	1,025	451	31,946
2032	37,691	4,786	32,905	1,261	394	812	1,246	530	32,214
2033	37,961	5,101	32,860	1,205	401	868	1,468	620	32,474
2034	38,216	5,397	32,819	1,142	406	923	1,675	714	32,737
2035	38,469	5,672	32,797	1,079	413	980	1,867	813	33,005
2036	38,727	5,937	32,790	1,026	419	1,034	2,033	914	33,258
2037	38,962	6,185	32,777	970	426	1,085	2,175	1,016	33,487
2038	39,178	6,415	32,763	917	431	1,125	2,288	1,118	33,696
2039	39,405	6,634	32,771	866	438	1,164	2,385	1,218	33,906
2040	39,607	6,835	32,772	815	442	1,201	2,471	1,312	34,097
2041	39,776	7,027	32,749	759	446	1,233	2,545	1,406	34,262
2042	39,938	7,203	32,735	708	453	1,264	2,591	1,495	34,396
2043	40,073	7,369	32,704	654	457	1,295	2,627	1,595	34,520
2044	40,197	7,523	32,674	602	460	1,324	2,653	1,705	34,646
2045	40,334	7,662	32,672	555	466	1,351	2,672	1,802	34,774
2046	40,475	7,801	32,674	509	470	1,378	2,685	1,894	34,896
2047	40,628	7,931	32,697	474	474	1,404	2,694	1,972	35,011
2048	40,768	8,057	32,711	443	479	1,429	2,698	2,049	35,107
2049	40,924	8,176	32,748	418	484	1,451	2,701	2,113	35,209
2050	41,089	8,284	32,805	395	487	1,474	2,703	2,164	35,316
2051	41,224	8,389	32,835	375	492	1,495	2,703	2,255	35,431
2052	41,329	8,487	32,842	357	495	1,512	2,704	2,304	35,486

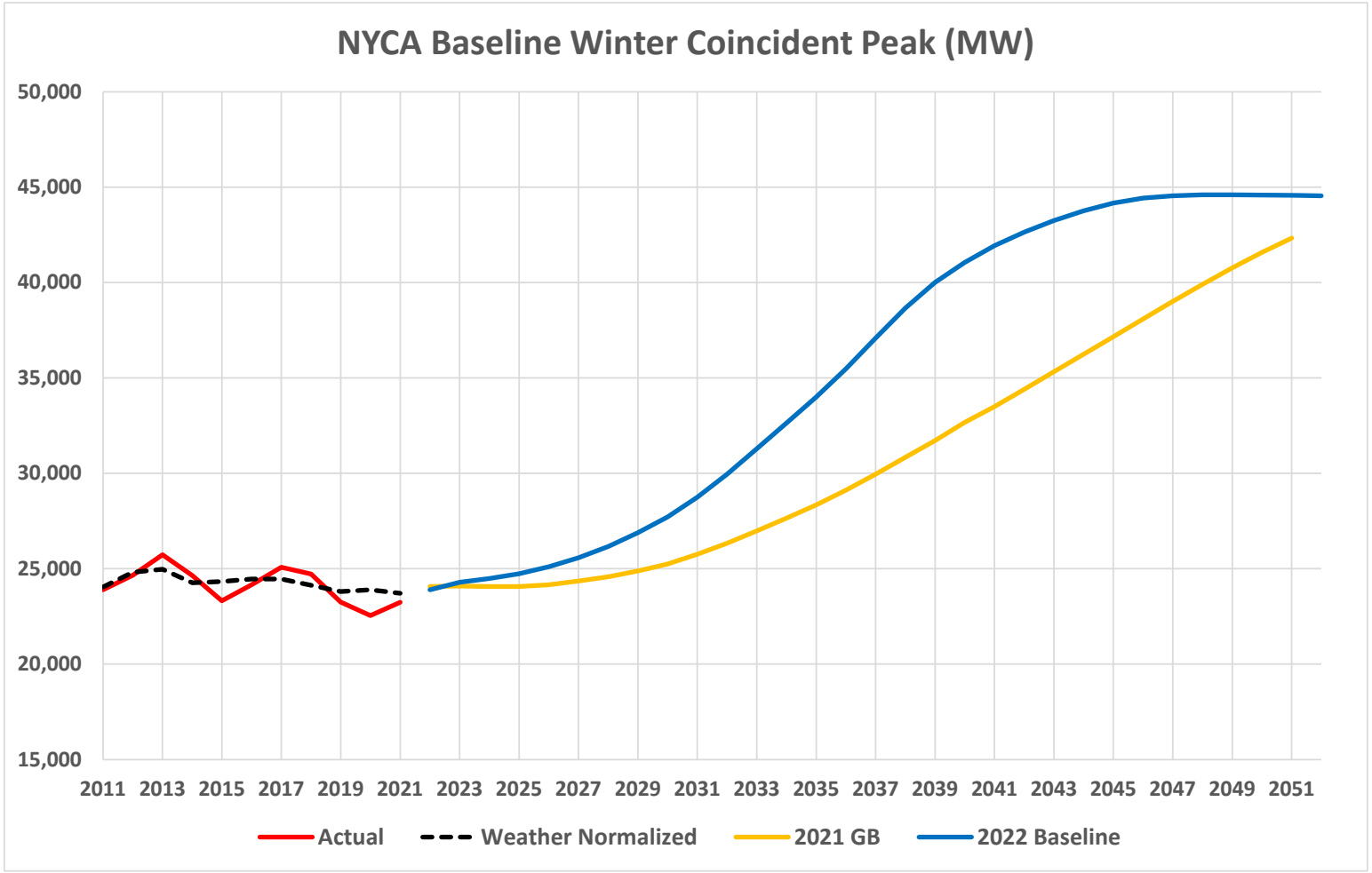
Baseline Summer Peak Forecast Components - MW

