

제91호 (2021년)
한국 전력 통계
Statistics of Electric Power in KOREA

2022. 5

머 리 말

우리나라 전력사업 발전의 발자취를 담고 있는 "한국전력통계"는 1961년 한국전력주식회사가 설립되면서 해방 이후 한성전기, 조선전업, 남선전기 등 전력 3사에서 발행하여 온 통계자료를 통합하여 발간하여 왔으며,

2001년 4월 전력산업구조개편에 따라 한국전력공사에서 발전부문이 6개 발전회사로 분리된 이후에도 통계관리 체계를 구축하여 통계의 일관성을 유지하고 있습니다.

이 책자는 우리나라 전력관련 통계자료와 한국전력공사의 경영관리 실적을 부문별로 수록하여, 회사 내 업무수행은 물론 전력분야 국가정책 수립과 각종 연구의 기초자료로 활용하기 위한 전반적인 내용을 수록하고 있습니다.

한국전력통계는 발전·전력설비·구입·판매 4개 부문의 30개 지표와 경영관리 부문의 6개 지표의 최신 자료를 수록하고 있으며, 주요지표 10개 항목에 대해서는 세계 주요국가와 우리나라를 비교할 수 있도록 수록 하였습니다.

앞으로도 통계품질 향상을 위해 노력해 나갈 것을 약속드리며, 이 책자가 이용자 여러분에게 많은 도움이 되시기를 기대합니다.

2022. 5

한국전력공사 경영혁신처장

P R E F A C E

The "Statistics of Electric Power in Korea" has been mirroring the footprint of Korean electric power business since it was first published in 1961 when three electric companies, Korea Electric, Seoul Electric, and South Korea Electric, were merged into Korea Electric Company, Ltd. KEPCO is maintaining statistical consistency through a well-established statistics management system even after the spin-off of its generation sector into six generating companies.

This report includes wide-ranging statistics on the Korean electric power industry and KEPCO's sector-by-sector management performance. It is used as a valuable source of information by KEPCO and the government for R&D and the establishment of energy policy.

30 items on four electric power sectors (generation, facilities, purchasing and sales) and 6 items (management performance) are up-to-date. The latest electric industry data of major countries on 10 core items will help the prospective readers have an overall understanding of current status of Korean electric power industry.

We will continue to make every effort to improve the quality of our statistics.
We hope the readers find this report useful.

May, 2022

Vice President

Head of Management Innovation Department

Korea Electric Power Corporation

일 리 두 기

EXPLANATORY NOTES

1. 이 책자는 대한민국의 전력사업에 관한 통계자료를 종합 편집한 것입니다.
2. 통계표 중에서 사용된 기호의 뜻은 다음과 같습니다.
 - 0 단위미만
 - 해당사항 없음
 - … 해당숫자 미상
 - p 잠정치
3. 통계표에 관한 특이사항은 주석으로 표시하였으며 필요시 자료 출처도 명기하였습니다.
4. 통계 수치는 각각 반올림되었으며, 분류별 소계 및 그 합계가 일치하지 않은 경우도 있습니다.
5. 본 통계자료의 수치 중 기존 발표분과 서로 다른 경우에는 본 통계에서 바로 잡은 것입니다.
6. 통계범위는 사업자용 발전에 한하며, 우리나라 총발전설비, 발전량을 구하기 위한 해당년도 자가용 발전은 잠정치로 작성되었습니다.
7. 본 통계자료에 대하여 문의사항이 있는 경우에는 한국전력공사 경영혁신처 그룹경영실(☎ 061-345-3326, 7)으로 문의하시기 바랍니다.

This volume covers a variety of statistical data concerning electric utility operations in The Republic of Korea.

Symbols used in tables as follow.

- 0 Less than half of unit value
- Data not applicable
- … Data not available
- p Preliminary figures

Specific matters related to statistic table are indicated in comments, and the source of data is also specified if necessary.

Figures may not add up to the total due to rounding.

Inconsistencies may occur between present volume and preceding series. Should this occur, the present series is regarded as being correct.

The scope of statistics are limited to public utility and non-utility generation in common use for the year to obtain total generation capacity and power generation is written as preliminary figures.

Readers desiring futher details are requested to contact the Affiliated Company Management Team of Management Innovation Department (☎ 061-345-3326,7) in KEPCO.

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Statistics of Electric Power in Korea 제91호
2021년 한국전력통계



주요통계도표

Major statistical Graphs

1. 발전전력량 추이 Trends in power generation



(단위 : GWh)

구분	2016	2017	2018	2019	2020	2021
수력 Hydro	6,634	6,995	7,270	6,247	7,148	6,737
기력 Steam	222,623	237,332	237,498	220,918	189,426	191,575
복합 Combined Cycle	96,922	99,619	116,836	110,289	111,759	130,358
원자력 Nuclear	161,995	148,427	133,505	145,910	160,184	158,015
신재생 New & Renewable	18,936	24,145	27,177	30,526	31,057	39,102
집단 Group	32,537	36,194	47,033	46,058	45,567	48,326
내연력 Internal Combustion	573	513	528	579	405	491
기타 Others	-	-	-	1,367	4,940	1,181
상용자가 구입분 Purchased power	220	305	799	1,146	1,676	1,024
사업자 Public Utility	540,441	553,530	570,647	563,040	552,162	576,809
상용자가 자가소비 Self consumption	20,544	22,882	22,258	23,766	24,950	25,129
합계	560,985	576,412	592,905	586,806	577,112	601,938

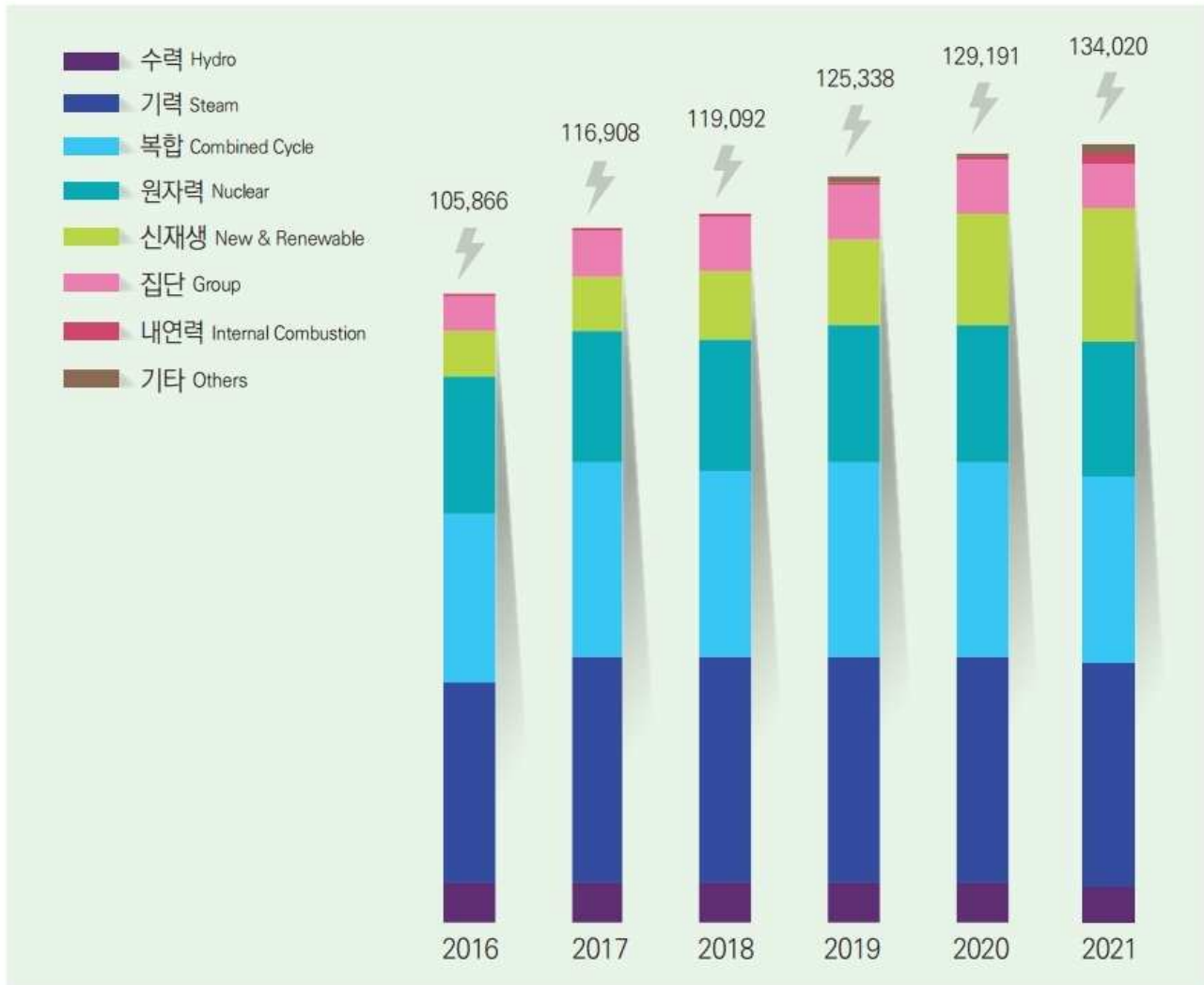
※ 신재생 : 일반수력, 소수력 미포함(수력으로 별도 분류)

※ New&Renewable energy : 'General hydro' and 'Small hydro' are not included(classified as Hydro)

※ 기타는 폐기물, 부생가스, 증류탑폐열 등. Others include waste, By-product gas, waste heat, etc.

※ 상용자가 중 한전구입분은 사업자에 포함. Public utility generation includes purchased non-utility generation

2. 발전설비 추이 Trends in generating facilities



(단위 : MW)

구분	2016	2017	2018	2019	2020	2021
수력 Hydro	6,485	6,489	6,490	6,508	6,506	6,541
기력 Steam	33,746	38,265	38,358	38,101	37,951	38,429
복합 Combined Cycle	28,512	32,416	31,224	32,846	33,013	33,013
원자력 Nuclear	23,116	22,529	21,850	23,250	23,250	23,250
신재생 New & Renewable	7,477	9,187	11,623	14,250	18,739	23,014
집단 Group	6,200	7,682	9,208	9,191	9,191	9,229
내연력 Internal Combustion	329	339	339	341	176	177
기타 Others	-	-	-	852	366	367
사업자 Public Utility	105,866	116,908	119,092	125,338	129,191	134,020
상용자가 Non-utility in common use	3,924	3,941	3,821	4,410	4,464	4,462
합계	109,789	120,848	122,913	129,748	133,655	138,482

※ 그래프는 사업자용 발전설비 기준임. The graphs exclude non-utility.

※ 신재생 : 일반수력, 소수력 미포함(수력으로 별도 분류)

※ New&Renewable energy : 'General hydro' and 'Small hydro' are not included(classified as Hydro)

※ 기타는 폐기물, 부생가스, 중류탑폐열 등. Others include waste, By-product gas, waste heat, etc.

3. 송전회선길이 추이 Trends in transmission Circuit length



(단위 : C-km)

구분	2016	2017	2018	2019	2020	2021
765kV	1,016	1,019	1,019	1,025	1,025	1,024
345kV	9,673	9,746	9,744	9,801	9,813	9,899
154kV	22,588	22,831	23,031	23,265	23,485	23,668
66kV	128	128	129	119	111	101
500kV(DC)	-	-	-	-	-	35
250kV(DC)	-	-	-	-	-	226
180kV(DC)	231	230	231	231	231	231
합계	33,635	33,955	34,155	34,440	34,665	35,184

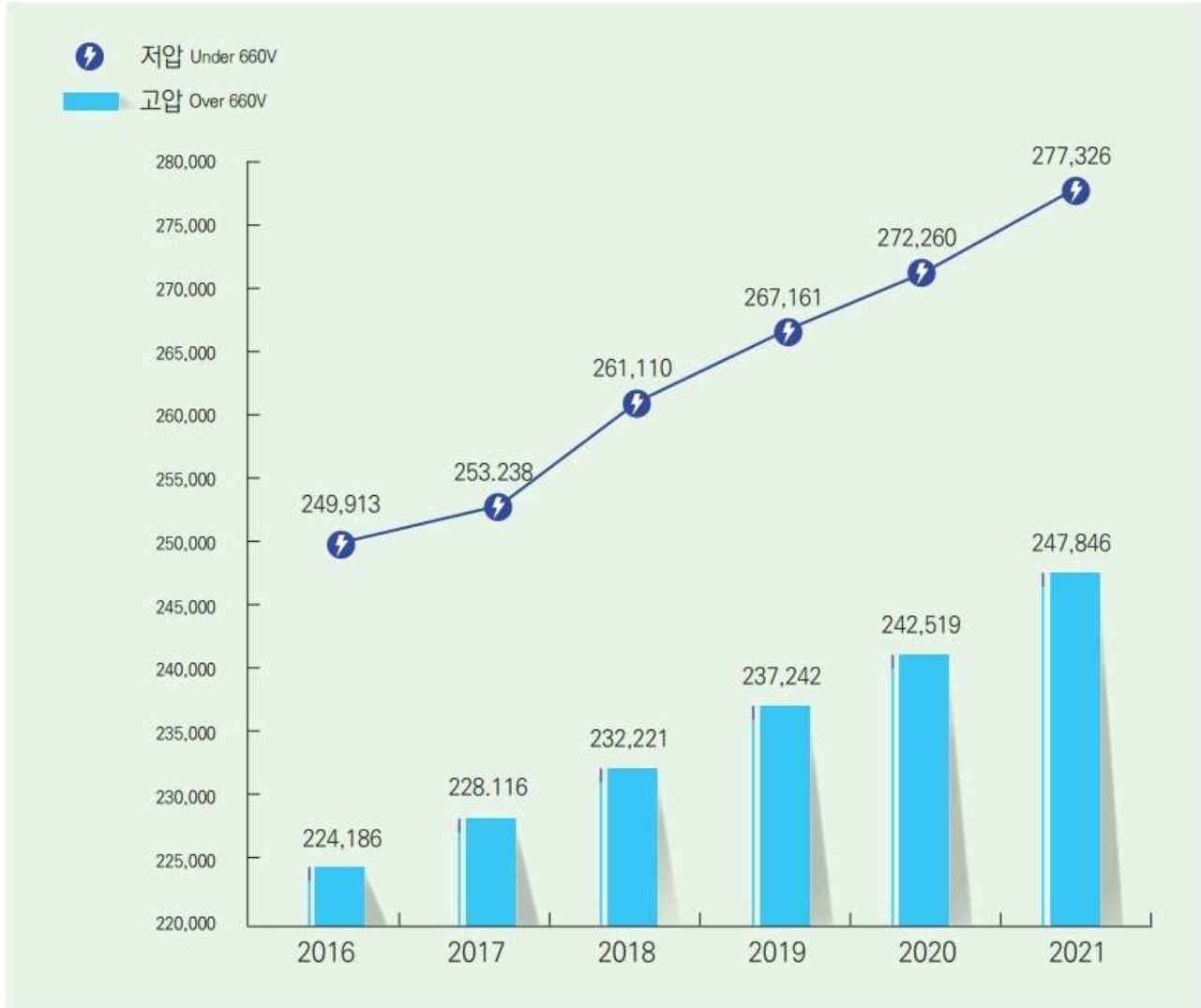
4. 변전설비 추이(변압기용량) Trends in capacity of transformer



(단위 : MVA)

구분	2016	2017	2018	2019	2020	2021
765kV	38,116	38,116	39,116	38,117	42,110	44,110
345kV	128,380	131,880	137,610	138,597	141,570	144,070
154kV	138,588	141,539	139,761	149,381	153,020	156,000
66kV	240	240	80	140	120	-
22kV	94	94	94	94	106	106
합계	305,418	311,869	316,661	326,329	336,926	344,286

5. 배전선로 길이 추이 Trends in distribution line



(단위 : C-km)

구분	2016	2017	2018	2019	2020	2021
고압 Over 660V	224,186	228,116	232,221	237,242	242,519	247,846
저압 Under 660V	249,913	253,248	261,110	267,161	272,260	277,326
합계	474,099	481,365	493,331	504,403	514,779	525,172

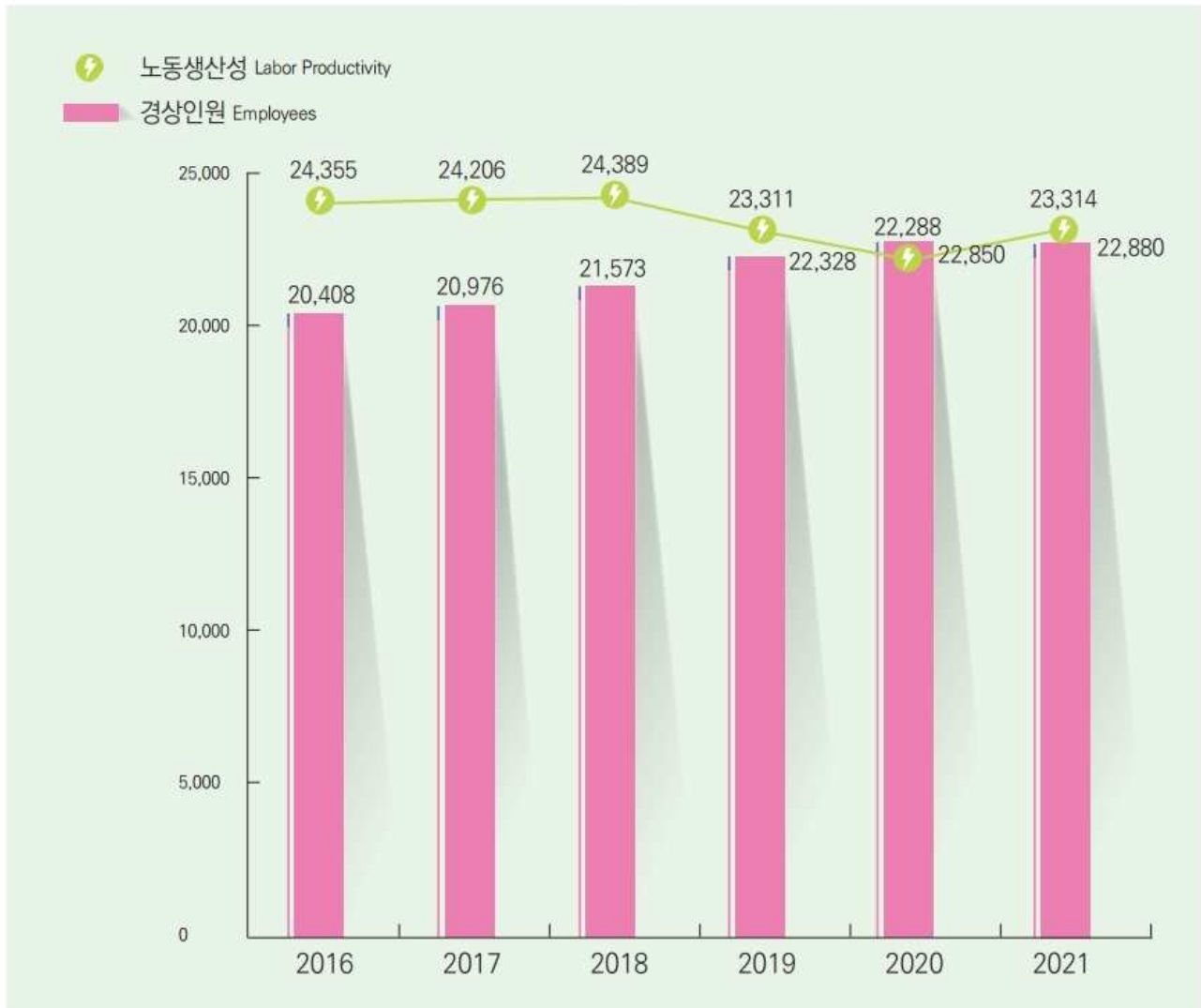
6. 판매전력량 추이 Trends in power sales



(단위 : Gwh)

구분	2016	2017	2018	2019	2020	2021
가정용 Residential	66,173	66,517	70,687	70,455	74,074	77,558
공공용 Public	22,908	23,605	24,569	24,458	23,623	25,026
서비스업 및 기타 Service	137,982	140,952	149,983	148,311	144,444	148,182
농림어업 Agri, Fshery	15,397	15,981	17,126	17,305	17,037	18,496
광업 Mining	1,755	1,746	1,478	1,493	1,552	1,807
제조업 Manufacturing	252,824	258,945	262,306	258,477	248,540	262,362
합계	497,039	507,746	526,149	520,499	509,270	533,431

7. 노동생산성 추이 Trends in labor productivity



(단위 : GWh, 명, MWh/인)

구분	2016	2017	2018	2019	2020	2021
판매전력량 Power Sold	497,039 (2.8)	507,746 (2.2)	526,149 (3.6)	520,499 (-1.1)	509,270 (-2.2)	533,431 (4.7)
경상인원 Employees	20,408 (2.5)	20,976 (2.8)	21,573 (2.8)	22,328 (3.5)	22,850 (2.3)	23,314 (2.0)
노동생산성 Labor Productivity	24,355 (0.3)	24,206 (-0.6)	24,389 (0.8)	23,311 (-4.4)	22,288 (-4.4)	22,880 (2.7)

※ ()내는 전년대비 증가율(%) Figures in () indicate increasing rate versus last year

8. 자산 추이 Trends in assets

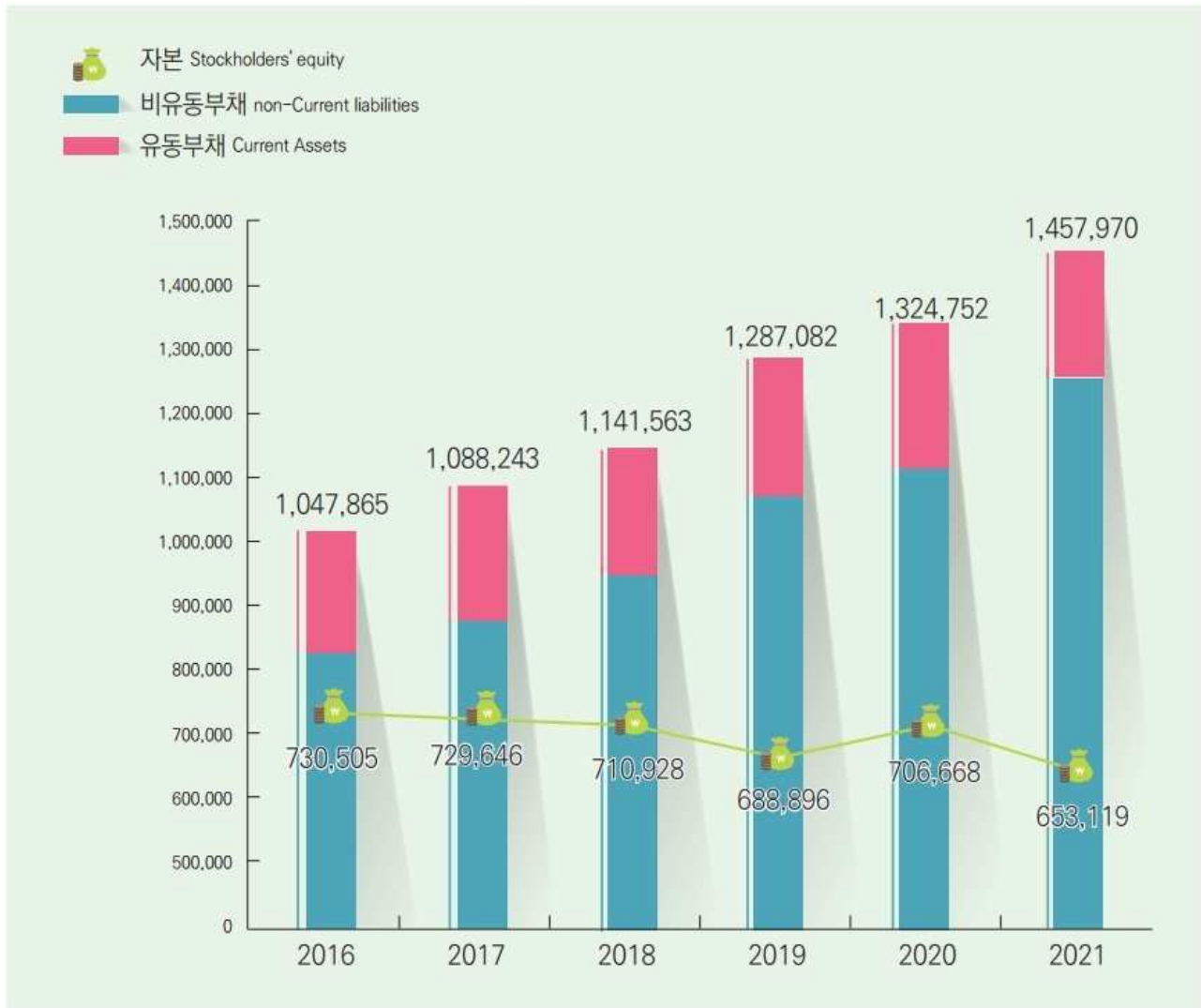


(단위 : 100Million Won)

구분	2016	2017	2018	2019	2020	2021
비유동자산 non-Current Assets	1,581,285	1,626,472	1,655,040	1,781,148	1,825,802	1,890,580
유동자산 Current Assets	197,085	191,417	197,451	194,830	205,619	220,509
합계	1,778,370	1,817,889	1,852,491	1,975,978	2,031,421	2,111,089

※ 2010년부터 연결 재무제표 적용 Consolidated financial sheets was applied since 2010

9. 부채 및 자본 Liabilities & capital

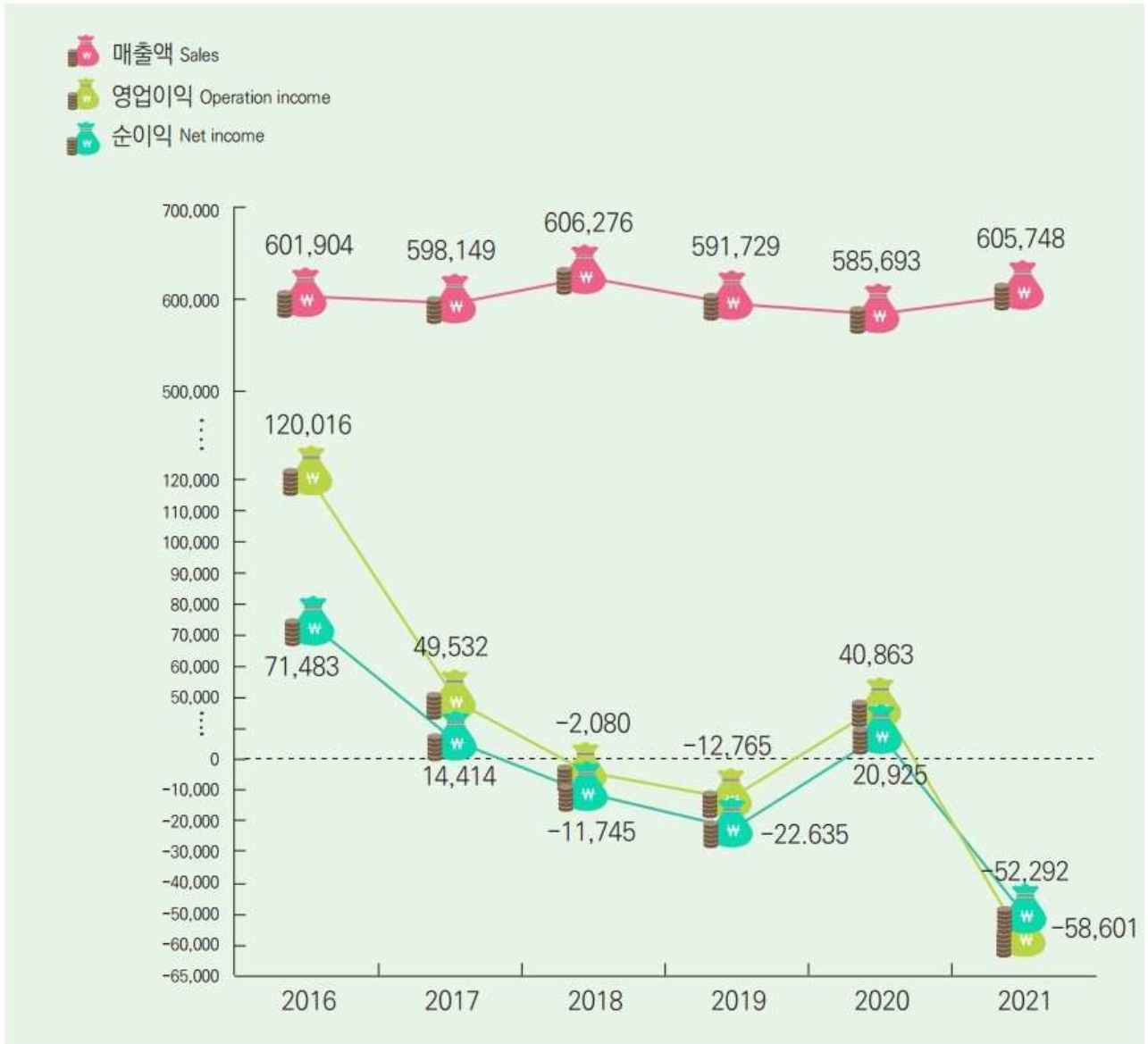


(단위 : 100Million Won)

구분	2016	2017	2018	2019	2020	2021
자본 Stockholders' equity	730,505	729,646	710,928	688,896	706,668	653,119
비유동부채 non-Current liabilities	800,473	854,000	923,148	1,044,765	1,065,940	1,140,648
유동부채 Current Assets	247,392	234,243	218,415	242,317	258,812	317,322
합계	1,778,370	1,817,889	1,852,491	1,975,978	2,031,421	2,111,089

※ 2010년부터 연결 재무제표 적용 Consolidated financial sheets was applied since 2010

10. 이익 추이 Trends in Income



(단위 : 100Million Won)

구분	2016	2017	2018	2019	2020	2021
매출액 Sales	601,904	598,149	606,276	591,729	585,693	605,748
영업이익 Operation income	120,016	49,532	-2,080	-12,765	40,863	-58,601
순이익 Net income	71,483	14,414	-11,745	-22,635	20,925	-52,292

