



ANEXO II

VARIABLES HISTÓRICAS Y PROYECCIÓN DE LA DEMANDA

Datos Históricos de las Distribuidoras

CONSUMOS (GWh)												
AÑO	RESIDENCIAL			COMERCIAL			INDUSTRIAL			GOBIERNO		
	EDECHI	EDEMET	ENSA	EDECHI	EDEMET	ENSA	EDECHI	EDEMET	ENSA	EDECHI	EDEMET	ENSA
2001	1,090.90	5,463.70	5,063.40	1,255.50	9,062.40	5,860.30	460.50	1,545.70	2,285.44	309.90	3,398.60	2,047.70
2002	1,216.60	5,909.00	5,484.60	1,377.00	9,612.80	6,275.45	450.60	1,294.80	2,001.76	333.50	3,387.60	2,092.07
2003	1,225.70	6,217.40	5,969.44	1,375.20	10,922.10	6,701.56	553.20	422.50	1,976.99	345.40	3,427.40	2,126.37
2004	1,285.30	6,770.40	6,321.78	1,375.90	11,779.50	7,016.32	556.10	422.90	1,878.57	441.90	3,567.00	2,348.69
2005	1,340.30	6,941.50	6,676.50	1,398.70	12,345.30	7,541.65	543.30	452.90	2,064.06	458.70	3,497.10	2,453.39
2006	1,376.71	7,105.32	6,860.02	1,372.03	11,772.48	8,049.51	646.74	1,405.04	2,388.29	463.40	3,551.49	2,535.65
2007	1,495.20	7,479.30	7,310.13	1,460.60	13,042.40	8,762.40	559.00	1,397.29	2,542.64	492.80	3,767.60	2,707.78
2008	1,551.22	7,509.09	7,411.50	1,530.00	13,770.00	9,232.16	620.00	1,460.00	2,616.13	490.75	3,718.62	2,751.95
2009	1,753.60	8,351.70	7,914.11	1,555.00	13,632.20	9,432.36	561.20	1,916.00	2,774.87	526.10	3,900.30	2,895.76
2010	1,912.90	9,103.70	8,723.84	1,792.10	14,604.20	9,670.09	533.00	1,914.70	2,260.06	543.20	3,998.50	2,961.96
2011	2,035.40	9,606.50	9,199.34	2,033.20	15,796.70	10,140.28	529.10	1,869.70	2,299.04	563.40	4,023.80	3,098.80
2012	2,203.10	10,410.90	9,866.15	2,383.60	17,449.30	11,088.26	496.10	1,937.60	2,345.84	602.10	4,233.30	3,388.42
2013	2,309.00	11,169.90	10,321.17	2,468.80	18,183.40	11,713.32	487.80	1,904.70	2,413.73	617.20	4,117.00	3,565.98
2014	2,451.00	11,943.60	10,888.52	2,489.80	18,981.90	12,249.90	499.50	1,901.70	2,250.41	631.80	4,141.20	3,811.18
2015	2,716.00	12,731.70	11,701.55	3,100.00	20,595.90	13,345.33	497.60	1,814.50	2,280.04	708.90	4,657.20	4,135.41
2016	3,017.41	12,726.70	12,206.90	3,225.29	21,465.81	14,072.23	514.05	1,795.40	2,187.16	867.31	4,812.23	4,264.90
2017	3,100.91	13,131.44	12,556.91	3,436.22	21,872.74	14,317.24	509.35	1,485.71	2,077.63	876.00	4,873.41	4,342.45
2018	3,193.66	13,236.63	12,640.47	3,481.51	22,155.00	13,839.56	530.99	1,288.13	1,394.92	910.17	4,955.72	4,390.58
2019	3,456.21	13,834.30	13,308.23	3,420.98	22,405.30	12,174.61	512.20	1,188.70	836.98	1,061.74	5,067.40	5,061.03
2020	3,654.46	14,524.50	14,531.50	3,087.33	17,498.30	8,079.96	481.71	853.30	408.96	1,009.70	4,545.80	4,524.83
2021	3,746.15	14,749.10	14,728.19	3,546.01	19,524.30	8,581.34	413.60	841.80	464.82	1,057.79	4,823.00	4,800.04
2022	3,818.80	14,682.70	14,407.82	3,777.00	21,066.10	9,332.74	399.90	861.00	494.38	1,171.20	5,200.30	5,204.62
2023	4,421.83	16,746.29	15,389.66	4,415.73	29,309.28	10,169.61	360.22	749.04	335.78	1,286.95	5,764.16	5,505.38

CONSUMOS (GWh)												
AÑO	ALUMBRADO PÚBLICO			OTROS			PÉRDIDAS TÉCNICAS			PÉRDIDAS NO TÉCNICAS		
	EDECHI	EDEMET	ENSA	EDECHI	EDEMET	ENSA	EDECHI	EDEMET	ENSA	EDECHI	EDEMET	ENSA
2001	167.46	451.60	234.39	39.30	49.30	33.55	4.92%	4.92%	6.15%	3.77%	5.83%	3.33%
2002	124.70	405.20	261.82	40.20	45.80	106.60	4.60%	4.60%	6.21%	3.53%	6.38%	3.35%
2003	148.50	459.60	341.26	12.50	66.50	33.77	5.17%	5.17%	6.26%	3.97%	6.05%	3.38%
2004	174.90	506.40	387.19	11.30	72.30	43.31	5.13%	5.13%	6.31%	3.94%	4.81%	3.41%
2005	179.60	533.00	388.87	10.70	75.00	38.54	5.17%	5.17%	6.36%	3.97%	4.67%	3.44%
2006	188.59	561.92	414.16	0.00	77.80	37.35	5.55%	5.55%	6.41%	4.26%	5.16%	3.47%
2007	196.00	573.00	430.83	0.00	85.55	37.38	5.44%	5.44%	6.47%	4.18%	4.18%	3.50%
2008	203.64	591.48	455.59	16.84	120.46	29.83	4.38%	4.38%	6.52%	3.36%	4.11%	3.52%
2009	213.82	605.14	466.50	5.40	42.30	28.86	4.81%	4.81%	6.55%	3.69%	4.60%	4.53%
2010	225.90	612.80	477.95	4.30	41.80	26.66	5.40%	5.40%	6.58%	4.14%	4.37%	4.90%
2011	233.60	634.00	493.81	4.20	42.70	26.60	5.47%	5.47%	6.64%	4.20%	4.47%	4.73%
2012	249.90	699.90	519.12	4.70	45.90	27.00	5.25%	5.25%	6.64%	4.03%	4.47%	4.64%
2013	278.50	819.50	545.36	5.30	45.60	27.50	5.03%	5.03%	4.89%	3.86%	4.38%	5.40%
2014	289.50	836.60	569.11	6.10	44.20	28.37	5.88%	5.88%	5.07%	4.51%	4.42%	5.65%
2015	311.40	896.60	599.23	7.20	46.90	28.68	7.13%	7.13%	5.41%	5.47%	4.59%	6.85%
2016	355.61	952.05	630.88	7.80	47.46	32.92	6.45%	6.45%	5.55%	4.95%	4.72%	7.43%
2017	379.91	1,035.02	658.35	8.00	45.11	39.76	12.14%	12.14%	5.76%	1.29%	3.27%	7.05%
2018	396.41	1,104.75	675.72	8.00	43.28	30.57	3.05%	3.05%	5.81%	0.76%	2.56%	6.99%
2019	407.00	1,150.73	690.86	7.00	41.47	26.30	11.20%	11.20%	5.31%	1.62%	4.38%	5.39%
2020	416.56	1,196.62	742.86	7.34	34.88	26.21	11.20%	11.20%	5.67%	1.62%	4.38%	6.22%
2021	415.81	1,197.57	821.20	7.33	35.93	25.78	11.20%	11.20%	5.72%	1.62%	4.38%	4.89%
2022	413.40	1,173.40	809.85	7.10	47.60	22.50	10.15%	10.15%	5.45%	3.26%	5.25%	4.25%
2023	412.46	1,149.57	811.32	8.35	49.04	22.38	7.19%	7.19%	5.12%	4.12%	4.26%	4.55%

Nota: El porcentaje (%) de perdidas es respecto al total de sistema.

Datos Históricos de los Grandes Usuarios

GRANDES USUARIOS										
AÑO	ARGOS		CEMEX		CNAL		METROAND		METRO5MAY	
	MWh	% Pérdidas	MWh	% Pérdidas	MWh	% Pérdidas	MWh	% Pérdidas	MWh	% Pérdidas
2001	5,196.13	0.11	45,045.51	0.32	0.00	0.00	0.00	0.00	0.00	0.00
2002	22,021.22	0.45	48,755.04	0.45	0.00	0.00	0.00	0.00	0.00	0.00
2003	24,098.46	0.34	50,283.76	0.34	0.00	0.00	0.00	0.00	0.00	0.00
2004	25,891.70	0.40	54,523.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00
2005	25,359.11	0.34	32,497.69	0.22	0.00	0.00	0.00	0.00	0.00	0.00
2006	32,623.50	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	34,361.03	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2008	36,333.24	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2009	36,856.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	42,348.75	0.24	129,539.05	0.24	0.00	0.00	0.00	0.00	0.00	0.00
2011	41,462.44	0.26	122,722.57	0.26	0.00	0.00	0.00	0.00	0.00	0.00
2012	44,216.96	0.34	123,949.79	0.34	0.00	0.00	0.00	0.00	0.00	0.00
2013	45,315.04	0.31	125,189.29	0.31	0.00	0.00	0.00	0.00	0.00	0.00
2014	44,435.67	0.34	126,441.18	0.34	0.00	0.00	0.00	0.00	0.00	0.00
2015	48,757.37	0.43	127,705.59	0.43	0.00	0.00	0.00	0.00	0.00	0.00
2016	52,170.38	0.41	128,982.65	0.41	0.00	0.00	0.00	0.00	0.00	0.00
2017	35,983.06	0.44	120,343.13	0.44	11,379.71	0.43	0.00	0.00	0.00	0.00
2018	35,728.34	0.44	123,926.21	0.44	27,602.70	0.61	0.00	0.00	0.00	0.00
2019	28,658.67	0.29	103,860.03	0.29	26,323.04	1.11	0.00	0.00	0.00	0.00
2020	17,753.54	0.46	55,169.20	0.46	18,559.77	1.11	17,153.46	0.53	23,614.87	1.11
2021	23,530.57	0.47	93,300.48	0.47	21,933.85	1.11	20,270.18	0.53	25,678.21	1.11
2022	25,346.00	0.47	102,949.32	0.47	19,466.00	1.11	19,997.66	0.53	25,204.68	1.11
2023	25,705.32	0.48	95,972.67	0.44	18,576.73	1.06	16,639.72	0.44	20,725.62	0.92

Nota: El porcentaje (%) de perdidas es respecto al total de sistema.