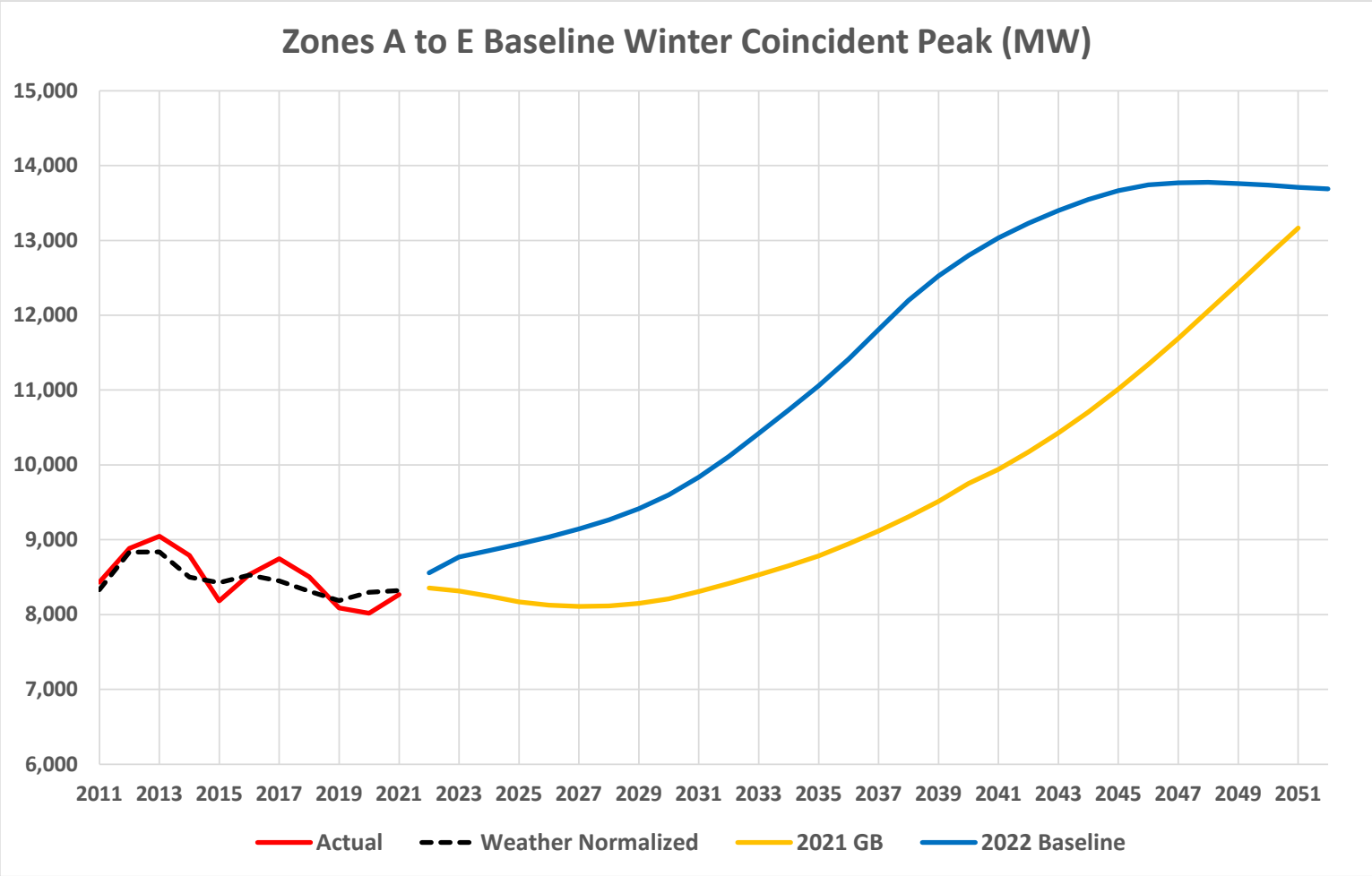


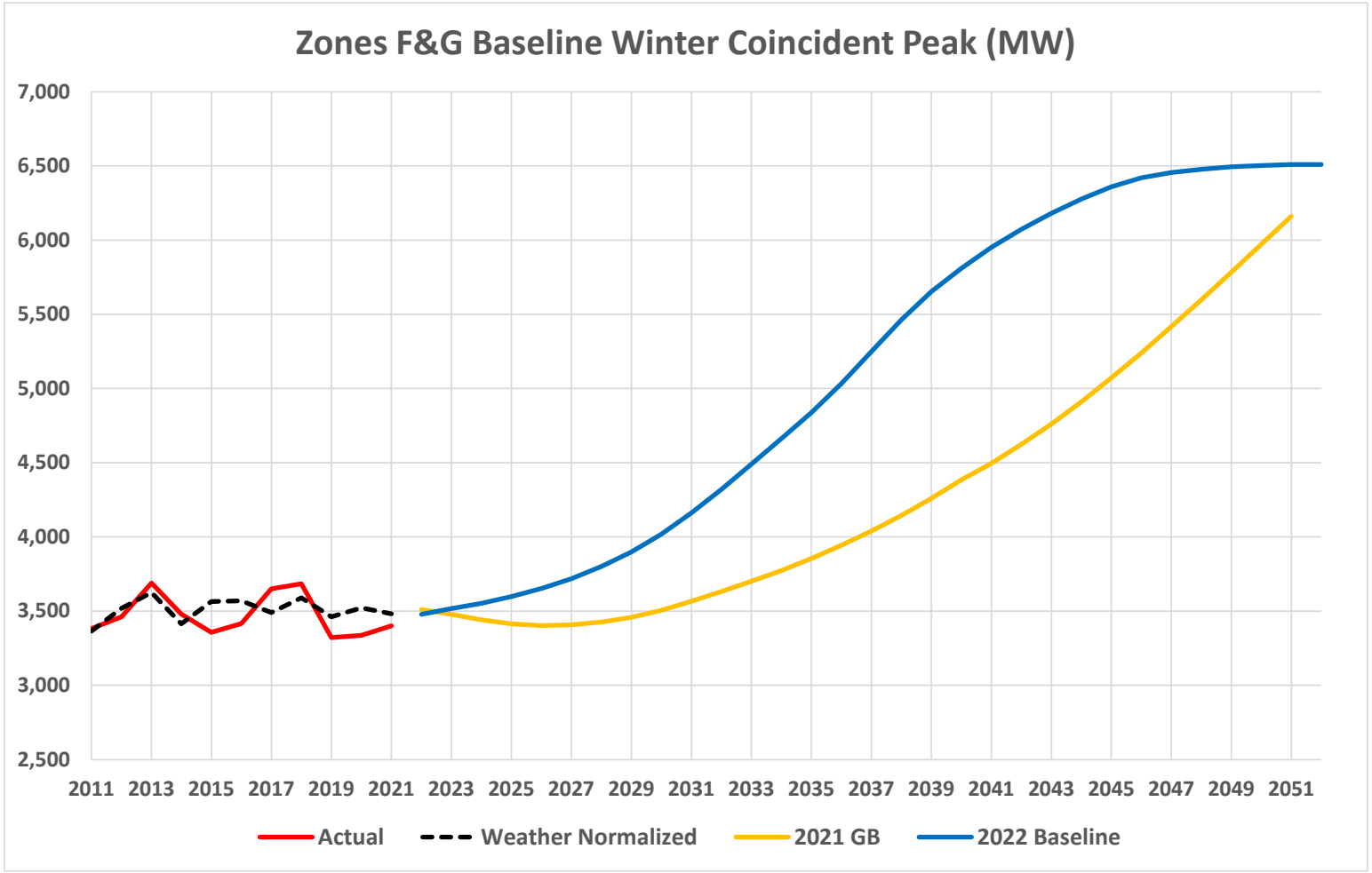
Baseline Summer Peak Forecast Net Impacts - MW