※ 2010년부터 연결 재무제표 적용 Consolidated financial sheets was applied since 2010

Statistics of Electric Power in Korea 제91호
2021년 한국전력통계



전력통계표

Tables of electric statistics

□ 주요 통계 지표 종합

Indicators of Major Statistics

구 분	단 위 Unit	1961	2008	2009	2010	2011	2012	2013	2014
발 전 설 비	kW	426,287	76,580,350	77,692,749	79,983,793	83,263,146	85,849,093	91,077,485	96,925,225
한전, 자회사	kW	367,254	63,529,309	63,962,317	65,559,674	67,005,570	68,848,108	70,845,294	72,305,204
타 사	kW	-	8,961,382	9,507,661	10,518,514	12,336,297	12,957,468	16,123,643	20,910,550
상용자가	kW	59,033	4,089,658	4,222,771	3,905,605	3,921,279	4,043,517	4,108,548	3,709,470
총 발 전 량	MWh	1,936,418	442,610,958	452,447,461	495,028,363	517,569,729	531,201,866	537,169,276	540,378,799
한전, 자회사	MWh	1,772,921	394,929,871	406,779,556	435,384,166	443,409,223	448,516,180	448,756,663	442,914,458
타 사	MWh	-	26,695,978	25,968,054	38,433,844	52,670,709	58,964,028	66,710,267	78,494,632
상용자가 ¹⁾	MWh	163,497	20,985,109 (729,277)	19,699,851 (856,135)	21,210,354 (842,196)	21,489,797 (813,434)	23,721,658 (2,094,121)	21,702,345 (1,680,942)	18,969,709 (561,813)
소 내 전력량	MWh	89,337	17,374,100	18,258,121	19,371,717	19,689,178	20,154,366	20,463,269	20,257,068
소내전력률	%	5.04	4.19	4.30	4.20	4.14	3.96	3.96	3.88
양수용전력량	MWh	-	3,242,816	3,712,816	3,662,630	4,256,763	4,789,137	5,408,107	6,644,037
송전단전력량 (양수제외)	MWh	1,683,584	401,726,293	411,631,123	451,432,992	472,650,336	484,334,191	491,002,570	494,716,613
송배전손실량	MWh	494,198	16,106,376	16,769,741	18,034,237	17,430,383	17,291,504	18,310,889	18,270,412
송배전손실률	%	29.35	4.01	4.07	3.99	3.69	3.57	3.73	3.69
판 매 전력량	MWh	1,189,386	385,070,137	394,474,637	434,160,228	455,070,261	466,592,949	474,848,580	477,591,701
수요성장률	%	-	4.5	2.4	10.1	4.8	2.5	1.8	0.6
최 대 전 력	kW	305,686	62,794,000	66,797,000	71,308,000	73,137,000	75,987,000	76,522,000	80,154,000
평 균 전 력	kW	202,388	48,082,323	49,498,144	54,184,955	56,722,987	58,011,649	59,035,145	59,585,720
부 하 율	%	66.2	76.6	74.1	75.9	77.6	76.3	77.1	74.3
이 용 률	%	55.1	67.7	67.8	73.3	73.9	70.2	68.0	63.9
판 매 단 가	원/kWh	3.22	78.76	83.59	86.12	89.32	99.10	106.33	111.28
고 객 호 수	호	797,252	18,419,048	18,727,411	19,229,450	19,814,866	20,475,899	21,017,693	21,532,269
종 업 원 수	명	10,095	18,534	17,885	19,710	19,303	19,278	19,644	19,899
납 입 자 본 금	백만원	3,836	3,207,839	3,207,839	3,207,839	3,209,820	3,209,820	3,209,820	3,209,820
총 자 산 ²⁾	백만원	13,393	66,868,176	69,985,451	129,517,794 (74,398,204)	136,467,850 (94,769,898)	146,152,820 (96,234,698)	155,527,334 (98,249,927)	163,708,289 (99,719,106)
인구 1인당 전력생산량 ³⁾	kWh/人	69	8,689 (9,106)	8,895 (9,282)	9,712 (10,129)	9,982 (10,397)	10,191 (10,623)	10,112 (10,504)	10,169 (10,573)
인구 1인당 전력소비량 ⁴⁾	kWh/人	46	7,922 (8,339)	8,092 (8,479)	8,883 (9,300)	9,142 (9,557)	9,331 (9,764)	9,285 (9,676)	9,305 (9,698)

1) () 내는 상용자가 발전량 중 한전의 구입전력량

2) () 내는 별도재무제표 기준

3~4) () 내는 상용발전 자체 소비량 포함분임

2015	2016	2017	2018	2019	2020	2021	Items
101,590,229	109,789,291	120,848,466	122,912,875	129,747,830	133,655,412	138,482,028p	Generating facilities
73,282,111	79,216,544	82,132,490	81,362,425	83,672,341	83,853,696	82,459,277	KEPCO & Subsidiaries
24,366,649	26,649,013	34,775,150	37,729,234	41,665,327	45,337,578	51,560,498	Other co.
3,941,468	3,923,734	3,940,825	3,821,215	4,410,161	4,464,139	4,462,253p	Non-utility in common use
547,801,803	560,984,590	576,412,127	592,904,629	586,806,004	577,111,901	601,938,354p	Gross generation
432,758,183	436,314,042	426,484,068	418,327,451	409,069,939	394,522,245	400,373,182	KEPCO & Subsidiaries
94,756,654	103,906,393	126,741,534	151,520,206	152,823,960	155,963,475	175,412,367	Other co.
20,286,965 (576,355)	20,764,155 (220,419)	23,186,525 (304,506)	23,056,972 (798,850)	24,912,104 (1,146,405)	26,626,181 (1,676,440)	26,152,804p (1,023,939)	Non-utility generation in common use ¹⁾
23,782,283	21,504,884	21,707,139	21,389,786	21,572,766	21,135,360	21,254,113	Auxiliary use
4.50	3.98	3.92	3.75	3.83	3.83	3.68	Aux.use factor
4,823,507	4,716,403	5,476,612	5,105,659	4,587,619	4,352,176	4,855,815	Pumping storage
499,239,421	514,118,988	525,710,752	543,231,596	536,197,809	525,850,762	549,623,783	Net generation
17,979,210 3.60	18,474,842 3.59	18,790,097 3.57	19,359,355 3.56	19,000,475 3.54	18,609,971 3.54	19,424,218 3.53	T&D losses Loss factor (T&D)
483,654,816 1.3	497,038,904 2.8	507,746,386 2.2	526,149,162 3.6	520,498,738 -1.1	509,269,715 -2.2	533,430,811 4.7	Power sold Growth rate
78,790,000	85,183,000	85,133,000	92,478,000	90,314,000	89,091,000	91,141,000	Peak load
60,284,383 76.5	61,694,161 72.4	63,188,368 74.2	65,142,295 70.4	64,274,007 71.2	62,859,991 70.6	65,845,832 72.2	Average load Load factor
61.7	58.3	54.0	54.7	51.3	48.7	49.1	Utilization plant factor
111.57	111.23	109.53	108.75	108.66	109.80	108.11	Average revenues per kWh sold
22,030,215	22,552,719	23,077,023	23,501,542	23,860,032	24,198,304	24,523,304	Customers
20,196	20,957	21,627	22,272	22,979	23,396	23,288	Employees
3,209,820	3,209,820	3,209,820	3,209,820	3,209,820	3,209,820	3,209,820	Paid-in capital (Million won)
175,257,359 (106,306,250)	177,837,042 (105,321,129)	181,788,915 (106,540,154)	185,249,061 (107,486,380)	197,597,792 (109,809,254)	203,142,111 (113,103,476)	211,108,870 (115,578,517)	Total assets (Million won) ²⁾
10,433 (10,778)	10,546 (10,947)	10,759 (11,204)	11,058 (11,489)	10,859 (11,317)	10,654 (11,099)	11,170 (11,657)	Generation per capita ³⁾
9,555 (9,953)	9,699 (10,104)	9,869 (10,320)	10,195 (10,642)	10,039 (10,519)	9,826 (10,304)	10,330 (10,836)	Consumption per capita ⁴⁾

1) Figures in () are power sold of Non-utility generation to KEPCO.

2) Figures in () is separate financial statement

3~4) Figures in () include non-utility generation self_consumption in common use.

Statistics of Electric Power in Korea 제91호
2021년 한국전력통계



I. 발전부문

Electric power generation

1. 발전 전력량 추이 (1)

(단위:MWh) Trends in Power Generation

구분 연월별	한 전, 자 회 사							
	수 력 Hydro				기 력 Steam			
	일 반 General	양 수 Pumping	소 수 력 Small hydro	계 Total	무 연 탄 Anthracite coal	유 연 탄 Bituminous coal	중 유 Heavy oil	L N G
1961	652,611	-	-	652,611	1,118,279	-	-	-
2004	1,491,142	1,550,355	-	3,041,497	5,787,070	122,760,316	16,084,006	733,318
2005	1,351,427	1,515,588	-	2,867,016	5,789,778	129,101,944	15,529,107	786,366
2006	1,162,850	1,751,083	-	2,913,934	5,709,388	134,636,585	14,306,788	1,258,155
2007	1,368,478	1,410,813	-	2,779,290	6,061,545	149,623,092	15,702,736	2,027,701
2008	1,271,034	2,492,539	72,427	3,836,000	6,928,993	167,227,037	7,981,563	1,517,763
2009	1,170,991	2,827,991	91,728	4,090,711	7,977,658	185,825,633	11,970,100	761,682
2010	1,458,368	2,789,934	144,240	4,392,542	8,359,873	189,927,487	10,874,371	2,287,541
2011	1,438,933	3,232,985	143,036	4,814,954	8,503,983	191,011,864	9,456,338	2,232,618
2012	1,303,282	3,683,262	153,080	5,139,624	8,767,762	190,561,957	13,553,420	3,452,866
2013	1,415,626	4,104,661	159,041	5,679,329	8,054,488	193,064,345	13,940,534	3,525,889
2014	781,041	5,068,129	126,456	5,975,627	8,506,060	195,259,331	6,838,457	568,123
2015	608,281	3,650,320	168,447	4,427,049	7,438,271	199,895,424	8,822,006	222,472
2016	869,712	3,787,310	177,796	4,834,818	7,760,682	200,151,489	13,054,770	368,541
2017	917,300	4,186,353	158,855	5,262,507	4,426,611	222,759,888	5,224,768	220,183
2018	1,101,827	3,911,035	174,372	5,187,234	2,677,040	220,140,570	5,845,247	-
2019	842,229	3,458,385	176,026	4,476,640	2,592,225	209,193,368	1,842,478	0
2020	1,075,634	3,271,019	154,971	4,501,624	2,094,210	176,714,012	1,503,944	586,627
2021	927,736	3,682,932	151,241	4,761,910	1,853,783	170,565,608	1,493,853	1,176,921
1	48,219	323,699	11,496	383,414	238,299	15,803,888	250,396	104,292
2	48,079	307,903	9,928	365,910	134,298	12,460,817	94,611	30,316
3	68,697	308,632	10,576	387,905	143,907	11,365,705	-	-
4	76,531	319,447	9,715	405,692	120,910	10,971,398	31,683	87,317
5	133,752	303,229	11,325	448,307	234,809	12,387,478	180,883	74,179
6	147,822	295,412	12,411	455,644	143,016	14,559,776	137,630	155,963
7	123,236	343,656	15,445	482,337	241,116	18,490,128	237,595	239,338
8	71,216	318,187	17,456	406,859	238,493	17,997,677	47,692	81,441
9	75,044	276,903	16,631	368,578	48,212	14,225,568	173,749	111,213
10	53,718	292,035	14,252	360,005	86,607	12,918,028	173,743	192,948
11	40,037	255,709	10,968	306,713	224,116	13,858,568	87,584	39,920
12	41,385	338,120	11,039	390,544	1	15,526,575	78,288	59,994

※ 2001. 4. 2. 6개 발전자회사 및 전력거래소로 분리, 발전량은 자가용을 제외한 사업자용만 집계

1) 신재생 : 일반수력, 소수력 미포함(수력으로 별도 분류)

2) 기타 : 폐기물에너지(신재생에너지법 개정으로 '20.1월부터 신재생에서 기타로 분류)

(Unit:MWh)

KEPCO & Subsidiaries								Items During
계 Total	복합화력 Combined cycle	원자력 Nuclear	신재생 ¹⁾ New&Renewable energy	집단 Group energy	내연력 Internal Combustion	기타 ²⁾ Others	합계 Total	
1,118,279	-	-	-	-	2,031	-	1,772,921	1961
145,364,710	47,652,451	130,714,816	10,822	-	406,895	-	327,191,187	2004
151,207,195	48,310,945	146,779,023	18,863	-	575,339	-	349,758,383	2005
155,910,915	54,173,773	148,748,887	21,857	-	677,296	-	362,446,663	2006
173,415,074	60,464,207	142,937,164	26,955	-	578,356	-	380,201,047	2007
183,655,356	55,909,252	150,957,936	68,619	-	502,708	-	394,929,871	2008
206,535,073	47,579,909	147,770,807	106,104	-	696,953	-	406,779,556	2009
211,449,271	70,081,455	148,595,712	134,491	-	730,695	-	435,384,166	2010
211,204,803	71,668,085	154,723,107	177,742	-	820,533	-	443,409,223	2011
216,336,004	75,751,137	150,327,293	210,051	-	752,070	-	448,516,180	2012
218,585,257	84,560,767	138,783,973	406,403	-	740,935	-	448,756,663	2013
211,171,971	65,391,034	156,406,511	570,296	2,743,209	655,810	-	442,914,458	2014
216,378,173	43,084,104	164,762,416	624,515	2,838,763	643,164	-	432,758,183	2015
221,335,482	43,688,294	161,995,104	1,098,064	2,789,084	573,196	-	436,314,042	2016
232,631,450	33,955,125	148,426,725	2,693,481	3,001,433	513,347	-	426,484,068	2017
228,662,857	43,133,972	133,505,261	3,663,802	3,645,872	528,453	-	418,327,451	2018
213,628,071	36,669,948	145,909,669	5,427,962	2,378,737	578,912	-	409,069,939	2019
180,898,793	38,033,491	160,183,721	7,016,146	3,412,958	404,673	70,839	394,522,245	2020
175,090,166	49,981,779	158,015,230	8,340,828	3,626,727	490,697	65,846	400,373,182	2021
16,396,875	5,259,779	14,042,335	722,250	338,860	53,778	6,898	37,204,190	1
12,720,042	4,081,229	12,731,704	692,805	311,313	39,715	3,463	30,946,181	2
11,509,612	3,807,804	13,799,717	762,492	321,788	38,574	7,101	30,634,994	3
11,211,308	4,089,890	12,550,522	795,038	304,077	49,291	5,792	29,411,611	4
12,877,349	3,252,531	12,760,349	722,602	322,617	44,032	4,743	30,432,530	5
14,996,386	3,936,587	11,314,115	470,683	299,031	29,890	6,082	31,508,419	6
19,208,178	5,032,095	12,303,367	604,507	293,256	39,511	7,152	37,970,402	7
18,365,303	4,196,822	12,779,715	848,586	326,950	39,860	2,945	36,967,040	8
14,558,742	4,194,077	12,172,417	761,585	334,170	42,945	4,085	32,436,599	9
13,371,325	4,027,665	13,462,108	582,988	225,180	37,652	6,593	32,073,517	10
14,210,187	3,914,763	13,567,239	608,821	206,453	34,362	6,148	32,854,687	11
15,664,857	4,188,537	16,531,642	768,469	343,032	41,087	4,843	37,933,013	12

※ On Apr. 2, 2001, KEPCO's power generation division was divided into 6 generation subsidiary companies

1) New&Renewable energy : 'General hydro' and 'Small hydro' are not included(classified as Hydro)

2) Others : waste energy (classified as others from Jan. 2020 by New&Renewable energy law)

1. 발전 전력량 추이 (2)

(단위:MWh) Trends in Power Generation

구분 연도별	타 사 Other co.							
	수 력 Hydro			기 력	복 합 화 력	신재생	집 단	기 타 ³⁾
	일 반 General	소 수 력 Small hydro	계 Total	유 연 탄 Bituminous coal	복 합 화 력 Combined cycle	신재생 New&Renewable energy	집 단 Group energy	기 타 ³⁾ Others
1961	-	-	-	-	-	-	-	-
2004	2,707,206	112,732	2,819,938	-	7,799,490	339,361	3,552,538	-
2005	2,184,144	137,729	2,321,873	-	9,145,953	385,238	2,758,544	-
2006	2,163,431	141,256	2,304,687	-	12,964,568	489,366	2,596,731	-
2007	2,106,791	156,381	2,263,172	-	15,941,211	803,869	3,085,140	-
2008	1,581,093	145,558	1,726,650	-	18,610,099	1,304,806	5,054,422	-
2009	1,425,109	125,343	1,550,452	-	16,906,100	1,684,504	5,826,998	-
2010	1,881,192	198,169	2,079,361	-	23,930,683	4,343,567	8,080,233	-
2011	2,739,934	275,763	3,015,698	-	29,811,299	7,414,645	12,429,067	-
2012	2,136,735	375,941	2,512,676	-	35,130,796	8,407,818	12,912,737	-
2013	2,223,572	491,028	2,714,600	-	39,839,244	9,753,255	14,403,169	-
2014	1,354,640	489,281	1,843,921	-	46,320,431	14,125,394	16,204,886	-
2015	931,016	437,975	1,368,991	-	57,514,281	16,693,434	19,179,948	-
2016	1,289,437	509,331	1,798,767	1,287,995	53,233,975	17,837,596	29,748,060	-
2017	1,346,205	386,461	1,732,666	4,700,090	65,663,865	21,451,881	33,193,031	-
2018	1,646,574	436,645	2,083,219	8,835,428	73,701,635	23,512,872	43,387,051	-
2019	1,386,809	383,615	1,770,424	7,290,358	73,618,864	25,098,295	43,679,358	1,366,663
2020	2,130,346	516,280	2,646,625	8,527,220	73,725,754	24,040,363	42,154,306	4,869,207
2021	1,464,088	511,436	1,975,525	16,485,199	80,376,476	30,760,728	44,699,062	1,115,378
1	106,583	26,769	133,352	889,305	7,681,977	1,973,086	4,998,731	87,494
2	89,373	22,804	112,177	1,098,286	6,208,608	2,298,451	4,089,749	75,665
3	82,586	41,564	124,150	849,689	8,216,580	2,713,028	4,416,575	85,054
4	105,434	45,050	150,484	1,117,062	6,220,942	2,957,751	3,600,149	87,169
5	138,775	49,883	188,657	1,077,124	6,633,583	2,957,516	2,907,864	88,901
6	180,668	50,205	230,873	1,391,796	6,856,751	2,719,169	2,910,341	101,022
7	172,506	57,025	229,531	1,965,183	7,499,824	2,785,495	3,494,369	101,770
8	143,252	56,279	199,531	1,868,362	6,867,083	2,440,862	3,260,288	97,644
9	152,672	53,216	205,888	1,381,314	5,879,049	2,410,538	2,972,948	100,738
10	104,056	42,842	146,897	1,652,034	6,135,704	2,666,506	3,335,699	101,658
11	92,399	33,690	126,089	1,365,221	6,015,939	2,382,800	3,992,640	91,917
12	95,785	32,110	127,895	1,829,823	6,160,436	2,455,527	4,719,709	96,345

3) 기타 : 증류탑폐열, 신승에너지 여열회수, 김해 천연가스압터빈, 부생가스, 폐기물에너지
 - 신재생에너지법 개정으로 폐기물에너지를 '20.1월부터 신재생에서 기타로 분류

(Unit:MWh)

합 계 Total	사 업 자 (종 합) Hydro				Public utility 기 력 Steam		Items During
	일 반 General	양 수 Pumping	소 수 력 Small hydro	계 Total	무 연 탄 Anthracite coal	유 연 탄 Bituminous coal	
-	652,611	-	-	652,611	1,118,279	-	1961
14,511,327	4,198,348	1,550,355	112,732	5,861,434	5,787,070	122,760,316	2004
14,611,607	3,535,571	1,515,588	137,729	5,188,888	5,789,778	129,101,944	2005
18,355,353	3,326,281	1,751,083	141,256	5,218,621	5,709,388	134,636,585	2006
22,093,391	3,475,269	1,410,813	156,381	5,042,462	6,061,545	149,623,092	2007
26,695,978	2,852,127	2,492,539	217,984	5,562,651	6,928,993	167,227,037	2008
25,968,054	2,596,100	2,827,991	217,071	5,641,162	7,977,658	185,825,633	2009
38,433,844	3,339,560	2,789,934	342,409	6,471,903	8,359,873	189,927,487	2010
52,670,709	4,178,868	3,232,985	418,799	7,830,652	8,503,983	191,011,864	2011
58,964,028	3,440,018	3,683,262	529,021	7,652,300	8,767,762	190,561,957	2012
66,710,267	3,639,198	4,104,661	650,069	8,393,928	8,054,488	193,064,345	2013
78,494,632	2,135,681	5,068,129	615,737	7,819,548	8,506,060	195,259,331	2014
94,756,654	1,539,298	3,650,320	606,422	5,796,040	7,438,271	199,895,424	2015
103,906,393	2,159,149	3,787,310	687,126	6,633,585	7,760,682	201,439,484	2016
126,741,534	2,263,505	4,186,353	545,316	6,995,173	4,426,611	227,459,979	2017
151,520,206	2,748,401	3,911,035	611,017	7,270,453	2,677,040	228,975,999	2018
152,823,960	2,229,038	3,458,385	559,641	6,247,064	2,592,225	216,483,725	2019
155,963,475	3,205,979	3,271,019	671,251	7,148,249	2,094,210	185,241,232	2020
175,412,367	2,391,824	3,682,932	662,678	6,737,434	1,853,783	187,050,807	2021
15,763,947	154,802	323,699	38,265	516,767	238,299	16,693,193	1
13,882,936	137,452	307,903	32,732	478,088	134,298	13,559,104	2
16,405,076	151,283	308,632	52,140	512,055	143,907	12,215,394	3
14,133,558	181,964	319,447	54,765	556,177	120,910	12,088,460	4
13,853,644	272,527	303,229	61,208	636,964	234,809	13,464,602	5
14,209,952	328,490	295,412	62,615	686,517	143,016	15,951,573	6
16,076,171	295,742	343,656	72,470	711,868	241,116	20,455,311	7
14,733,770	214,468	318,187	73,735	606,390	238,493	19,866,039	8
12,950,475	227,716	276,903	69,847	574,466	48,212	15,606,882	9
14,038,499	157,774	292,035	57,093	506,902	86,607	14,570,062	10
13,974,606	132,436	255,709	44,657	432,802	224,116	15,223,789	11
15,389,734	137,170	338,120	43,149	518,439	1	17,356,398	12

3) Others : By-product Gas, waste, KD Powertech (waste heat), Sinseung(remaining heat), Kimhae(Natural gas Pressure Turbine)
 - Waste energy is classified as others from Jan. 2020 by New&Renewable energy law

1. 발전 전력량 추이 (3)

Trends in Power Generation

(단위:MWh)

구분 연도별	사 업 자 (총 합)							
	기 력 Steam			복 합 화 력 Combined cycle	원 자 력 Nuclear	신재생 New& Renewable energy	집 단 Group energy	내 연 력 Internal Combustion
	중 유 Heavy oil	L N G	계 Total					
1961	-	-	1,118,279	-	-	-	-	2,031
2004	16,084,006	733,318	145,364,710	55,451,941	130,714,816	350,183	3,552,538	406,895
2005	15,529,107	786,366	151,207,195	57,456,898	146,779,023	404,101	2,758,544	575,339
2006	14,306,788	1,258,155	155,910,915	67,138,342	148,748,887	511,223	2,596,731	677,296
2007	15,702,736	2,027,701	173,415,074	76,405,418	142,937,164	830,824	3,085,140	578,356
2008	7,981,563	1,517,763	183,655,356	74,519,352	150,957,936	1,373,425	5,054,422	502,708
2009	11,970,100	761,682	206,535,073	64,486,009	147,770,807	1,790,609	5,826,998	696,953
2010	10,874,371	2,287,541	211,449,271	94,012,138	148,595,712	4,478,058	8,080,233	730,695
2011	9,456,338	2,232,618	211,204,803	101,479,384	154,723,107	7,592,387	12,429,067	820,533
2012	13,553,420	3,452,866	216,336,004	110,881,933	150,327,293	8,617,869	12,912,737	752,070
2013	13,940,534	3,525,889	218,585,257	124,400,011	138,783,973	10,159,658	14,403,169	740,935
2014	6,838,457	568,123	211,171,971	111,711,465	156,406,511	14,695,690	18,948,095	655,810
2015	8,822,006	222,472	216,378,173	100,598,385	164,762,416	17,317,949	22,018,711	643,164
2016	13,054,770	368,541	222,623,477	96,922,270	161,995,104	18,935,660	32,537,144	573,196
2017	5,224,768	220,183	237,331,541	99,618,990	148,426,725	24,145,362	36,194,464	513,347
2018	5,845,247	-	237,498,286	116,835,607	133,505,261	27,176,674	47,032,922	528,453
2019	1,842,478	0	220,918,428	110,288,811	145,909,669	30,526,257	46,058,095	578,912
2020	1,503,944	586,627	189,426,013	111,759,245	160,183,721	31,056,508	45,567,264	404,673
2021	1,493,853	1,176,921	191,575,365	130,358,255	158,015,230	39,101,556	48,325,789	490,697
1	250,396	104,292	17,286,180	12,941,756	14,042,335	2,695,337	5,337,591	53,778
2	94,611	30,316	13,818,328	10,289,837	12,731,704	2,991,256	4,401,062	39,715
3	-	-	12,359,301	12,024,384	13,799,717	3,475,520	4,738,364	38,574
4	31,683	87,317	12,328,370	10,310,832	12,550,522	3,752,789	3,904,226	49,291
5	180,883	74,179	13,954,473	9,886,114	12,760,349	3,680,118	3,230,480	44,032
6	137,630	155,963	16,388,182	10,793,338	11,314,115	3,189,852	3,209,372	29,890
7	237,595	239,338	21,173,360	12,531,918	12,303,367	3,390,001	3,787,625	39,511
8	47,692	81,441	20,233,665	11,063,905	12,779,715	3,289,448	3,587,238	39,860
9	173,749	111,213	15,940,056	10,073,126	12,172,417	3,172,124	3,307,118	42,945
10	173,743	192,948	15,023,359	10,163,369	13,462,108	3,249,494	3,560,879	37,652
11	87,584	39,920	15,575,408	9,930,702	13,567,239	2,991,621	4,199,093	34,362
12	78,288	59,994	17,494,680	10,348,973	16,531,642	3,223,996	5,062,741	41,087

4) 'p' 는 잠정수치로 2020 상용자가 발전업체조사 잠정치 사용

(Unit : MWh)

Public utility		상 용 자 가 Non-utility generation in common use			총 발전량 Total		Items During
기 타 Others	총 계 Total	한전구입 Purchased power	자가소비 ⁴⁾ Self consumption	계 Total	사 업 자 + 한 전 구 입	사 업 자 + 상 용 자 가	
-	1,772,921	-	163,497	163,497	1,772,921	1,936,418	1961
-	341,702,514	445,453	25,885,585	26,331,038	342,147,967	368,033,552	2004
-	364,369,990	269,341	24,840,181	25,109,522	364,639,331	389,479,512	2005
-	380,802,016	378,693	21,808,234	22,186,927	381,180,709	402,988,943	2006
-	402,294,438	830,063	22,282,788	23,112,851	403,124,501	425,407,289	2007
-	421,625,849	729,277	20,255,832	20,985,109	422,355,126	442,610,958	2008
-	432,747,610	856,135	18,843,716	19,699,851	433,603,745	452,447,461	2009
-	473,818,009	842,196	20,368,158	21,210,354	474,660,205	495,028,363	2010
-	496,079,932	813,434	21,274,450	22,087,884	496,893,366	518,167,816	2011
-	507,480,208	2,094,121	21,627,537	23,721,658	509,574,329	531,201,866	2012
-	515,466,931	1,680,942	20,021,403	21,702,345	517,147,873	537,169,276	2013
-	521,409,090	561,813	18,407,896	18,969,709	521,970,903	540,378,799	2014
-	527,514,837	576,355	19,710,610	20,286,965	528,091,193	547,801,803	2015
-	540,220,436	220,419	20,543,736	20,764,155	540,440,854	560,984,590	2016
-	553,225,602	304,506	22,882,019	23,186,525	553,530,107	576,412,127	2017
-	569,847,656	798,850	22,258,122	23,056,972	570,646,507	592,904,629	2018
1,366,663	561,893,899	1,146,405	23,765,699	24,912,104	563,040,305	586,806,004	2019
4,940,046	550,485,720	1,676,440	24,949,741	26,626,181	552,162,160	577,111,901	2020
1,181,224	575,785,550	1,023,939	25,128,865p	26,152,804p	576,809,488	601,938,354p	2021
94,393	52,968,137	187,466	...	...	53,155,603	...	1
79,127	44,829,117	144,614	...	...	44,973,731	...	2
92,155	47,040,069	152,651	...	...	47,192,720	...	3
92,961	43,545,169	92,326	...	...	43,637,495	...	4
93,644	44,286,175	18,465	...	...	44,304,640	...	5
107,105	45,718,371	69,735	...	...	45,788,106	...	6
108,922	54,046,573	98,352	...	...	54,144,925	...	7
100,589	51,700,810	94,986	...	...	51,795,796	...	8
104,823	45,387,074	23,229	...	...	45,410,303	...	9
108,251	46,112,016	35,129	...	...	46,147,145	...	10
98,065	46,829,293	56,125	...	...	46,885,417	...	11
101,189	53,322,747	50,862	...	...	53,373,609	...	12

4) ' p ' is a preliminary figures by Research for the self-generation in 2020

1-1. 발전원별 에너지원별 발전량(2021)

(단위:MWh) Power Generation by Plant Type and Energy Source

발전원 Plant type 에너지원 Energy Source	수력 Hydro				기력 Steam					
	일 반 General	양 수 Pumping	소 수력 Small hydro	계 Total	무 연 탄 Anthracite coal	유 연 탄 Bituminous coal	중 유 Heavy oil	L N G	계 Total	L N G
양수 Pumping	-	3,682,932	-	3,682,932	-	-	-	-	-	-
무연탄 Anthracite coal	-	-	-	-	1,844,453	16,923	-	-	1,861,376	-
유연탄 Bituminous coal	-	-	-	-	-	185,629,251	-	-	185,629,251	-
유류 Oil	-	-	-	-	9,330	396,660	1,029,294	-	1,435,283	85
LNG	-	-	-	-	-	-	-	1,176,831	1,176,831	130,217,521
원자력 Nuclear	-	-	-	-	-	-	-	-	-	-
기타 Others	-	-	-	-	-	521,621	11,169	90	532,880	118
소계	-	3,682,932	-	3,682,932	1,853,783	186,564,455	1,040,462	1,176,921	190,635,621	130,217,723
수력 Hydro	2,391,824	-	662,678	3,054,502	-	-	-	-	-	-
태양에너지 Solar	-	-	-	-	-	-	-	-	-	-
풍력 Wind	-	-	-	-	-	-	-	-	-	-
해양 에너지 Ocean	-	-	-	-	-	-	-	-	-	-
바이오 에너지 Bio	-	-	-	-	-	486,352	453,391	-	939,743	-
폐기물 에너지 Waste	-	-	-	-	-	-	-	-	-	-
매립가스 Landfill Gas	-	-	-	-	-	-	-	-	-	-
부생가스 By-product Gas	-	-	-	-	-	-	-	-	-	-
연료전지 Fuel Cell	-	-	-	-	-	-	-	-	-	-
석탄 액화가스 IGCC	-	-	-	-	-	-	-	-	-	-
집단 (신재생) Group	-	-	-	-	-	-	-	-	-	-
신재생 계	2,391,824	-	662,678	3,054,502	-	486,352	453,391	-	939,743	-
총 계	2,391,824	3,682,932	662,678	6,737,434	1,853,783	187,050,807	1,493,853	1,176,921	191,575,365	130,217,723