GRANDES USUARIOS												
AÑO	PTPCGL		PTPPSA		PTPPSB		PHTOC71		POTMEN		MANZANILLO1	
	MWh	% Pérdidas	MWh	% Pérdidas	MWh	% Pérdidas	MWh	% Pérdidas	MWh	% Pérdidas	MWh	% Pérdidas
2001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2008	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2015	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2017	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2018	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2019	10,307.46	0.20	19,602.60	0.20	17,265.71	0.20	15,192.74	0.43	18,933.25	0.97	37,645.85	0.43
2020	15,303.64	0.46	28,655.47	0.46	25,380.91	0.46	20,725.48	0.53	27,051.54	1.11	55,477.85	0.53
2021	15,430.72	0.47	31,079.03	0.47	27,189.68	0.47	23,580.38	0.53	25,608.42	1.11	66,235.96	0.53
2022	12,275.18	0.47	33,948.78	0.47	28,686.23	0.47	25,091.83	0.53	26,846.86	1.11	67,219.80	0.53
2023	16,107.97	0.62	42,223.16	0.59	35,805.73	0.59	25,467.41	0.53	27,017.57	1.12	66,388.25	0.52

Nota: El porcentaje (%) de perdidas es respecto al total de sistema.

Datos Históricos de las Variables Explicativas

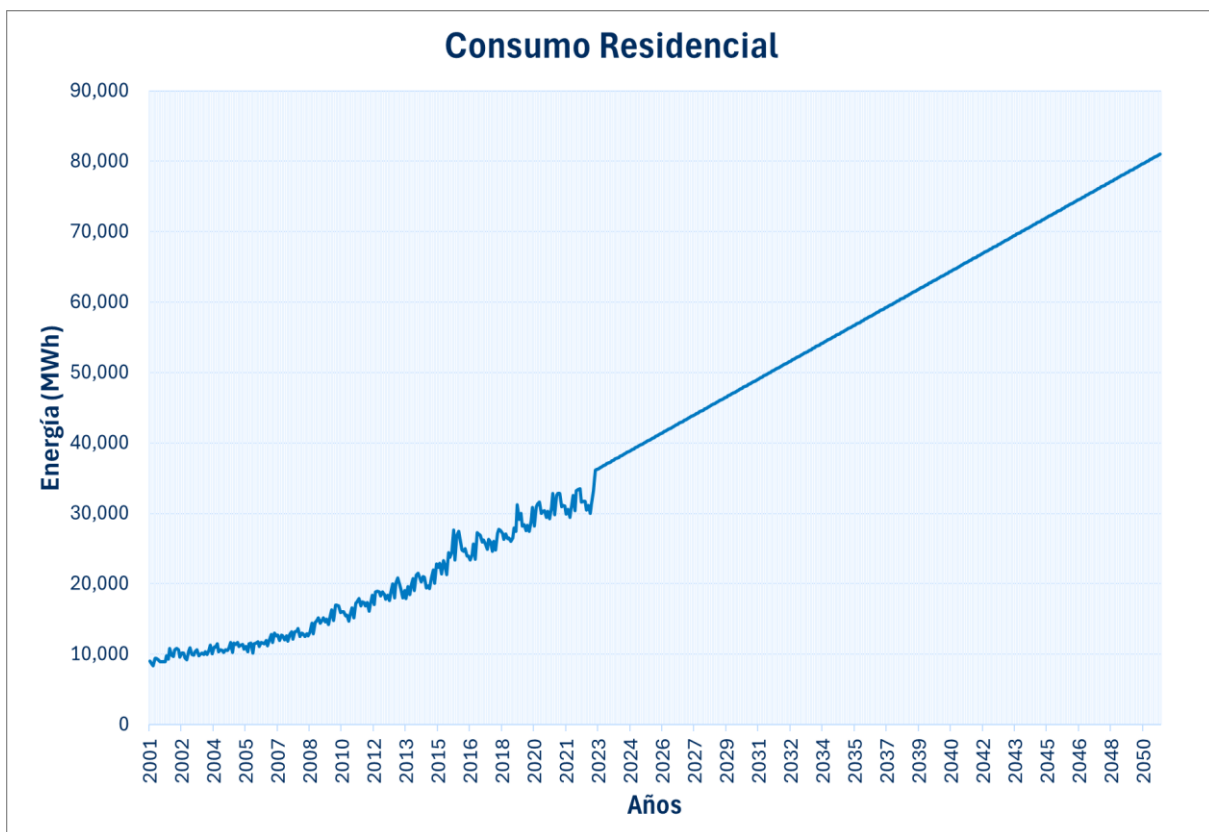
DATOS HISTÓRICOS DE LAS VARIABLES EXPLICATIVAS							
AÑO	IMAE	PIB	PIBIND	PIBCOM	POB	COSTMARG	EDISPSIST
	Millones de Balboa				Habitantes	Balboas/MWh	MWh
2006	1,139.11	28,671.32	2,282.07	6,902.01	2,206,081.08	125.60	5,495,325.11
2007	1,250.22	32,033.04	2,418.37	7,559.30	2,256,804.42	155.48	5,826,416.79
2008	1,376.63	35,355.65	2,507.19	8,220.33	2,308,274.67	232.50	6,017,948.70
2009	1,397.99	36,486.58	2,498.87	7,997.99	2,359,422.58	153.61	6,376,160.16
2010	1,483.61	39,513.95	2,516.85	9,220.21	2,404,231.67	178.27	6,885,594.48
2011	1,611.61	43,736.03	2,598.48	10,436.11	2,448,993.83	222.21	7,300,859.51
2012	1,767.28	48,403.62	2,693.12	11,330.55	2,494,056.83	193.76	7,926,023.06
2013	1,915.28	51,604.29	2,753.73	11,771.82	2,539,620.42	211.43	8,280,919.12
2014	2,008.05	54,728.06	3,169.92	11,771.65	2,585,984.58	217.05	8,651,202.05
2015	2,092.11	57,889.91	3,127.46	12,327.57	2,633,150.00	91.13	9,336,859.60
2016	2,183.39	59,914.59	3,114.84	12,459.17	2,680,788.08	60.39	9,611,190.33
2017	2,296.85	62,305.26	3,452.71	11,684.74	2,728,248.58	58.51	9,848,730.09
2018	2,336.20	67,294.17	3,851.59	12,344.71	2,774,365.92	76.70	9,954,956.82
2019	2,413.72	69,502.68	3,797.73	12,567.84	2,815,452.33	91.40	10,325,766.65
2020	1,723.86	57,222.72	3,011.80	10,524.73	2,852,285.42	46.97	9,521,091.79
2021	2,045.62	66,284.37	3,353.73	12,494.42	2,890,757.00	71.74	10,139,032.51
2022	2,275.25	73,449.29	3,525.69	14,525.91	2,931,035.17	106.89	10,455,325.68
2023	2,402.86	78,823.41	3,597.05	15,802.11	2,974,807.92	121.31	11,216,651.51