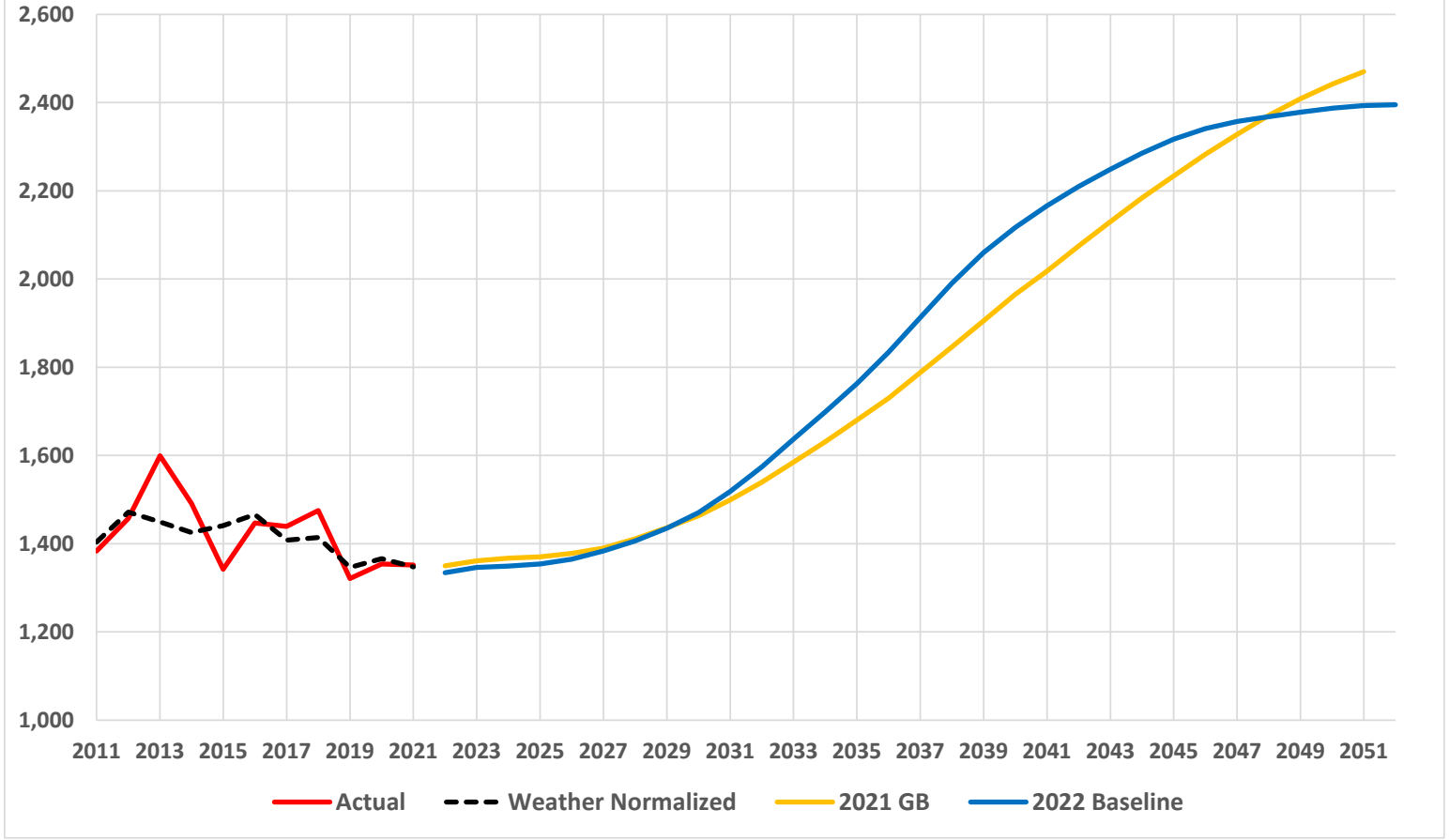
Baseline Winter Peak Forecast

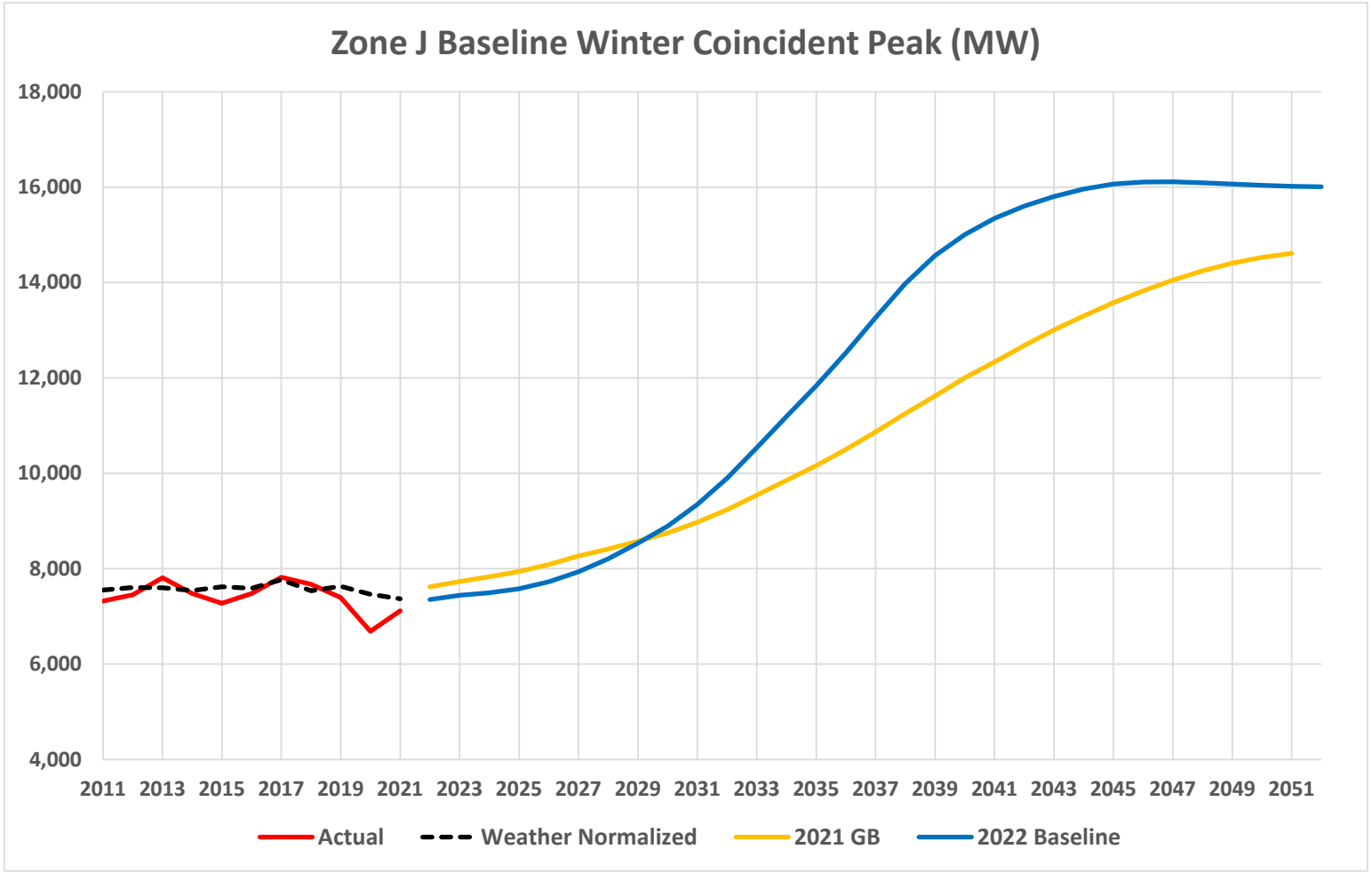


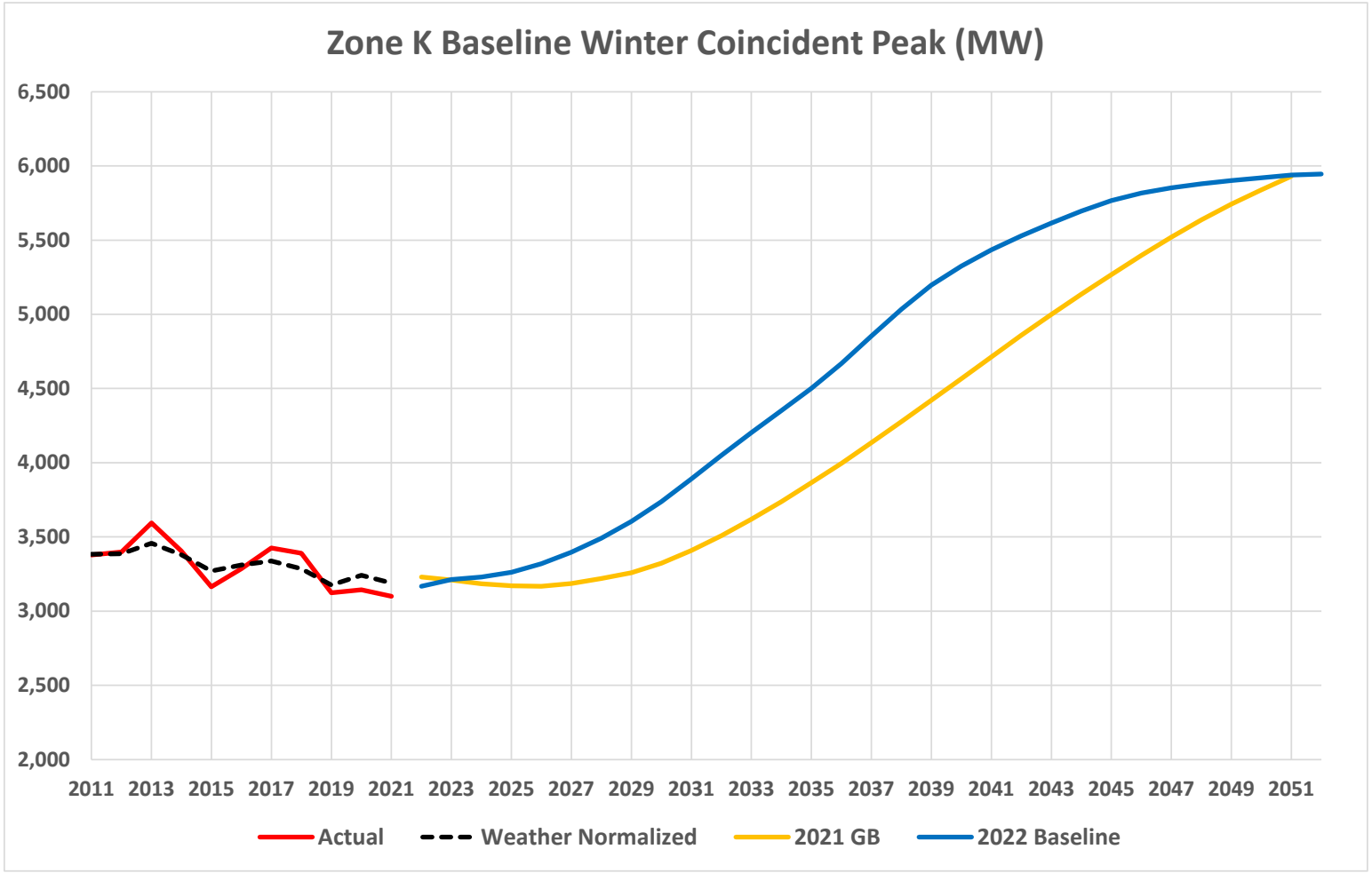




Zones H&I Baseline Winter Coincident Peak (MW)