※ 신재생 에너지 혼소발전량 분리

※ 발전량은 자가용을 제외한 사업자용만 집계

(단위:MWh)

복합화력 Combined cycle		내연력 Internal Combustion	원자력 Nuclear	집단 Group energy	신재생 ¹⁾ New&Renewable energy	기타 ²⁾ Others	총계 Total	상용자가 발전중 한전 구입분	총발전량 (한전구입분 포함)
유류 oil	계 Total								
-	-	-	-	-	-	-	3,682,932	-	3,682,932
-	-	-	-	-	-	-	1,861,376	-	1,861,376
-	-	-	-	10,475,745	-	-	196,104,996	-	196,104,996
140,532	140,616	490,697	-	287,887	-	-	2,354,483	-	2,354,483
-	130,217,521	-	-	36,818,540	-	-	168,212,892	165,423	168,378,315
-	-	-	158,015,230	-	-	-	158,015,230	-	158,015,230
-	118	-	-	743,617	-	1,181,224	2,457,839	858,516	3,316,355
140,532	130,358,255	490,697	158,015,230	48,325,789	-	1,181,224	532,689,749	1,023,939	533,713,687
-	-	-	-	-	-	-	3,054,502	-	3,054,502
-	-	-	-	-	21,822,488	-	21,822,488	-	21,822,488
-	-	-	-	-	3,169,838	-	3,169,838	-	3,169,838
-	-	-	-	-	454,968	-	454,968	-	454,968
-	-	-	-	-	6,918,557	-	7,858,301	-	7,858,301
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	4,544,950	-	4,544,950	-	4,544,950
-	-	-	-	-	2,190,755	-	2,190,755	-	2,190,755
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	39,101,556	-	43,095,801	-	43,095,801
140,532	130,358,255	490,697	158,015,230	48,325,789	39,101,556	1,181,224	575,785,550	1,023,939	576,809,488

1) 신재생 : 일반수력, 소수력 미포함(수력으로 별도 분류)

2) 기타 : 폐기물, 부생가스, 증류탑폐열, 여열회수, 천연가스압터빈

- 신재생에너지법 개정으로 폐기물에너지를 '20.1월부터 신재생에서 기타로 분류

2. 발전 실적 추이

Trends in Power Generation Results

구분 연도별	시설용량 (kW) Generating facilities	발전량 (MWh) Gross generation	평균전력 (kW) Average load	최대전력 (kW) Peak load	부하율 ¹⁾ (%) Load factor
1961	367,254	1,772,921	202,388	305,686	66.2
2004	59,961,131	342,147,967	39,057,987	51,264,000	76.2
2005	62,258,197	364,639,331	41,625,494	54,631,000	76.2
2006	65,514,242	381,180,709	43,513,780	58,994,000	73.8
2007	68,268,188	403,124,501	46,018,779	62,285,000	73.9
2008	72,490,691	422,355,126	48,082,323	62,794,000	76.6
2009	73,469,978	433,603,745	49,498,144	66,797,000	74.1
2010	76,078,188	474,660,205	54,184,955	71,308,000	76.0
2011	79,341,867	496,893,366	56,722,987	73,137,000	77.6
2012	81,805,576	509,574,329	58,011,649	75,987,000	76.3
2013	86,968,937	517,147,873	59,035,145	76,522,000	77.1
2014	93,215,755	521,970,903	59,585,720	80,154,000	74.3
2015	97,648,761	528,091,193	60,284,383	78,790,000	76.5
2016	105,865,557	540,440,854	61,694,161	85,183,000	72.4
2017	116,907,641	553,530,107	63,188,368	85,133,000	74.2
2018	119,091,660	570,646,507	65,142,295	92,478,000	70.4
2019	125,337,669	563,040,305	64,274,007	90,314,000	71.2
2020	129,191,273	552,162,160	62,859,991	89,091,000	70.6
2021	134,019,775	576,809,488	65,845,832	91,141,000	72.2
1	128,819,687	53,155,603	71,445,703	90,564,000	78.9
2	129,114,214	44,973,731	66,925,195	84,749,000	79.0
3	129,361,273	47,192,720	63,431,076	77,208,000	82.2
4	128,440,854	43,637,495	60,607,631	69,016,000	87.8
5	129,622,912	44,304,640	59,549,247	69,140,000	86.1
6	131,068,633	45,788,106	63,594,591	75,854,000	83.8
7	131,330,217	54,144,925	72,775,437	91,141,000	79.8
8	131,649,694	51,795,796	69,618,005	86,355,000	80.6
9	132,113,306	45,410,303	63,069,865	77,820,000	81.0
10	133,454,893	46,147,145	62,025,732	75,698,000	81.9
11	133,895,985	46,885,417	65,118,635	80,362,000	81.0
12	134,019,775	53,373,609	71,738,722	90,708,000	79.1

1) 부하율 = (평균전력 / 최대전력) × 100

2) 이용율 = (평균전력 / 시설용량) × 100

3) 소내전력률 = (소내전력량 / 발전량) × 100

이 용 율 ²⁾ (%) Plant factor	소내전력량 (MWh) Auxiliary use	소내전력률 ³⁾ (%) Aux. use factor	송전단전력량 (양 수 포 함) (MWh) Net generation (include pumping)	양수용전력량 (MWh) Pumping storage	Items During
55.1	89,337	5.04	1,683,584	-	1961
66.5	15,268,295	4.46	326,879,672	1,994,428	2004
67.5	16,451,551	4.51	348,187,780	1,980,383	2005
66.9	15,811,741	4.15	365,368,969	2,315,002	2006
67.9	16,614,307	4.12	386,510,193	1,816,953	2007
67.7	17,374,100	4.12	404,969,110	3,242,816	2008
67.8	18,258,121	4.21	415,345,624	3,712,816	2009
73.3	19,371,717	4.08	455,288,488	3,662,630	2010
73.9	19,689,178	3.96	477,204,188	4,256,763	2011
70.2	20,154,366	3.96	489,419,963	4,789,137	2012
68.0	20,463,269	3.96	496,684,604	5,408,107	2013
63.9	20,257,068	3.88	501,713,835	6,644,037	2014
61.7	23,782,283	4.50	504,308,910	4,823,507	2015
58.3	21,504,884	3.98	518,935,970	4,716,403	2016
54.0	21,707,139	3.92	531,822,968	5,476,612	2017
54.7	21,371,528	3.75	549,274,979	5,105,659	2018
51.3	21,572,766	3.83	541,467,538	4,587,619	2019
48.7	21,135,360	3.83	531,026,800	4,352,176	2020
49.1	21,254,113	3.68	555,555,376	4,855,815	2021
55.5	1,901,619	3.58	51,253,984	430,723	1
51.8	1,582,288	3.52	43,391,442	401,212	2
49.0	1,600,409	3.39	45,592,311	416,250	3
47.2	1,501,480	3.44	42,136,014	419,326	4
45.9	1,546,927	3.49	42,757,713	400,523	5
48.5	1,642,770	3.59	44,145,336	386,091	6
55.4	2,068,889	3.82	52,076,035	449,512	7
52.9	2,126,680	4.11	49,669,116	424,092	8
47.7	1,825,055	4.02	43,585,248	354,470	9
46.5	1,770,622	3.84	44,376,522	382,277	10
48.6	1,736,471	3.70	45,148,946	350,203	11
53.5	1,950,901	3.66	51,422,708	441,136	12

1) Load factor = (Average load / Peak load) × 100
2) Plant factor = (Average load / Generating facilities) × 100
3) Aux.use factor = (Aux.use / Gross generation) × 100

3. 발전소별 발전실적 (1)

(21.1.1~12.31) Power Generation Results by Plants

구분 발전소별	시설용량 (kW) Generating facilities	발전량 (MWh) Gross generation	평균전력 (kW) Average load	최대전력 (kW) Peak load	부하율 (%) Load factor
강릉	82,000	-	-	-	-
의암	48,000	102,526	11,704	46,700	25.1
청평	140,100	210,447	24,024	130,400	18.4
춘천	62,280	82,581	9,427	61,800	15.3
철보(섬진강)	35,000	72,409	8,266	29,400	28.1
팔당	120,000	328,383	37,487	113,400	33.1
화천	108,000	131,390	14,999	76,600	19.6
한전 자회사 일반수력 계	595,380	927,736	105,906	441,900	24.0
남강(수자원공사)	18,000	-	-	-	-
대청(수자원공사)	90,000	123,119	14,055	50,400	27.9
소양강(수자원공사)	200,000	318,149	36,318	187,180	19.4
안동(수자원공사)	90,000	129,320	14,763	40,040	36.9
용담(수자원공사)	22,100	101,490	11,586	22,000	52.7
임하(수자원공사)	50,000	31,892	3,641	37,800	9.6
주암(수자원공사)	22,500	48,193	5,501	21,000	26.2
충주(수자원공사)	412,000	585,863	66,879	264,312	25.3
충주3수력(수자원공사)	5,000	621	71	...	...
합천(수자원공사)	100,000	125,442	14,320	47,664	30.0
타사 일반수력 계	1,009,600	1,464,088	167,133	607,452	27.5
일반수력계	1,604,980	2,391,824	273,039	934,652	29.2
무주양수	600,000	632,840	72,242	301,217	24.0
예천양수	800,000	-	-	-	-
삼랑진양수	600,000	581,525	66,384	648,674	10.2
청평양수	400,000	327,216	37,353	369,511	10.1
양양양수	1,000,000	941,183	107,441	724,479	14.8
산청양수	700,000	733,781	83,765	670,641	12.5
청송양수	600,000	466,389	53,241	307,466	17.3
양수수력계	4,700,000	3,682,932	420,426	2,924,017	14.4
강림소수력	450	141	16	421	3.8
괴산소수력	2,600	8,736	997	2,800	35.6
당진화력소수력	4,998	4,449	508	3,342	15.2
당진화력2소수력	3,200	-	-	-	-
무주양수 소수력	400	350	40	374	10.7
보령화력소수력#1	5,000	5,673	648	4,872	13.3
보령화력소수력#2	2,500	4,462	509	2,483	20.5
보성강수력	4,500	15,550	1,775	4,600	38.6
산청소수력	995	3,477	397	975	40.7
삼척그린파워 해양소수력	2,750	13,449	1,535	2,966	51.8
삼천포해양소수력	5,000	16,403	1,873	4,225	44.3
신보령소수력	5,000	16,872	1,926	5,825	33.1

('21.1.1~12.31)

이 용 율 (%) Plant factor	소내전력량 (MWh) Auxiliary use	소내전력률 (%) Aux. use factor	송전단전력량 (양 수 포 함) (MWh) Net generation	Items	
				Plants	
-	-	-	-	Gangneung	
24.4	1,027	1.0	101,499	Uiam	
17.1	2,729	1.3	207,718	Cheongpyeong	
15.1	993	1.2	81,588	Chuncheon	
23.6	143	0.2	72,266	Chilbo(Seomjingang)	
31.2	5,403	1.6	322,980	Paldang	
13.9	2,704	2.1	128,686	Hwacheon	
17.8	12,999	1.4	914,737	Total of KEPCO,Subsidiaries hydro	
-	-	-	-	Namgang(K-Water)	
15.6	1,706	1.4	121,413	Daechung(K-Water)	
18.2	4,490	1.4	313,659	Soyanggang(K-Water)	
16.4	1,523	1.2	127,797	Andong(K-Water)	
52.4	1,919	1.9	99,571	Yongdam(K-Water)	
7.3	648	2.0	31,244	Imha(K-Water)	
24.5	1,311	2.7	46,882	Juam(K-Water)	
16.2	12,028	2.1	573,835	Chungju(K-Water)	
1.4	-	-	621	Chungju3(K-Water)	
14.3	1,351	1.1	124,090	Hapchun(K-Water)	
16.6	24,976	1.7	1,439,113	Total of Other co. hydro	
17.0	37,974	1.6	2,353,850	Total of hydro	
12.0	1,049	0.2	631,791	Muju pumping	
-	-	-	-	Yeoicheon pumping	
11.1	-	-	581,525	Samnangjin pumping	
9.3	-	-	327,216	Ch'ongp'yeong pumping	
10.7	3,791	0.4	937,391	Yangyang pumping	
12.0	1,291	0.2	732,490	Sanchong pumping	
8.9	2,720	0.6	463,668	Cheongsong pumping	
8.9	8,852	0.2	3,674,081	Total of pumping	
3.6	2	1.5	139	Ganglim	
38.4	147	1.7	8,588	Goesan	
10.2	133	3.0	4,316	Dangjin1	
-	-	-	-	Dangjin2	
10.0	-	-	350	Muju	
13.0	0	0.0	5,673	Boryeong#1	
20.4	0	0.0	4,462	Boryeong#2	
39.4	422	2.7	15,128	Boseong	
39.9	-	-	3,477	Sancheong	
55.8	-	-	13,449	Samcheok Greenpower	
37.5	335	2.0	16,069	Samcheonpo	
38.5	0	0.0	16,872	SinBoryeong	

3. 발전소별 발전 실적 (2)

(*21.1.1~12.31) Power generation Results by Plants

발전소별	구분	시설용량 (kW) Generating facilities	발전량 (MWh) Gross generation	평균전력 (kW) Average load	최대전력 (kW) Peak load	부하율 (%) Load factor
	신서천화력소수력	2,586	2,613	298	2,885	10.3
	양양양수 신소수력	150	988	113	150	75.1
	양양양수소수력	1,400	4,700	537	1,396	38.4
	영흥소수력#1	3,000	11,430	1,305	3,009	43.4
	영흥해양소수력#2	4,599	12,395	1,415	3,862	36.6
	영흥해양소수력#3	5,000	16,566	1,891	4,978	38.0
	예천소수력	900	1,561	178	780	22.8
	태안소수력#1	2,200	3,298	376	1,397	26.9
	태안소수력#2	5,000	5,171	590	4,543	13.0
	행원소수력	60	-	-	-	-
	추산소수력(도서)	-	2,758	315	...	...
	[PPA] 한수원	925	199	23	25	90.8
	한전 자회사 소수력 계	63,213	151,241	17,265	49,604	34.8
	타사 소수력 계	173,142	511,436	58,383	...	...
	소수력 계	236,355	662,678	75,648	...	...
	수력 계	6,541,335	6,737,434	769,114	...	...
	동해#1	200,000	946,433	108,040	202,801	53.3
	동해#2	200,000	907,350	103,579	199,275	52.0
	무연탄계	400,000	1,853,783	211,619	400,827	52.8
	당진#1	500,000	2,287,972	261,184	510,360	51.2
	당진#2	500,000	2,001,294	228,458	515,631	44.3
	당진#3	500,000	2,188,696	249,851	497,555	50.2
	당진#4	500,000	1,874,642	214,000	497,668	43.0
	당진#5	500,000	1,947,125	222,275	502,921	44.2
	당진#6	500,000	2,487,754	283,990	503,727	56.4
	당진#7	500,000	2,395,138	273,418	498,894	54.8
	당진#8	500,000	2,933,193	334,839	502,959	66.6
	당진#9	1,020,000	6,048,239	690,438	1,025,242	67.3
	당진#10	1,020,000	4,841,809	552,718	1,020,749	54.1
	당진 계	6,040,000	29,005,862	3,311,171	6,075,706	54.5
	보령#3	550,000	2,953,577	337,166	589,845	57.2
	보령#4	500,000	2,073,852	236,741	517,049	45.8
	보령#5	500,000	2,609,666	297,907	523,000	57.0
	보령#6	500,000	2,456,430	280,414	539,000	52.0
	보령#7	500,000	2,689,093	306,974	538,968	57.0
	보령#8	500,000	3,003,544	342,870	538,968	63.6
	보령 계	3,050,000	15,786,163	1,802,073	3,246,830	55.5
	삼척그린파워#1	1,022,000	5,413,076	617,931	1,102,434	56.1
	삼척그린파워#2	1,022,000	5,248,948	599,195	1,098,413	54.6
	삼척그린파워 계	2,044,000	10,662,024	1,217,126	2,200,847	55.3

('21.1.1~12.31)

이 용 율 (%) Plant factor	소내전력량 (MWh) Auxiliary use	소내전력률 (%) Aux. use factor	송전단전력량 (양 수 포 함) (MWh) Net generation	Items Plants
11.5	0	0.0	2,612	Sinseocheon
75.2	-	-	988	Yangyangsin
38.3	-	-	4,700	Yangyang
43.5	0	0.0	11,430	Yeongheung#1
30.8	0	0.0	12,395	Yeongheung#2
37.8	38	0.2	16,528	Yeongheung#3
19.8	0	0.0	1,561	Yecheon
17.1	-	-	3,298	Taeon#1
11.8	-	-	5,171	Taeon#2
-	-	-	-	Haengwon
...	-	-	2,758	Chusan (Island)
2.5	-	-	199	[PPA]KHNP
27.3	1,077	0.7	150,164	Total of KEPCO, Sub. small hydro
33.7	1,461	0.3	509,975	Total of Other co. small hydro
32.0	2,539	0.4	660,139	Total of small hydro
11.8	49,365	0.7	6,688,070	Total of hydro
54.0	103,689	11.0	842,744	Donghae #1
51.8	92,876	10.2	814,474	Donghae #2
52.9	196,566	10.6	1,657,217	Total of anthracite coal
52.2	139,303	6.1	2,148,669	Dangjin #1
45.7	119,334	6.0	1,881,959	Dangjin #2
50.0	129,279	5.9	2,059,417	Dangjin #3
42.8	107,542	5.7	1,767,101	Dangjin #4
44.5	113,468	5.8	1,833,658	Dangjin #5
56.8	146,677	5.9	2,341,077	Dangjin #6
54.7	123,229	5.1	2,271,909	Dangjin #7
67.0	179,276	6.1	2,753,917	Dangjin #8
67.7	326,910	5.4	5,721,330	Dangjin #9
54.2	243,598	5.0	4,598,211	Dangjin #10
54.8	1,628,616	5.6	27,377,246	Total of Dangjin
61.3	173,739	5.9	2,779,838	Boryeong #3
47.3	103,661	5.0	1,970,192	Boryeong #4
59.6	139,622	5.4	2,470,044	Boryeong #5
56.1	133,430	5.4	2,323,000	Boryeong #6
61.4	178,540	6.6	2,510,553	Boryeong #7
68.6	186,708	6.2	2,816,836	Boryeong #8
59.1	915,700	5.8	14,870,463	Total of Boryeong
60.5	366,690	6.8	5,046,386	Samcheok Greenpower #1
58.6	350,875	6.7	4,898,074	Samcheok Greenpower #2
59.5	717,564	6.7	9,944,460	Total of Samcheok Greenpower

3. 발전소별 발전 실적 (3)

('21.1.1~12.31) Power generation Results by Plants

발전소별	구분	시설용량 (kW) Generating facilities	발전량 (MWh) Gross generation	평균전력 (kW) Average load	최대전력 (kW) Peak load	부하율 (%) Load factor
	삼천포#1	-	678,180	77,418	475,000	16.3
	삼천포#2	-	691,551	78,944	553,000	14.3
	삼천포#3	560,000	2,885,400	329,384	563,000	58.5
	삼천포#4	560,000	3,694,099	421,701	566,000	74.5
	삼천포#5	500,000	1,269,712	144,944	512,000	0.0
	삼천포#6	500,000	27,699	3,162	454,000	0.0
	삼천포 계	2,120,000	9,246,641	1,055,553	3,123,000	33.8
	신보령#1	1,019,029	4,970,700	567,432	1,028,705	55.2
	신보령#2	1,019,029	7,298,681	833,183	1,034,888	80.5
	신보령 계	2,038,058	12,269,381	1,400,614	2,063,593	67.9
	신서천 계	1,018,000	3,795,672	433,296	1,086,000	39.9
	여수#1	340,000	1,973,404	225,274	351,095	64.2
	여수#2	328,600	1,642,980	187,555	338,000	55.5
	여수 계	668,600	3,616,384	412,829	689,095	59.9
	영흥#1	800,000	3,058,601	349,155	812,254	43.0
	영흥#2	800,000	4,449,061	507,884	809,167	62.8
	영흥#3	870,000	4,204,249	479,937	877,734	54.7
	영흥#4	870,000	5,716,220	652,537	874,911	74.6
	영흥#5	870,000	5,520,284	630,169	882,234	71.4
	영흥#6	870,000	6,174,882	704,895	877,744	80.3
	영흥 계	5,080,000	29,123,297	3,324,577	5,134,044	64.8
	태안#1	500,000	2,733,898	312,089	508,047	61.4
	태안#2	500,000	2,624,875	299,643	514,000	58.3
	태안#3	500,000	2,492,324	284,512	507,653	56.0
	태안#4	500,000	2,654,330	303,006	3,556,106	8.5
	태안#5	500,000	1,643,392	187,602	504,934	37.2
	태안#6	500,000	2,826,787	322,693	506,765	63.7
	태안#7	500,000	3,006,560	343,215	502,597	68.3
	태안#8	500,000	2,228,843	254,434	501,789	50.7
	태안#9	1,050,000	5,811,789	663,446	1,044,210	63.5
	태안#10	1,050,000	5,570,602	635,913	1,058,671	60.1
	태안 계	6,100,000	31,593,400	3,606,552	9,204,771	39.2
	하동#1	500,000	2,446,693	279,303	525,625	53.1
	하동#2	500,000	2,812,093	321,015	523,000	61.4
	하동#3	500,000	2,802,463	319,916	527,312	60.7
	하동#4	500,000	2,816,466	321,514	525,579	61.2
	하동#5	500,000	2,174,747	248,259	530,055	46.8
	하동#6	500,000	3,359,377	383,491	529,352	72.4
	하동#7	500,000	3,180,166	363,033	505,919	71.8
	하동#8	500,000	3,113,155	355,383	499,693	71.1
	하동 계	4,000,000	22,705,161	2,591,913	4,166,535	62.2

※ 시설용량은 없으나 발전량이 있는 경우는 시운전발전량 또는 당해연도 폐지된 발전기임

('21.1.1~12.31)

이 용 율 (%) Plant factor	소내전력량 (MWh) Auxiliary use	소내전력률 (%) Aux. use factor	송전단전력량 (양 수 포 함) (MWh) Net generation	Items / Plants	
				Items	Plants
...	42,946	6.3	635,234	Samchonpo #1	
...	52,195	7.5	639,356	Samchonpo #2	
58.8	165,777	5.7	2,719,623	Samchonpo #3	
75.3	226,984	6.1	3,467,115	Samchonpo #4	
29.0	71,135	0.0	1,198,577	Samchonpo #5	
0.6	1,828	0.0	25,871	Samchonpo #6	
49.8	560,864	6.1	8,685,777	Total of Samchonpo	
55.7	288,500	5.8	4,682,201	Sinboryeong #1	
81.8	435,786	6.0	6,862,895	Sinboryeong #2	
68.7	724,285	5.9	11,545,095	Total of Sinboryeong	
42.6	156,178	4.1	3,639,494	Total of Sinseocheon	
66.3	234,784	11.9	1,738,620	Yeosu #1	
57.1	206,791	12.6	1,436,189	Yeosu #2	
61.7	441,575	12.2	3,174,809	Total of Yeosu	
43.6	159,655	5.2	2,898,946	Yeongheung #1	
63.5	229,553	5.2	4,219,508	Yeongheung #2	
55.2	194,936	4.6	4,009,313	Yeongheung #3	
75.0	287,229	5.0	5,428,991	Yeongheung #4	
72.4	330,550	6.0	5,189,734	Yeongheung #5	
81.0	378,960	6.1	5,795,922	Yeongheung #6	
65.4	1,580,884	5.4	27,542,413	Total of Yeongheung	
62.4	129,390	4.7	2,604,507	Taeon #1	
59.9	157,392	6.0	2,467,483	Taeon #2	
56.9	146,038	5.9	2,346,286	Taeon #3	
60.6	143,564	5.4	2,510,767	Taeon #4	
37.5	86,074	5.2	1,557,317	Taeon #5	
64.5	160,747	5.7	2,666,040	Taeon #6	
68.6	150,171	5.0	2,856,389	Taeon #7	
50.9	108,444	4.9	2,120,399	Taeon #8	
63.2	285,064	4.9	5,526,725	Taeon #9	
60.6	273,960	4.9	5,296,642	Taeon #10	
59.1	1,640,844	5.2	29,952,555	Total of Taeon	
55.9	123,974	5.1	2,322,719	Hadong #1	
64.2	135,888	4.8	2,676,205	Hadong #2	
64.0	146,460	5.2	2,656,003	Hadong #3	
64.3	146,549	5.2	2,669,917	Hadong #4	
49.7	114,290	5.3	2,060,457	Hadong #5	
76.7	159,157	4.7	3,200,220	Hadong #6	
72.6	159,707	5.0	3,020,459	Hadong #7	
71.1	133,840	4.3	2,979,316	Hadong #8	
64.8	1,119,866	4.9	21,585,295	Total of Hadong	

3. 발전소별 발전실적 (4)

(*21.1.1~12.31) Power generation Results by Plants

발전소별	구분	시설용량 (kW) Generating facilities	발전량 (MWh) Gross generation	평균전력 (kW) Average load	최대전력 (kW) Peak load	부하율 (%) Load factor
	호남#1	-	1,371,942	156,614	244,164	64.1
	호남#2	-	1,389,682	158,640	247,458	64.1
	호남 계	-	2,761,624	315,254	491,622	64.1
	한전 자회사 유연탄 계	32,158,658	170,565,608	19,470,960	31,248,087	62.3
	북평#1	595,000	3,842,147	438,601	...	...
	북평#2	595,000	3,985,217	454,933	...	...
	북평 계	1,190,000	7,827,364	893,535	...	...
	고성#1	1,040,000	6,137,680	700,648	...	...
	고성#2	1,040,000	2,520,154	287,689	...	...
	고성 계	2,080,000	8,657,834	988,337	...	...
	타회사 유연탄 계	3,270,000	16,485,199	1,881,872	...	...
	유연탄 계	35,428,658	187,050,807	21,352,832	31,248,087	68.3
	석탄 계	35,828,658	188,904,590	21,564,451	31,648,914	68.1
	울산#4	400,000	447,178	51,048	386,907	13.2
	울산#5	400,000	360,612	41,166	389,007	10.6
	울산#6	400,000	686,063	78,318	384,280	20.4
	울산 계	1,200,000	1,493,853	170,531	1,054,184	16.2
	중유 계	1,200,000	1,493,853	170,531	1,054,184	16.2
	평택#1	350,000	399,408	45,595	363,000	12.6
	평택#2	350,000	355,056	40,532	363,000	11.2
	평택#3	350,000	183,932	20,997	360,000	5.8
	평택#4	350,000	238,525	27,229	368,000	7.4
	평택 계	1,400,000	1,176,921	134,352	1,402,000	9.6
	가스계	1,400,000	1,176,921	134,352	1,402,000	9.6
	기력계	38,428,658	191,575,365	21,869,334	34,105,098	64.1
	군산C/C	718,400	1,806,309	206,200	1,575,000	13.1
	보령C/C	1,350,000	1,771,074	202,177	1,319,000	15.3
	부산C/C	1,800,000	7,299,212	833,243	2,295,000	36.3
	분당C/C	922,064	2,333,351	266,364	952,541	28.0
	서울C/C	738,346	4,631,090	528,663	594,000	89.0
	서인천C/C	1,800,000	4,501,335	513,851	2,207,000	23.3
	신인천C/C	1,800,000	5,715,597	652,465	3,077,000	21.2
	안동C/C	361,600	1,670,040	190,644	445,700	42.8
	영월C/C	848,000	813,203	92,831	955,000	9.7
	울산C/C	2,071,900	7,172,735	818,805	2,450,895	33.4
	인천C/C	1,462,447	4,367,589	498,583	628,543	79.3
	일산C/C	900,000	1,227,299	140,103	797,519	17.6
	제주C/C	228,734	1,087,061	124,094	167,968	73.9
	평택C/C	868,500	5,000,035	570,780	1,031,000	55.4

(’21.1.1~12.31)

이 용 율 (%) Plant factor	소내전력량 (MWh) Auxiliary use	소내전력률 (%) Aux. use factor	송전단전력량 (양 수 포 함) (MWh) Net generation	Items Plants
...	142,596	10.4	1,229,346	Honam #1
...	129,118	9.3	1,260,564	Honam #2
...	271,714	9.8	2,489,910	Total of Honam
60.5	9,758,091	5.7	160,807,517	Total of KEPCO Sub. bituminous coal
73.7	225,702	5.9	3,616,445	Bukpyeong #1
76.5	230,303	5.8	3,754,914	Bukpyeong #2
75.1	456,005	5.8	7,371,359	Total of Bukpyeong
67.4	-	-	6,137,680	Goseong #1
27.7	-	-	2,520,154	Goseong #2
47.5	-	-	8,657,834	Total of Goseong
57.5	456,005	2.8	16,029,194	Total of Other co. bituminous coal
60.3	10,214,096	5.5	176,836,711	Total of bituminous coal
60.2	10,410,662	5.5	178,493,928	Total of coal
12.8	30,574	6.8	416,605	Ulsan #4
10.3	24,148	6.7	336,464	Ulsan #5
19.6	45,964	6.7	640,099	Ulsan #6
14.2	100,686	6.7	1,393,168	Total of Ulsan
14.2	100,686	6.7	1,393,168	Total of heavy oil
13.0	15,379	3.9	384,029	Pyeongtaek #1
11.6	12,848	3.6	342,208	Pyeongtaek #2
6.0	7,245	3.9	176,687	Pyeongtaek #3
7.8	9,877	4.1	228,648	Pyeongtaek #4
9.6	45,350	3.9	1,131,571	Total of Pyeongtaek
9.6	45,350	3.9	1,131,571	Total of L.N.G
56.9	10,556,697	5.5	181,018,668	Total of steam
28.7	48,386	2.7	1,757,923	Gunsan C/C
15.0	34,179	1.9	1,736,895	Boryeong C/C
46.3	110,959	1.5	7,188,253	Busan C/C
28.9	35,289	1.5	2,298,062	Bundang C/C
71.6	139,371	3.0	4,491,719	Seoul C/C
28.5	111,407	2.5	4,389,928	Seoincheon C/C
36.2	155,131	2.7	5,560,466	Shinincheon C/C
52.7	49,140	2.9	1,620,900	Andong C/C
10.9	26,405	3.2	786,798	Yeongwol C/C
39.5	181,985	2.5	6,990,751	Ulsan C/C
34.1	96,406	2.2	4,271,183	Incheon C/C
15.6	21,109	1.7	1,206,190	Ilsan C/C
54.3	36,466	3.4	1,050,595	Jeju C/C
65.7	113,040	2.3	4,886,995	Pyeongtaek C/C