Proyección de la Demanda

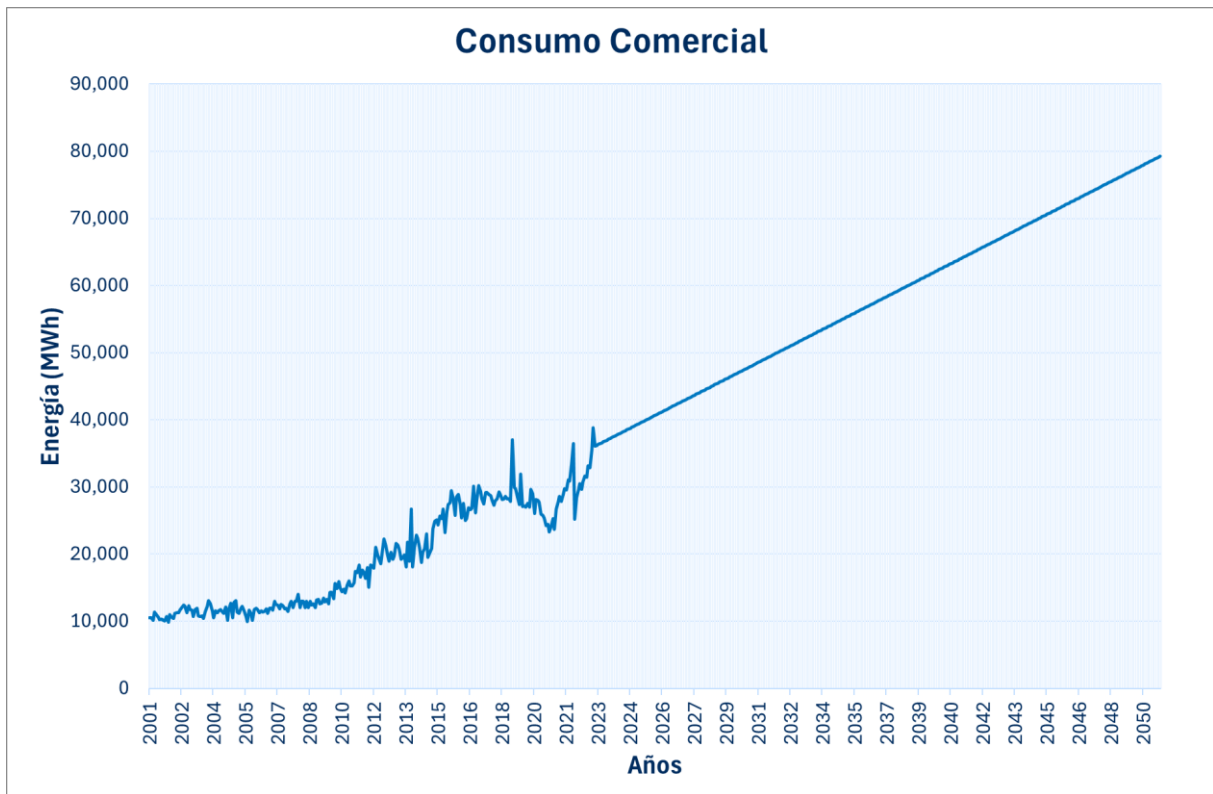
Escenario Moderado

EDECHI

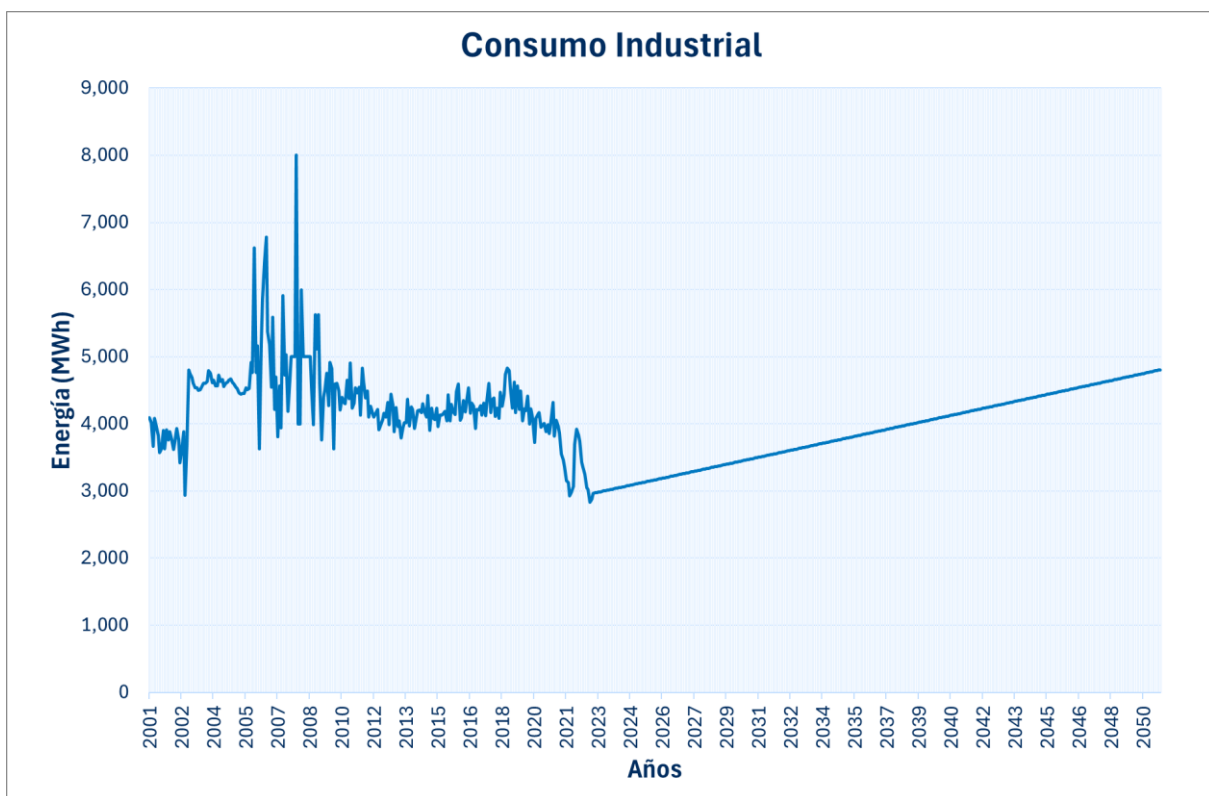
Consumo Residencial



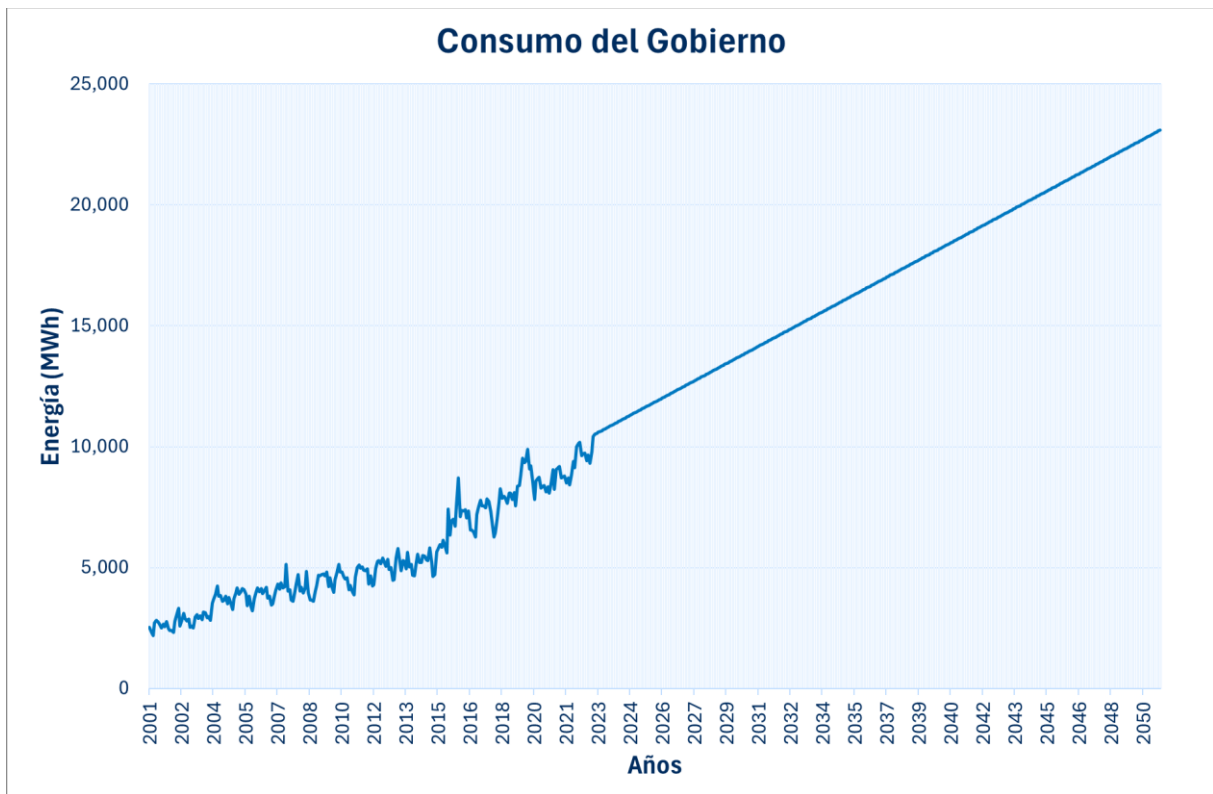
Consumo Comercial