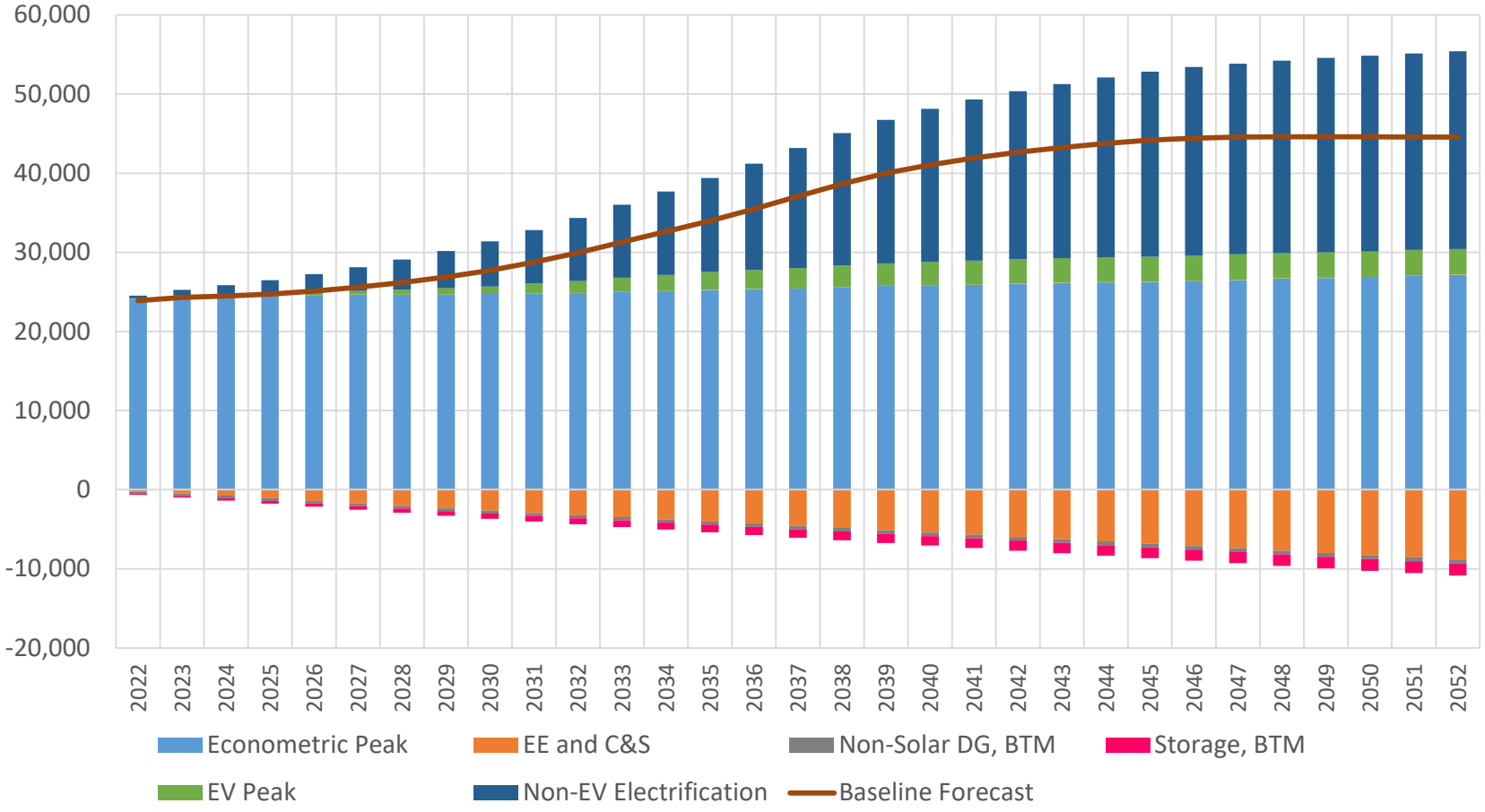
Baseline Coincident Winter Peak Demand Forecast by Zone - MW

Year	A	B	C	D	E	F	G	H	I	J	K	NYCA
2022-23	2,378	1,494	2,540	875	1,270	1,957	1,522	483	851	7,356	3,167	23,893
2023-24	2,419	1,514	2,674	880	1,282	1,972	1,545	487	859	7,442	3,213	24,287
2024-25	2,473	1,529	2,685	880	1,288	1,985	1,568	489	860	7,495	3,229	24,481
2025-26	2,528	1,545	2,694	880	1,296	2,003	1,595	490	864	7,578	3,262	24,735
2026-27	2,583	1,563	2,705	880	1,306	2,026	1,626	491	874	7,725	3,319	25,098
2027-28	2,638	1,586	2,720	880	1,320	2,056	1,662	495	888	7,934	3,396	25,575
2028-29	2,692	1,614	2,742	880	1,338	2,094	1,706	499	907	8,208	3,491	26,171
2029-30	2,750	1,648	2,772	882	1,362	2,140	1,759	506	929	8,532	3,604	26,884
2030-31	2,819	1,691	2,811	884	1,394	2,197	1,822	514	956	8,894	3,737	27,719
2031-32	2,903	1,744	2,868	887	1,433	2,266	1,896	526	992	9,350	3,891	28,756
2032-33	3,000	1,806	2,936	891	1,480	2,342	1,979	539	1,035	9,897	4,049	29,954
2033-34	3,105	1,871	3,017	896	1,532	2,424	2,066	554	1,083	10,536	4,203	31,287
2034-35	3,213	1,937	3,098	901	1,586	2,508	2,155	568	1,131	11,189	4,351	32,637
2035-36	3,323	2,005	3,180	907	1,641	2,594	2,244	583	1,180	11,834	4,502	33,993
2036-37	3,445	2,081	3,273	913	1,703	2,691	2,343	600	1,234	12,526	4,669	35,478
2037-38	3,579	2,165	3,375	919	1,772	2,799	2,451	620	1,293	13,266	4,855	37,094
2038-39	3,710	2,247	3,475	925	1,839	2,906	2,558	640	1,351	13,975	5,035	38,661
2039-40	3,822	2,318	3,559	929	1,898	3,000	2,653	658	1,402	14,565	5,196	40,000
2040-41	3,914	2,377	3,628	933	1,946	3,077	2,733	672	1,445	15,005	5,324	41,054
2041-42	3,994	2,430	3,686	936	1,988	3,146	2,805	684	1,482	15,347	5,434	41,932
2042-43	4,062	2,474	3,734	938	2,022	3,205	2,867	695	1,515	15,602	5,529	42,643
2043-44	4,120	2,511	3,775	940	2,051	3,257	2,923	705	1,544	15,803	5,615	43,244
2044-45	4,173	2,545	3,810	941	2,077	3,305	2,972	714	1,571	15,960	5,696	43,764
2045-46	4,216	2,573	3,837	941	2,098	3,345	3,014	722	1,595	16,064	5,766	44,171
2046-47	4,245	2,592	3,852	941	2,111	3,374	3,046	727	1,614	16,109	5,818	44,429
2047-48	4,259	2,601	3,855	940	2,116	3,390	3,066	729	1,628	16,112	5,853	44,549
2048-49	4,265	2,605	3,850	939	2,116	3,400	3,078	730	1,638	16,092	5,880	44,593
2049-50	4,265	2,605	3,841	937	2,113	3,407	3,088	730	1,648	16,066	5,902	44,602
2050-51	4,263	2,603	3,829	934	2,109	3,410	3,093	731	1,656	16,039	5,921	44,588
2051-52	4,258	2,599	3,816	933	2,104	3,412	3,098	730	1,663	16,017	5,939	44,569
2052-53	4,254	2,596	3,808	932	2,100	3,412	3,098	729	1,666	16,006	5,946	44,547

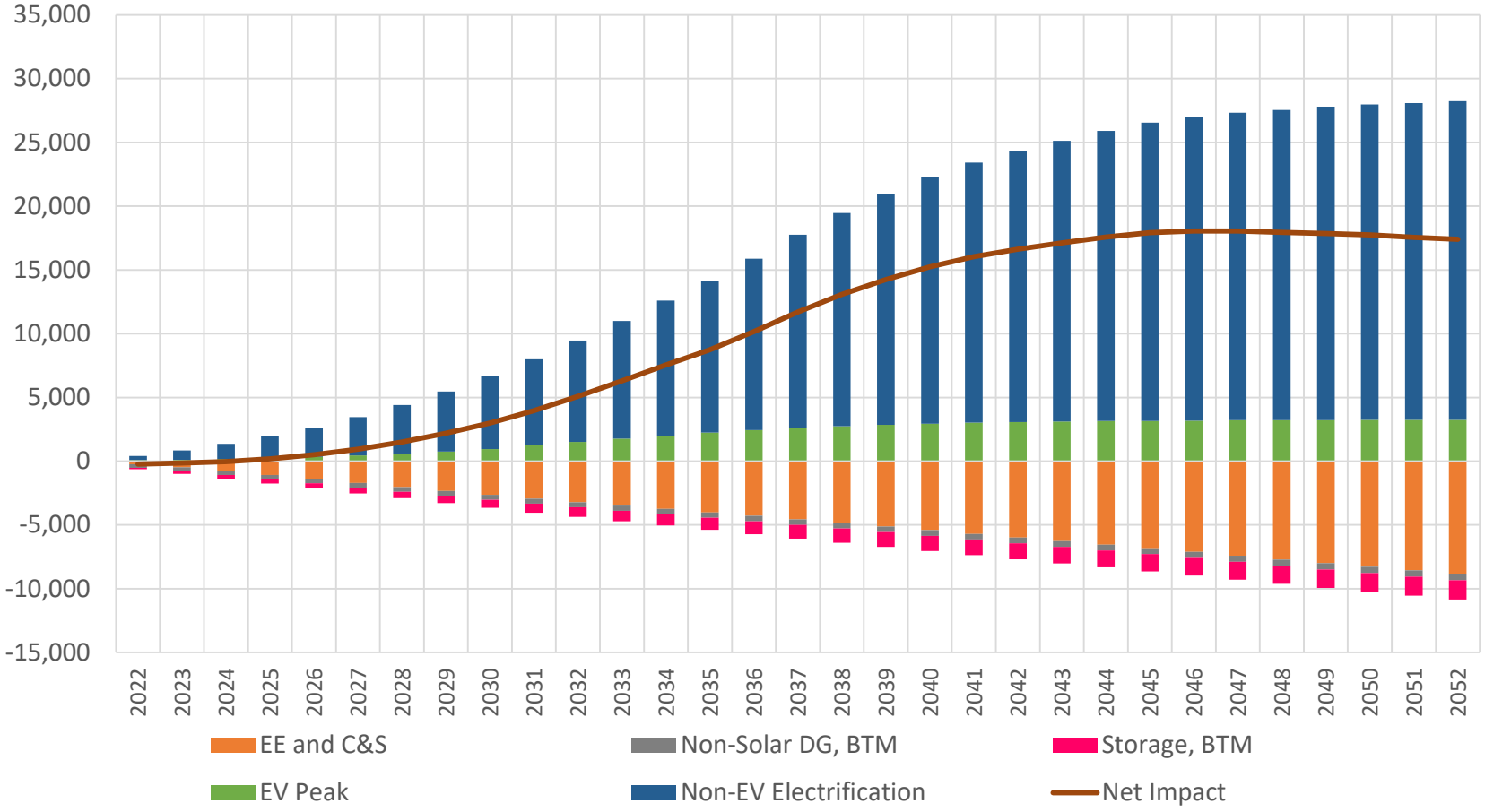
Table I-1d: Summary of NYCA Baseline Winter Coincident Peak Demand Forecasts - MW