3. 발전소별 발전 실적 (5)

(*21.1.1~12.31) Power generation Results by Plants

발전소별	구분	시설용량 (kW) Generating facilities	발전량 (MWh) Gross generation	평균전력 (kW) Average load	최대전력 (kW) Peak load	부하율 (%) Load factor
	한림C/C	105,000	467,659	53,386	105,200	50.7
	한전 자회사 복합(LNG) 합	15,974,991	49,863,590	5,692,191	15,371,122	37.0
	남제주C/C	146,245	118,190	13,492	172,595	7.8
	한전 자회사 복합(유류) 합	146,245	118,190	13,492	172,595	7.8
	한전 자회사 복합 계	16,121,236	49,981,779	5,705,683	15,543,717	36.7
	고려아연C/C	-	83,125	9,489	...	...
	광양C/C	989,200	7,903,968	902,279	...	...
	당진C/C	2,261,750	8,955,907	1,022,364	3,009,154	34.0
	동두천C/C	1,716,800	6,036,167	689,060	...	...
	부산정관에너지	45,836	13,467	1,537	...	...
	신평택C/C	863,300	5,776,478	659,415	...	...
	안산C/C	751,200	5,291,050	604,001	...	...
	영남파워	442,800	2,773,116	316,566	...	...
	오성C/C	769,830	3,128,423	357,126	...	...
	울촌C/C	1,389,700	7,060,038	805,940	1,534,850	52.5
	파주문산C/C	1,695,200	10,890,286	1,243,183	...	...
	포스코에너지C/C	3,176,000	13,492,511	1,540,241	3,598,875	42.8
	포천C/C	1,450,000	4,225,538	482,367	...	...
	포천천연C/C	874,200	4,724,059	539,276	...	...
	타사 복합(LNG) 계	16,425,816	80,354,134	9,172,846	...	...
	대산C/C	465,800	22,342	2,550	...	...
	타사 복합(유류) 계	465,800	22,342	2,550	...	...
	타사 복합 계	16,891,616	80,376,476	9,175,397	...	...
	복합화력 계	33,012,852	130,358,255	14,881,079	...	...
	고리#2	650,000	5,841,112	666,794	685,000	97.3
	고리#3	950,000	5,782,883	660,146	1,049,000	62.9
	고리#4	950,000	5,857,807	668,699	1,049,000	63.7
	고리 계	2,550,000	17,481,802	1,995,639	2,783,000	71.7
	신고리#1	1,000,000	7,208,541	822,893	1,057,264	77.8
	신고리#2	1,000,000	7,722,107	881,519	1,051,278	83.9
	신고리#3	1,400,000	9,860,438	1,125,621	1,494,324	75.3
	신고리#4	1,400,000	9,728,746	1,110,587	1,499,954	74.0
	신고리 계	4,800,000	34,519,831	3,940,620	5,102,820	77.2
	월성#2	700,000	4,976,313	568,072	630,000	90.2
	월성#3	700,000	4,917,602	561,370	663,497	84.6
	월성#4	700,000	4,494,534	513,075	631,598	81.2
	월성 계	2,100,000	14,388,449	1,642,517	1,925,095	85.3
	신월성#1	1,000,000	7,057,869	805,693	1,057,965	76.2
	신월성#2	1,000,000	8,036,482	917,407	1,053,691	87.1
	신월성 계	2,000,000	15,094,351	1,723,099	2,111,656	81.6

(’21.1.1~12.31)

이 용 율 (%) Plant factor	소내전력량 (MWh) Auxiliary use	소내전력률 (%) Aux. use factor	송전단전력량 (양 수 포 함) (MWh) Net generation	Items Plants
50.8	12,800	2.7	454,859	Hanlim C/C
35.6	1,172,073	2.4	48,691,516	Total of KEPCO Sub. C/C(LNG)
9.2	4,443	3.8	113,747	Namjeju C/C
9.2	4,443	3.8	113,747	Total of KEPCO Subsidiaries C/C(Oil)
35.4	1,176,516	2.4	48,805,263	Total of KEPCO Subsidiaries C/C
...	...	...	83,125	Goryeoayeon C/C
91.2	...	...	7,903,968	Kwangyang C/C
45.2	187,050	2.1	8,768,857	Dangjin C/C
40.1	...	...	6,036,167	Dongducheon C/C
3.4	...	...	13,467	Busanjeonggan energy
76.4	...	...	5,776,478	Sinpyeongtaek C/C
80.4	...	...	5,291,050	Ansan C/C
71.5	...	...	2,773,116	Yeongnam power
46.4	...	...	3,128,423	Oseong C/C
58.0	200,362	2.8	6,859,676	Yulchon C/C
73.3	...	...	10,890,286	Pajumunsan C/C
48.5	291,906	2.2	13,200,605	POSCO energy C/C
33.3	...	...	4,225,538	Pocheon C/C
61.7	...	...	4,724,059	Pocheoncheonyeon C/C
55.8	...	...	79,674,816	Total of Other co. C/C(LNG)
0.5	...	...	22,342	Daesan C/C
0.5	...	...	22,342	Total of Other co. C/C(Oil)
54.3	...	...	79,697,158	Total of Other co. C/C
45.1	...	...	128,502,421	Total of combined cycle
102.6	338,736	5.8	5,502,376	Kori #2
69.5	200,185	3.5	5,582,698	Kori #3
70.4	197,747	3.4	5,660,060	Kori #4
78.3	736,668	4.2	16,745,134	Total of Kori
82.3	379,580	5.3	6,828,960	Sinkori #1
88.2	405,202	5.2	7,316,905	Sinkori #2
80.4	459,893	4.7	9,400,545	Sinkori #3
79.3	475,997	4.9	9,252,748	Sinkori #4
82.1	1,720,673	5.0	32,799,159	Total of Sinkori
81.2	195,253	3.9	4,781,060	Wolsong #2
80.2	213,484	4.3	4,704,118	Wolsong #3
73.3	187,216	4.2	4,307,318	Wolsong #4
78.2	595,953	4.1	13,792,496	Total of Wolsong
80.6	358,663	5.1	6,699,206	Sinwolsong #1
91.7	436,248	5.4	7,600,234	Sinwolsong #2
86.2	794,911	5.3	14,299,440	Total of Sinwolsong

3. 발전소별 발전 실적 (6)

(*21.1.1~12.31) Power generation Results by Plants

발전소별	구분	시설용량 (kW) Generating facilities	발전량 (MWh) Gross generation	평균전력 (kW) Average load	최대전력 (kW) Peak load	부하율 (%) Load factor
	한빛#1	950,000	6,527,504	745,149	1,039,621	71.7
	한빛#2	950,000	8,829,456	1,007,929	1,032,099	97.7
	한빛#3	1,000,000	9,112,720	1,040,265	1,050,000	99.1
	한빛#4	1,000,000	-	-	-	-
	한빛#5	1,000,000	1,721,414	196,508	1,066,847	18.4
	한빛#6	1,000,000	5,759,907	657,524	1,063,340	61.8
	한빛 계	5,900,000	31,951,001	3,647,375	5,251,907	69.4
	한울#1	950,000	8,426,652	961,947	1,021,564	94.2
	한울#2	950,000	6,545,207	747,170	1,015,905	73.5
	한울#3	1,000,000	6,094,030	695,666	1,055,000	65.9
	한울#4	1,000,000	6,530,204	745,457	1,060,000	70.3
	한울#5	1,000,000	7,792,551	889,561	1,056,000	84.2
	한울#6	1,000,000	9,191,152	1,049,218	1,056,000	99.4
	한울 계	5,900,000	44,579,796	5,089,018	6,264,469	81.2
	원자력 계	23,250,000	158,015,230	18,038,268	23,349,873	77.3
한전·자회사	태양광	328,749	492,566	56,229	401,416	14.0
	풍력	168,350	195,445	22,311	144,239	15.5
	바이오매스(영동#1 포함)	355,000	2,060,844	235,256	352,199	66.8
	* 영동#1	125,000	599,122	68,393	124,057	55.1
	* 영동#2	200,000	1,278,483	145,946	202,595	72.0
	바이오중유	350,000	1,407,803	160,708	360,200	44.6
	* 남제주#1	100,000	301,765	34,448	101,500	33.9
	* 남제주#2	100,000	464,926	53,074	101,100	52.5
	* 제주기력#2	75,000	319,145	36,432	79,000	46.1
	* 제주기력#3	75,000	321,967	36,754	80,000	45.9
	연료전지	305,110	1,993,415	227,559	384,976	59.1
석탄액화가스(태안IGCC)	346,330	2,190,755	250,086	389,300	64.2	
	한전·자회사 신재생 계	1,853,539	8,340,828	952,149	2,032,330	46.9
타사	태양광	18,192,399	21,329,922	2,434,923	...	...
	풍력	1,539,693	2,974,394	339,543	...	...
	해양에너지	255,500	454,968	51,937	...	...
	바이오매스	741,032	3,449,911	393,825	...	...
	연료전지	431,999	2,551,534	291,271	...	...
		타사 신재생 계	21,160,623	30,760,728	3,511,499	...
합계	태양광 계	18,521,148	21,822,488	2,491,152	...	...
	풍력 계	1,708,043	3,169,838	361,854	...	...
	해양에너지 계	255,500	454,968	51,937	...	...
	바이오매스 계	1,096,032	5,510,755	629,082	...	...
	바이오중유 계	350,000	1,407,803	160,708	...	...
	연료전지 계	737,109	4,544,950	518,830	...	...
	석탄액화가스 계	346,330	2,190,755	250,086	...	...
		신재생 계	23,014,162	39,101,556	4,463,648	...

(’21.1.1~12.31)

이 용 율 (%) Plant factor	소내전력량 (MWh) Auxiliary use	소내전력률 (%) Aux. use factor	송전단전력량 (양 수 포 함) (MWh) Net generation	Items Plants
78.4	249,258	3.8	6,278,246	Hanbit #1
106.1	354,391	4.0	8,475,065	Hanbit #2
104.0	457,034	5.0	8,655,686	Hanbit #3
-	-	-	-	Hanbit #4
19.7	96,760	5.6	1,624,654	Hanbit #5
65.8	334,472	5.8	5,425,436	Hanbit #6
61.8	1,491,914	4.7	30,459,087	Total of Hanbit
101.3	374,858	4.4	8,051,794	Hanul #1
78.6	284,262	4.3	6,260,945	Hanul #2
69.6	320,573	5.3	5,773,458	Hanul #3
74.5	347,335	5.3	6,182,869	Hanul #4
89.0	408,824	5.2	7,383,727	Hanul #5
104.9	482,710	5.3	8,708,442	Hanul #6
86.3	2,218,562	5.0	42,361,234	Total of Hanul
77.6	7,558,681	4.8	150,456,549	Total of nuclear
17.1	3,476	0.7	489,090	Solar
13.3	2,518	1.3	192,926	Wind power
66.3	181,918	8.8	1,878,926	Biomass
54.7	38,637	6.4	560,485	Yeongdong #1
73.0	115,939	9.1	1,162,544	Yeongdong #2
45.9	122,983	8.7	1,284,819	Bio heavy oil
34.4	24,523	8.1	277,242	Namjeju #1
53.1	36,006	7.7	428,920	Namjeju #2
48.6	30,817	9.7	288,328	Jeju #2
49.0	31,637	9.8	290,330	Jeju #3
74.6	45,507	2.3	1,947,909	Fuel cell
72.2	513,048	23.4	1,677,707	IGCC
51.4	869,451	10.4	7,471,377	Total of KEPCO Sub.New&Renewable
13.4	...	...	21,329,922	Solar
22.1	...	...	2,974,394	Wind power
20.3	...	...	454,968	Ocean energy
53.1	117,214	3.4	3,332,697	Biomass
67.4	...	...	2,551,531	Fuel cell
16.6	...	...	30,643,511	Total of Other Co.New&Renewable energy
13.5	...	...	21,819,012	Total of Solar
21.2	...	...	3,167,320	Total of Wind power
20.3	...	...	454,968	Total of Ocean energy
57.4	...	...	5,211,622	Total of Biomass
45.9	...	...	1,284,819	Total of Bio heavy oil
70.4	...	...	4,499,440	Total of Fuel cell
72.2	...	...	1,677,707	Total of IGCC
19.4	...	...	38,114,888	Total of New&Renewable energy

3. 발전소별 발전실적 (7)

(21.1.1~12.31) Power generation Results by Plants

발전소별	구분	시설용량 (kW) Generating facilities	발전량 (MWh) Gross generation	평균전력 (kW) Average load	최대전력 (kW) Peak load	부하율 (%) Load factor
	세종열병합	530,441	3,626,727	414,010	258,850	159.9
	한전 자회사 집단(LNG) 계	530,441	3,626,727	414,010	258,850	159.9
	구미열병합	97,100	569,497	65,011	...	...
	금호여수열병합	264,100	1,353,928	154,558	...	...
	김천열병합	59,000	311,161	35,521	...	...
	대구염색	72,900	2,450	280	...	...
	데이원에너지	48,400	57,192	6,529	...	...
	반월열병합	83,455	412,177	47,052	...	...
	부산염색	19,000	23,827	2,720	...	...
	상공에너지열병합	9,800	45,966	5,247	...	...
	새만금열병합	303,000	2,163,420	246,966	...	...
	여수열병합	-	367,008	41,896	...	...
	전북집단에너지	19,000	116,327	13,279	...	...
	포천그린에너지	169,900	968,310	110,538	...	...
	SGC에너지	363,569	4,084,482	466,265	...	...
	타사 집단(석탄) 계	1,509,224	10,475,745	1,195,861	...	...
	대구열병합	43,500	98,316	11,223	...	...
	무림열병합	26,300	88,850	10,143	...	...
	수원열병합	43,200	37,114	4,237	...	...
	청주열병합	58,300	63,607	7,261	...	...
	타사 집단(유류) 계	171,300	287,887	32,864	...	...
	광교열병합	144,788	589,776	67,326	...	...
	노원열병합	37,000	53,167	6,069	...	...
	논현열병합	24,000	14,190	1,620	...	...
	대구그린파워	370,700	2,547,223	290,779	...	...
	대전서남부열병합	48,300	75,472	8,616	...	...
	동탄열병합	756,760	4,960,580	566,276	...	...
	동남권열병합#1	-	4,624	528	...	...
	명품오산열병합	436,100	2,939,942	335,610	...	...
	목동열병합	21,000	531	61	...	...
	별내열병합	115,410	395,977	45,203	...	...
	부천복합	450,000	1,277,619	145,847	...	...
	상암열병합	-	1	0	...	...
	송도복합	187,300	809,219	92,377	...	...
	수원에너지	115,246	360,091	41,106	...	...
	신정열병합	6,000	-	-	...	...
	아산배방열병합	101,700	239,728	27,366	...	...
	안산열병합	60,000	9,627	1,099	...	...

('21.1.1~12.31)

이 용 율 (%) Plant factor	소내전력량 (MWh) Auxiliary use	소내전력률 (%) Aux. use factor	송전단전력량 (양 수 포 함) (MWh) Net generation	Items Plants
78.1	97,692	2.7	3,529,035	Sejong
78.1	97,692	2.7	3,529,035	Total of KEPCO Subsidiary Group energy
67.0	569,497	Gumi
58.5	1,353,928	Gumhoyeosu
60.2	311,161	Gimcheon
0.4	2,450	Daeguyeomsaek
13.5	57,192	Dayone
56.4	412,177	Banwol
14.3	23,827	Busan
53.5	45,966	Sanggong
81.5	2,163,420	Saemangum
...	367,008	Yeosu
69.9	116,327	Jeonbuk
65.1	968,310	Pocheon
128.2	4,084,482	SGC
79.2	10,475,745	Total of Other co. Group energy(Coal)
25.8	98,316	Daegu
38.6	88,850	Murim
9.8	37,114	Suwon
12.5	63,607	Cheongju
19.2	287,887	Total of Other co. Group energy(Oil)
46.5	589,776	Gwanggyo
16.4	53,167	Nowon
6.7	14,190	Nonhyeon
78.4	2,547,223	Daegugreenpower
17.8	75,472	Daejeonseonambu
74.8	4,960,580	Dongtan
...	4,624	Dongnamkweon
77.0	2,939,942	Myeongpumosan
0.3	531	Mokdong
39.2	395,977	Byeolnae
32.4	28,324	2.2	1,249,295	Bucheon
...	1	Sangam
49.3	809,219	Songdo
35.7	360,091	Suwan
-	-	Sinjeong
26.9	239,728	Asanbaebang
1.8	9,627	Ansan

3. 발전소별 발전실적 (8)

(*21.1.1~12.31) Power generation Results by Plants

구분	시설용량 (kW) Generating facilities	발전량 (MWh) Gross generation	평균전력 (kW) Average load	최대전력 (kW) Peak load	부하율 (%) Load factor
발전소별					
안양복합	-	373,760	42,667	...	...
안양열병합	963,380	3,577,127	408,348	...	...
양주열병합	524,300	1,088,059	124,208	...	...
위례열병합	412,600	2,960,830	337,994	...	...
인천공항열병합	127,000	431,579	49,267	...	...
춘천열병합	431,200	2,904,693	331,586	...	...
파주열병합	515,500	2,644,033	301,830	...	...
판교열병합	146,314	893,189	101,962	...	...
하남열병합	363,811	1,833,932	209,353	...	...
화성열병합	511,800	2,206,843	251,923	...	...
타사 집단(LNG) 계	6,870,209	33,191,813	3,789,020	...	...
여천 NCC	...	261,224	29,820	...	...
타사 집단(부생가스) 계	...	261,224	29,820	...	...
대전열병합	88,000	50,858	5,806	...	...
SGC에너지#3	60,000	431,534	49,262	...	...
타사 집단(기타) 계	148,000	482,393	55,068	...	...
타사 집단 계	8,698,733	44,699,062	5,102,633	...	...
집단 계	9,229,174	48,325,789	5,516,643	...	...
제주내연(중부)	80,000	192,464	21,971	82,200	26.7
한전 도서 내연(D/P)	96,810	298,233	34,045	54,221	62.8
내연력 계	176,810	490,697	56,016	128,042	43.7
폐기물에너지(원주그린)	10,000	65,846	7,517	13,081	57.5
한전 자회사 기타 계	10,000	65,846	7,517	13,081	57.5
부생가스	30,300	-	-	...	...
폐기물에너지	307,804	984,383	112,372	...	...
기타	18,680	130,996	14,954	...	...
타사 기타 계	356,784	1,115,378	127,326	...	...
기타 ¹⁾ 계	366,784	1,181,224	134,843	...	...
한전, 자회사계	82,459,277	400,373,182	45,704,701	78,846,513	58.0
타사계	51,560,498	175,412,367	20,024,243	...	...
기타 상용자가(LNG)	...	165,423	18,884	...	...
기타 상용자가(부생가스)	...	829,649	94,709	...	...
기타 상용자가(폐기물)	...	28,867	3,295	...	...
기타 상용자가 계 ²⁾	...	1,023,939	116,888	...	...
총계	134,019,775	576,809,488	65,845,832	...	...

1) 기타는 가스압터빈, 여열회수발전, 폐열활용 발전, 부생가스, 폐기물에너지 등임

- 신재생에너지법 개정으로 폐기물에너지를 '20.1월부터 신재생에서 기타로 분류

2) 상용자가 발전사업자 한전의 구입전력량만으로 산출

('21.1.1~12.31)

이 용 율 (%) Plant factor	소내전력량 (MWh) Auxiliary use	소내전력률 (%) Aux. use factor	송전단전력량 (양 수 포 함) (MWh) Net generation	Items Plants	
...	5,345	1.4	368,415	Anyang	
42.4	75,869	2.1	3,501,258	Anyang	
23.7	...	...	1,088,059	Yangju	
81.9	...	...	2,960,830	Wirye	
38.8	...	...	431,579	Incheongonghang	
76.9	...	...	2,904,693	Chuncheon	
58.6	...	...	2,644,033	Paju	
69.7	...	...	893,189	Pangyo	
57.5	...	...	1,833,932	Hanam	
49.2	...	...	2,206,843	Hwaseong	
55.2	...	...	33,082,276	Total of Other co. Group energy(LNG)	
...	...	...	261,224	Yeocheon	
...	...	...	261,224	By-Product gas. Group energy	
6.6	...	...	50,858	Daejeon	
82.1	...	...	431,534	SGC #3	
37.2	...	...	482,393	Total of Other co. Group energy(Others)	
58.7	...	...	44,589,525	Total of Other co. Group energy	
59.8	...	...	48,118,560	Total of Group energy	
27.5	11,406	5.9	181,058	Jeju D/P	
35.2	18,085	6.1	280,148	Internal combustion in island	
31.7	29,491	6.0	461,206	Total of internal combustion	
75.2	10,148	15.4	55,698	Waste-burnup	
75.2	10,148	15.4	55,698	Total of KEPCO Sub. Others	
-	...	...	-	By-product gas	
36.5	...	...	984,383	Waste-burnup	
80.1	...	...	130,996	Others	
35.7	...	...	1,115,378	Total of Other co. Others	
36.8	...	...	1,171,076	Total of Others	
55.4	19,865,598	5.0	380,507,584	Total of KEPCO & Subsidiaries	
38.8	...	...	174,023,853	Total of Other Co.	
...	...	...	165,423	Non-utility generation(LNG)	
...	...	...	829,649	Non-utility generation(Product-gas)	
...	...	...	28,867	Non-utility generation(Waste)	
...	...	...	1,023,939	Total of Non-utility generation	
49.1	21,254,113	3.68	555,555,376	Total	

1) waste heat, remaining heat, Natural gas Pressure Turbine included in Others
 - Waste energy is classified as others from Jan. 2020 by New&Renewable energy law
 2) Computed based on the purchased power only(Non-utility generation in common use)

4. 회사별 설비 및 발전 현황(2021)

(단위: kW, MWh) Generation Capacity & Power Generation by Companies

구 분 Items	수 력 Hydro			석 탄 화 력 Coal			유류 및 가스 화력 Heavy Oil & LNG		
	발전소 Plants	용량 Capacity	발전량 Power Generation	발전소 Plants	용량 Capacity	발전량 Power Generation	발전소 Plants	용량 Capacity	발전량 Power Generation
남동발전 KOSEF	삼천포소수력 영흥소수력	5,000 12,599	16,403 40,391	삼천포#3~6 영 흥#1~6 여 수#1~2	2,120,000 5,080,000 668,600	9,246,641 29,123,297 3,616,384			
중부발전 KOMIPO	보령소수력 신보령소수력 신서천화력소수력	7,500 5,000 2,586	10,135 16,872 2,613	보 령 #3~8 신서천#1 신보령#1~2	3,050,000 1,018,000 2,038,058	15,786,163 3,795,672 12,269,381			
서부발전 KOWEPO	태안소수력	7,200	8,469	태 안 #1~10	6,100,000	31,593,400	평택 #1~4	1,400,000	1,176,921
남부발전 KOSPO	행원소수력 삼척그린파워 해양소수력	60 2,750	- 13,449	하 동 #1~8 삼척그린파워#1,2	4,000,000 2,044,000	22,705,161 10,662,024			
동서발전 KEWESPO	당진화력소수력	8,198	4,449	동 해 #1,2 호 남 #1,2 당 진 #1~10	400,000 - 6,040,000	1,853,783 2,761,624 29,005,862	울 산 #4~6	1,200,000	1,493,853
수력원자력 KHNP	화천 춘천 의암 청평 팔당 강릉 칠보 괴산 소수력 보성강 소수력 기타 소수력	108,000 62,280 48,000 140,100 120,000 82,000 35,000 2,600 4,500 5,220	131,390 82,581 102,526 210,447 328,383 - 72,409 8,736 15,550 11,416	무주양수 양양양수 삼랑진양수 청송양수 청평양수 산청양수 예천양수	600,000 1,000,000 600,000 600,000 400,000 700,000 800,000	632,840 941,183 581,525 466,389 327,216 733,781 -			
한국전력 KEPCO (음영부분)	추산(수력)	-	2,758						
한전 및 자회사 계	수 력 양 수	658,593 4,700,000	1,078,977 3,682,932	무 연 탄 유 연 탄	400,000 32,158,658	1,853,783 170,565,608	유류 L N G	1,200,000 1,400,000	1,493,853 1,176,921
Sub total	계	5,358,593	4,761,910	계	32,558,658	172,419,391	계	2,600,000	2,670,774
타사 Others	수자원 수자원소수력 GS파워소수력 기타소수력	1,009,600 103,057 1,030 69,055	1,464,088 324,246 7,519 179,672	북평화력#1,2 고성#1,2	1,190,000 2,080,000	7,827,364 8,657,834	집단(LNG) 집단(석탄) 집단(유류) 집단(부생) 집단(기타) 부생가스 폐기물에너지 기타 기타상용자가	6,870,209 1,509,224 171,300 - 148,000 30,300 307,804 18,680 -	33,191,813 10,475,745 287,887 261,224 482,393 - 984,383 130,996 1,023,939
	계	1,182,742	1,975,525		3,270,000	16,485,199	계		
발전원별 계 Total		6,541,335	6,737,434		35,828,658	188,904,590		2,600,000	2,670,774

1) 집단, 부생가스, 폐기물에너지, 기타, 기타상용자기는 복합/집단으로 포함

(unit:kW,MWh)

내연 및 복합/집단 ¹⁾ C/C & Internal Combustion/Group Energy			원자력 및 신재생 Nuclear & New&Renewabale energy			발전량 계 Total	
발전소 Plants	용량 Capacity	발전량 Power Generation	발전소 Plants	용량 Capacity	발전량 Power Generation	(용량 계) (Capacity Total)	점유율 Ratio (%)
(복 합) 분 당 C/C	922,064	2,333,351	태양광 풍력 바이오 연료전지	49,745 58,300 325,000 51,910	45,668 55,634 1,877,605 335,274	46,690,648 (9,293,218)	8.1 (6.9)
제주 내연 (복 합) 보 령 C/C 인 천 C/C 서 울 C/C 제주LNG C/C (집 단) 세종천연가스 (기 타) 폐기물에너지	80,000 1,350,000 1,462,447 738,346 228,734 530,441 10,000	192,464 1,771,074 4,367,589 4,631,090 1,087,061 3,626,727 65,846	태양광 풍력 바이오 연료전지	16,927 32,800 150,000 34,600	18,044 32,851 641,112 270,789	48,585,482 (10,755,439)	8.4 (8.0)
(복 합) 군 산 C/C 평 택 C/C 서인천 C/C	718,400 868,500 1,800,000	1,806,309 5,000,035 4,501,335	태양광 풍력 연료전지 석탄액화가스	77,799 34,000 88,360 346,330	223,897 29,543 506,646 2,190,755	47,037,310 (11,440,589)	8.2 (8.5)
(복 합) 영 월 C/C 신인천 C/C 부 산 C/C 안 동 C/C 한 립 C/C 남제주 C/C	848,000 1,800,000 1,800,000 361,600 105,000 146,245	813,203 5,715,597 7,299,212 1,670,040 467,659 118,190	태양광 풍력 바이오 연료전지	49,352 39,500 200,000 78,960	53,511 74,132 766,691 622,338	50,981,206 (11,475,467)	8.8 (8.6)
(복 합) 일 산 C/C 울 산 C/C	900,000 2,071,900	1,227,299 7,172,735	태양광 풍력 바이오 연료전지	71,618 3,000 30,000 51,280	78,793 3,285 183,239 258,369	44,043,291 (10,775,996)	7.6 (8.0)
			(원자력) 고리#2~4 신고리#1~4 월성#2~4 한빛#1~6 한울#1~6 신월성#1~2 (신재생) 태양광 풍력	2,550,000 4,800,000 2,100,000 5,900,000 5,900,000 2,000,000 61,937 750	17,481,802 34,519,831 14,388,449 31,951,001 44,579,796 15,094,351 71,705 -	162,733,306 (28,620,387) 301,939	28.2 (21.4) 0.05
한전도서내연	96,810	298,233	한전태양광	1,371	948	(98,181)	(0.1)
내연력 복합/집단	176,810 16,661,677	490,697 53,674,352	원자력 신재생에너지	23,250,000 1,853,539	158,015,230 8,340,828	400,373,182 (82,459,277)	69.4 (61.5)
계	16,838,487	54,165,049	계	25,103,539	166,356,058		
광양복합 당진복합 대산복합 동두천복합 신평택복합 안산복합 오성복합 울촌복합 파주문산복합 포스코에너지복합 포천복합 포천천연복합 기타 복합	989,200 2,261,750 465,800 1,716,800 863,300 751,200 769,830 1,389,700 1,695,200 3,176,000 1,450,000 874,200 488,636	7,903,968 8,955,907 22,342 6,036,167 5,776,478 5,291,050 3,128,423 7,060,038 10,890,286 13,492,511 4,225,538 4,724,059 2,869,708	태양광 풍력 해양에너지(조력) 바이오매스 연료전지	18,192,399 1,539,693 255,500 741,032 431,999	21,329,922 2,974,394 454,968 3,449,911 2,551,534		
계	25,947,133	127,214,854	계	21,160,623	30,760,728	176,436,306 (51,560,498)	30.6 (38.5)
	42,785,620	181,379,903		46,264,162	197,116,786	576,809,488 (134,019,775)	100.0 (100.0)