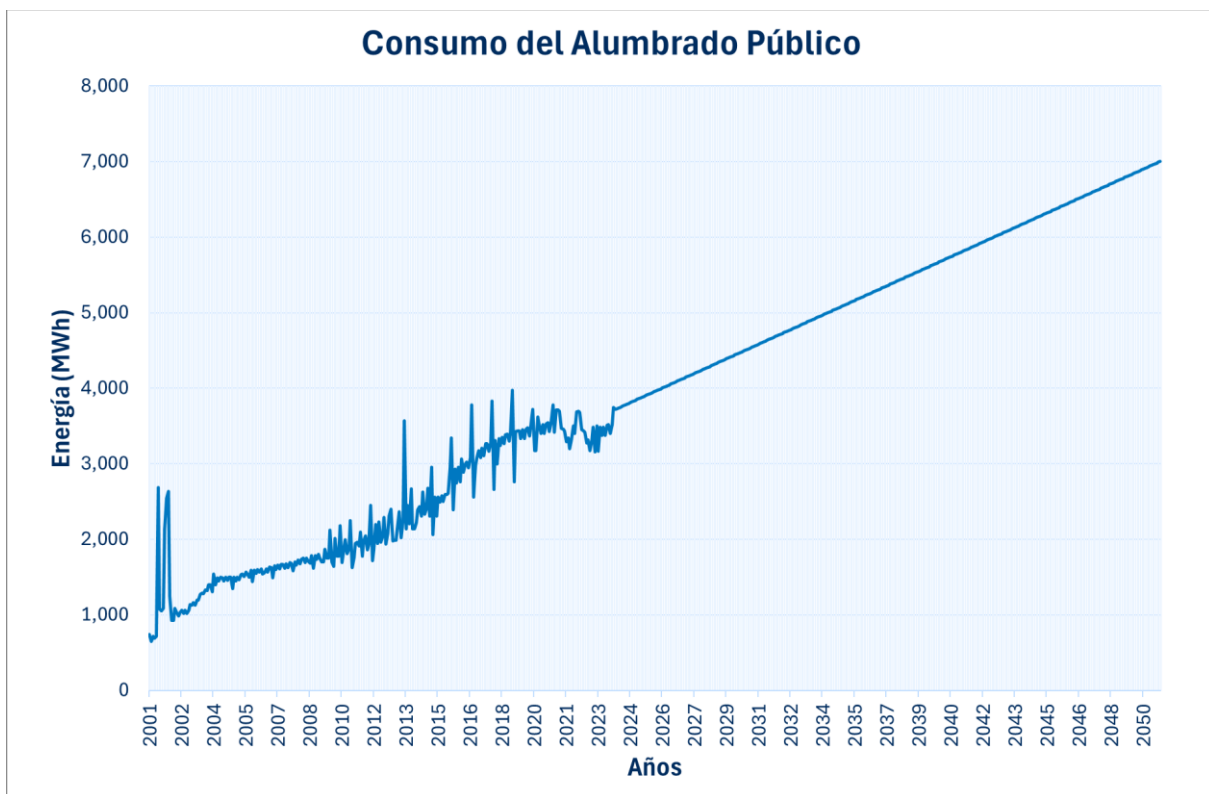
Consumo Industrial



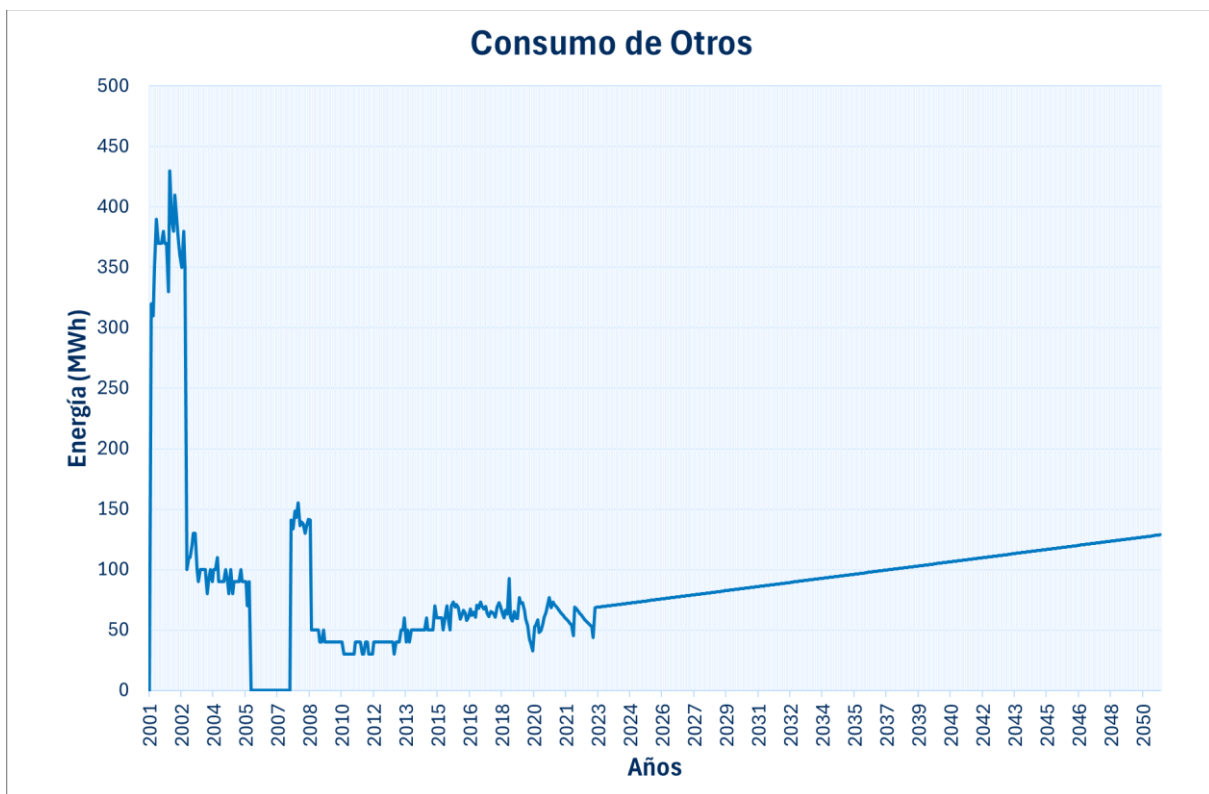
Consumo Gobierno



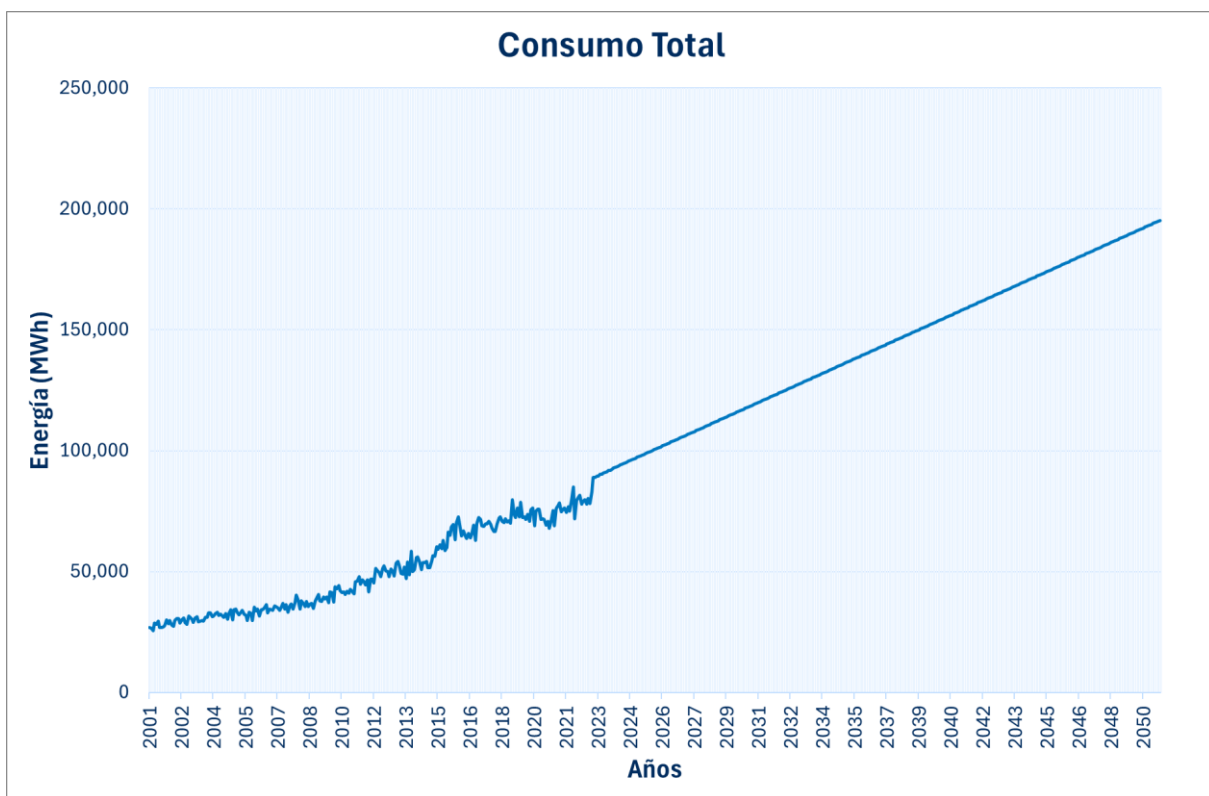
Consumo Alumbrado



Consumo Otros

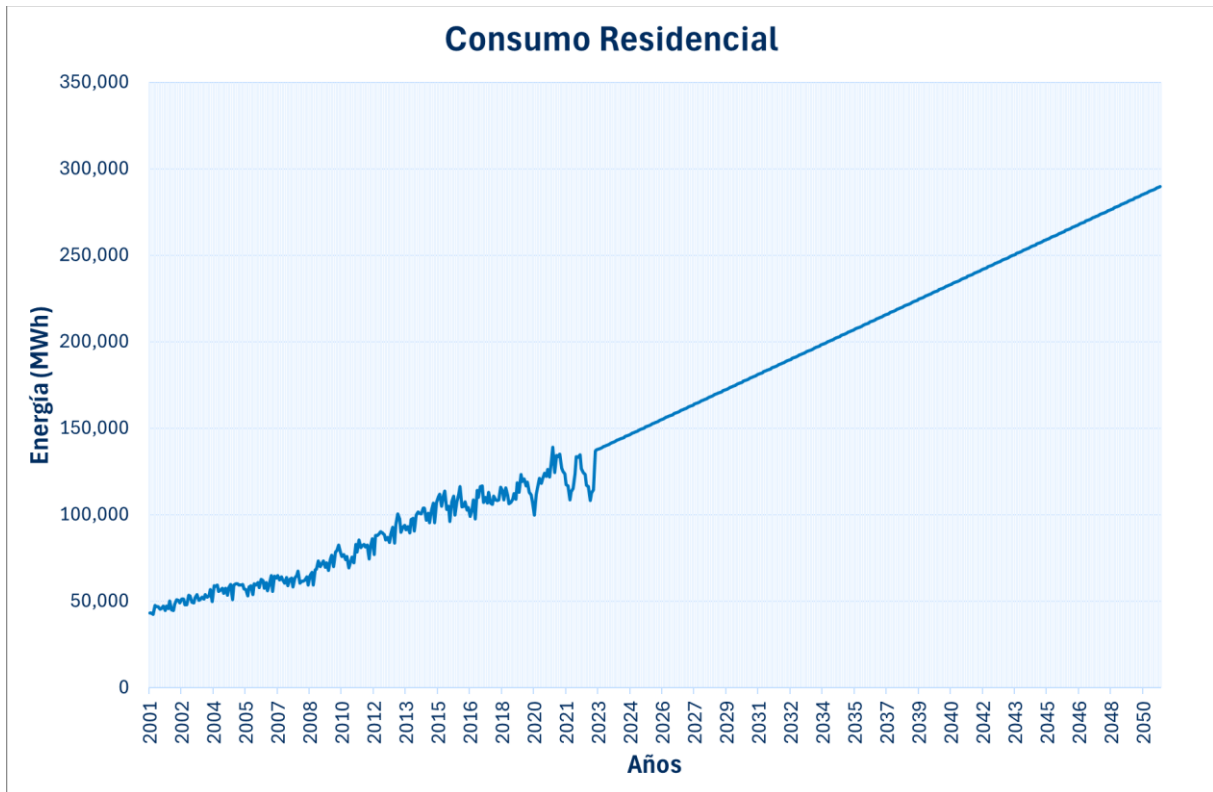