Year	(a) Econometric Peak Demand (Incl Large Loads)	(b) (-) EE and C&S	(c) = a - b End-Use Peak Demand	(d) (-) Solar PV, BTM	(e) (-) Non-Solar DG, BTM	(f) (-) BTM Storage Peak Reductions	(g) (+) EV Peak Demand	(h) (+) Non-EV Electrification	(i) = c-d-e-f+g+h Baseline Winter Peak Forecast
2022-23	24,118	227	23,891	0	288	117	78	329	23,893
2023-24	24,425	483	23,942	0	304	196	118	727	24,287
2024-25	24,510	763	23,747	0	319	299	173	1,179	24,481
2025-26	24,544	1,074	23,470	0	330	347	244	1,698	24,735
2026-27	24,594	1,393	23,201	0	342	399	343	2,295	25,098
2027-28	24,647	1,715	22,932	0	352	457	457	2,995	25,575
2028-29	24,673	2,031	22,642	0	359	512	597	3,803	26,171
2029-30	24,698	2,338	22,360	0	369	573	760	4,706	26,884
2030-31	24,725	2,645	22,080	0	376	635	947	5,703	27,719
2031-32	24,802	2,947	21,855	0	386	699	1,238	6,748	28,756
2032-33	24,872	3,212	21,660	0	394	762	1,501	7,949	29,954
2033-34	25,005	3,481	21,524	0	401	825	1,760	9,229	31,287
2034-35	25,102	3,744	21,358	0	406	890	2,008	10,567	32,637
2035-36	25,263	4,007	21,256	0	413	956	2,234	11,872	33,993
2036-37	25,334	4,279	21,055	0	419	1,020	2,431	13,431	35,478
2037-38	25,420	4,559	20,861	0	426	1,085	2,582	15,162	37,094
2038-39	25,594	4,835	20,759	0	431	1,125	2,721	16,737	38,661
2039-40	25,770	5,123	20,647	0	438	1,164	2,828	18,127	40,000
2040-41	25,837	5,409	20,428	0	442	1,201	2,926	19,343	41,054
2041-42	25,913	5,693	20,220	0	446	1,233	3,004	20,387	41,932
2042-43	26,037	5,979	20,058	0	453	1,264	3,057	21,245	42,643
2043-44	26,145	6,258	19,887	0	457	1,295	3,097	22,012	43,244
2044-45	26,205	6,542	19,663	0	460	1,324	3,124	22,761	43,764
2045-46	26,280	6,823	19,457	0	466	1,351	3,142	23,389	44,171
2046-47	26,399	7,107	19,292	0	470	1,378	3,155	23,830	44,429
2047-48	26,527	7,404	19,123	0	474	1,404	3,186	24,118	44,549
2048-49	26,681	7,702	18,979	0	479	1,429	3,196	24,326	44,593
2049-50	26,769	7,998	18,771	0	484	1,451	3,201	24,565	44,602
2050-51	26,877	8,276	18,601	0	487	1,474	3,206	24,742	44,588
2051-52	27,051	8,554	18,497	0	492	1,495	3,210	24,849	44,569
2052-53	27,170	8,829	18,341	0	495	1,512	3,209	25,004	44,547

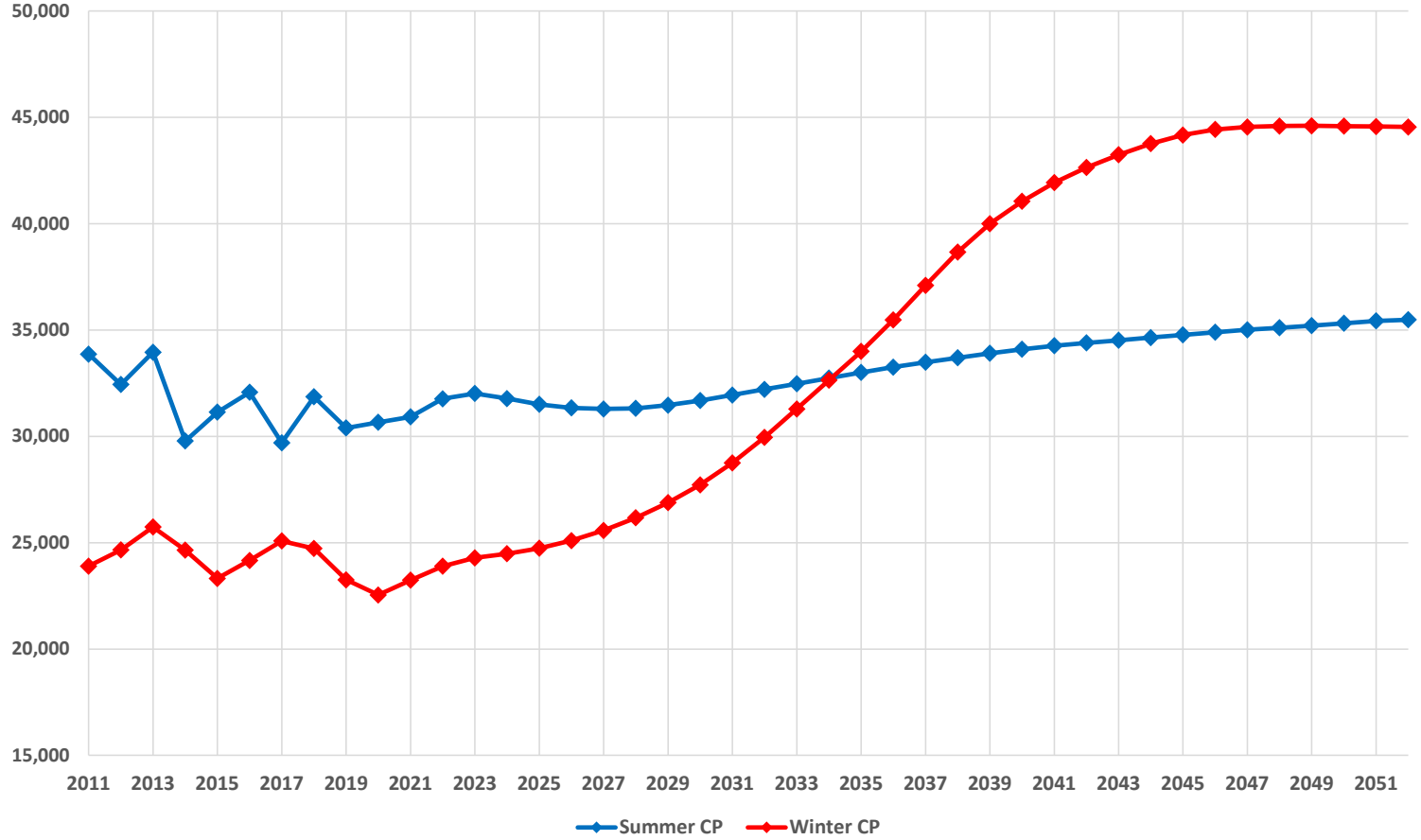
Baseline Winter Peak Forecast Components - MW