5. 발전연료 사용량 추이

Trends in Fuel Consumption

구분 연도별	중 유 Heavy oil				경 유 Diesel oil	
	B.C 유 (kl) Bunker C	기타중유 (kl) Others	사 용 량 계 (kl) Total consumption	발열량 (kcal/l) Caloric- value	사 용 량 (kl) Consumption	발열량 (kcal/l) Caloric- value
1961	37,382	-	37,382	9,493	746	9,059
2004	3,681,635	518,815	4,200,449	9,610	139,386	8,982
2005	3,578,026	472,999	4,051,023	9,629	116,558	8,994
2006	3,547,138	86,265	3,633,402	9,897	156,075	8,907
2007	3,899,079	-	3,899,079	9,972	119,848	8,908
2008	2,034,572	28	2,034,600	9,965	106,928	8,828
2009	2,943,672	-	2,943,672	9,940	112,178	8,743
2010	2,693,701	16,958	2,710,659	9,975	113,687	8,782
2011	2,050,365	-	2,050,365	9,996	123,832	8,770
2012	3,272,119	-	3,272,119	9,766	140,700	8,903
2013	3,401,690	-	3,401,690	9,963	149,123	8,874
2014	1,581,186	-	1,581,186	9,928	110,897	8,781
2015	1,850,640	-	1,850,640	10,028	111,411	8,894
2016	2,783,521	-	2,783,521	9,768	155,203	9,452
2017	927,885	-	927,885	10,003	173,561	8,993
2018	1,013,229	-	1,013,229	10,069	215,128	8,932
2019	361,925	-	361,925	9,960	322,568	8,924
2020	283,175	-	283,175	9,872	168,777	8,929
2021	290,828	-	290,828	9,840	206,882	8,951
1	43,702	-	43,702	9,838	14,526	8,985
2	13,735	-	13,735	9,881	13,301	8,948
3	3,345	-	3,345	10,089	19,041	9,002
4	11,592	-	11,592	9,915	18,573	8,902
5	15,865	-	15,865	9,667	16,295	8,944
6	17,306	-	17,306	9,941	23,176	8,980
7	59,359	-	59,359	9,939	19,412	8,962
8	12,034	-	12,034	9,853	13,167	8,949
9	46,695	-	46,695	9,770	14,257	8,943
10	37,996	-	37,996	9,671	18,637	8,963
11	22,925	-	22,925	9,912	22,018	8,900
12	6,274	-	6,274	9,980	14,478	8,931

※ 한전, 발전 5개사, 민간 4개사(포스코에너지, GS EPS, GS POWER, 씨지앤올촌) 실적

무 연 탄 Anthracite coal		유 연 탄 Bituminous coal		L N G		사용열량 합 계 (10 ⁹ kcal) Total of Caloric- value	Items During
사 용 량 (t) Consu- mption	발열량 (kcal/kg) Caloric- value	사 용 량 (t) Consu- mption	발열량 (kcal/kg) Caloric- value	사 용 량 (t) Consu- mption	발열량 (kcal/kg) Caloric- value		
803,124	4,641	24,680	6,700	-	-	-	1961
2,411,721	4,688	45,514,971	5,897	8,220,852	13,012	428,316	2004
2,359,492	4,629	47,937,342	5,904	8,537,926	13,026	445,224	2005
2,345,136	4,560	50,258,470	5,868	9,466,086	13,011	466,474	2006
2,392,411	4,545	55,949,781	5,871	10,828,751	13,034	520,452	2007
2,534,021	4,755	63,238,083	5,817	10,515,372	13,043	538,041	2008
2,690,328	4,591	71,092,318	5,761	8,596,732	13,220	565,830	2009
2,404,050	4,456	76,402,994	5,555	12,914,479	13,052	631,699	2010
1,658,801	4,723	79,854,167	5,433	13,609,052	13,221	645,743	2011
1,796,721	4,750	78,804,624	5,057	15,320,734	13,273	643,652	2012
1,728,664	5,440	78,759,805	5,552	17,004,866	13,132	705,183	2013
2,043,992	5,549	77,687,852	5,617	12,497,193	12,659	622,574	2014
2,125,486	5,706	79,432,656	5,607	8,763,724	12,735	588,697	2015
2,528,364	5,563	78,044,996	5,575	8,283,596	13,468	589,366	2016
1,078,762	5,387	89,217,393	5,479	8,161,279	13,158	612,870	2017
991,627	5,265	89,549,253	5,373	9,889,858	13,096	628,043	2018
1,164,840	5,179	83,321,351	5,505	8,890,733	12,967	586,479	2019
971,161	5,090	69,093,952	5,597	10,144,036	13,335	531,237	2020
899,642	5,148	66,877,894	5,563	12,461,751	13,083	544,423	2021
107,700	5,228	6,219,749	5,616	1,313,472	13,095	53,252	1
62,208	5,096	4,899,636	5,555	1,025,603	13,128	41,252	2
66,243	5,282	4,510,821	5,546	1,039,559	12,664	38,738	3
55,746	5,107	4,241,264	5,554	971,373	13,118	36,863	4
111,779	4,989	4,749,889	5,589	884,014	13,105	38,988	5
70,131	4,966	5,586,805	5,600	1,003,227	13,134	45,192	6
121,327	5,243	7,186,569	5,633	1,229,225	13,122	58,012	7
121,389	5,091	7,046,591	5,614	1,039,216	13,123	54,052	8
30,242	5,453	5,610,941	5,550	986,801	13,136	44,851	9
43,668	5,148	5,114,671	5,514	973,288	13,141	41,753	10
109,208	5,192	5,468,428	5,541	970,887	13,123	44,034	11
-	-	6,242,529	5,414	1,025,086	13,117	47,437	12

※ KEPCO & Subsidiaries, other 4 companies

6. 발전소별 연료사용 실적 (1)

('21.1.1~12.31) Fuel Consumption by Plants

구 분 발전소별	사 용 량 consumption				발 열 량 Caloric value			
	석 탄 (t) Coal	중 유 (kl) Heavy oil	경 유 (kl) Diesel oil	L. N. G (t)	석 탄 (kcal/kg) Coal	중 유 (kcal/l) Heavy oil	경 유 (kcal/l) Diesel oil	L. N. G (kcal/kg)
동해#1	455,981	-	1,370	-	5,145	-	8,752	-
동해#2	436,230	-	1,311	-	5,152	-	8,719	-
무연탄 계	892,211	-	2,681	-	5,149	-	8,736	-
당진#1	923,861	-	1,188	-	5,660	-	8,717	-
당진#2	791,854	-	2,207	-	5,654	-	8,704	-
당진#3	880,931	-	1,872	-	5,603	-	8,718	-
당진#4	740,991	-	1,725	-	5,673	-	8,608	-
당진#5	770,717	-	1,962	-	5,658	-	8,719	-
당진#6	990,490	-	1,487	-	5,662	-	8,698	-
당진#7	961,051	-	1,790	-	5,655	-	8,694	-
당진#8	1,159,388	-	1,080	-	5,662	-	8,693	-
당진#9	2,343,529	-	2,293	-	5,615	-	8,709	-
당진#10	1,855,398	-	2,424	-	5,601	-	8,711	-
보령#3	1,136,215	-	-	-	5,661	-	-	-
보령#4	830,422	-	-	-	5,665	-	-	-
보령#5	1,044,414	-	-	-	5,654	-	-	-
보령#6	990,253	-	-	-	5,665	-	-	-
보령#7	1,037,164	-	-	-	5,723	-	-	-
보령#8	1,157,726	-	-	-	5,705	-	-	-
삼척그린파워#1	2,321,893	-	-	-	4,857	-	-	-
삼척그린파워#2	2,322,353	-	-	-	4,732	-	-	-
삼천포#1	280,512	-	1,360	-	5,538	-	8,775	-
삼천포#2	296,182	-	52	-	5,559	-	8,794	-
삼천포#3	1,210,291	-	1,661	-	5,581	-	8,777	-
삼천포#4	1,551,774	-	1,209	-	5,584	-	8,746	-

('21. 1. 1 ~ 12.31)

사 용 열 량 Caloric Consumption (10 ⁶ kcal)					Items Plants
석 탄 Coal	중 유 Heavy oil	경 유 Diesel oil	L. N. G	계 Total	
2,346,014	-	11,989	-	2,358,003	Donghae #1
2,247,545	-	11,431	-	2,258,976	Donghae #2
4,593,560	-	23,420	-	4,616,980	Total of anthracite coal
5,229,404	-	10,360	-	5,239,764	Dangjin #1
4,476,754	-	19,210	-	4,495,964	Dangjin #2
4,935,804	-	16,322	-	4,952,126	Dangjin #3
4,203,664	-	14,851	-	4,218,515	Dangjin #4
4,360,502	-	17,104	-	4,377,606	Dangjin #5
5,607,734	-	12,934	-	5,620,668	Dangjin #6
5,434,501	-	15,562	-	5,450,063	Dangjin #7
6,564,186	-	9,390	-	6,573,575	Dangjin #8
13,158,455	-	19,972	-	13,178,427	Dangjin #9
10,392,263	-	21,112	-	10,413,376	Dangjin #10
6,432,358	-	-	-	6,432,358	Boryeong #3
4,704,120	-	-	-	4,704,120	Boryeong #4
5,904,694	-	-	-	5,904,694	Boryeong #5
5,610,206	-	-	-	5,610,206	Boryeong #6
5,935,439	-	-	-	5,935,439	Boryeong #7
6,605,006	-	-	-	6,605,006	Boryeong #8
11,278,486	-	-	-	11,278,486	Samcheok Greenpower #1
10,990,183	-	-	-	10,990,183	Samcheok Greenpower #2
1,553,602	-	11,930	-	1,565,532	Samchonpo #1
1,646,583	-	457	-	1,647,040	Samchonpo #2
6,754,554	-	14,578	-	6,769,132	Samchonpo #3
8,664,458	-	10,577	-	8,675,035	Samchonpo #4

6. 발전소별 연료사용 실적 (2)

('21.1.1~12.31) Fuel Consumption by Plants

구 분 발전소별	사 용 량 consumption				발 열 량 Caloric value			
	석 탄 (t) Coal	중 유 (kl) Heavy oil	경 유 (kl) Diesel oil	L. N. G (t)	석 탄 (kcal/kg) Coal	중 유 (kcal/l) Heavy oil	경 유 (kcal/l) Diesel oil	L. N. G (kcal/kg)
삼천포#5	519,049	-	3,050	-	5,487	-	8,764	-
삼천포#6	12,007	-	278	-	5,367	-	8,767	-
신보령#1	1,934,698	-	2,957	-	5,355	-	8,656	-
신보령#2	2,787,002	-	1,732	-	5,329	-	8,687	-
신서천#1	993,110	-	8,389	-	5,450	-	9,015	-
여수#1	1,099,267	-	1,193	-	4,266	-	8,917	-
여수#2	849,369	-	1,313	-	4,717	-	8,917	-
영흥#1	1,165,333	-	9,588	-	5,696	-	9,213	-
영흥#2	1,704,385	-	4,552	-	5,698	-	9,213	-
영흥#3	1,595,230	-	1,730	-	5,715	-	9,213	-
영흥#4	2,191,541	-	3,570	-	5,703	-	9,213	-
영흥#5	2,178,376	-	6,554	-	5,488	-	9,096	-
영흥#6	2,450,245	-	5,379	-	5,463	-	9,062	-
태안#1	1,028,529	-	1,501	-	5,939	-	8,706	-
태안#2	975,286	-	3,525	-	5,935	-	8,807	-
태안#3	915,443	-	1,207	-	5,959	-	8,806	-
태안#4	989,730	-	2,227	-	5,923	-	8,814	-
태안#5	590,563	-	2,930	-	5,964	-	8,864	-
태안#6	1,046,676	-	1,195	-	5,912	-	8,870	-
태안#7	1,110,824	-	2,320	-	5,927	-	8,821	-
태안#8	837,698	-	1,612	-	5,940	-	8,811	-
태안#9	2,294,716	-	4,991	-	5,573	-	8,817	-
태안#10	2,165,602	-	3,653	-	5,563	-	8,759	-
하동#1	925,534	-	-	-	5,848	-	-	-
하동#2	1,066,291	-	-	-	5,841	-	-	-
하동#3	1,079,164	-	-	-	5,814	-	-	-

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사 용 열 량 Caloric Consumption (10 ⁶ kcal)					Items
석 탄 Coal	중 유 Heavy oil	경 유 Diesel oil	L. N. G	계 Total	Plants
2,848,199	-	26,730	-	2,874,929	Samchonpo #5
64,442	-	2,441	-	66,883	Samchonpo #6
10,359,457	-	25,600	-	10,385,057	Sinboryeong #1
14,851,468	-	15,044	-	14,866,513	Sinboryeong #2
5,412,208	-	75,628	-	5,487,836	Sinseocheon #1
4,689,896	-	10,636	-	4,700,532	Yeosu #1
4,006,540	-	11,711	-	4,018,251	Yeosu #2
6,637,417	-	88,338	-	6,725,756	Yeongheung #1
9,711,699	-	41,935	-	9,753,634	Yeongheung #2
9,116,224	-	15,934	-	9,132,158	Yeongheung #3
12,497,618	-	32,888	-	12,530,505	Yeongheung #4
11,955,276	-	59,615	-	12,014,891	Yeongheung #5
13,386,693	-	48,742	-	13,435,434	Yeongheung #6
6,108,743	-	13,068	-	6,121,810	Taeon #1
5,788,641	-	31,047	-	5,819,688	Taeon #2
5,455,027	-	10,626	-	5,465,653	Taeon #3
5,862,536	-	19,632	-	5,882,168	Taeon #4
3,522,409	-	25,968	-	3,548,376	Taeon #5
6,187,536	-	10,603	-	6,198,138	Taeon #6
6,583,628	-	20,463	-	6,604,091	Taeon #7
4,976,245	-	14,203	-	4,990,448	Taeon #8
12,787,372	-	44,008	-	12,831,380	Taeon #9
12,047,156	-	32,000	-	12,079,156	Taeon #10
5,412,244	-	-	-	5,412,244	Hadong #1
6,228,411	-	-	-	6,228,411	Hadong #2
6,274,675	-	-	-	6,274,675	Hadong #3

6. 발전소별 연료사용 실적 (3)

('21.1.1~12.31) Fuel Consumption by Plants

구 분 발전소별	사 용 량 consumption				발 열 량 Caloric value			
	석 탄 (t) Coal	중 유 (kl) Heavy oil	경 유 (kl) Diesel oil	L. N. G (t)	석 탄 (kcal/kg) Coal	중 유 (kcal/l) Heavy oil	경 유 (kcal/l) Diesel oil	L. N. G (kcal/kg)
하동#4	1,096,745	-	-	-	5,816	-	-	-
하동#5	799,317	-	-	-	5,806	-	-	-
하동#6	1,258,155	-	-	-	5,821	-	-	-
하동#7	1,164,297	-	-	-	5,893	-	-	-
하동#8	1,136,039	-	-	-	5,923	-	-	-
호남#1	653,043	794	183	-	5,263	10,651	8,883	-
호남#2	674,651	688	164	-	5,178	10,651	8,883	-
유연탄계	66,885,325	1,481	98,104	-	5,563	10,651	8,912	-
석탄 계	67,777,536	1,481	100,785	-	5,557	10,651	8,907	-
울산#4	-	92,333	193	-	-	9,840	9,041	-
울산#5	-	74,169	97	-	-	9,773	9,039	-
울산#6	-	84,306	239	-	-	9,797	9,040	-
중유 계	-	250,807	529	-	-	9,806	9,040	-
평택#1	-	-	-	72,296	-	-	-	13,106
평택#2	-	-	-	65,422	-	-	-	13,104
평택#3	-	-	-	34,574	-	-	-	13,105
평택#4	-	-	-	44,870	-	-	-	13,103
가스 계	-	-	-	217,163	-	-	-	13,105
기력 계	67,777,536	252,288	101,314	217,163	5,557	9,811	8,908	13,105
군산C/C	-	-	-	281,046	-	-	-	13,114
남제주C/C	-	-	27,026	-	-	-	8,990	-
보령C/C	-	-	-	269,383	-	-	-	13,113
부산C/C	-	-	-	994,579	-	-	-	13,096
분당C/C	-	-	-	405,627	-	-	-	13,091
서울C/C	-	-	-	613,949	-	-	-	13,085
서인천C/C	-	-	1	655,615	-	-	11,000	13,067

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사 용 열 량 Caloric Consumption (10 ⁶ kcal)					Items Plants
석 탄 Coal	중 유 Heavy oil	경 유 Diesel oil	L. N. G	계 Total	
6,378,173	-	-	-	6,378,173	Hadong #4
4,640,461	-	-	-	4,640,461	Hadong #5
7,323,781	-	-	-	7,323,781	Hadong #6
6,861,102	-	-	-	6,861,102	Hadong #7
6,728,303	-	-	-	6,728,303	Hadong #8
3,437,106	8,452	1,622	-	3,447,180	Honam #1
3,493,077	7,327	1,460	-	3,501,863	Honam #2
372,076,716	15,779	874,301	-	372,966,796	Total of bituminous coal
376,670,276	15,779	897,721	-	377,583,775	Total of coal
-	908,528	1,745	-	910,274	Ulsan #4
-	724,887	877	-	725,764	Ulsan #5
-	825,958	2,164	-	828,122	Ulsan #6
-	2,459,374	4,786	-	2,464,160	Total of heavy oil
-	-	-	947,496	947,496	Pyeongtaek #1
-	-	-	857,289	857,289	Pyeongtaek #2
-	-	-	453,096	453,096	Pyeongtaek #3
-	-	-	587,945	587,945	Pyeongtaek #4
-	-	-	2,845,826	2,845,826	Total of L N G
376,670,276	2,475,152	902,507	2,845,826	382,893,761	Total of steam
-	-	-	3,685,764	3,685,764	Gunsan C/C
-	-	242,952	-	242,952	Namjeju C/C
-	-	-	3,532,426	3,532,426	Boryeong C/C
-	-	-	13,024,880	13,024,880	Busan C/C
-	-	-	5,310,069	5,310,069	Bundang C/C
-	-	-	8,033,753	8,033,753	Seoul C/C
-	-	7	8,566,824	8,566,831	Seoincheon C/C

6. 발전소별 연료사용 실적 (4)

('21.1.1~12.31) Fuel Consumption by Plants

구 분 발전소별	사 용 량 consumption				발 열 량 Caloric value			
	석 탄 (t) Coal	중 유 (kl) Heavy oil	경 유 (kl) Diesel oil	L. N. G (t)	석 탄 (kcal/kg) Coal	중 유 (kcal/l) Heavy oil	경 유 (kcal/l) Diesel oil	L. N. G (kcal/kg)
신인천C/C	-	-	-	810,787	-	-	-	13,089
안동C/C	-	-	-	213,209	-	-	-	13,110
영월C/C	-	-	-	120,455	-	-	-	13,098
울산C/C	-	-	-	972,450	-	-	-	13,084
인천C/C	-	-	-	641,126	-	-	-	13,026
일산C/C	-	-	-	230,863	-	-	-	13,085
제주LNG	-	-	-	158,675	-	-	-	13,118
평택C/C	-	-	-	649,790	-	-	-	13,092
한림C/C	-	-	21	81,726	-	-	8,855	13,128
한전 자회사 복합 계	-	-	27,048	7,099,280	-	-	8,989	13,085
당진C/C	-	-	-	1,109,360	-	-	-	13,445
울촌C/C	-	-	-	932,119	-	-	-	13,105
포스코에너지C/C	-	-	-	1,837,919	-	-	-	12,834
타사 복합 계	-	-	-	3,879,397	-	-	-	13,074
복합 계	-	-	27,048	10,978,677	-	-	8,989	13,081
부천C/C	-	-	-	233,424	-	-	-	13,084
세종천연가스발전소	-	-	-	506,472	-	-	-	13,107
안양C/C	-	-	-	66,512	-	-	-	13,088
안양열병합	-	-	-	459,504	-	-	-	13,090
집단 계	-	-	-	1,265,911	-	-	-	13,096
제주내연	-	38,539	-	-	-	10,033	-	-
한전 도서내연(D/P)	-	-	78,519	-	-	-	8,993	-
내연력 계	-	38,539	78,519	-	-	10,033	8,993	-
한전, 자회사 계	67,777,536	290,828	206,882	7,822,914	5,557	9,840	8,951	13,087
타사 화력 계	-	-	-	4,638,837	-	-	-	13,076
화력 총계	67,777,536	290,828	206,882	12,461,751	5,557	9,840	8,951	13,083

※ 한전, 발전 5개사, 민간 4개사(포스코에너지, GS EPS, GS POWER, 씨지엔울촌) 실적

('21. 1. 1 ~ 12.31)

사 용 열 량 Caloric Consumption (10 ⁶ kcal)					Items Plants
석 탄 Coal	중 유 Heavy oil	경 유 Diesel oil	L. N. G	계 Total	
-	-	-	10,612,796	10,612,796	Shinincheon C/C
-	-	-	2,795,088	2,795,088	Andong C/C
-	-	-	1,577,749	1,577,749	Yeongwol C/C
-	-	-	12,723,625	12,723,625	Ulsan C/C
-	-	-	8,351,411	8,351,411	Incheon C/C
-	-	-	3,020,872	3,020,872	Ilisan C/C
-	-	-	2,081,510	2,081,510	Jeju C/C
-	-	-	8,507,295	8,507,295	Pyeongtaek C/C
-	-	187	1,072,875	1,073,062	Hanlim C/C
-	-	243,145	92,896,937	93,140,082	Total of KEPCO Sub. C/C
-	-	-	14,914,937	14,914,937	Dangjin C/C
-	-	-	12,215,377	12,215,377	Yulchon C/C
-	-	-	23,587,473	23,587,473	POSCO energy C/C
-	-	-	50,717,787	50,717,787	Total of Other co. C/C
-	-	243,145	143,614,724	143,857,869	Total of combined cycle
-	-	-	3,054,219	3,054,219	Bucheon C/C
-	-	-	6,638,379	6,638,379	Sejong
-	-	-	870,483	870,483	Anyang C/C
-	-	-	6,015,106	6,015,106	Anyang C/C
-	-	-	16,578,187	16,578,187	Total of Group energy
-	386,658	-	-	386,658	Jeju D/P
-	-	706,101	-	706,101	Internal combustion in island
-	386,658	706,101	-	1,092,759	Total of internal combustion
376,670,276	2,861,810	1,851,753	102,381,142	483,764,981	Total of KEPCO & Sub.
-	-	-	60,657,595	60,657,595	Total of Other co.
376,670,276	2,861,810	1,851,752	163,038,737	544,422,576	Gross total

※ KEPCO & Subsidiaries, other 4 companies

7. 화력발전소 열효율 추이

(단위 : %) Trends in Thermal Efficiency by Plant Type

구분 연도별	기 력 Steam									
	무 연 탄 Anthracite coal		유 연 탄 Bituminous coal		중 유 Heavy oil		가 스 L N G		계 Total	
	발전단 Gross	송전단 Net	발전단 Gross	송전단 Net	발전단 Gross	송전단 Net	발전단 Gross	송전단 Net	발전단 Gross	송전단 Net
1961	22.64	-	-	-	-	-	-	-	22.64	19.50
2004	34.74	30.80	39.25	37.46	37.40	34.80	36.09	34.28	38.82	36.83
2005	34.94	30.89	39.26	37.41	37.55	35.22	36.45	34.56	38.87	36.88
2006	34.59	31.41	39.31	37.44	37.44	35.39	35.47	33.76	38.90	36.96
2007	34.86	31.64	39.36	37.49	37.25	35.16	35.55	33.91	38.93	36.99
2008	35.26	32.19	39.45	37.54	36.68	34.50	35.40	33.97	39.10	37.14
2009	37.24	34.07	39.46	37.56	37.60	35.77	35.27	33.99	39.24	37.29
2010	34.71	31.75	39.33	37.41	36.40	34.34	35.10	33.71	38.91	36.95
2011	35.58	32.54	38.96	37.04	35.83	33.59	34.92	33.55	38.62	36.63
2012	38.55	35.26	38.75	36.83	36.27	34.09	36.24	34.80	38.53	36.55
2013	34.93	31.97	38.64	36.72	36.26	34.06	36.06	34.83	38.29	36.32
2014	36.26	33.05	38.94	36.97	38.55	36.31	34.21	32.70	38.79	36.76
2015	34.99	31.91	38.55	36.54	38.94	36.86	35.27	33.70	38.39	36.37
2016	35.24	32.11	38.12	36.11	38.09	36.03	30.46	28.89	37.99	35.94
2017	35.32	32.06	38.79	36.72	36.55	34.20	35.32	33.91	38.66	36.56
2018	35.75	32.36	39.03	36.95	37.44	35.04	-	-	38.94	36.84
2019	36.40	32.77	38.84	36.73	35.77	33.66	-	-	38.78	36.65
2020	36.05	32.34	38.91	36.73	36.08	33.64	35.89	34.56	38.84	36.64
2021	34.53	30.87	38.91	36.68	35.78	33.37	35.56	34.19	38.81	36.56
1	36.67	32.79	38.63	36.49	36.34	33.88	34.35	33.21	38.53	36.37
2	36.35	32.50	38.70	36.56	35.83	33.40	33.71	32.42	38.63	36.48
3	35.01	31.30	38.35	36.19	-	-	-	-	38.30	36.12
4	36.17	32.30	38.49	36.35	34.88	32.46	35.18	33.97	38.42	36.27
5	36.19	32.50	38.67	36.54	35.73	33.53	34.96	33.70	38.55	36.39
6	34.78	31.14	39.61	37.36	35.01	32.63	35.68	34.27	39.46	37.21
7	33.13	29.53	38.99	36.70	35.99	33.52	35.84	34.34	38.82	36.52
8	34.03	30.32	38.84	36.48	35.17	32.74	34.65	33.19	38.74	36.36
9	25.84	22.91	39.01	36.66	35.55	33.11	36.00	34.49	38.88	36.52
10	32.53	28.94	39.12	36.73	36.44	33.95	36.86	35.45	39.00	36.61
11	33.82	30.39	39.02	36.82	36.11	33.67	35.36	34.15	38.90	36.68
12	-	-	39.25	37.06	34.79	32.45	35.30	34.08	39.21	37.02

※ 한전, 발전 5개사, 민간 4개사(포스코에너지, GS EPS, GS POWER, 씨지엔솔촌) 실적

(Unit :%)

복합화력 Combined cycle		내연력 Internal combustion		한전, 자회사 계 Total of KEPCO & Subsidiaries		타사 Other co.		합계 Total		Items During
발전단 Gross	송전단 Net	발전단 Gross	송전단 Net	발전단 Gross	송전단 Net	발전단 Gross	송전단 Net	발전단 Gross	송전단 Net	
-	-	-	-	22.64	19.50	-	-	22.64	19.50	1961
47.19	46.33	39.11	37.57	40.62	38.88	41.75	40.97	40.66	38.96	2004
47.13	46.26	40.03	38.19	40.62	38.86	42.44	41.55	40.70	38.98	2005
47.52	46.63	40.02	37.86	40.83	39.11	44.00	43.33	40.97	39.30	2006
46.45	45.47	40.67	38.31	40.79	39.06	43.01	42.11	40.90	39.21	2007
46.10	45.24	40.39	38.09	40.67	38.93	43.75	42.92	40.84	39.14	2008
46.74	45.63	41.08	38.78	40.46	38.67	42.49	41.67	40.55	38.79	2009
46.45	45.55	40.58	30.35	40.67	38.94	43.64	42.73	40.83	39.14	2010
47.30	46.40	41.14	39.01	40.51	38.76	39.43	38.68	40.44	38.75	2011
47.73	46.81	41.11	39.01	40.57	38.82	42.94	42.10	40.48	38.86	2012
45.42	44.30	41.20	38.95	40.06	38.29	36.04	35.50	39.55	37.94	2013
48.24	47.13	43.40	41.19	40.71	38.87	47.66	46.91	41.25	39.50	2014
50.21	49.07	40.35	41.18	39.97	38.07	48.31	47.09	40.92	38.62	2015
47.53	46.38	39.41	36.70	39.33	37.40	48.15	47.18	39.79	37.92	2016
46.16	45.13	38.80	33.73	39.50	37.51	44.30	43.40	39.82	37.90	2017
47.65	46.60	37.96	35.82	40.21	38.25	48.99	47.33	40.82	38.88	2018
46.94	45.84	40.56	38.41	39.88	37.88	51.02	49.07	40.70	38.71	2019
47.01	45.77	38.28	35.80	40.16	38.11	49.41	48.34	41.14	39.20	2020
47.05	45.96	38.62	36.30	40.50	38.48	49.85	48.73	41.53	39.62	2021
46.66	45.72	39.52	37.33	40.38	38.49	49.32	48.36	41.41	39.63	1
46.66	45.70	39.09	36.81	40.49	38.60	48.80	47.80	41.48	39.70	2
47.51	46.48	38.67	36.54	40.42	38.51	56.70	55.57	42.72	40.92	3
47.71	46.64	39.69	37.42	40.71	38.83	50.44	49.08	41.91	40.09	4
47.45	46.28	38.92	36.62	40.23	38.26	48.34	47.28	41.23	39.37	5
47.19	46.00	37.45	35.04	40.94	38.89	48.76	47.64	41.81	39.87	6
47.39	46.16	37.65	35.04	40.41	38.30	48.87	47.69	41.26	39.25	7
47.34	46.04	37.68	35.07	40.18	37.98	48.59	47.37	40.99	38.88	8
47.53	46.30	38.81	36.28	40.63	38.50	49.46	48.23	41.51	39.48	9
46.77	45.65	38.40	36.05	40.63	38.51	49.61	48.48	41.59	39.58	10
46.23	45.21	38.21	36.07	40.36	38.37	49.21	48.13	41.33	39.45	11
46.40	45.44	38.51	36.41	40.67	38.73	49.62	48.61	41.52	39.67	12

※ KEPCO & Subsidiaries, other 4 companies

Statistics of Electric Power in Korea 제91호
2021년 한국전력통계



II. 전력 설비

Electric power facilities

8. 발전설비 추이 (1)