Consumo Total

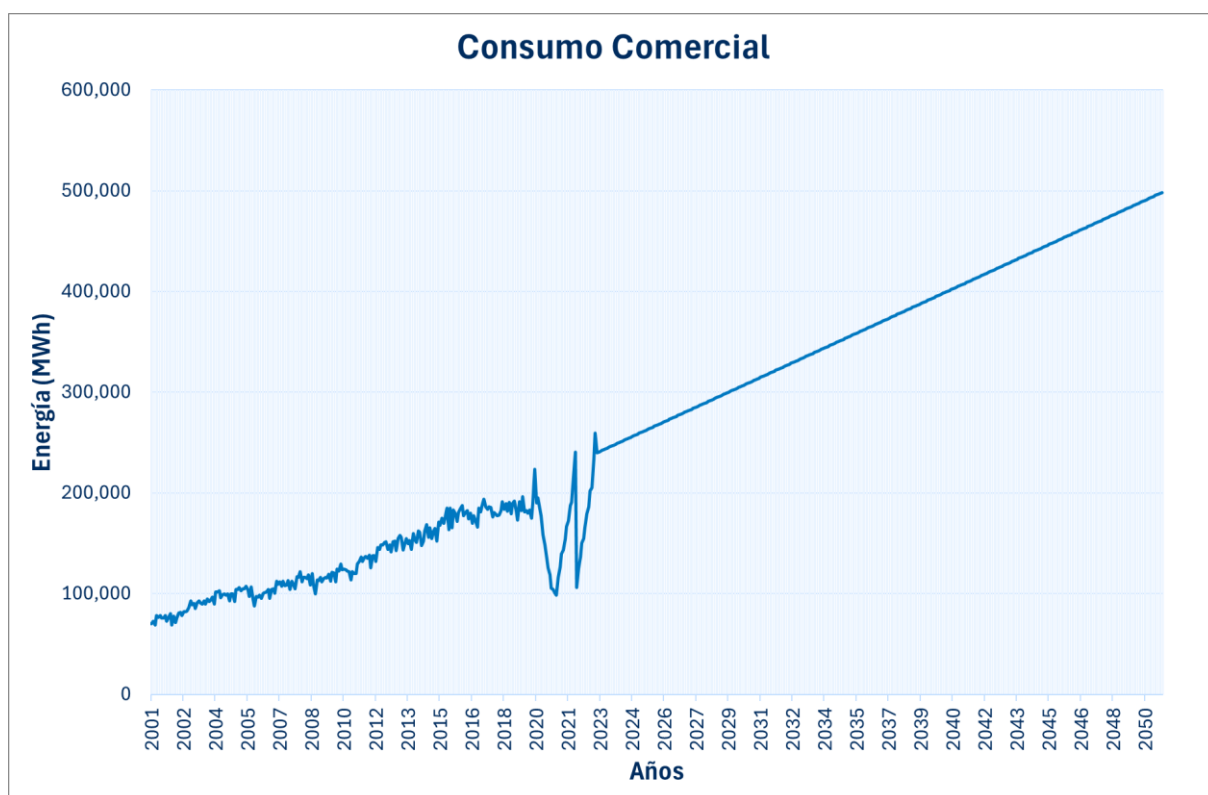


EDEMET

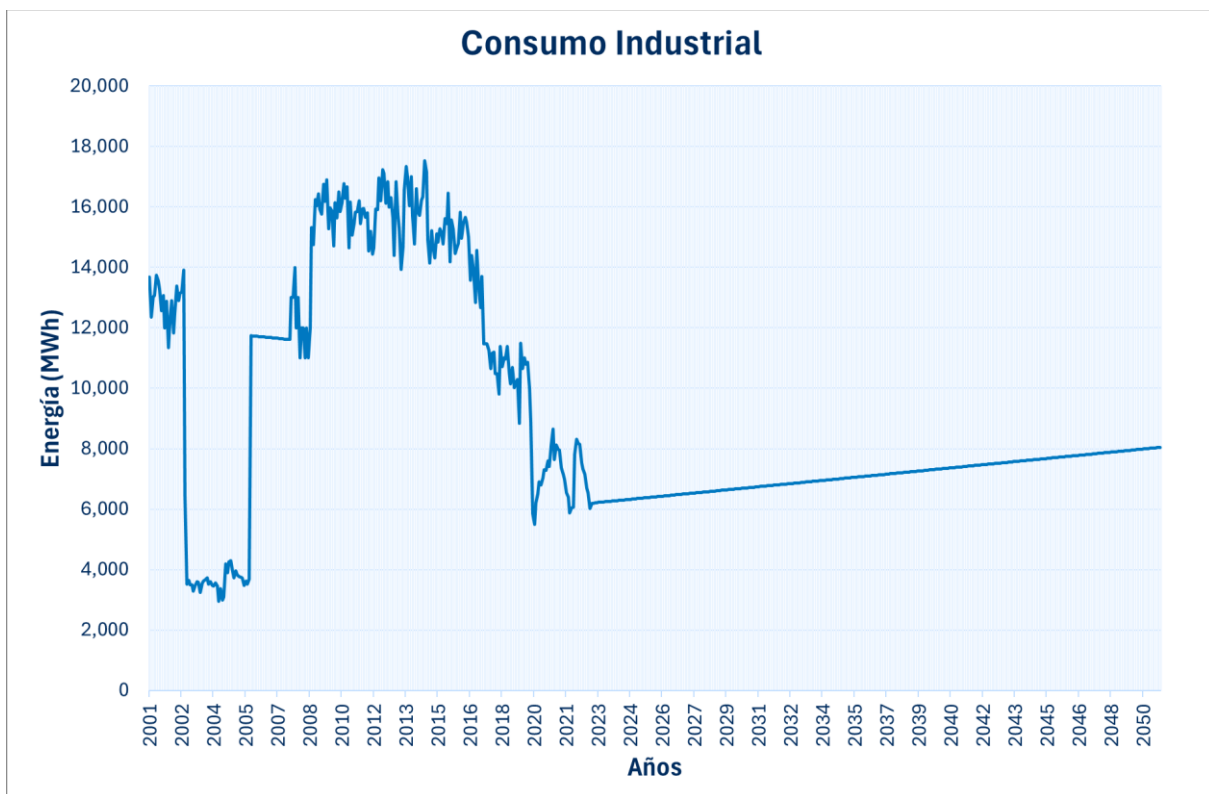
Consumo Residencial



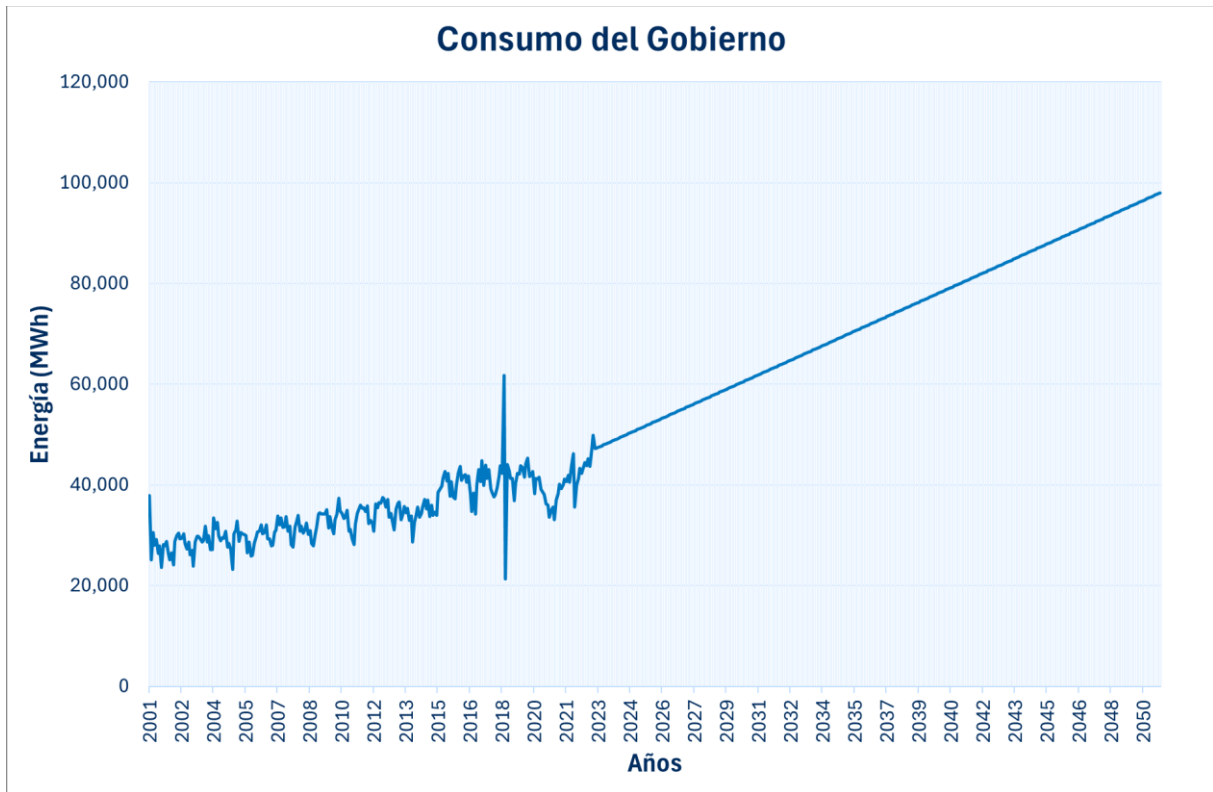
Consumo Comercial