Baseline Winter Peak Forecast Net Impacts - MW

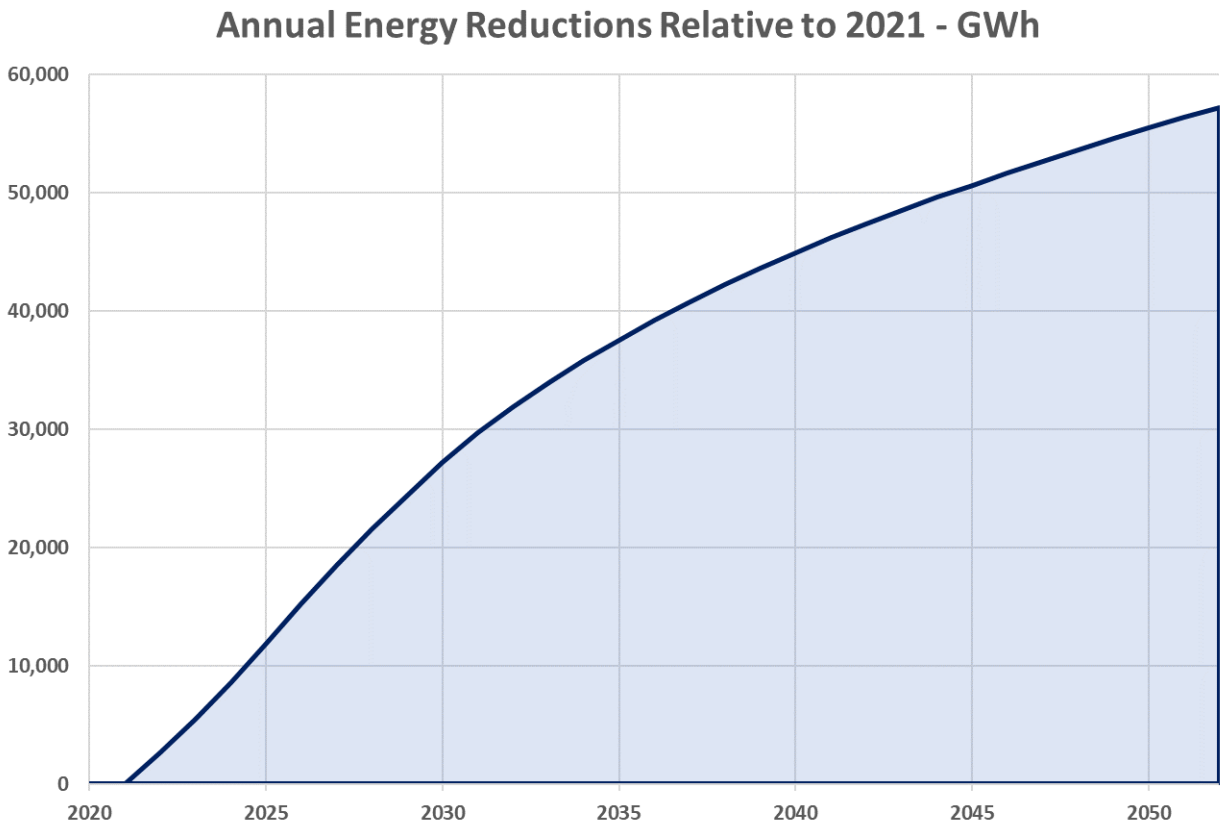


NYCA Baseline Summer and Winter Peak Forecasts (MW)



DER Forecast Summaries

Energy Efficiency and Codes & Standards Impacts

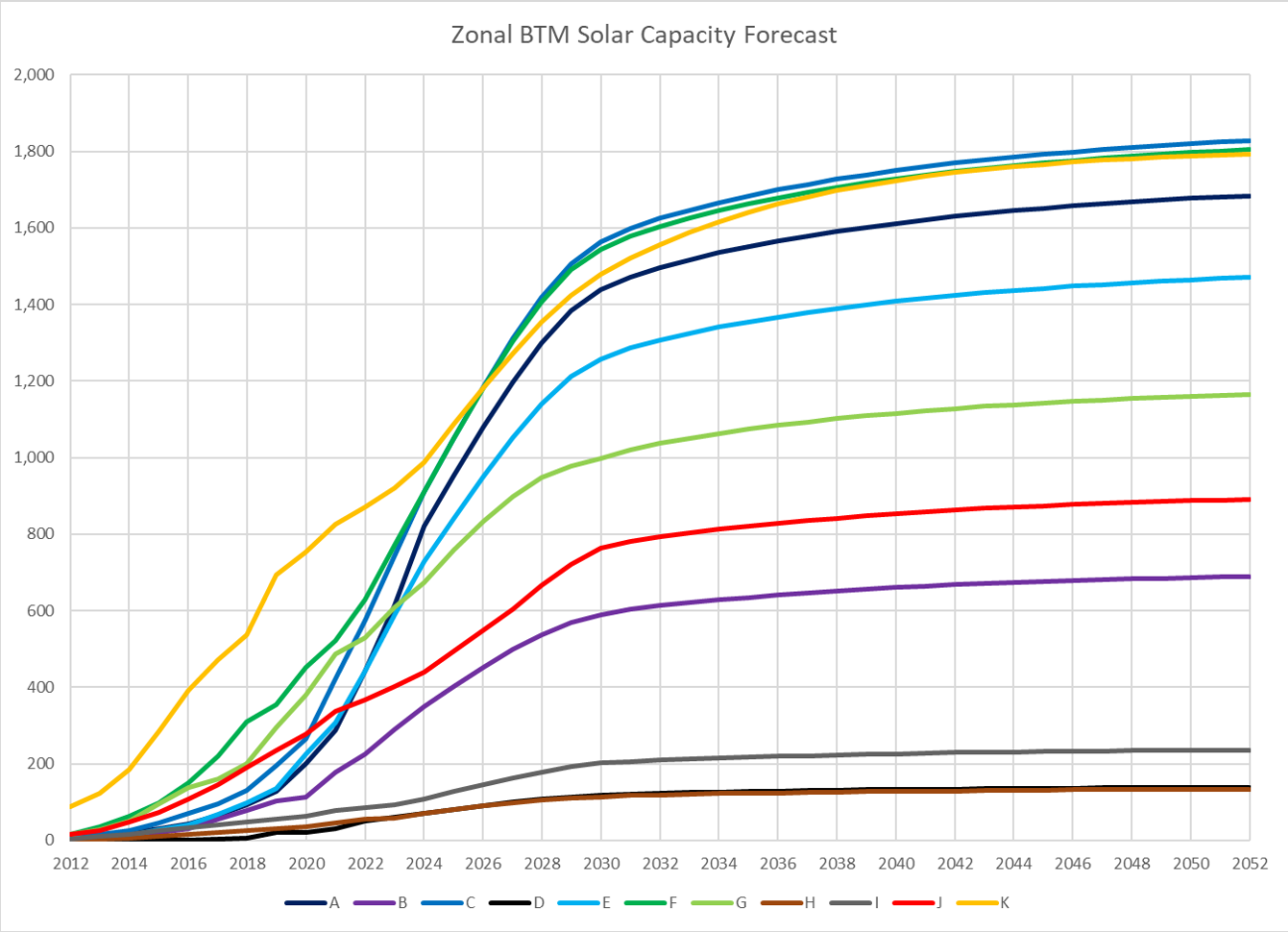


Seasonal Coincident Peak Reductions* - MW

Year	Summer Peak	Winter Peak
2025	1,700	1,100
2030	4,000	2,600
2035	5,700	4,000
2040	6,800	5,400
2045	7,700	6,800
2050	8,300	8,300