(단위 : kW) Trends in Generation Capacity

구분 연도별	한 전, 자 회 사							
	수 력 Hydro				기 력 Steam			
	일 반 General	양 수 Pumping	소 수 력 Small hydro	계 Total	무 연 탄 Anthracite coal	유 연 탄 Bituminous coal	중 유 Heavy oil	L N G
1961	143,480	-	-	143,480	222,500	-	-	-
2004	536,780	2,300,000	-	2,836,780	1,125,000	16,340,000	4,308,600	1,537,500
2005	538,180	2,300,000	-	2,838,180	1,125,000	16,840,000	4,308,600	1,537,500
2006	538,180	3,900,000	-	4,438,180	1,125,000	17,340,000	4,388,600	1,537,500
2007	540,445	3,900,000	-	4,440,445	1,125,000	19,340,000	4,488,600	1,537,500
2008	529,340	3,900,000	21,145	4,450,485	1,125,000	22,580,000	4,488,600	1,537,500
2009	529,340	3,900,000	27,920	4,457,260	1,125,000	23,080,000	4,478,600	887,500
2010	529,340	3,900,000	32,978	4,462,318	1,125,000	23,080,000	4,478,600	887,500
2011	591,680	4,700,000	38,172	5,329,852	1,125,000	23,080,000	4,478,600	887,500
2012	591,680	4,700,000	39,117	5,330,797	1,125,000	23,408,600	3,950,000	887,500
2013	595,180	4,700,000	39,117	5,334,297	1,125,000	23,408,600	3,950,000	887,500
2014	595,180	4,700,000	48,317	5,343,497	1,125,000	25,148,600	2,950,000	387,500
2015	595,180	4,700,000	49,547	5,344,727	1,125,000	25,148,600	2,950,000	387,500
2016	595,180	4,700,000	54,547	5,349,727	1,125,000	29,420,800	2,950,000	250,000
2017	595,180	4,700,000	56,297	5,351,477	600,000	33,524,578	2,950,000	-
2018	595,380	4,700,000	56,252	5,351,632	600,000	33,617,613	2,950,000	-
2019	595,380	4,700,000	56,277	5,351,657	600,000	33,710,658	2,600,000	-
2020	595,380	4,700,000	56,427	5,351,807	400,000	33,760,658	1,200,000	1,400,000
2021	595,380	4,700,000	63,213	5,358,593	400,000	32,158,658	1,200,000	1,400,000
1	595,380	4,700,000	56,427	5,351,807	400,000	32,760,658	1,200,000	1,400,000
2	595,380	4,700,000	56,427	5,351,807	400,000	32,760,658	1,200,000	1,400,000
3	595,380	4,700,000	56,427	5,351,807	400,000	32,760,658	1,200,000	1,400,000
4	595,380	4,700,000	56,427	5,351,807	400,000	31,640,658	1,200,000	1,400,000
5	595,380	4,700,000	56,427	5,351,807	400,000	31,640,658	1,200,000	1,400,000
6	595,380	4,700,000	64,013	5,359,393	400,000	32,658,658	1,200,000	1,400,000
7	595,380	4,700,000	64,013	5,359,393	400,000	32,658,658	1,200,000	1,400,000
8	595,380	4,700,000	64,013	5,359,393	400,000	32,658,658	1,200,000	1,400,000
9	595,380	4,700,000	63,013	5,358,393	400,000	32,658,658	1,200,000	1,400,000
10	595,380	4,700,000	63,013	5,358,393	400,000	32,658,658	1,200,000	1,400,000
11	595,380	4,700,000	63,013	5,358,393	400,000	32,658,658	1,200,000	1,400,000
12	595,380	4,700,000	63,213	5,358,593	400,000	32,158,658	1,200,000	1,400,000

※ 2001. 4. 2 발전부문 분리

※ 발전설비는 자가용을 제외한 사업자용만 집계

1) 신재생 : 일반수력, 소수력 미포함(수력으로 별도 분류)

2) 기타 : 폐기물에너지(신재생에너지법 개정으로 '20.1월부터 신재생에서 기타로 분류)

(Unit: kW)

KEPCO & Subsidiaries								Items During
계 Total	복합화력 Combined cycle	원자력 Nuclear	신재생 &Renewable e	집단 Group energy	내연력 Internal Combustion	기타 ²⁾ Others	합계 Total	
222,500	-	-	-	-	1,274	-	367,254	1961
23,311,100	10,785,000	16,715,683	6,000	-	252,280	-	53,906,843	2004
23,811,100	11,288,539	17,715,683	6,220	-	296,690	-	55,956,412	2005
24,391,100	11,288,539	17,715,683	11,470	-	296,690	-	58,141,662	2006
26,491,100	11,288,539	17,715,683	29,720	-	303,170	-	60,268,657	2007
29,731,100	11,288,539	17,715,683	36,687	-	306,815	-	63,529,309	2008
29,571,100	11,819,511	17,715,683	51,663	-	347,100	-	63,962,317	2009
29,571,100	13,385,911	17,715,683	73,662	-	351,000	-	65,559,674	2010
29,571,100	12,935,911	18,715,683	97,574	-	355,450	-	67,005,570	2011
29,371,100	12,935,911	20,715,683	127,277	-	367,340	-	68,848,108	2012
29,371,100	14,886,352	20,715,683	208,172	-	329,690	-	70,845,294	2013
29,611,100	15,543,311	20,715,683	231,482	530,441	329,690	-	72,305,204	2014
29,611,100	15,487,911	21,715,683	262,559	530,441	329,690	-	73,282,111	2015
33,745,800	15,487,911	23,115,683	657,542	530,441	329,440	-	79,216,544	2016
37,074,578	15,487,911	22,528,683	819,930	530,441	339,470	-	82,132,490	2017
37,167,613	15,195,357	21,850,000	927,912	530,441	339,470	-	81,362,425	2018
36,910,658	15,954,347	23,250,000	1,334,621	530,441	340,617	-	83,672,341	2019
36,760,658	16,121,236	23,250,000	1,653,874	530,441	175,680	10,000	83,853,696	2020
35,158,658	16,121,236	23,250,000	1,853,539	530,441	176,810	10,000	82,459,277	2021
35,760,658	16,121,236	23,250,000	1,665,503	530,441	175,680	10,000	82,865,325	1
35,760,658	16,121,236	23,250,000	1,700,378	530,441	175,680	10,000	82,900,200	2
35,760,658	16,121,236	23,250,000	1,702,632	530,441	175,680	10,000	82,902,454	3
34,640,658	16,121,236	23,250,000	1,706,778	530,441	175,680	10,000	81,786,600	4
34,640,658	16,121,236	23,250,000	1,735,144	530,441	175,680	10,000	81,814,966	5
35,658,658	16,121,236	23,250,000	1,735,144	530,441	175,680	10,000	82,840,552	6
35,658,658	16,121,236	23,250,000	1,765,048	530,441	175,680	10,000	82,870,456	7
35,658,658	16,121,236	23,250,000	1,781,449	530,441	175,680	10,000	82,886,857	8
35,658,658	16,121,236	23,250,000	1,816,838	530,441	175,680	10,000	82,921,246	9
35,658,658	16,121,236	23,250,000	1,822,876	530,441	175,680	10,000	82,927,284	10
35,658,658	16,121,236	23,250,000	1,842,465	530,441	175,680	10,000	82,946,873	11
35,158,658	16,121,236	23,250,000	1,853,539	530,441	176,810	10,000	82,459,277	12

※ On Apr. 2, 2001, KEPCO's power generation division was divided into 6 generation subsidiary companies

※ Others : waste energy (classified as others from Jan. 2020 by New&Renewable energy law)

1) New&Renewable energy : 'General hydro' and 'Small hydro' are not included(classified as Hydro)

2) Others : waste energy (classified as others from Jan. 2020 by New&Renewable energy law)

8. 발전설비 추이 (2)

(단위 : kW) Trends in Generation Capacity

구분 연도별	타			사		Other co.		
	수 력 Hydro			기 력	복 합 화 력 Combined cycle	신재생 New & Renewable energy	집 단 Group energy	기 타 ³⁾ Others
	일 반 General	소 수 력 Small hydro	계 Total	유 연 탄 Bituminous coal				
1961	-	-	-	-	-	-	-	-
2004	1,001,800	40,733	1,042,533	-	3,528,350	101,905	1,381,500	-
2005	1,001,800	42,833	1,044,633	-	3,726,250	149,402	1,381,500	-
2006	1,001,800	44,878	1,046,678	-	4,715,450	228,952	1,381,500	-
2007	1,000,600	51,042	1,051,642	-	5,222,450	343,939	1,381,500	-
2008	1,000,600	54,052	1,054,652	-	5,755,450	691,650	1,459,630	-
2009	1,000,600	56,712	1,057,312	-	5,755,450	1,084,689	1,610,210	-
2010	1,000,600	61,622	1,062,222	-	5,714,250	1,675,318	2,066,724	-
2011	1,000,600	87,937	1,088,537	-	6,863,450	1,761,086	2,623,224	-
2012	1,000,600	114,633	1,115,233	-	6,863,450	2,210,773	2,768,012	-
2013	1,000,600	119,565	1,120,165	-	8,586,880	3,310,530	3,106,068	-
2014	1,000,600	122,839	1,123,439	-	11,752,580	4,242,463	3,792,068	-
2015	986,600	139,382	1,125,982	-	13,024,280	5,386,808	4,829,579	-
2016	986,600	148,884	1,135,484	-	13,024,280	6,819,546	5,669,703	-
2017	986,600	151,379	1,137,979	1,190,000	16,928,316	8,366,992	7,151,863	-
2018	986,600	152,178	1,138,778	1,190,000	16,028,316	10,694,897	8,677,243	-
2019	986,600	169,846	1,156,446	1,190,000	16,891,616	12,914,932	8,660,543	851,790
2020	986,600	167,361	1,153,961	1,190,000	16,891,616	17,085,253	8,660,543	356,204
2021	1,009,600	173,142	1,182,742	3,270,000	16,891,616	21,160,623	8,698,733	356,784
1	986,600	167,370	1,153,970	1,190,000	16,891,616	17,701,329	8,660,543	356,904
2	986,600	167,370	1,153,970	1,190,000	16,891,616	17,961,120	8,660,543	356,764
3	986,600	167,370	1,153,970	1,190,000	16,891,616	18,205,926	8,660,543	356,764
4	986,600	167,370	1,153,970	1,190,000	16,891,616	18,401,521	8,660,543	356,604
5	986,600	172,593	1,159,193	2,230,000	16,891,616	18,504,022	8,667,043	356,071
6	986,600	172,593	1,159,193	2,230,000	16,891,616	18,924,024	8,667,043	356,204
7	986,600	172,593	1,159,193	2,230,000	16,891,616	19,155,705	8,667,043	356,204
8	986,600	171,943	1,158,543	2,230,000	16,891,616	19,458,432	8,667,043	357,202
9	991,600	173,148	1,164,748	2,230,000	16,891,616	19,881,951	8,667,043	356,702
10	991,600	173,148	1,164,748	3,270,000	16,891,616	20,177,498	8,667,043	356,704
11	1,009,600	173,148	1,182,748	3,270,000	16,891,616	20,580,892	8,667,043	356,813
12	1,009,600	173,142	1,182,742	3,270,000	16,891,616	21,160,623	8,698,733	356,784

3) 기타 : 증류탑페열, 신승에너지 여열회수, 김해 천연가스압터빈, 부생가스, 폐기물에너지
- 신재생에너지법 개정으로 폐기물에너지를 '20.1월부터 신재생에서 기타로 분류

(Unit:KW)

합 계 Total	사 업 자 Public utility						Items During
	수 력 Hydro				기 력 Steam		
	일 반 General	양 수 Pumping	소 수 력 Small hydro	계 Total	무 연 탄 Anthracite coal	유 연 탄 Bituminous coal	
-	143,480	-	-	143,480	222,500	-	1961
6,054,288	1,538,580	2,300,000	40,733	3,879,313	1,125,000	16,340,000	2004
6,301,785	1,539,980	2,300,000	42,833	3,882,813	1,125,000	16,840,000	2005
7,372,580	1,539,980	3,900,000	44,878	5,484,858	1,125,000	17,340,000	2006
7,999,531	1,541,045	3,900,000	51,042	5,492,087	1,125,000	19,340,000	2007
8,961,382	1,529,940	3,900,000	75,197	5,505,137	1,125,000	22,580,000	2008
9,507,661	1,529,940	3,900,000	84,632	5,514,572	1,125,000	23,080,000	2009
10,518,514	1,529,940	3,900,000	94,600	5,524,540	1,125,000	23,080,000	2010
12,336,297	1,592,280	4,700,000	126,109	6,418,389	1,125,000	23,080,000	2011
12,957,468	1,592,280	4,700,000	153,750	6,446,030	1,125,000	23,408,600	2012
16,123,643	1,595,780	4,700,000	158,682	6,454,462	1,125,000	23,408,600	2013
20,910,550	1,595,780	4,700,000	171,156	6,466,936	1,125,000	25,148,600	2014
24,366,649	1,581,780	4,700,000	188,929	6,470,709	1,125,000	25,148,600	2015
26,649,013	1,581,780	4,700,000	203,431	6,485,211	1,125,000	29,420,800	2016
34,775,150	1,581,780	4,700,000	207,676	6,489,456	600,000	34,714,578	2017
37,729,234	1,581,980	4,700,000	208,430	6,490,410	600,000	34,807,613	2018
41,665,327	1,581,980	4,700,000	226,123	6,508,103	600,000	34,900,658	2019
45,337,578	1,581,980	4,700,000	223,788	6,505,768	400,000	34,950,658	2020
51,560,498	1,604,980	4,700,000	236,355	6,541,335	400,000	35,428,658	2021
45,954,362	1,581,980	4,700,000	223,797	6,505,777	400,000	33,950,658	1
46,214,013	1,581,980	4,700,000	223,797	6,505,777	400,000	33,950,658	2
46,458,819	1,581,980	4,700,000	223,797	6,505,777	400,000	33,950,658	3
46,654,254	1,581,980	4,700,000	223,797	6,505,777	400,000	32,830,658	4
47,807,945	1,581,980	4,700,000	229,020	6,511,000	400,000	33,870,658	5
48,228,081	1,581,980	4,700,000	236,606	6,518,586	400,000	34,888,658	6
48,459,762	1,581,980	4,700,000	236,606	6,518,586	400,000	34,888,658	7
48,762,837	1,581,980	4,700,000	235,956	6,517,936	400,000	34,888,658	8
49,192,061	1,586,980	4,700,000	236,161	6,523,141	400,000	34,888,658	9
50,527,609	1,586,980	4,700,000	236,161	6,523,141	400,000	35,928,658	10
50,949,112	1,604,980	4,700,000	236,161	6,541,141	400,000	35,928,658	11
51,560,498	1,604,980	4,700,000	236,355	6,541,335	400,000	35,428,658	12

3) Others : By-product Gas, waste, KD Powertech (waste heat), Sinseung(remaining heat), Kimhae(Natural gas Pressure Turbine)
 - Waste energy is classified as others from Jan. 2020 by New&Renewable energy law

8. 발전설비 추이 (3)

(단 위 : kW) Trends in Generation Capacity

구분 연도별	사 업 자					
	기 력 Steam			복 합 화 력 Combined cycle	원 자 력 Nuclear	신재생 New & Renewable energy
	중 유 Heavy oil	L N G	계 Total			
1961	-	-	222,500	-	-	...
2004	4,308,600	1,537,500	23,311,100	14,313,350	16,715,683	107,905
2005	4,308,600	1,537,500	23,811,100	15,014,789	17,715,683	155,622
2006	4,388,600	1,537,500	24,391,100	16,003,989	17,715,683	240,422
2007	4,488,600	1,537,500	26,491,100	16,510,989	17,715,683	373,659
2008	4,488,600	1,537,500	29,731,100	17,043,989	17,715,683	728,337
2009	4,478,600	887,500	29,571,100	17,574,961	17,715,683	1,136,352
2010	4,478,600	887,500	29,571,100	19,100,161	17,715,683	1,748,980
2011	4,478,600	887,500	29,571,100	19,799,361	18,715,683	1,858,660
2012	3,950,000	887,500	29,371,100	19,799,361	20,715,683	2,338,050
2013	3,950,000	887,500	29,371,100	23,473,232	20,715,683	3,518,702
2014	2,950,000	387,500	29,611,100	27,295,891	20,715,683	4,473,945
2015	2,950,000	387,500	29,611,100	28,512,191	21,715,683	5,649,367
2016	2,950,000	250,000	33,745,800	28,512,191	23,115,683	7,477,088
2017	2,950,000	-	38,264,578	32,416,227	22,528,683	9,186,923
2018	2,950,000	-	38,357,613	31,223,673	21,850,000	11,622,809
2019	2,600,000	-	38,100,658	32,845,963	23,250,000	14,249,553
2020	1,200,000	1,400,000	37,950,658	33,012,852	23,250,000	18,739,127
2021	1,200,000	1,400,000	38,428,658	33,012,852	23,250,000	23,014,162
1	1,200,000	1,400,000	36,950,658	33,012,852	23,250,000	19,366,832
2	1,200,000	1,400,000	36,950,658	33,012,852	23,250,000	19,661,498
3	1,200,000	1,400,000	36,950,658	33,012,852	23,250,000	19,908,558
4	1,200,000	1,400,000	35,830,658	33,012,852	23,250,000	20,108,299
5	1,200,000	1,400,000	36,870,658	33,012,852	23,250,000	20,239,166
6	1,200,000	1,400,000	37,888,658	33,012,852	23,250,000	20,659,169
7	1,200,000	1,400,000	37,888,658	33,012,852	23,250,000	20,920,753
8	1,200,000	1,400,000	37,888,658	33,012,852	23,250,000	21,239,881
9	1,200,000	1,400,000	37,888,658	33,012,852	23,250,000	21,698,789
10	1,200,000	1,400,000	38,928,658	33,012,852	23,250,000	22,000,374
11	1,200,000	1,400,000	38,928,658	33,012,852	23,250,000	22,423,357
12	1,200,000	1,400,000	38,428,658	33,012,852	23,250,000	23,014,162

4) 'p' 는 잠정수치로 2020 상용자가 발전업체조사 잠정치 사용

(Unit : kW)

Public utility				상용자가 ⁴⁾ Non-utility in common use	총 발전 설비 Total	Items During
집 단 Group energy	내 연 력 Internal Combustion	기 타 Others	총 계 Total			
...	1,274	-	367,254	59,033	426,287	1961
1,381,500	252,280	-	59,961,131	4,591,443	64,552,574	2004
1,381,500	296,690	-	62,258,197	4,817,043	67,075,240	2005
1,381,500	296,690	-	65,514,242	4,319,500	69,833,742	2006
1,381,500	303,170	-	68,268,188	4,855,762	73,123,950	2007
1,459,630	306,815	-	72,490,692	4,089,658	76,580,350	2008
1,610,210	347,100	-	73,469,978	4,222,771	77,692,749	2009
2,066,724	351,000	-	76,078,188	3,905,605	79,983,793	2010
2,623,224	355,450	-	79,341,867	3,921,279	83,263,146	2011
2,768,012	367,340	-	81,805,576	4,043,517	85,849,093	2012
3,106,068	329,690	-	86,968,937	4,108,548	91,077,485	2013
4,322,509	329,690	-	93,215,755	3,709,470	96,925,225	2014
5,360,020	329,690	-	97,648,761	3,941,468	101,590,229	2015
6,200,144	329,440	-	105,865,557	3,923,734	109,789,291	2016
7,682,304	339,470	-	116,907,641	3,940,825	120,848,466	2017
9,207,684	339,470	-	119,091,660	3,821,215	122,912,875	2018
9,190,984	340,617	851,790	125,337,669	4,410,161	129,747,830	2019
9,190,984	175,680	366,204	129,191,273	4,464,139	133,655,412	2020
9,229,174	176,810	366,784	134,019,775	4,462,253p	138,482,028p	2021
9,190,984	175,680	366,904	128,819,687	...	...	1
9,190,984	175,680	366,764	129,114,214	...	...	2
9,190,984	175,680	366,764	129,361,273	...	...	3
9,190,984	175,680	366,604	128,440,854	...	...	4
9,197,484	175,680	366,071	129,622,912	...	...	5
9,197,484	175,680	366,204	131,068,633	...	...	6
9,197,484	175,680	366,204	131,330,217	...	...	7
9,197,484	175,680	367,202	131,649,694	...	...	8
9,197,484	175,680	366,702	132,113,306	...	...	9
9,197,484	175,680	366,704	133,454,893	...	...	10
9,197,484	175,680	366,813	133,895,985	...	...	11
9,229,174	176,810	366,784	134,019,775	...	...	12

4) ' p ' is a preliminary figures by Research for the self-generation in 2020

8-1. 발전원별 에너지원별 발전설비(2021)

Generation Capacity by Plant Type and Energy Source

(단위:kW)

발전원 Plant Type 에너지원 Energy Source	수력 Hydro				기력 Steam				
	일 반 General	양 수 Pumping	소 수력 Small hydro	계 Total	무 연 탄 Anthracite coal	유 연 탄 Bituminous coal	중 유 Heavy oil	L N G	계 Total
양수 Pumping	-	4,700,000	-	4,700,000	-	-	-	-	-
무연탄 Anthracite coal	-	-	-	-	400,000	-	-	-	400,000
유연탄 Bituminous coal	-	-	-	-	-	35,428,658	-	-	35,428,658
유류 Oil	-	-	-	-	-	-	1,200,000	-	1,200,000
LNG	-	-	-	-	-	-	-	1,400,000	1,400,000
원자력 Nuclear	-	-	-	-	-	-	-	-	-
기타 Others	-	-	-	-	-	-	-	-	-
소계	-	4,700,000	-	4,700,000	400,000	35,428,658	1,200,000	1,400,000	38,428,658
수력 Hydro	1,604,980	-	236,355	1,841,335	-	-	-	-	-
태양 에너지 Solar	-	-	-	-	-	-	-	-	-
풍력 Wind	-	-	-	-	-	-	-	-	-
해양 에너지 Ocean	-	-	-	-	-	-	-	-	-
바이오 에너지 Bio	-	-	-	-	-	-	-	-	-
폐기물 에너지 Waste	-	-	-	-	-	-	-	-	-
매립가스 Landfill Gas	-	-	-	-	-	-	-	-	-
연료전지 Fuel Cell	-	-	-	-	-	-	-	-	-
석탄액화가스 IGCC	-	-	-	-	-	-	-	-	-
신재생 계	1,604,980	-	236,355	1,841,335	-	-	-	-	-
총 계 Total	1,604,980	4,700,000	236,355	6,541,335	400,000	35,428,658	1,200,000	1,400,000	38,428,658

※ 발전설비는 자가용을 제외한 사업자용만 집계

(단위:kw)

복합화력 Combined cycle			내연력 Internal Combusti on	원자력 Nuclear	집단 Group energy	신재생 ¹⁾ New&Renew able energy	기타 Others	총계 Total
L N G	유류 oil	계 Total						
-	-	-	-	-	-	-	-	4,700,000
-	-	-	-	-	-	-	-	400,000
-	-	-	-	-	1,509,224	-	-	36,937,882
-	612,045	612,045	176,810	-	171,300	-	-	2,160,155
32,400,807	-	32,400,807	-	-	7,400,650	-	-	41,201,457
-	-	-	-	23,250,000	-	-	-	23,250,000
-	-	-	-	-	148,000	-	366,784	514,784
32,400,807	612,045	33,012,852	176,810	23,250,000	9,229,174	-	366,784	109,164,278
-	-	-	-	-	-	-	-	1,841,335
-	-	-	-	-	-	18,521,148	-	18,521,148
-	-	-	-	-	-	1,708,043	-	1,708,043
-	-	-	-	-	-	255,500	-	255,500
-	-	-	-	-	-	1,446,032	-	1,446,032
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	737,109	-	737,109
-	-	-	-	-	-	346,330	-	346,330
-	-	-	-	-	-	23,014,162	-	24,855,497
32,400,807	612,045	33,012,852	176,810	23,250,000	9,229,174	23,014,162	366,784	134,019,775

1) 신재생 : 일반수력, 소수력 미포함(수력으로 별도 분류)

8-2. 행정구역별 발전설비 및 발전량(2021)

Generation Capacity & Power Generation by Province

구 분	발전설비 (kW)								
	원자력 Nuclear	석탄 Coal		LNG	신재생 New&Re newable energy	유류 oil	양수 Pumping	기타 ¹⁾ Others	계 Total
		무연탄 Anthracit e coal	유연탄 Bituminou s coal						
서울 Seoul	-	-	-	802,346	117,574	-	-	27,950	947,870
부산 Busan	4,550,000	-	19,000	1,845,836	199,139	-	-	33,900	6,647,875
대구 Daegu	-	-	72,900	370,700	115,516	43,500	-	9,900	612,516
인천 Incheon	-	-	5,080,000	8,576,747	446,984	36,230	-	33,280	14,173,241
광주 Gwangju	-	-	-	115,246	224,461	-	-	4,360	344,067
대전 Daejeon	-	-	-	48,300	47,823	-	-	88,000	184,123
울산 Ulsan	2,800,000	-	-	2,514,700	105,552	1,200,000	-	21,900	6,642,152
세종 Sejong	-	-	-	530,441	68,441	-	-	3,250	602,132
경기 Gyeonggi	-	-	253,355	17,611,857	1,925,419	43,650	400,000	59,064	20,293,345
강원 Gwangju	-	400,000	3,234,000	1,279,200	2,769,191	-	1,000,000	13,390	8,695,781
충북 Chungbuk	-	-	-	-	1,547,024	58,300	-	49,907	1,655,231
충남 Chungnam	-	-	18,246,058	3,713,450	3,154,811	469,870	-	9,280	25,593,469
전북 Jeonbuk	-	-	695,369	718,400	3,831,342	7,340	600,000	74,695	5,927,146
전남 Jeonnam	5,900,000	-	981,100	2,378,900	4,556,832	22,440	-	23,090	13,862,362
경북 Gyeongbuk	10,000,000	-	156,100	361,600	3,068,289	18,500	1,400,000	38,935	15,043,424
경남 Gyeongnam	-	-	8,200,000	-	1,496,594	27,190	1,300,000	4,683	11,028,467
제주 Jeju	-	-	-	333,734	1,180,506	233,135	-	19,200	1,766,575
총계 Total	23,250,000	400,000	36,937,882	41,201,457	24,855,497	2,160,155	4,700,000	514,784	134,019,775

1) 기타 : 증류탑폐열, 신승에너지 여열회수, 김해 천연가스압터빈, 부생가스, 폐기물에너지
 - 신재생에너지법 개정으로 폐기물에너지를 '20.1월부터 신재생에서 기타로 분류

발전량 (MWh)								
원자력 Nuclear	석탄 Coal		LNG	신재생 New&Re newable energy	유류 oil	양수 Pumping	기타 Others	계 Total
	무연탄 Anthracite coal	유연탄 Bituminous coal						
-	-	-	4,690,960	511,661	-	-	141,269	5,343,889
32,412,450	-	23,827	7,316,592	477,076	-	-	124,002	40,353,946
-	-	2,450	2,547,223	163,341	98,316	-	427	2,811,757
-	-	29,123,297	29,332,021	1,902,515	126,480	-	21,949	60,506,262
-	-	-	360,091	263,867	-	-	20,060	644,018
-	-	-	75,472	55,850	-	-	50,858	182,180
19,589,184	-	-	10,028,977	146,171	1,493,853	-	245,390	31,503,575
-	-	-	3,626,727	134,617	-	-	15,300	3,776,644
-	-	1,380,488	76,240,722	4,101,729	38,258	327,216	144,238	82,232,650
-	1,853,783	18,489,388	3,717,896	5,548,426	-	941,183	72,108	30,622,785
-	-	-	-	1,953,204	63,607	-	188,005	2,204,816
-	-	92,450,478	10,992,195	7,718,241	28,619	-	38,991	111,228,524
-	-	6,410,195	1,806,309	4,977,619	14,672	632,840	480,799	14,322,433
31,951,001	-	8,156,135	14,964,006	5,743,857	55,757	-	970,260	61,841,016
74,062,596	-	880,658	1,670,040	4,077,236	73,396	466,389	151,357	81,381,672
-	-	40,609,636	-	1,848,246	90,260	1,315,305	21,946	43,885,393
-	-	-	1,009,377	2,532,401	329,751	-	96,398	3,967,926
158,015,230	1,853,783	197,526,552	168,378,607	42,156,058	2,412,969	3,682,932	2,783,357	576,809,488

8-3. 행정구역별 신재생 발전설비 및 발전량(2021)

Generation Cap. & Power Gen. for New&Renewable Energy

구 분	발전설비(kW)					계 Total
	수력 ¹⁾ Hydro Power	태양광 Solar Energy	풍력 Wind Power	바이오 ²⁾ Bio Energy	기 타 ³⁾ etc.	
서울 Seoul	316	42,593	-	6,865	67,800	117,574
부산 Busan	10	144,401	758	6,690	47,280	199,139
대구 Daegu	3,560	106,049	-	4,500	1,407	115,516
인천 Incheon	12,599	93,435	49,000	78,230	213,720	446,984
광주 Gwangju	1,830	220,196	-	2,120	315	224,461
대전 Daejeon	-	40,559	-	99	7,165	47,823
울산 Ulsan	300	73,864	1,650	-	29,738	105,552
세종 Sejong	2,310	55,851	-	5,000	5,280	68,441
경기 Gyeonggi	276,118	1,130,362	5,326	59,703	453,910	1,925,419
강원 Gwangju	520,095	1,416,017	459,468	358,515	15,096	2,769,191
충북 Chungbuk	519,004	1,005,680	-	2,540	19,800	1,547,024
충남 Chungnam	39,925	2,328,646	2,020	373,970	410,250	3,154,811
전북 Jeonbuk	80,857	3,494,277	79,500	169,703	7,005	3,831,342
전남 Jeonnam	39,971	4,116,883	345,975	2,923	51,080	4,556,832
경북 Gyeongbuk	180,155	2,457,596	421,160	3,500	5,878	3,068,289
경남 Gyeongnam	163,469	1,267,289	48,586	14,535	2,715	1,496,594
제주 Jeju	816	527,450	294,600	357,139	500	1,180,506
총계 Total	1,841,335	18,521,148	1,708,043	1,446,032	1,338,939	24,855,497

1) 수력 : 일반수력, 소수력(양수 제외), 2) 바이오 : 바이오매스, 바이오중유

by Province

발전량(MWh)					
수력 Hydro Power	태양광 Solar Energy	풍력 Wind Power	바이오 Bio Energy	기 타 etc.	계 Total
618	51,082	-	28,706	431,255	511,661
41	168,762	2,842	14,294	291,136	477,076
14,518	126,540	-	10,418	11,864	163,341
40,391	117,489	39,272	210,856	1,494,508	1,902,515
8,230	252,258	-	3,107	272	263,867
-	43,216	-	-	12,634	55,850
1,144	90,512	1,730	-	52,786	146,171
-	63,351	-	27,504	43,763	134,617
631,891	1,434,592	4,609	298,997	1,731,640	4,101,729
713,162	1,658,316	945,255	2,099,196	132,497	5,548,426
731,058	1,161,683	-	6,341	54,122	1,953,204
57,109	2,852,551	1,981	2,164,654	2,641,947	7,718,241
238,930	4,002,235	145,862	580,632	9,959	4,977,619
86,132	4,904,119	519,686	6,767	227,154	5,743,857
292,238	2,832,890	914,218	6,241	31,650	4,077,236
236,059	1,474,840	66,617	47,251	23,479	1,848,246
2,981	588,053	527,766	1,413,594	6	2,532,401
3,054,502	21,822,488	3,169,838	6,918,557	7,190,672	42,156,058

3)기타 : 연료전지, 석탄액화가스, 해양에너지

9. 발전소별 설비 추이 (1)