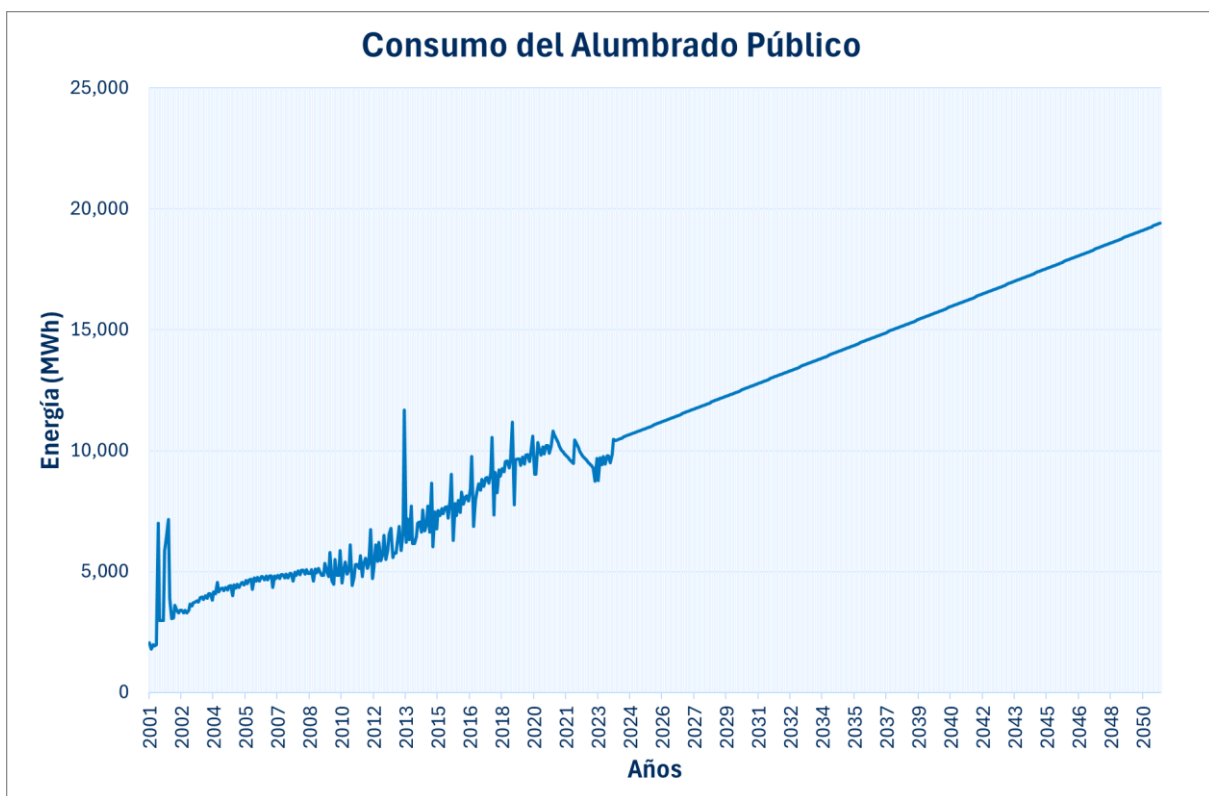
Consumo Industrial



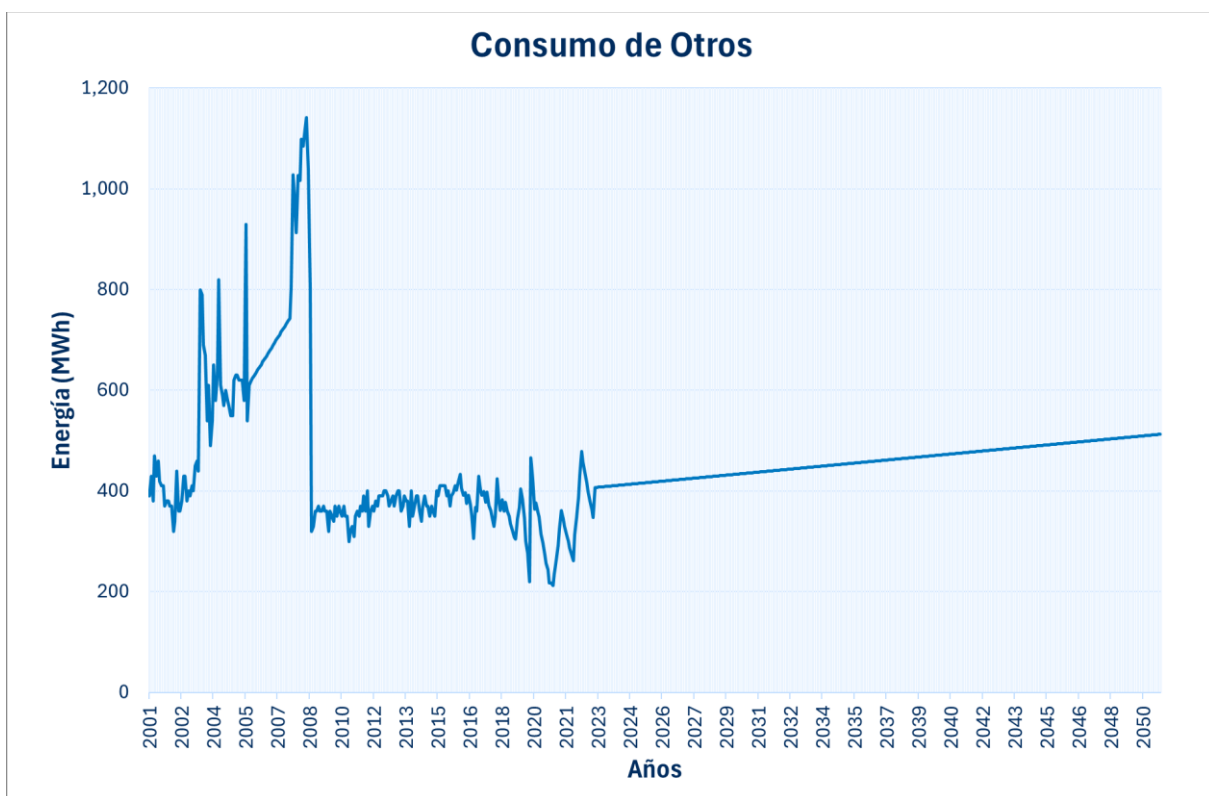
Consumo Gobierno



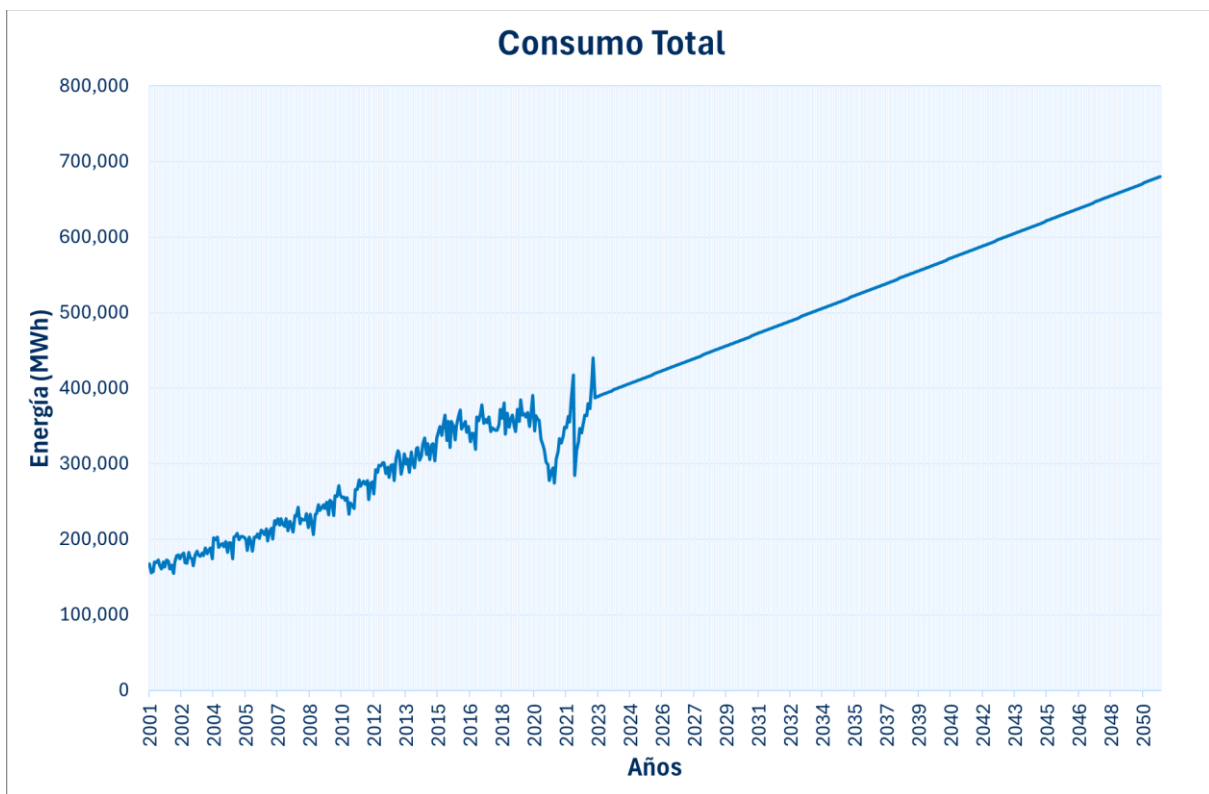
Consumo Alumbrado



Consumo Otros

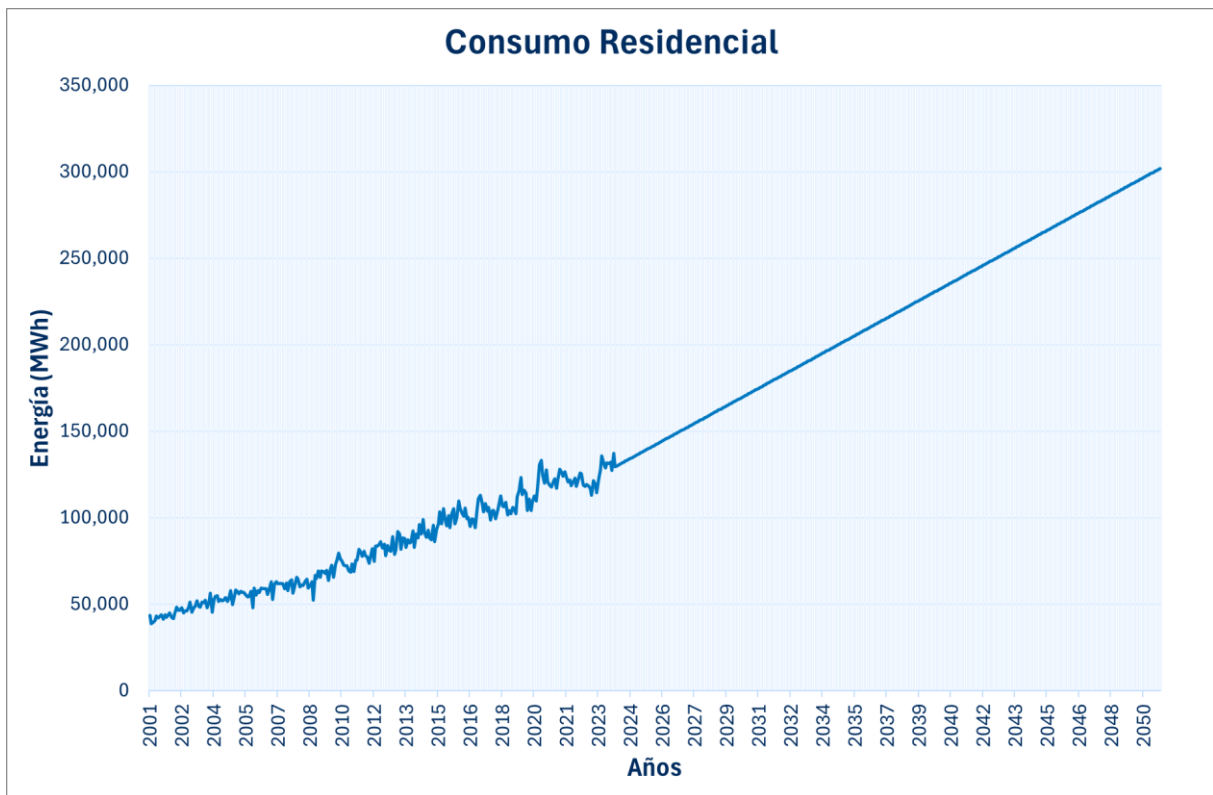