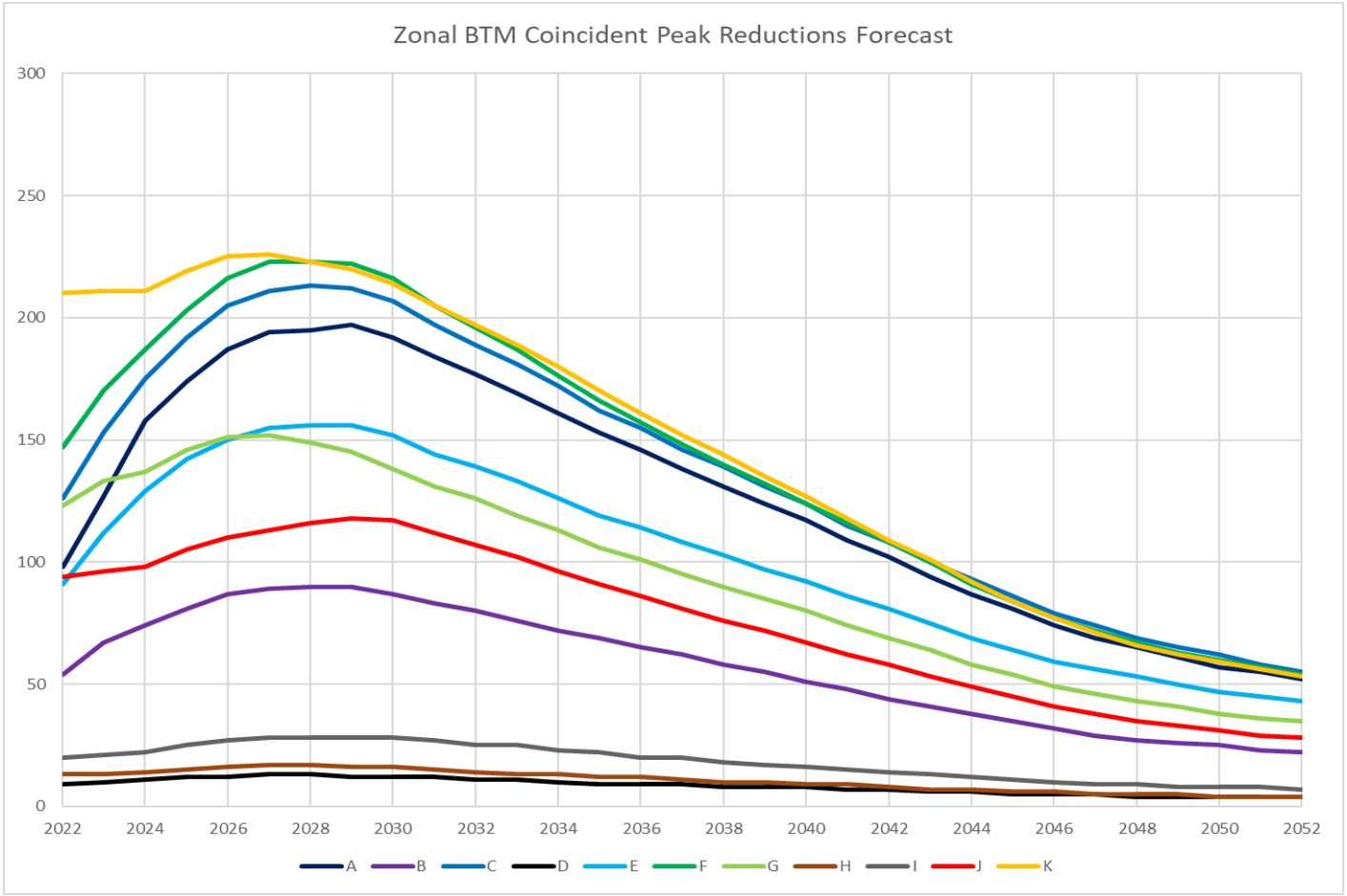
* Relative to 2021

Behind-the-Meter Solar Capacity Forecast (MW DC)

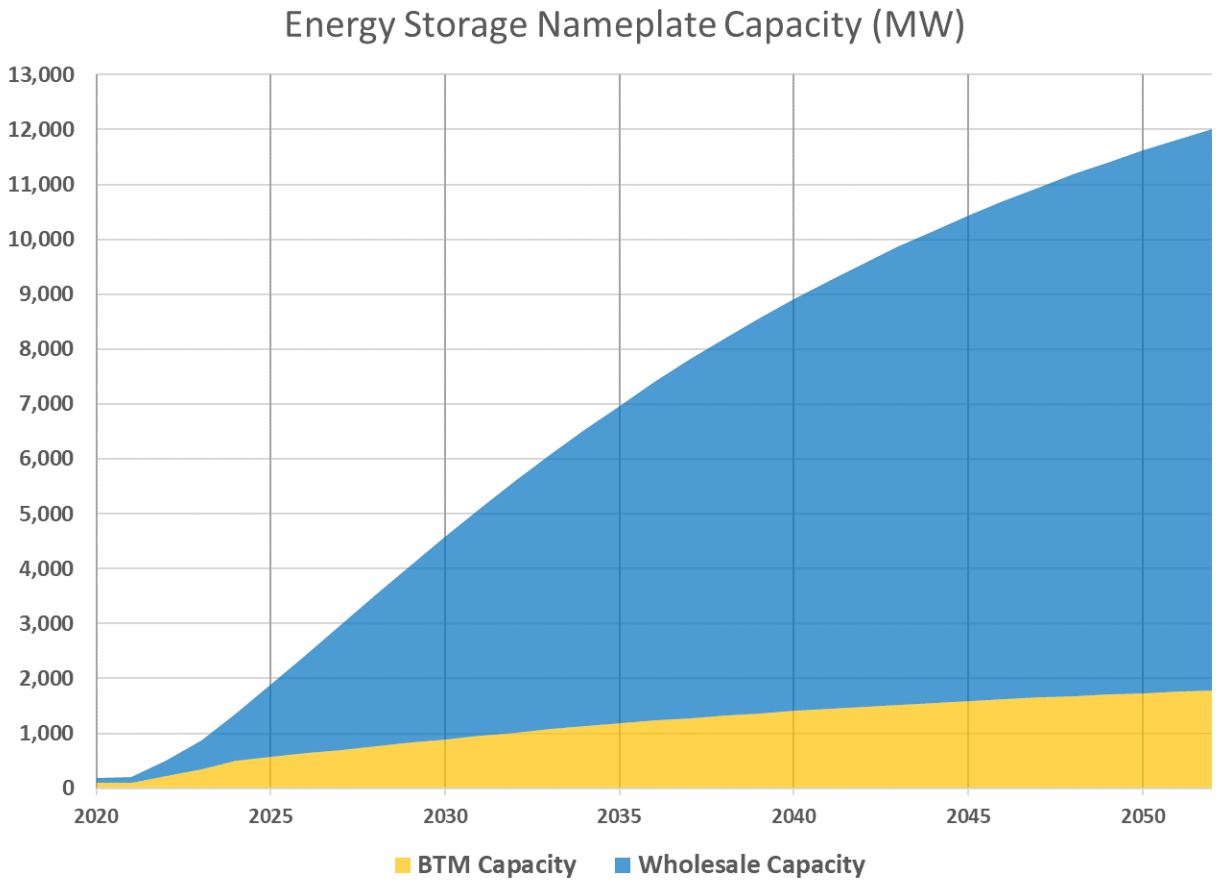


Year	NYCA	Growth
2012	171	
2013	270	99
2014	444	174
2015	715	271
2016	1,026	311
2017	1,350	324
2018	1,716	366
2019	2,244	528
2020	2,786	542
2021	3,523	737
2022	4,269	746
2023	5,152	883
2024	6,071	919
2025	6,926	855
2026	7,740	814
2027	8,500	760
2028	9,162	662
2029	9,705	543
2030	10,068	363

Behind-the-Meter Solar Summer Coincident Peak Reductions (MW AC)



Energy Storage Forecast



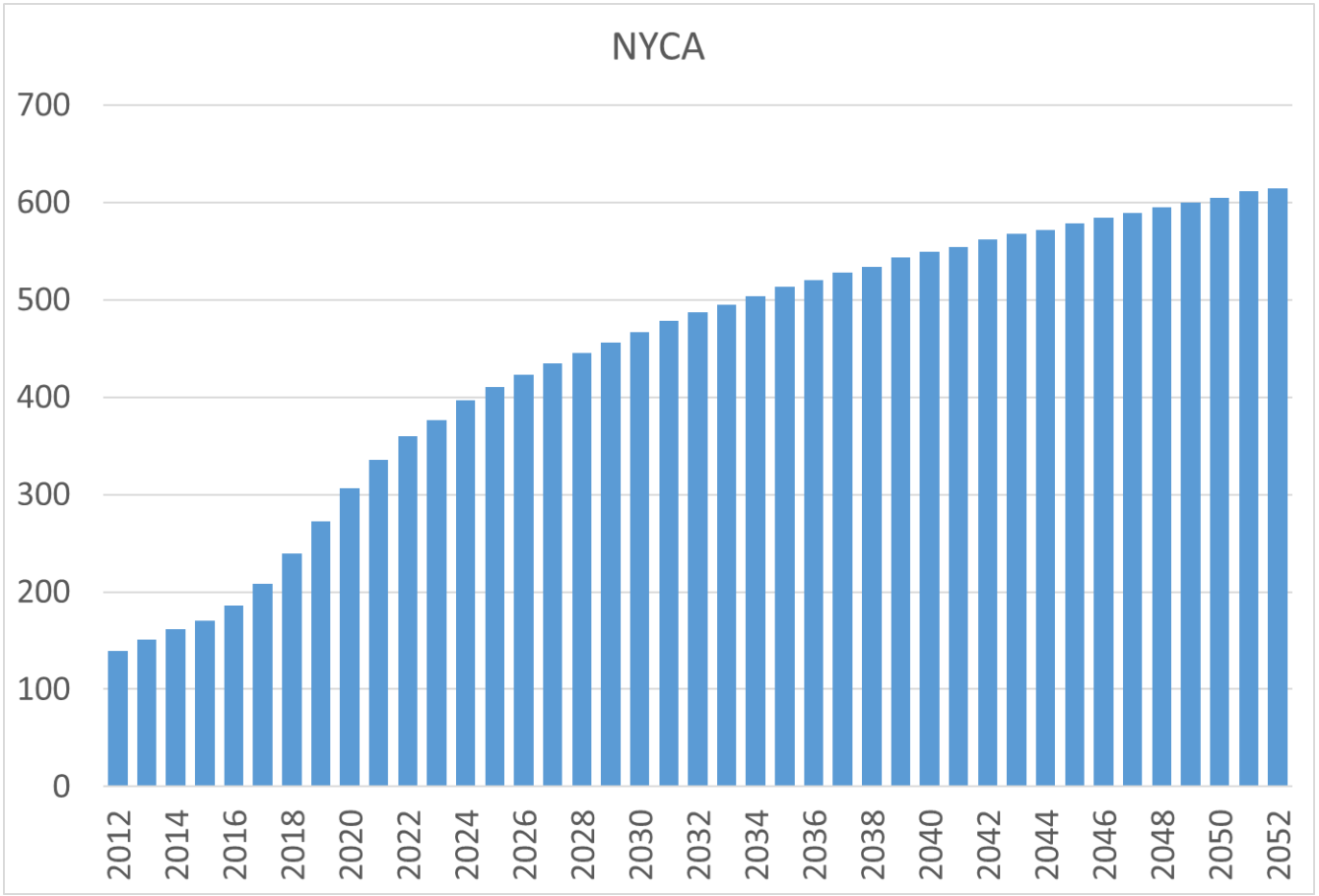
Seasonal Coincident Peak Reductions* - MW