(단 위 : kW) Trends in Generation Capacity by plants

발전소별 \ 연도별	1961	2010	2011	2012	2013	2014	2015
화천	81,000	108,000	108,000	108,000	108,000	108,000	108,000
춘천	-	59,940	62,280	62,280	62,280	62,280	62,280
의암	-	45,000	45,000	45,000	48,000	48,000	48,000
청평	39,600	79,600	139,600	139,600	140,100	140,100	140,100
팔당	-	120,000	120,000	120,000	120,000	120,000	120,000
강릉	-	82,000	82,000	82,000	82,000	82,000	82,000
칠보(섬진강)	14,400	34,800	34,800	34,800	34,800	34,800	34,800
한전자회사 일반수력 계	135,000	529,340	591,680	591,680	595,180	595,180	595,180
소양강	-	200,000	200,000	200,000	200,000	200,000	200,000
충주	-	412,000	412,000	412,000	412,000	412,000	412,000
대청	-	90,000	90,000	90,000	90,000	90,000	90,000
안동	-	90,000	90,000	90,000	90,000	90,000	90,000
합천	-	100,000	100,000	100,000	100,000	100,000	100,000
임하	-	50,000	50,000	50,000	50,000	50,000	50,000
주암	-	22,500	22,500	22,500	22,500	22,500	22,500
용담	-	22,100	22,100	22,100	22,100	22,100	22,100
남강	-	-	-	-	-	-	-
충주3수력	-	-	-	-	-	-	-
타사 일반수력 계	-	986,600	986,600	986,600	986,600	986,600	986,600
일반수력계	135,000	1,515,940	1,578,280	1,578,280	1,581,780	1,581,780	1,581,780
무주양수	-	600,000	600,000	600,000	600,000	600,000	600,000
예천양수	-	-	800,000	800,000	800,000	800,000	800,000
삼랑진양수	-	600,000	600,000	600,000	600,000	600,000	600,000
청평양수	-	400,000	400,000	400,000	400,000	400,000	400,000
양양양수	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
산청양수	-	700,000	700,000	700,000	700,000	700,000	700,000
청송양수	-	600,000	600,000	600,000	600,000	600,000	600,000
양수수력계	-	3,900,000	4,700,000	4,700,000	4,700,000	4,700,000	4,700,000
소수력 계	-	100,600	126,109	153,750	158,682	171,156	188,929
수력 계	135,000	5,516,540	6,404,389	6,432,030	6,440,462	6,452,936	6,470,709
영동	-	325,000	325,000	325,000	325,000	325,000	325,000
동해	-	400,000	400,000	400,000	400,000	400,000	400,000
서천	-	400,000	400,000	400,000	400,000	400,000	400,000
삼척	25,000	-	-	-	-	-	-
무연탄	25,000	1,125,000	1,125,000	1,125,000	1,125,000	1,125,000	1,125,000
당진	-	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000

(Unit : kW)

2016	2017	2018	2019	2020	2021	End of Plants
108,000	108,000	108,000	108,000	108,000	108,000	Hwacheon
62,280	62,280	62,280	62,280	62,280	62,280	Chuncheon
48,000	48,000	48,000	48,000	48,000	48,000	Uiam
140,100	140,100	140,100	140,100	140,100	140,100	Cheongpyeong
120,000	120,000	120,000	120,000	120,000	120,000	Paldang
82,000	82,000	82,000	82,000	82,000	82,000	Gangneung
34,800	34,800	35,000	35,000	35,000	35,000	Chilbo(Seomjingang)
595,180	595,180	595,380	595,380	595,380	595,380	Total of KEPCO Subsidiaries hydro
200,000	200,000	200,000	200,000	200,000	200,000	Soyanggang(K-Water)
412,000	412,000	412,000	412,000	412,000	412,000	Chungju(K-Water)
90,000	90,000	90,000	90,000	90,000	90,000	Daechung(K-Water)
90,000	90,000	90,000	90,000	90,000	90,000	Andong(K-Water)
100,000	100,000	100,000	100,000	100,000	100,000	Hapchun(K-Water)
50,000	50,000	50,000	50,000	50,000	50,000	Imha(K-Water)
22,500	22,500	22,500	22,500	22,500	22,500	Juam(K-Water)
22,100	22,100	22,100	22,100	22,100	22,100	Yongdam(K-Water)
-	-	-	-	-	18,000	Namgang(K-Water)
-	-	-	-	-	5,000	Chungju3(K-Water)
986,600	986,600	986,600	986,600	986,600	1,009,600	Total of Other co. hydro
1,581,780	1,581,780	1,581,980	1,581,980	1,581,980	1,604,980	Total of hydro
600,000	600,000	600,000	600,000	600,000	600,000	Muju pumping
800,000	800,000	800,000	800,000	800,000	800,000	Yeoicheon pumping
600,000	600,000	600,000	600,000	600,000	600,000	Samnangjin pumping
400,000	400,000	400,000	400,000	400,000	400,000	Ch'ongp'yeong pumping
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Yangyang pumping
700,000	700,000	700,000	700,000	700,000	700,000	Sanchong pumping
600,000	600,000	600,000	600,000	600,000	600,000	Cheongsong pumping
4,700,000	4,700,000	4,700,000	4,700,000	4,700,000	4,700,000	Total of pumping
203,431	207,676	208,430	226,123	223,788	236,355	Total of small hydro
6,485,211	6,489,456	6,490,410	6,508,103	6,505,768	6,541,335	Total of hydro
325,000	200,000	200,000	200,000	-	-	Yeongdong
400,000	400,000	400,000	400,000	400,000	400,000	Donghae
400,000	-	-	-	-	-	Seocheon
-	-	-	-	-	-	Samcheok
1,125,000	600,000	600,000	600,000	400,000	400,000	Total of anthracite coal
5,860,200	6,040,000	6,040,000	6,040,000	6,040,000	6,040,000	Dangin

9. 발전소별 설비 추이 (2)

(단 위 : kW) Trends in Generation Capacity by plants

발전소별 \ 연도별	1961	2010	2011	2012	2013	2014	2015
보령	-	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
삼척그린파워	-	-	-	-	-	-	-
삼천포	-	3,240,000	3,240,000	3,240,000	3,240,000	3,240,000	3,240,000
신보령	-	-	-	-	-	-	-
신서천	-	-	-	-	-	-	-
여수	-	528,600	528,600	328,600	328,600	328,600	328,600
영흥	-	3,340,000	3,340,000	3,340,000	3,340,000	5,080,000	5,080,000
태안	-	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
하동	-	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
호남	-	500,000	500,000	500,000	500,000	500,000	500,000
한전 자회사 유연탄 계	-	23,608,600	23,608,600	23,408,600	23,408,600	25,148,600	25,148,600
북평	-	-	-	-	-	-	-
고성	-	-	-	-	-	-	-
타회사 유연탄 계	-	-	-	-	-	-	-
유연탄 계	-	23,608,600	23,608,600	23,408,600	23,408,600	25,148,600	25,148,600
석탄 계	25,000	24,733,600	24,733,600	24,533,600	24,533,600	26,273,600	26,273,600
남제주	-	200,000	200,000	200,000	200,000	200,000	200,000
울산	-	1,800,000	1,800,000	1,800,000	1,800,000	1,200,000	1,200,000
제주	-	150,000	150,000	150,000	150,000	150,000	150,000
평택	-	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
영남	-	400,000	400,000	400,000	400,000	-	-
제주#1	-	-	-	-	-	-	-
마산	50,000	-	-	-	-	-	-
중유 계	50,000	3,950,000	3,950,000	3,950,000	3,950,000	2,950,000	2,950,000
서울	47,500	387,500	387,500	387,500	387,500	387,500	387,500
인천	-	500,000	500,000	500,000	500,000	-	-
평택	-	-	-	-	-	-	-
가스 계	47,500	887,500	887,500	887,500	887,500	387,500	387,500
기력 계	122,500	29,571,100	29,571,100	29,371,100	29,371,100	29,611,100	29,611,100
군산C/C	-	718,400	718,400	718,400	718,400	718,400	718,400
보령C/C	-	1,800,000	1,350,000	1,350,000	1,350,000	1,350,000	1,350,000
부산C/C	-	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000
분당C/C	-	922,064	922,064	922,064	922,064	922,064	922,064
서울C/C	-	-	-	-	-	-	-
서인천C/C	-	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000

(Unit : kW)

2016	2017	2018	2019	2020	2021	End of Plants
4,000,000	4,000,000	4,000,000	4,000,000	4,050,000	3,050,000	Boryeong
1,022,000	2,044,000	2,044,000	2,044,000	2,044,000	2,044,000	Samcheok Greenpower
3,240,000	3,240,000	3,240,000	3,240,000	3,240,000	2,120,000	Samchonpo
-	1,851,978	1,945,013	2,038,058	2,038,058	2,038,058	Sinboryeong
-	-	-	-	-	1,018,000	Sinseoheon
668,600	668,600	668,600	668,600	668,600	668,600	Yeosu
5,080,000	5,080,000	5,080,000	5,080,000	5,080,000	5,080,000	Yeongheung
5,050,000	6,100,000	6,100,000	6,100,000	6,100,000	6,100,000	Taeon
4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	Hadong
500,000	500,000	500,000	500,000	500,000	-	Honam
29,420,800	33,524,578	33,617,613	33,710,658	33,760,658	32,158,658	Total of KEPCO Subsidiaries bituminous coal
-	1,190,000	1,190,000	1,190,000	1,190,000	1,190,000	Bukpyeong
-	-	-	-	-	2,080,000	Goseong
-	1,190,000	1,190,000	1,190,000	1,190,000	3,270,000	Total of Other co. bituminous coal
29,420,800	34,714,578	34,807,613	34,900,658	34,950,658	35,428,658	Total of bituminous coal
30,545,800	35,314,578	35,407,613	35,500,658	35,350,658	35,828,658	Total of coal
200,000	200,000	200,000	-	-	-	Namjeju
1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	Ulsan
150,000	150,000	150,000	-	-	-	Jeju
1,400,000	1,400,000	1,400,000	1,400,000	-	-	Pyeongtaek
-	-	-	-	-	-	Yeongnam
-	-	-	-	-	-	Jeju #1
-	-	-	-	-	-	Masan
2,950,000	2,950,000	2,950,000	2,600,000	1,200,000	1,200,000	Total of heavy oil
250,000	-	-	-	-	-	Seoul
-	-	-	-	-	-	Incheon
-	-	-	-	1,400,000	1,400,000	Pyeongtaek
250,000	-	-	-	1,400,000	1,400,000	Total of L.N.G
33,745,800	38,264,578	38,357,613	38,100,658	37,950,658	38,428,658	Total of steam
718,400	718,400	718,400	718,400	718,400	718,400	Gunsan C/C
1,350,000	1,350,000	1,350,000	1,350,000	1,350,000	1,350,000	Boryeong C/C
1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	Busan C/C
922,064	922,064	922,064	922,064	922,064	922,064	Bundang C/C
-	-	-	738,346	738,346	738,346	Seoul C/C
1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	Seoincheon C/C

9. 발전소별 설비 추이 (3)

(단 위 : kW) Trends in Generation Capacity by plants

발전소별 \ 연도별	1961	2010	2011	2012	2013	2014	2015
신인천C/C	-	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000
안동C/C	-	-	-	-	-	417,000	361,600
영월C/C	-	848,000	848,000	848,000	848,000	848,000	848,000
울산C/C	-	1,200,000	1,200,000	1,200,000	1,686,000	2,071,900	2,071,900
인천C/C	-	1,012,447	1,012,447	1,012,447	1,462,447	1,462,447	1,462,447
일산C/C	-	900,000	900,000	900,000	900,000	900,000	900,000
제주LNG C/C	-	-	-	-	-	-	-
평택C/C	-	480,000	480,000	480,000	964,000	1,348,500	1,348,500
한림C/C	-	105,000	105,000	105,000	105,000	105,000	105,000
남제주 C/C	-	-	-	-	-	-	-
한전 자회사 복합 계	-	13,385,911	12,935,911	12,935,911	14,355,911	15,543,311	15,487,911
광양C/C	-	989,200	989,200	989,200	989,200	989,200	989,200
당진C/C	-	1,033,750	1,033,750	1,033,750	1,415,750	1,415,750	1,415,750
동두천C/C	-	-	-	-	-	-	1,716,800
부산정관에너지	-	-	-	-	-	-	-
신평택C/C	-	-	-	-	-	-	-
안산C/C	-	-	-	-	-	751,200	751,200
영남파워	-	-	-	-	-	-	-
오성C/C	-	-	-	-	-	769,830	769,830
울촌C/C	-	525,500	525,500	525,500	1,097,100	1,389,700	1,389,700
파주문산C/C	-	-	-	-	-	-	-
포스코에너지C/C	-	1,800,000	2,949,200	2,949,200	2,949,200	3,250,400	3,176,000
포천C/C	-	-	-	-	-	1,450,000	1,450,000
포천천연C/C	-	-	-	-	-	-	-
대산C/C	-	465,800	465,800	465,800	465,800	465,800	465,800
타사 복합 계	-	5,714,250	6,863,450	6,863,450	7,817,050	11,381,880	13,024,280
복합화력 계	-	19,100,161	19,799,361	19,799,361	22,172,961	26,925,191	28,512,191
고리#1	-	587,000	587,000	587,000	587,000	587,000	587,000
고리#2	-	650,000	650,000	650,000	650,000	650,000	650,000
고리#3	-	950,000	950,000	950,000	950,000	950,000	950,000
고리#4	-	950,000	950,000	950,000	950,000	950,000	950,000
신고리#1	-	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
신고리#2	-	-	-	1,000,000	1,000,000	1,000,000	1,000,000
신고리#3	-	-	-	-	-	-	-
신고리#4	-	-	-	-	-	-	-

(Unit : kW)

2016	2017	2018	2019	2020	2021	End of Plants
1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	Shincheon C/C
361,600	361,600	361,600	361,600	361,600	361,600	Andong C/C
848,000	848,000	848,000	848,000	848,000	848,000	Yeongwol C/C
2,071,900	2,071,900	2,071,900	2,071,900	2,071,900	2,071,900	Ulsan C/C
1,462,447	1,462,447	1,462,447	1,462,447	1,462,447	1,462,447	Incheon C/C
900,000	900,000	900,000	900,000	900,000	900,000	Ilisan C/C
-	-	187,446	208,090	228,734	228,734	Jeju LNG C/C
1,348,500	1,348,500	868,500	868,500	868,500	868,500	Pyeongtaek C/C
105,000	105,000	105,000	105,000	105,000	105,000	Hanlim C/C
-	-	-	-	146,245	146,245	Namjeju C/C
15,487,911	15,487,911	15,195,357	15,954,347	16,121,236	16,121,236	Total of KEPCO Subsidiaries C/C
989,200	989,200	989,200	989,200	989,200	989,200	Kwangyang C/C
1,415,750	2,261,750	2,261,750	2,261,750	2,261,750	2,261,750	Dangjin C/C
1,716,800	1,716,800	1,716,800	1,716,800	1,716,800	1,716,800	Dongducheon C/C
-	45,836	45,836	45,836	45,836	45,836	Busanjeongwan energy
-	-	-	863,300	863,300	863,300	Shinpyeongtaek C/C
751,200	751,200	751,200	751,200	751,200	751,200	Ansan C/C
-	442,800	442,800	442,800	442,800	442,800	Yeongnam power
769,830	769,830	769,830	769,830	769,830	769,830	Oseong C/C
1,389,700	1,389,700	1,389,700	1,389,700	1,389,700	1,389,700	Yulchon C/C
-	1,695,200	1,695,200	1,695,200	1,695,200	1,695,200	Pajumunsan C/C
3,176,000	3,176,000	3,176,000	3,176,000	3,176,000	3,176,000	POSCO energy C/C
1,450,000	1,450,000	1,450,000	1,450,000	1,450,000	1,450,000	Pocheon C/C
-	874,200	874,200	874,200	874,200	874,200	Pocheoncheonyeon C/C
465,800	465,800	465,800	465,800	465,800	465,800	Daesan C/C
13,024,280	16,928,316	16,028,316	16,891,616	16,891,616	16,891,616	Total of Other co. C/C
28,512,191	32,416,227	31,223,673	32,845,963	33,012,852	33,012,852	Total of combined cycle
587,000	-	-	-	-	-	Kori #1
650,000	650,000	650,000	650,000	650,000	650,000	Kori #2
950,000	950,000	950,000	950,000	950,000	950,000	Kori #3
950,000	950,000	950,000	950,000	950,000	950,000	Kori #4
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Sinkori #1
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Sinkori #2
1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	Sinkori #3
-	-	-	1,400,000	1,400,000	1,400,000	Sinkori #4

9. 발전소별 설비 추이 (4)

(단 위 : kW) Trends in Generation Capacity by plants

발전소별 \ 연도별	1961	2010	2011	2012	2013	2014	2015
월성#1	-	678,683	678,683	678,683	678,683	678,683	678,683
월성#2	-	700,000	700,000	700,000	700,000	700,000	700,000
월성#3	-	700,000	700,000	700,000	700,000	700,000	700,000
월성#4	-	700,000	700,000	700,000	700,000	700,000	700,000
신월성#1	-	-	-	1,000,000	1,000,000	1,000,000	1,000,000
신월성#2	-	-	-	-	-	-	1,000,000
한빛#1	-	950,000	950,000	950,000	950,000	950,000	950,000
한빛#2	-	950,000	950,000	950,000	950,000	950,000	950,000
한빛#3	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
한빛#4	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
한빛#5	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
한빛#6	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
한울#1	-	950,000	950,000	950,000	950,000	950,000	950,000
한울#2	-	950,000	950,000	950,000	950,000	950,000	950,000
한울#3	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
한울#4	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
한울#5	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
한울#6	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
원자력 계	-	17,715,683	18,715,683	20,715,683	20,715,683	20,715,683	21,715,683
태양광	-	-	-	-	-	-	-
풍력	-	-	-	-	-	-	-
해양에너지	-	-	-	-	-	-	-
바이오매스	-	-	-	-	-	-	-
바이오중유	-	-	-	-	-	-	-
매립가스	-	-	-	-	-	-	-
폐기물에너지	-	-	-	-	-	-	-
연료전지	-	-	-	-	-	-	-
석탄액화가스	-	-	-	-	-	-	-
신재생 계	-	-	-	-	-	-	-
세종열병합C/C	-	-	-	-	530,441	530,441	530,441
타사집단계	-	2,066,724	2,623,224	2,623,224	3,875,898	3,792,068	4,829,579
집단 계	-	2,066,724	2,623,224	2,623,224	4,406,339	4,322,509	5,360,020
제주G/T	-	165,000	165,000	165,000	165,000	165,000	165,000
제주내연	-	80,000	80,000	80,000	80,000	80,000	80,000
가거도	-	750	750	1,050	1,050	1,050	1,050

※ 2016년 이후 신재생 세부분류 표기

(Unit : kW)

2016	2017	2018	2019	2020	2021	End of Plants
678,683	678,683	-	-	-	-	Wolsong #1
700,000	700,000	700,000	700,000	700,000	700,000	Wolsong #2
700,000	700,000	700,000	700,000	700,000	700,000	Wolsong #3
700,000	700,000	700,000	700,000	700,000	700,000	Wolsong #4
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Sinwolsong #1
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Sinwolsong #2
950,000	950,000	950,000	950,000	950,000	950,000	Hanbit #1
950,000	950,000	950,000	950,000	950,000	950,000	Hanbit #2
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Hanbit #3
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Hanbit #4
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Hanbit #5
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Hanbit #6
950,000	950,000	950,000	950,000	950,000	950,000	Hanul #1
950,000	950,000	950,000	950,000	950,000	950,000	Hanul #2
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Hanul #3
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Hanul #4
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Hanul #5
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Hanul #6
23,115,683	22,528,683	21,850,000	23,250,000	23,250,000	23,250,000	Total of nuclear
3,716,319	5,062,309	7,129,860	10,505,103	14,574,793	18,521,148	Solar
1,051,006	1,214,822	1,420,330	1,512,221	1,635,802	1,708,043	Wind power
255,110	255,110	255,000	255,500	255,500	255,500	Ocean energy
282,412	425,466	470,253	483,503	971,988	1,096,032	Biomass
-	-	-	350,000	350,000	350,000	Bio heavy-oil
68,956	68,956	67,406	66,148	-	-	Landfill-gas
186,635	211,529	234,439	266,602	-	-	Waste-burnup
214,820	246,900	343,691	464,146	604,714	737,109	Fuel cell
346,330	346,330	346,330	346,330	346,330	346,330	IGCC
7,477,088	9,186,923	11,622,809	14,249,553	18,739,127	23,014,162	Total of New&Renewable energy
530,441	530,441	530,441	530,441	530,441	530,441	Sejong
5,669,703	7,151,863	8,677,243	8,660,543	8,660,543	8,698,733	Total of Other co. Group energy
6,200,144	7,682,304	9,207,684	9,190,984	9,190,984	9,229,174	Total of Group energy
165,000	165,000	165,000	165,000	-	-	Jeju G/T
80,000	80,000	80,000	80,000	80,000	80,000	Jeju D/P
1,050	1,050	1,050	1,050	1,050	1,800	Gageodo

※ Detailed classification of new&renewable energy is notated since 2016

9. 발전소별 설비 추이 (5)

(단 위 : kW) Trends in Generation Capacity by plants

발전소별 \ 연도별	1961	2010	2011	2012	2013	2014	2015
가의도	-	240	240	240	240	240	240
가파도	-	450	450	450	450	450	450
개야도	-	1,500	1,500	1,500	1,500	1,500	1,500
거문도	-	3,500	3,500	3,500	3,500	3,500	3,500
고대도	-	300	300	300	300	300	300
구자도	-	240	240	240	240	240	240
낙월도	-	750	750	750	750	750	750
녹도	-	240	240	260	260	260	260
대청도	-	1,850	1,850	3,550	3,550	3,550	3,550
덕우도	-	390	390	390	390	390	390
덕적도	-	2,900	2,900	2,900	2,900	2,900	2,900
독거도	-	240	240	160	160	160	160
득량도	-	300	300	300	300	300	300
마라도	-	-	-	-	-	-	-
매물도	-	240	240	240	240	240	240
문갑도	-	240	240	240	240	240	240
백령도	-	9,000	9,000	9,000	9,600	9,600	9,600
비안도	-	240	240	240	240	240	240
비양도	-	240	240	240	240	240	240
삼시도	-	900	900	900	900	900	900
상화도	-	-	-	240	240	240	240
성남도	-	240	240	160	160	160	160
소연평도	-	-	-	-	300	300	300
소청도	-	2,650	2,650	2,650	2,650	2,650	2,650
손죽도	-	-	-	300	300	300	300
송이도	-	240	240	260	260	260	260
수우도	-	240	240	160	160	160	160
슬도	-	240	240	240	240	240	240
승봉도	-	950	950	1,950	1,950	1,950	1,950
시산도	-	750	750	750	750	750	750
어룡도	-	240	240	240	240	240	240
어의도	-	240	240	160	160	160	160
어침도	-	900	900	900	1,250	1,250	1,250
여서도	-	240	240	240	240	240	240
여자도	-	450	450	450	450	450	450

(Unit : kW)

2016	2017	2018	2019	2020	2021	End of Plants
240	240	240	240	240	240	Gauido
450	450	450	450	450	450	Gapado
1,500	1,500	1,500	1,500	1,500	1,500	Gaeyado
3,500	4,500	4,500	4,500	4,500	4,500	Geomundo
300	400	400	400	400	400	Godaedo
240	240	240	240	240	240	Gujado
750	750	750	750	750	750	Nakwoldo
260	260	260	260	260	260	Nokdo
3,550	3,550	3,550	3,550	3,550	3,550	Daecheongdo
390	390	390	390	390	390	Deokwoodo
2,900	2,900	2,900	2,900	2,900	2,900	Duckjuckdo
160	160	160	160	160	160	Doggeodo
300	300	300	300	300	300	Deukryangdo
-	-	-	637	700	700	Marado
240	450	450	450	450	450	Maemuldo
240	240	240	240	240	240	Mungabdo
9,600	15,000	15,000	15,000	15,000	15,000	Baekryeongdo
240	280	280	450	450	450	Biando
240	240	240	240	240	240	Biyangdo
900	1,600	1,600	1,600	1,600	1,600	Sabsido
240	240	240	240	240	240	Sanghwado
160	160	160	160	160	160	Seongnamdo
300	600	600	600	600	600	Yeonpyeongdo
2,400	2,400	2,400	2,400	2,400	2,400	Socheongdo
300	300	300	300	300	300	Sonjukdo
260	260	260	300	300	300	Songido
160	160	160	160	160	160	Suwoodo
240	240	240	240	240	240	Seuldo
1,950	1,950	1,950	1,950	1,950	1,950	Seungbongdo
750	750	750	750	750	750	Sisando
240	240	240	240	240	240	Eoryongdo
160	160	160	160	160	160	Eoeudo
1,250	1,250	1,250	1,250	1,250	1,250	Yeoecheongdo
240	240	240	240	240	240	Yeoseodo
450	450	450	450	450	450	Yeogado

9. 발전소별 설비 추이 (6)

(단 위 : kW) Trends in Generation Capacity by plants

발전소별 \ 연도별	1961	2010	2011	2012	2013	2014	2015
연도	-	240	240	260	260	260	260
연평도	-	3,350	3,350	7,700	7,700	7,700	7,700
영산도	-	-	-	-	-	-	-
왕등도	-	-	-	240	240	240	240
외도	-	-	-	-	-	-	-
외연도	-	750	750	750	750	750	750
울도	-	-	-	240	240	240	240
울릉도	-	9,500	9,500	12,500	12,500	12,500	12,500
위도	-	2,850	2,850	2,850	2,850	2,850	2,850
자월도	-	1,650	1,650	1,650	1,650	1,650	1,650
장고도	-	240	240	240	240	240	240
조도	-	2,200	2,200	2,000	2,000	2,000	2,000
초도	-	-	-	750	750	750	750
추도	-	240	240	240	240	240	240
추자도	-	4,400	4,400	4,400	5,500	5,500	5,500
평도	-	-	-	240	240	240	240
풍도	-	240	240	240	240	240	240
호도	-	300	300	300	300	300	300
홍도	-	2,350	2,350	2,350	2,350	2,350	2,350
화도	-	-	-	240	240	240	240
흑산도	-	3,500	3,500	4,000	4,000	4,000	4,000
한림	160	-	-	-	-	-	-
거제(완도)	64	-	-	-	-	-	-
모슬포	200	-	-	-	-	-	-
서귀포	100	-	-	-	-	-	-
제주	750	-	-	-	-	-	-
남제주	-	40,000	40,000	40,000	-	-	-
대모도	-	750	750	-	-	-	-
신시도	-	300	-	-	-	-	-
장자도	-	1,250	-	-	-	-	-
내연력 계	-	308,700	308,700	321,340	323,690	323,690	323,690
기타 ¹⁾ 계	-	-	-	-	-	-	-
한전, 사회사계	267,254	65,520,696	66,961,398	68,802,991	70,800,177	72,250,887	73,226,564
타사계	-	10,518,514	12,336,297	12,957,468	16,123,643	20,910,550	24,366,649
총계	267,254	76,039,210	79,297,695	81,760,459	86,923,820	93,161,438	97,593,214

1) 기타 : 중류탑페열, 신승에너지 여열회수, 김해 천연가스압터빈, 부생가스, 폐기물에너지

(Unit : kW)

2016	2017	2018	2019	2020	2021	End of Plants
260	260	260	260	260	600	yeondo
7,700	7,700	7,700	7,700	7,700	7,700	Yeonpyeongdo
-	240	240	240	240	240	Yeongsando
240	240	240	240	240	240	Wangdeungdo
-	220	220	220	220	220	Yoido
750	750	750	750	750	750	Yoiyeondo
240	240	240	240	240	240	Wooldo
12,500	18,500	18,500	18,500	18,500	18,500	Ulleungdo
2,850	2,850	2,850	2,850	2,850	2,850	Wido
1,650	1,650	1,650	1,650	1,650	1,650	Gawoldo
240	450	450	450	450	450	Janggodo
2,000	3,400	3,400	3,400	3,400	3,400	Jodo
750	750	750	750	750	750	Chodo
240	240	240	240	240	280	Chudo
5,500	5,500	5,500	5,500	5,500	5,500	Chujado
240	240	240	240	240	240	Pyeongdo
240	450	450	450	450	450	Pungdo
300	300	300	600	600	600	Hodo
2,350	2,350	2,350	2,350	2,350	2,350	Hongdo
240	240	240	240	240	240	Whado
4,000	4,000	4,000	4,000	4,000	4,000	Heuksando
-	-	-	-	-	-	Hanlim
-	-	-	-	-	-	Geoje
-	-	-	-	-	-	Mosipo
-	-	-	-	-	-	Seogwipo
-	-	-	-	-	-	Jeju
-	-	-	-	-	-	Namjeju
-	-	-	-	-	-	Daemodo
-	-	-	-	-	-	Sinsido
-	-	-	-	-	-	Jangjado
323,440	339,470	339,470	340,617	175,680	176,810	Total of internal combustion
-	-	-	851,790	366,204	366,784	Others
79,216,544	82,132,490	81,362,425	83,672,341	83,853,696	82,459,277	Total of KEPCO & Subsidiaries
26,649,013	34,775,150	37,729,234	41,665,327	45,337,578	51,560,498	Total of Other Co.
105,865,557	116,907,641	119,091,660	125,337,669	129,191,273	134,019,775	Total

10. 발전소별 설비 현황 (1)

('21.12.31현재) Generation Capacity by Plants

(As of Dec. 31. '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
한수원	화천	108,000	27,000	4	강원	Hwacheon
한수원	춘천	62,280	31,140	2	강원	Chuncheon
한수원	의암	48,000	24,000	2	강원	Uiam
한수원	청평	39,600	19,800	2	경기	Cheongpyeong
한수원	청평	40,500	40,500	1	경기	Cheongpyeong
한수원	청평	60,000	60,000	1	경기	Cheongpyeong
한수원	팔당	120,000	30,000	4	경기	Paldang
한수원	강릉	82,000	41,000	2	강원	Gangneung
한수원	섬진강	14,600	14,600	1	전북	Seomjingang
한수원	섬진강	14,400	14,400	1	전북	Seomjingang
한수원	섬진강	6,000	6,000	1	전북	Seomjingang
수자원공사	소양강	200,000	100,000	2	강원	Soyanggang
수자원공사	충주	400,000	100,000	4	충북	Chungju
수자원공사	충주	12,000	6,000	2	충북	Chungju
수자원공사	대청	90,000	45,000	2	충북	Daechung
수자원공사	안동	90,000	45,000	2	경북	Andong
수자원공사	합천	100,000	50,000	2	경남	Hapchun
수자원공사	임하	50,000	25,000	2	경북	Imha
수자원공사	주암	22,500	11,250	2	전남	Juam
수자원공사	용담	22,100	11,050	2	전북	Yongdam
수자원공사	남강	18,000	9,000	2	경남	Namgang
수자원공사	충주3	5,000	5,000	1	충북	Chungju3
일반수력 계		1,604,980		44		Total of general hydro
한수원	무주양수	600,000	300,000	2	전북	Muju pumping
한수원	예천양수	800,000	400,000	2	경북	Yeoicheon pumping
한수원	삼랑진양수	600,000	300,000	2	경남	Samnangjin pumping
한수원	청평양수	400,000	200,000	2	경기	Cheongpyeong pumping
한수원	양양양수	1,000,000	250,000	4	강원	Yangyang pumping
한수원	청송양수	600,000	300,000	2	경북	Cheongsong pumping
한수원	산청양수	700,000	350,000	2	경남	Sanchong pumping
양수 계		4,700,000		16		Total of pumping
소수력계		236,355		180		Total of small hydro
수력 계		6,541,335		240		Total of hydro
동서	동해	400,000	200,000	2	강원	Donghae
무연탄 계		400,000		2		Total of anthracite coal
동서	당진	4,000,000	500,000	8	충남	Dangjin
동서	당진	2,040,000	1,020,000	2	충남	Dangjin