Consumo Total

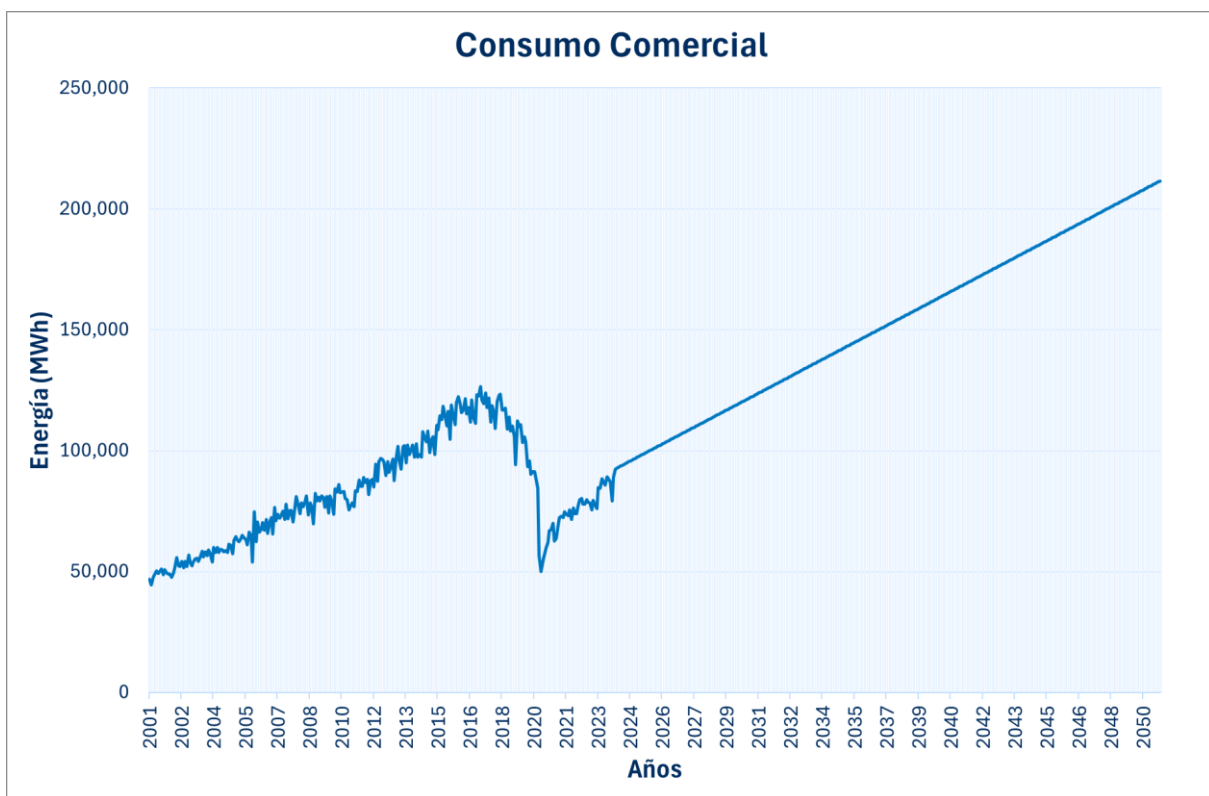


ENSA

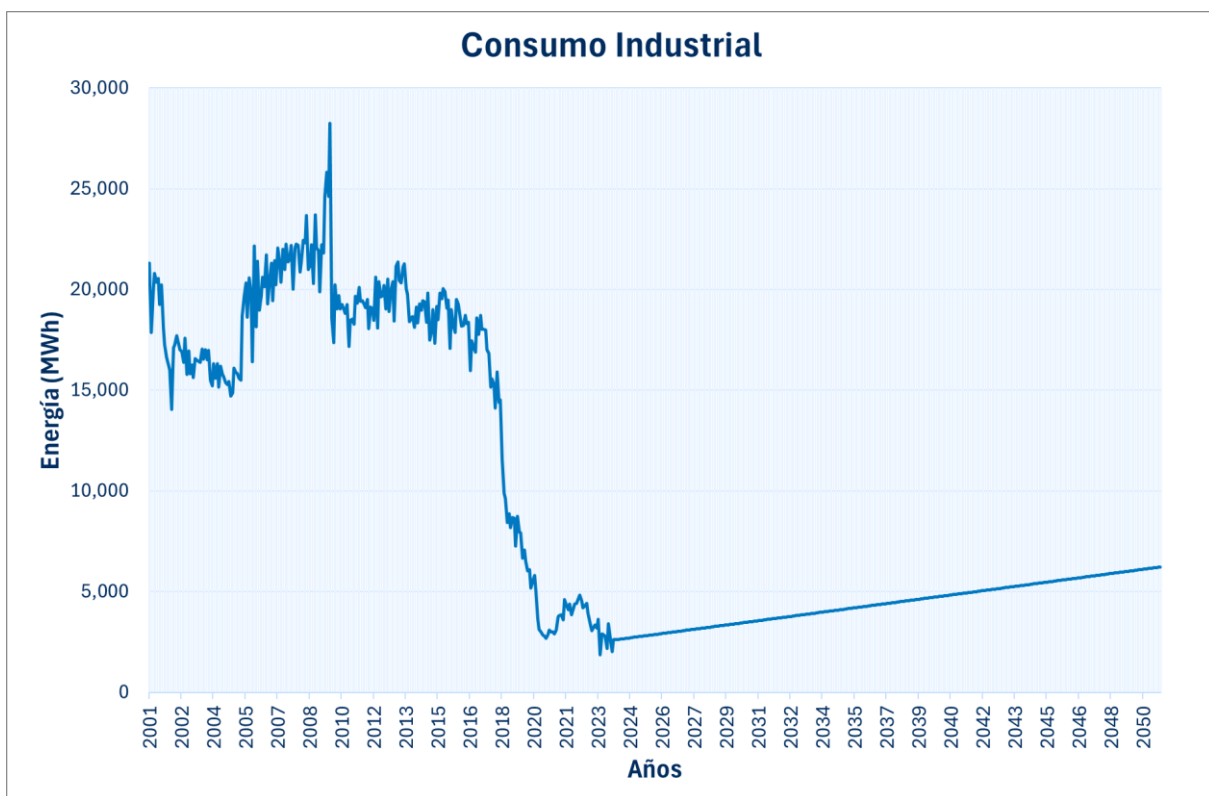
Consumo Residencial



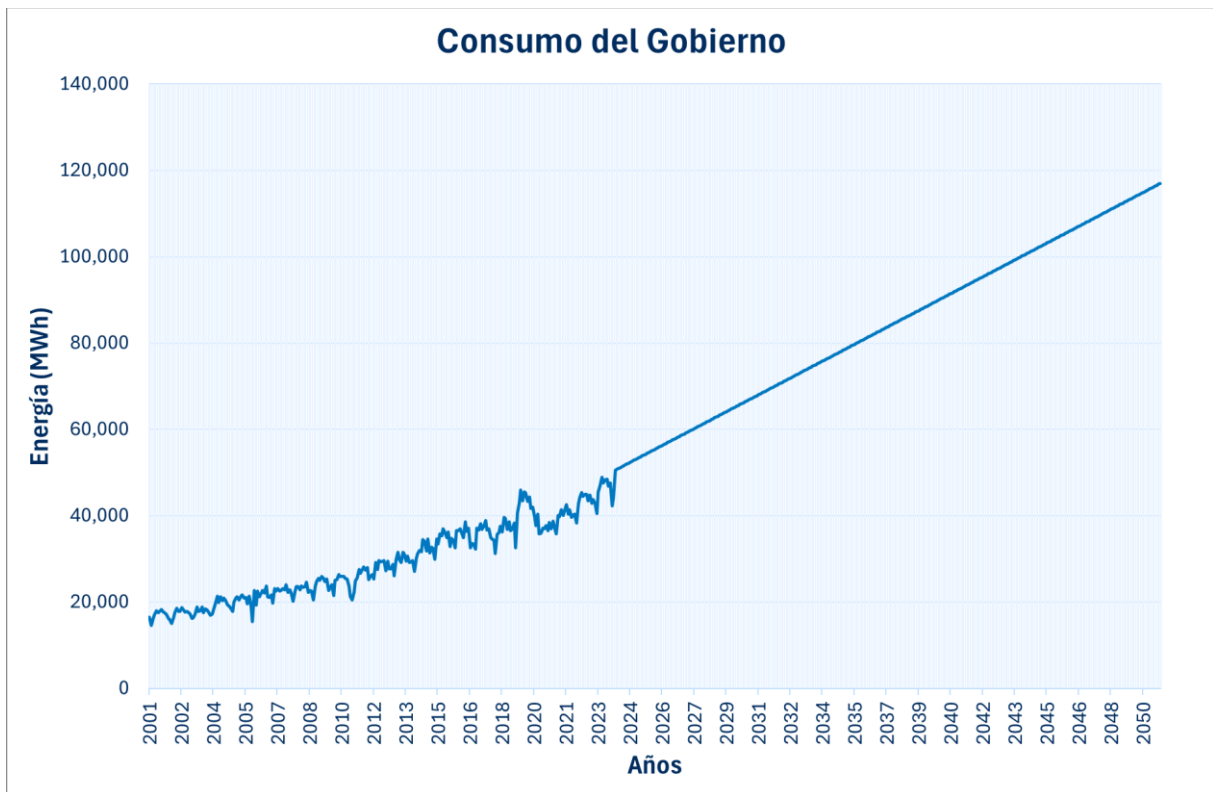
Consumo Comercial



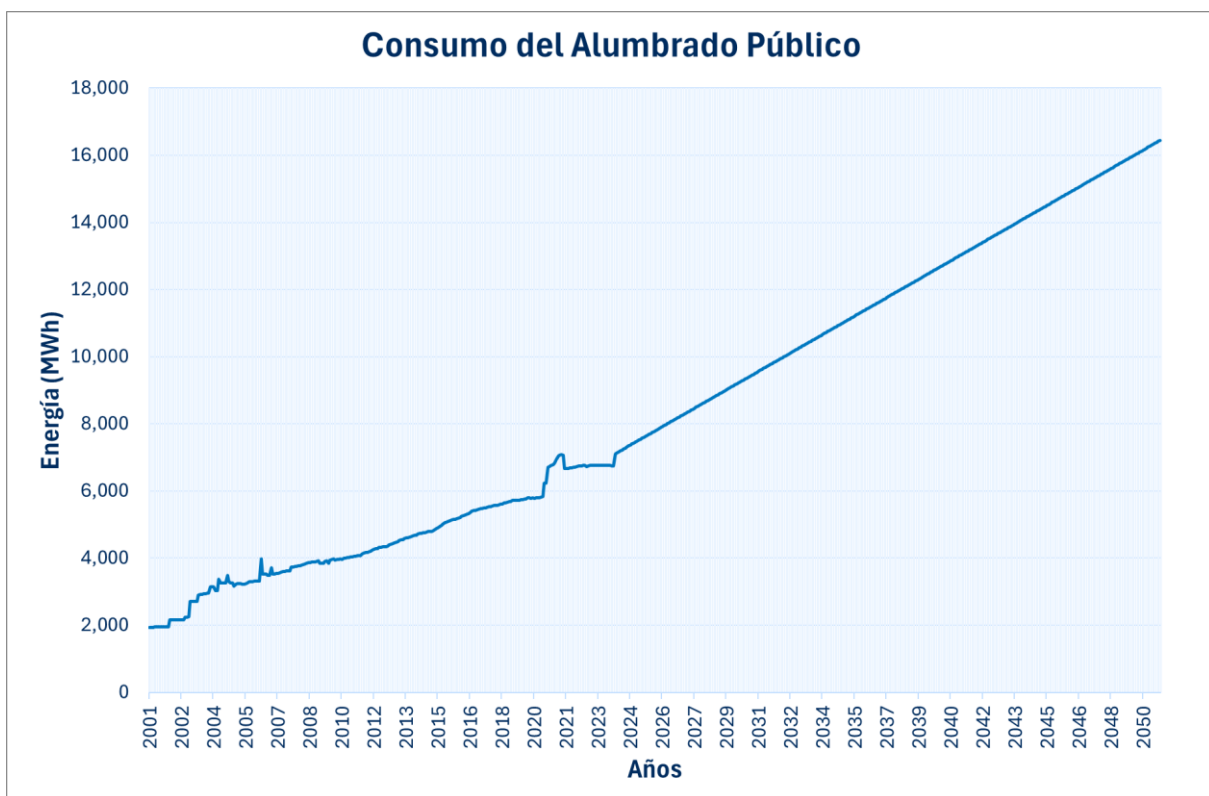