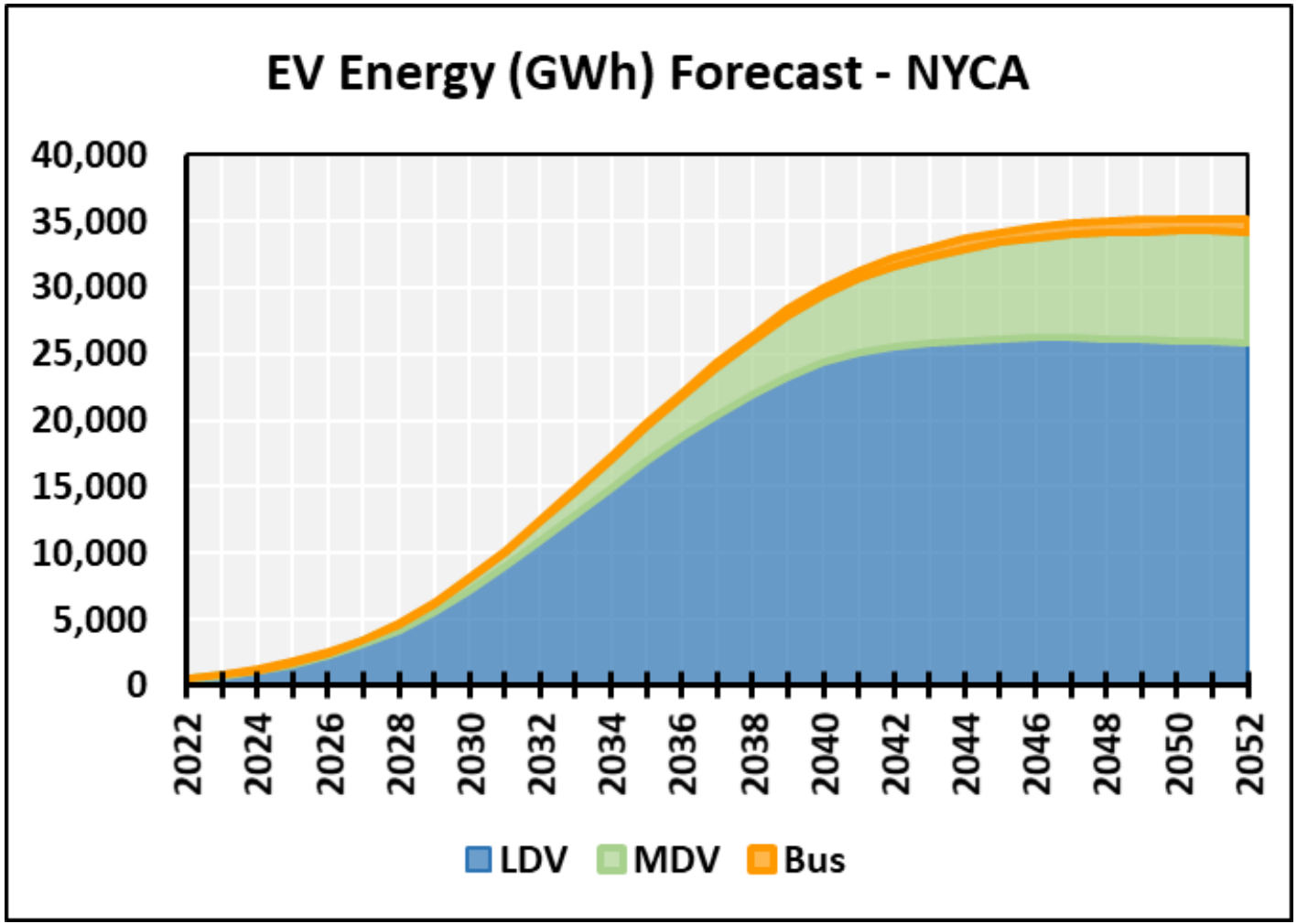
Year	Summer Peak	Winter Peak
2025	420	350
2030	700	640
2035	980	960
2040	1,200	1,200
2045	1,350	1,350
2050	1,470	1,470

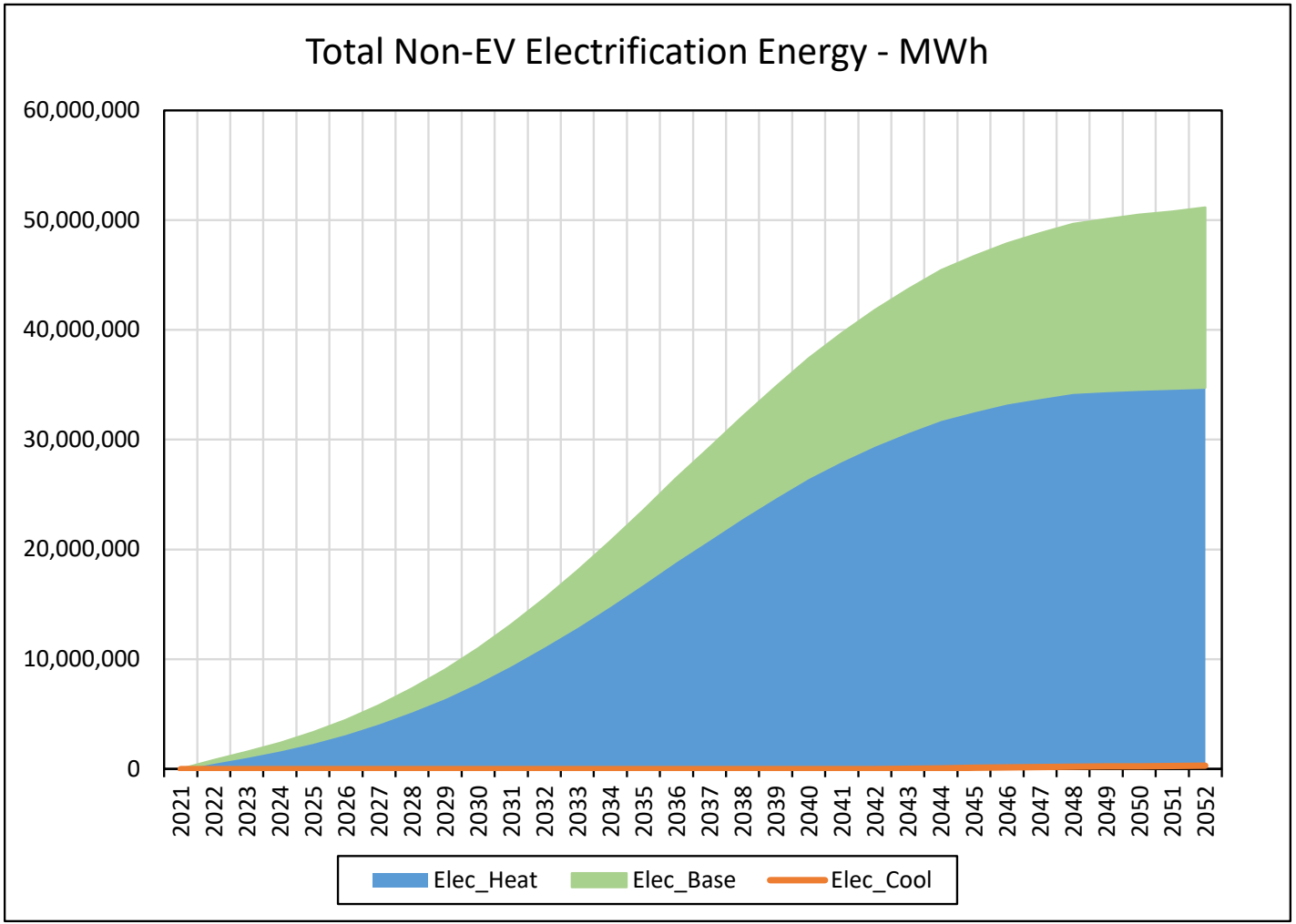
*Behind-the-Meter Storage

Behind-the-Meter Non-Solar/Storage Distributed Generation – MW Capacity

Includes CHP, Anaerobic Digesters, Fuel Cells, and Small Wind







Questions?

Our Mission & Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

New York ISO