Consumo Industrial



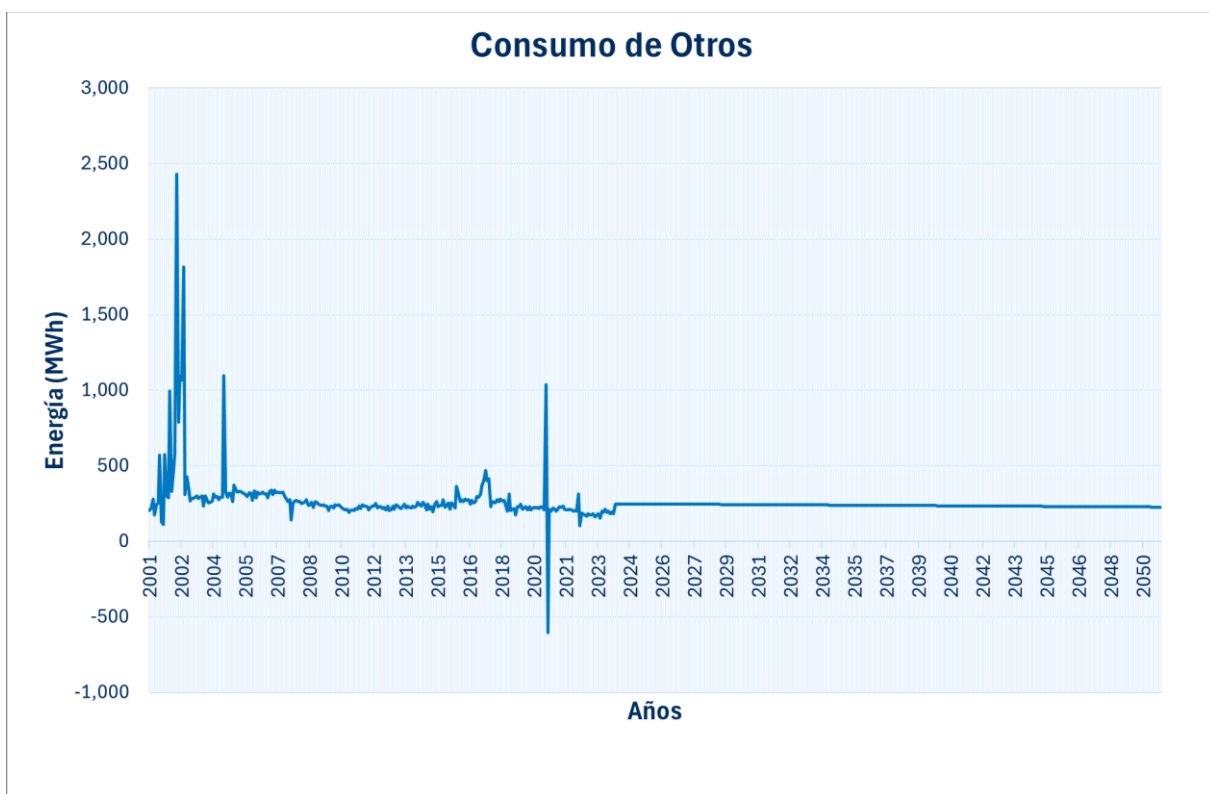
Consumo Gobierno



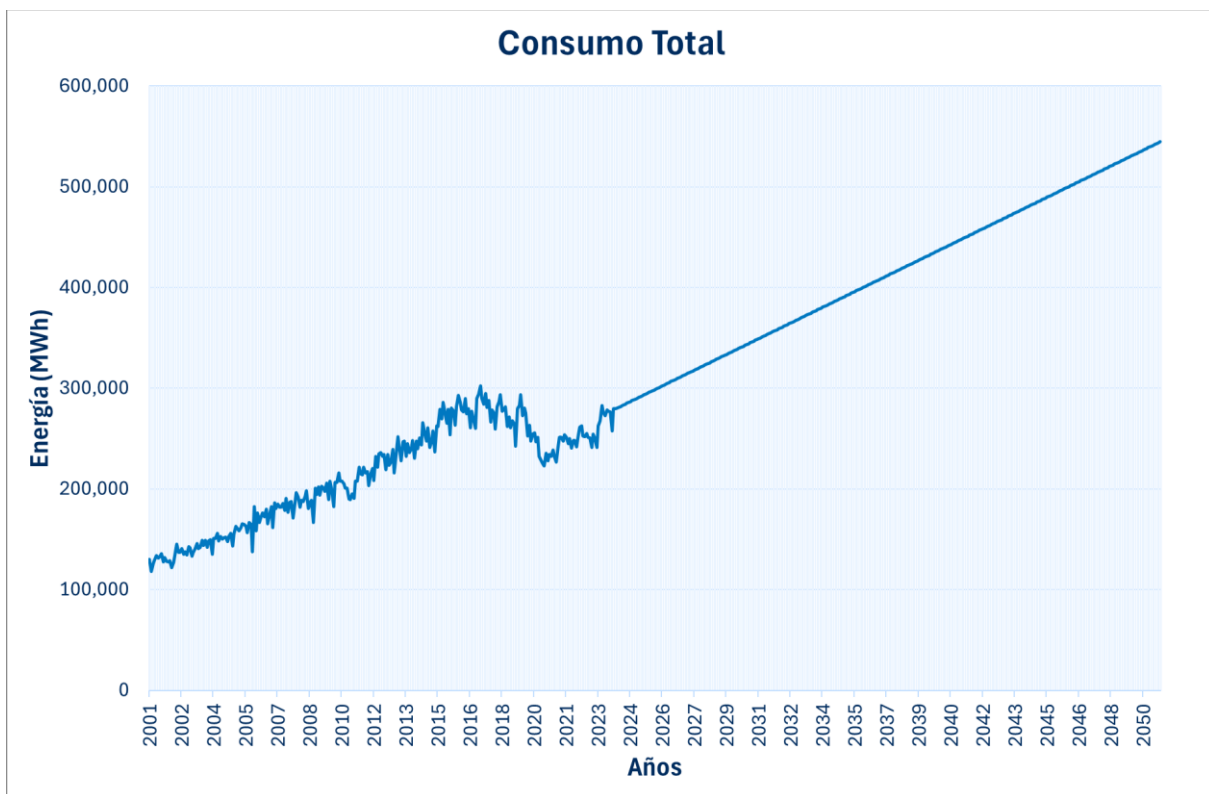
Consumo Alumbrado



Consumo Otros



Consumo Total



Consumo Total del país