10. 발전소별 설비 현황 (2)

('21.12.31현재) Generation Capacity by Plants

(As of Dec. 31. '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
중부	보령	2,500,000	500,000	5	충남	Boryeong
중부	보령	550,000	550,000	1	충남	Boryeong
남부	삼척그린파워	2,044,000	1,022,000	2	강원	SamcheokGreenpower
남동	삼천포	1,120,000	560,000	2	경남	Samchonpo
남동	삼천포	1,000,000	500,000	2	경남	Samchonpo
중부	신보령	2,038,058	1,019,029	2	충남	Sinboryeong
중부	신서천	1,018,000	1,018,000	1	충남	Sinseocheon
남동	여수	328,600	328,600	1	전남	Yeosu
남동	여수	340,000	340,000	1	전남	Yeosu
남동	영흥	1,600,000	800,000	2	인천	Yeongheung
남동	영흥	3,480,000	870,000	4	인천	Yeongheung
서부	태안	4,000,000	500,000	8	충남	Taeon
서부	태안	2,100,000	1,050,000	2	충남	Taeon
남부	하동	4,000,000	500,000	8	경남	Hadong
GS동해전력	북평	1,190,000	595,000	2	강원	Bukpyeong
고성그린파워	고성	2,080,000	1,040,000	2	경남	Goseong
유연탄 계		35,428,658		55		Total of bituminous coal
동서	울산	1,200,000	400	3	울산	Ulsan
유류 계		1,200,000		3		Total of heavy oil
서부	평택	1,400,000	350	4	경기	Pyeongtaek
가스 계		1,400,000		4		Total of heavy oil
기력 계		38,428,658		64		Total of steam
서부	군산C/C	466,600	233,300	2(GT복합)	전북	GunsanC/C
서부	군산C/C	251,800	251,800	1(ST복합)	전북	GunsanC/C
남부	남제주C/C	97,028	48,514	2(GT복합)	제주	NamjejuC/C
남부	남제주C/C	49,217	49,217	1(ST복합)	제주	NamjejuC/C
중부	보령C/C	900,000	150,000	6(GT복합)	충남	BoryeongC/C
중부	보령C/C	450,000	150,000	3(ST복합)	충남	BoryeongC/C
남부	부산C/C	1,200,000	150,000	8(GT복합)	부산	BusanC/C
남부	부산C/C	600,000	150,000	4(ST복합)	부산	BusanC/C
남동	분당C/C	622,064	77,758	8(GT복합)	경기	BundangC/C
남동	분당C/C	185,000	185,000	1(ST복합)	경기	BundangC/C
남동	분당C/C	115,000	115,000	1(ST복합)	경기	BundangC/C
중부	서울C/C	482,596	241,298	2(GT복합)	서울	SeoulC/C
중부	서울C/C	255,750	127,875	2(ST복합)	서울	SeoulC/C
서부	서인천C/C	1,200,000	150,000	8(GT복합)	인천	SeoincheonC/C
서부	서인천C/C	600,000	75,000	8(ST복합)	인천	SeoincheonC/C

10. 발전소별 설비 현황 (3)

('21.12.31현재) Generation Capacity by Plants

(As of Dec. 31. '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
남부	신인천C/C	1,200,000	150,000	8(GT복합)	인천	ShinincheonC/C
남부	신인천C/C	600,000	150,000	4(ST복합)	인천	ShinincheonC/C
남부	안동C/C	234,500	234,500	1(GT복합)	경북	AndongC/C
남부	안동C/C	127,100	127,100	1(ST복합)	경북	AndongC/C
남부	영월C/C	549,000	183,000	3(GT복합)	강원	YeongwolC/C
남부	영월C/C	299,000	299,000	1(ST복합)	강원	YeongwolC/C
동서	울산C/C	200,000	100,000	2(GT복합)	울산	UlsanC/C
동서	울산C/C	100,000	100,000	1(ST복합)	울산	UlsanC/C
동서	울산C/C	600,000	150,000	4(GT복합)	울산	UlsanC/C
동서	울산C/C	300,000	150,000	2(ST복합)	울산	UlsanC/C
동서	울산C/C	573,200	286,600	2(GT복합)	울산	UlsanC/C
동서	울산C/C	298,700	298,700	1(ST복합)	울산	UlsanC/C
중부	인천C/C	321,458	160,729	2(GT복합)	인천	IncheonC/C
중부	인천C/C	182,081	182,081	1(ST복합)	인천	IncheonC/C
중부	인천C/C	327,958	163,979	2(GT복합)	인천	IncheonC/C
중부	인천C/C	180,950	180,950	1(ST복합)	인천	IncheonC/C
중부	인천C/C	300,000	150,000	2(GT복합)	인천	IncheonC/C
중부	인천C/C	150,000	150,000	1(ST복합)	인천	IncheonC/C
동서	일산C/C	600,000	100,000	6(GT복합)	경기	IlsanC/C
동서	일산C/C	200,000	200,000	1(ST복합)	경기	IlsanC/C
동서	일산C/C	100,000	100,000	1(ST복합)	경기	IlsanC/C
중부	제주LNG C/C	143,786	71,893	2(GT복합)	제주	Jeju LNG C/C
중부	제주LNG C/C	84,948	42,474	2(ST복합)	제주	Jeju LNG C/C
서부	평택C/C	572,600	286,300	2(GT복합)	경기	PyeongtaekC/C
서부	평택C/C	295,900	295,900	1(ST복합)	경기	PyeongtaekC/C
남부	한림C/C	70,000	35,000	2(GT유류)	제주	HanlimC/C
남부	한림C/C	35,000	35,000	1(ST유류)	제주	HanlimC/C
에스케이이엔에스(주)	광양C/C	612,400	153,100	4(GT복합)	전남	KwangyangC/C
에스케이이엔에스(주)	광양C/C	376,800	188,400	2(ST복합)	전남	KwangyangC/C
GS EPS	당진C/C	321,920	160,960	2(GT복합)	충남	DangjinC/C
GS EPS	당진C/C	178,830	178,830	1(ST복합)	충남	DangjinC/C
GS EPS	당진C/C	349,000	174,500	2(GT복합)	충남	DangjinC/C
GS EPS	당진C/C	184,000	184,000	1(ST복합)	충남	DangjinC/C

10. 발전소별 설비 현황 (4)

('21.12.31현재) Generation Capacity by Plants

(As of Dec. 31. '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
GS EPS	당진C/C	250,000	250,000	1(GT복합)	충남	DangjinC/C
GS EPS	당진C/C	132,000	132,000	1(ST복합)	충남	DangjinC/C
GS EPS	당진C/C	539,600	269,800	2(GT복합)	충남	DangjinC/C
GS EPS	당진C/C	306,400	306,400	1(ST복합)	충남	DangjinC/C
동두천드림파워(주)	동두천C/C	1,145,200	286,300	4(GT복합)	경기	DongducheonC/C
동두천드림파워(주)	동두천C/C	571,600	285,800	2(ST복합)	경기	DongducheonC/C
부산정관에너지	부산정관에너지	26,650	26,650	1(GT복합)	부산	Busanjeonggwan energy
부산정관에너지	부산정관에너지	19,186	19,186	1(ST복합)	부산	Busanjeonggwan energy
신평택발전(주)	신평택C/C	580,400	290,200	2(GT복합)	경기	ShinpyeontakC/C
신평택발전(주)	신평택C/C	282,900	282,900	1(ST복합)	경기	ShinpyeontakC/C
(주)에스파워	안산C/C	485,800	242,900	2(GT복합)	경기	AnsanC/C
(주)에스파워	안산C/C	265,400	265,400	1(ST복합)	경기	AnsanC/C
코스포영남파워(주)	영남파워	292,000	292,000	1(GT복합)	울산	Yeongnampower
코스포영남파워(주)	영남파워	150,800	150,800	1(ST복합)	울산	Yeongnampower
평택에너지서비스(주)	오성C/C	497,040	165,680	3(GT복합)	경기	OseongC/C
평택에너지서비스(주)	오성C/C	272,790	272,790	1(ST복합)	경기	OseongC/C
씨지앤울촌전력(주)	울촌C/C	571,600	285,800	2(GT복합)	전남	YulchonC/C
씨지앤울촌전력(주)	울촌C/C	292,600	292,600	1(ST복합)	전남	YulchonC/C
씨지앤울촌전력(주)	울촌C/C	327,600	163,800	2(GT복합)	전남	YulchonC/C
씨지앤울촌전력(주)	울촌C/C	197,900	197,900	1(ST복합)	전남	YulchonC/C
파주에너지서비스(주)	파주문산C/C	1,102,000	275,500	4(GT복합)	경기	PajumunsanC/C
파주에너지서비스(주)	파주문산C/C	593,200	296,600	2(ST복합)	경기	PajumunsanC/C
포스코에너지	포스코에너지C/C	732,800	183,200	4(GT복합)	인천	POSCOenergyC/C
포스코에너지	포스코에너지C/C	416,400	208,200	2(ST복합)	인천	POSCOenergyC/C
포스코에너지	포스코에너지C/C	728,100	242,700	3(GT복합)	인천	POSCOenergyC/C
포스코에너지	포스코에너지C/C	398,700	132,900	3(ST복합)	인천	POSCOenergyC/C
포스코에너지	포스코에너지C/C	600,000	100,000	6(GT복합)	인천	POSCOenergyC/C
포스코에너지	포스코에너지C/C	300,000	150,000	2(ST복합)	인천	POSCOenergyC/C
포천파워(주)	포천C/C	962,000	240,500	4(GT복합)	경기	PocheonC/C
포천파워(주)	포천C/C	488,000	244,000	2(ST복합)	경기	PocheonC/C
포천민자발전(주)	포천천연C/C	575,400	287,700	2(GT복합)	경기	PocheoncheonyeonC/C
포천민자발전(주)	포천천연C/C	298,800	298,800	1(ST복합)	경기	PocheoncheonyeonC/C
씨지앤대산전력(주)	대산C/C	374,800	93,700	4(GT유류)	충남	DaesanC/C
씨지앤대산전력(주)	대산C/C	91,000	91,000	1(ST유류)	충남	DaesanC/C
복합계		33,012,852		197		Total of combined cycle

10. 발전소별 설비 현황 (5)

('21.12.31현재) Generation Capacity by Plants

(As of Dec. 31. '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
한수원	고리#2	650,000	650,000	1	부산	Kori#2
한수원	고리#3	950,000	950,000	1	부산	Kori#3
한수원	고리#4	950,000	950,000	1	부산	Kori#4
한수원	신고리#1	1,000,000	1,000,000	1	부산	Sinkori#1
한수원	신고리#2	1,000,000	1,000,000	1	부산	Sinkori#2
한수원	신고리#3	1,400,000	1,400,000	1	울산	Sinkori#3
한수원	신고리#4	1,400,000	1,400,000	1	울산	Sinkori#4
한수원	월성#2	700,000	700,000	1	경북	Wolsong#2
한수원	월성#3	700,000	700,000	1	경북	Wolsong#3
한수원	월성#4	700,000	700,000	1	경북	Wolsong#4
한수원	신월성#1	1,000,000	1,000,000	1	경북	Sinwolsong#1
한수원	신월성#2	1,000,000	1,000,000	1	경북	Sinwolsong#2
한수원	한빛#1	950,000	950,000	1	전남	Hanbit#1
한수원	한빛#2	950,000	950,000	1	전남	Hanbit#2
한수원	한빛#3	1,000,000	1,000,000	1	전남	Hanbit#3
한수원	한빛#4	1,000,000	1,000,000	1	전남	Hanbit#4
한수원	한빛#5	1,000,000	1,000,000	1	전남	Hanbit#5
한수원	한빛#6	1,000,000	1,000,000	1	전남	Hanbit#6
한수원	한울#1	950,000	950,000	1	경북	Hanul#1
한수원	한울#2	950,000	950,000	1	경북	Hanul#2
한수원	한울#3	1,000,000	1,000,000	1	경북	Hanul#3
한수원	한울#4	1,000,000	1,000,000	1	경북	Hanul#4
한수원	한울#5	1,000,000	1,000,000	1	경북	Hanul#5
한수원	한울#6	1,000,000	1,000,000	1	경북	Hanul#6
원자력 계		23,250,000		24		Total of nuclear
신재생	태양광 계	18,521,148		99,010		Total of Solar
신재생	풍력 계	1,708,043		128		Total of Windpower
신재생	해양에너지 계	255,500		3		Total of Ocean energy
신재생	바이오매스 계	1,096,032		96		Total of Bio
신재생	바이오중유 계	350,000		4		Total of Bio heavy-oil
신재생	연료전지 계	737,109		83		Total of Fuelcell
신재생	석탄액화가스 계	346,330		1		Total of IGCC
신재생 계		23,014,162		99,325		Total of New&Renew. Energy

10. 발전소별 설비 현황 (6)

('21.12.31현재) Generation Capacity by Plants

(As of Dec. 31, '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
중부	세종열병합	334,208	167,104	2	세종	Sejong
중부	세종열병합	196,233	196,233	1	세종	Sejong
(주)GS E&R	구미열병합	97,100	97,100	1	경북	Gumi
에스지씨에너지(주)	SGC에너지	250,000	250,000	1	전북	SGC
에스지씨에너지(주)	SGC에너지	28,500	28,500	1	전북	SGC
에스지씨에너지(주)	SGC에너지	54,529	54,529	1	전북	SGC
에스지씨에너지(주)	SGC에너지	30,540	30,540	1	전북	SGC
에스지씨에너지(주)	SGC에너지	60,000	60,000	1	전북	SGC
금호석유화학	금호여수열병합	119,130	119,130	1	전남	Gumhoyeosu
금호석유화학	금호여수열병합	144,970	144,970	1	전남	Gumhoyeosu
김천에너지(주)	김천열병합	59,000	59,000	1	경북	Gimcheon
대구염색관리공단	대구염색열병합	72,900	72,900	1	대구	Daeguyeomsaek
(주)GS E&R	반월열병합	83,455	83,455	1	경기	Banwol
부산경남염색	부산염색	19,000	19,000	1	부산	Busan
(주)상공에너지	상공에너지열병합	9,800	9,800	1	전북	Sanggong
OCI SE(주)	새만금열병합	303,000	151,500	2	전북	Saemangum
데이원에너지주식회사	데이원에너지	48,400	48,400	1	전남	Yeosu
전북집단에너지(주)	전북집단에너지	19,000	19,000	1	전북	Iksan
지에스포천그린에너지	포천그린에너지	169,900	169,900	1	경기	Pocheongreenenergy
난방공사	대구열병합	43,500	43,500	1	대구	Daegu
대전열병합발전(주)	대전열병합	88,000	88,000	1	대전	Daejeon
무림파워텍	무림열병합	26,300	26,300	1	경남	Murim
난방공사	수원열병합	43,200	43,200	1	경기	Suwon
난방공사	청주열병합	58,300	58,300	1	충북	Cheongju
난방공사	광교열병합	102,588	102,588	1	경기	Gwanggyo
난방공사	광교열병합	42,200	42,200	1	경기	Gwanggyo
서울에너지공사	노원열병합	37,000	37,000	1	서울	Nowon
(주)미래엔인천에너지	논현열병합	24,000	24,000	1	인천	Nonhyeon
대구그린파워(주)	대구그린파워	239,900	239,900	1	대구	Daegugreenpower
대구그린파워(주)	대구그린파워	130,800	130,800	1	대구	Daegugreenpower
토지주택공사	대전서남부열병합	48,300	48,300	1	대전	Daejeonseonambu
난방공사	동탄열병합	492,940	246,470	2	경기	Dongtan
난방공사	동탄열병합	263,820	131,910	2	경기	Dongtan

10. 발전소별 설비 현황 (7)

('21.12.31현재) Generation Capacity by Plants

(As of Dec. 31, '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
디에스파워(주)	명품오산열병합	289,300	289,300	1	경기	Myeongpumosan
디에스파워(주)	명품오산열병합	146,800	146,800	1	경기	Myeongpumosan
서울에너지공사	목동열병합	21,000	21,000	1	서울	Mokdong
별내에너지(주)	별내열병합	80,060	40,030	2	경기	Byeolnae
별내에너지(주)	별내열병합	35,350	35,350	1	경기	Byeolnae
GS POWER	부천C/C	300,000	100,000	3	경기	BucheonC/C
GS POWER	부천C/C	150,000	150,000	1	경기	BucheonC/C
인천종합에너지	송도열병합	134,900	67,450	2	인천	Songdo
인천종합에너지	송도열병합	52,400	52,400	1	인천	Songdo
수완에너지주식회사	수완열병합	80,066	40,033	2	광주	Suwan
수완에너지주식회사	수완열병합	35,180	35,180	1	광주	Suwan
서울에너지공사	신정열병합	6,000	6,000	1	서울	Sinjeong
토지주택공사	아산배방열병합	79,300	39,650	2	충남	Asanbaebang
토지주택공사	아산배방열병합	22,400	22,400	1	충남	Asanbaebang
안산도시개발	안산열병합	60,000	60,000	1	경기	Ansan
GS POWER	안양열병합	641,440	320,720	2	경기	Anyang
GS POWER	안양열병합	321,940	160,970	2	경기	Anyang
대륜발전(주)	양주열병합	330,000	165,000	2	경기	Yangju
대륜발전(주)	양주열병합	194,300	194,300	1	경기	Yangju
위례에너지서비스(주)	위례열병합	270,400	270,400	1	경기	Wirye
위례에너지서비스(주)	위례열병합	142,200	142,200	1	경기	Wirye
인천공항에너지	인천공항C/C	94,000	47,000	2	인천	Incheongonghang
인천공항에너지	인천공항C/C	33,000	33,000	1	인천	Incheongonghang
춘천에너지(주)	춘천열병합	287,800	287,800	1	강원	Chuncheon
춘천에너지(주)	춘천열병합	143,400	143,400	1	강원	Chuncheon
난방공사	파주열병합	326,800	163,400	2	경기	Paju
난방공사	파주열병합	188,700	188,700	1	경기	Paju
난방공사	판교열병합	77,863	77,863	1	경기	Pangyo
난방공사	판교열병합	68,451	68,451	1	경기	Pangyo
나래에너지서비스(주)	하남열병합	240,750	240,750	1	경기	Hanam
나래에너지서비스(주)	하남열병합	123,061	123,061	1	경기	Hanam
난방공사	화성열병합	321,600	160,800	2	경기	Hwaseong
난방공사	화성열병합	190,200	190,200	1	경기	Hwaseong
집단에너지 계		9,229,174		82		Total of Group energy

10. 발전소별 설비 현황 (8)

(’21.12.31현재) Generation Capacity by Plants

(As of Dec. 31. '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
중부	제주내연	80,000	40,000	2	제주	JejuD/P
한국전력	가거도	1,500	500	3	전남	Gageodo
한국전력	가거도	300	300	1	전남	Gageodo
한국전력	가의도	240	80	3	충남	Gauido
한국전력	가파도	450	150	3	제주	Gapado
한국전력	개야도	500	250	2	전북	Gaeyado
한국전력	개야도	1,000	500	2	전북	Gaeyado
한국전력	거문도	4,000	1,000	4	전남	Geomundo
한국전력	거문도	500	500	1	전남	Geomundo
한국전력	고대도	100	100	1	충남	Godaedo
한국전력	고대도	300	150	2	충남	Godaedo
한국전력	대청도	2,600	1,300	2	인천	Daecheongdo
한국전력	대청도	450	450	1	인천	Daecheongdo
한국전력	대청도	500	500	1	인천	Daecheongdo
한국전력	덕우도	240	80	3	전남	Deokwoodo
한국전력	덕우도	150	150	1	전남	Deokwoodo
한국전력	덕적도	900	300	3	인천	Duckjuckdo
한국전력	덕적도	2,000	500	4	인천	Duckjuckdo
한국전력	마라도	300	300	1	제주	Marado
한국전력	마라도	400	200	2	제주	Marado
한국전력	매물도	450	150	3	경남	Maemuldo
한국전력	문갑도	240	80	3	인천	Mungabdo
한국전력	백령도	9,000	1,500	6	인천	Baekryeongdo
한국전력	비안도	450	150	3	전북	Biando
한국전력	비양도	240	80	3	제주	Biyangdo
한국전력	삽시도	1,000	500	2	충남	Sabsido
한국전력	삽시도	600	300	2	충남	Sabsido
한국전력	소청도	2,400	800	3	인천	Socheongdo
한국전력	수우도	80	40	2	경남	Suwoodo
한국전력	수우도	80	80	1	경남	Suwoodo
한국전력	승봉도	450	150	3	인천	Seungbongdo
한국전력	승봉도	1,500	500	3	인천	Seungbongdo
한국전력	어의도	80	80	1	전남	Eoeudo
한국전력	어의도	80	40	2	전남	Eoeudo

10. 발전소별 설비 현황 (9)

('21.12.31현재) Generation Capacity by Plants

(As of Dec. 31. '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
한국전력	여청도	150	150	1	전북	Yeocheongdo
한국전력	여청도	500	500	1	전북	Yeocheongdo
한국전력	여청도	600	300	2	전북	Yeocheongdo
한국전력	여서도	240	80	3	전남	Yeoseodo
한국전력	여자도	450	150	3	전남	Yeogado
한국전력	연도	600	200	3	전북	yeondo
한국전력	연평도	5,700	1,900	3	인천	Yeonpyeongdo
한국전력	연평도	2,000	1,000	2	인천	Yeonpyeongdo
한국전력	외연도	450	150	3	충남	Yoiyeondo
한국전력	외연도	300	300	1	충남	Yoiyeondo
한국전력	위도	1,350	450	3	전북	Wido
한국전력	위도	500	500	1	전북	Wido
한국전력	위도	1,000	1,000	1	전북	Wido
한국전력	자월도	150	150	1	인천	Gawoldo
한국전력	자월도	1,500	500	3	인천	Gawoldo
한국전력	장고도	450	150	3	전북	Janggodo
한국전력	조도	1,000	500	2	전남	Jodo
한국전력	조도	1,600	800	2	전남	Jodo
한국전력	추도	200	100	2	경남	Chudo
한국전력	추도	80	80	1	경남	Chudo
한국전력	추자도	2,000	1,000	2	제주	Chujado
한국전력	추자도	1,500	500	3	제주	Chujado
한국전력	추자도	2,000	1,000	2	제주	Chujado
한국전력	풍도	450	150	3	경기	Pungdo
한국전력	홍도	250	250	1	전남	Hongdo
한국전력	홍도	1,600	800	2	전남	Hongdo
한국전력	홍도	500	500	1	전남	Hongdo
한국전력	흑산도	500	500	1	전남	Heuksando
한국전력	흑산도	2,000	1,000	2	전남	Heuksando
한국전력	흑산도	1,500	750	2	전남	Heuksando
한국전력	구자도	240	80	3	전남	Gujado
한국전력	낙월도	750	250	3	전남	Nakwoldo
한국전력	녹도	100	100	1	충남	Nokdo
한국전력	녹도	160	80	2	충남	Nokdo

10. 발전소별 설비 현황 (10)

('21.12.31현재) Generation Capacity by Plants

(As of Dec. 31, '21)

발전사명	발전소별	시설용량 Capacity of facilities (kW)	발전기 Generator		지역 (Province)	Plants
			용량 Capacity (kW)	대수 Numbers (ea)		
한국전력	독거도	80	80	1	전남	Doggeodo
한국전력	독거도	80	40	2	전남	Doggeodo
한국전력	득량도	300	100	3	전남	Deukryangdo
한국전력	백령도	6,000	3,000	2	인천	Baekryeongdo
한국전력	상화도	240	80	3	전남	Sanghwado
한국전력	성남도	80	80	1	전남	Seongnamdo
한국전력	성남도	80	40	2	전남	Seongnamdo
한국전력	소연평도	100	100	1	인천	Yeonpyeongdo
한국전력	소연평도	500	250	2	인천	Yeonpyeongdo
한국전력	손죽도	300	100	3	전남	Sonjukdo
한국전력	송이도	300	100	3	전남	Songido
한국전력	슬도	240	80	3	전남	Seuldo
한국전력	시산도	750	250	3	전남	Sisando
한국전력	어룡도	240	80	3	전남	Eoryongdo
한국전력	영산도	240	80	3	전남	Yeongsando
한국전력	왕등도	240	80	3	전북	Wangdeungdo
한국전력	외도	160	80	2	충남	Yoido
한국전력	외도	60	60	1	충남	Yoido
한국전력	울도	240	80	3	인천	Wooldo
한국전력	울릉도	12,000	3,000	4	경북	Ulleungdo
한국전력	울릉도	2,000	1,000	2	경북	Ulleungdo
한국전력	울릉도	4,500	1,500	3	경북	Ulleungdo
한국전력	조도	800	800	1	전남	Jodo
한국전력	초도	750	250	3	전남	Chodo
한국전력	평도	240	80	3	전남	Pyeongdo
한국전력	호도	600	200	3	충남	Hodo
한국전력	화도	240	80	3	전남	Whado
내연력 계		176,810		214		Total of internal combustion
기타	폐기물에너지 계	317,804		64		Total of Waste-burnup
기타	부생가스 계	30,300		1		Total of By-product gas
기타	기타 계	18,680		4		Others
기타 계		366,784		69		Total of Others
총계		134,019,775		100,215		Total

11. 송전설비 추이

Trends in Transmission Facilities

구분 연월별	회 선 길 이 Circuit length (c-m)									765 kV	345 kV
	765 kV	345 kV	154 kV	66 kV	22 kV	500kV (HVDC)	250kV (HVDC)	180 kV (HVDC)	계 Total		
1961	-	-	605,999	1,777,563	2,853,583	-	-	-	5,237,145	-	-
1999	285,798	6,664,916	16,064,559	2,090,286	-	-	-	231,553	25,337,112	5,144,364	66,287,472
2000	595,196	7,281,202	16,746,763	1,726,870	-	-	-	231,553	26,581,584	10,698,192	75,731,127
2001	661,878	7,344,766	17,575,929	1,540,882	-	-	-	231,553	27,355,008	11,907,048	76,599,384
2002	661,878	7,496,419	18,144,346	1,402,365	-	-	-	231,553	27,936,561	11,907,048	77,477,103
2003	661,208	7,740,764	18,595,493	1,031,024	-	-	-	231,759	28,260,248	11,901,744	79,934,550
2004	661,208	7,903,438	18,723,230	888,881	-	-	-	231,759	28,408,516	11,901,744	81,873,972
2005	661,532	7,990,140	19,190,912	567,371	-	-	-	231,759	28,641,714	11,907,576	82,799,862
2006	754,674	8,279,073	19,514,739	496,097	-	-	-	231,673	29,276,256	13,584,132	86,107,698
2007	754,674	8,284,356	19,917,411	338,459	-	-	-	231,673	29,526,573	13,584,132	86,146,236
2008	754,674	8,309,700	20,298,088	334,825	-	-	-	230,673	29,927,960	13,584,132	86,418,528
2009	754,674	8,551,624	20,469,446	249,532	-	-	-	231,372	30,256,648	13,584,132	87,884,604
2010	834,602	8,580,264	20,777,065	252,563	-	-	-	231,372	30,675,866	15,022,836	88,079,718
2011	834,602	8,652,503	21,279,577	250,769	-	-	-	231,372	31,248,823	15,022,836	88,798,185
2012	834,602	8,770,268	21,577,528	208,342	-	-	-	231,372	31,622,112	15,022,836	89,666,707
2013	834,602	9,004,984	21,976,075	201,425	-	-	-	231,457	32,248,543	15,022,836	91,876,907
2014	834,602	9,228,368	22,356,521	144,303	-	-	-	231,005	32,794,799	15,022,836	94,496,885
2015	1,013,620	9,403,396	22,524,053	144,303	-	-	-	231,005	33,316,377	16,977,516	97,395,758
2016	1,015,722	9,673,260	22,587,654	127,513	-	-	-	231,005	33,635,154	17,005,608	99,912,266
2017	1,019,344	9,745,923	22,831,462	128,287	-	-	-	230,148	33,955,165	18,034,560	100,419,948
2018	1,019,470	9,744,189	23,031,381	128,992	-	-	-	231,058	34,155,090	18,036,828	100,546,213
2019	1,024,816	9,800,628	23,264,610	118,984	-	-	-	231,058	34,440,096	18,446,688	101,153,545
2020	1,024,816	9,812,595	23,484,681	111,414	-	-	-	231,076	34,664,582	18,446,688	101,245,124
2021	1,023,770	9,899,138	23,668,239	101,064	-	35,171	225,949	231,076	35,184,407	18,427,860	101,955,281

전 선 전 체 길 이 Total length (m)							지 지 물 (기) Supporter (ea)					Items End of
154 kV	66 kV	22 kV	500kV (HVDC)	250kV (HVDC)	180 kV (HVDC)	계 Total	철 탑 Steel tower	철 주 Steel pole	콘크리트주 Concrete pole	목 주 Wooden pole	철관주 Panzer mast	
3,198,227	6,663,179	8,694,998	-	-	-	18,556,404	6,943	2,813	-	45,157	-	1961
66,260,238	6,315,691	-	-	-	261,106	144,268,871	36,102	426	5,269	249	301	1999
69,632,583	5,175,670	-	-	-	261,106	161,498,678	37,463	429	4,046	159	313	2000
73,414,332	4,617,706	-	-	-	261,106	166,799,576	37,965	420	3,962	138	341	2001
76,239,019	4,202,242	-	-	-	261,106	170,086,518	38,215	304	3,459	100	336	2002
77,378,339	3,088,132	-	-	-	261,312	172,564,077	38,173	183	2,345	79	280	2003
78,991,435	2,663,615	-	-	-	261,312	175,692,078	38,267	193	2,232	78	307	2004
79,815,516	1,702,113	-	-	-	261,312	176,486,379	37,793	192	1,504	45	310	2005
81,258,871	1,488,291	-	-	-	261,140	182,700,132	38,317	175	1,390	45	327	2006
83,214,489	1,015,377	-	-	-	261,140	184,221,374	38,411	113	1,048	41	323	2007
85,040,016	1,004,475	-	-	-	261,140	186,308,291	38,713	121	1,039	41	368	2008
85,813,881	748,596	-	-	-	260,839	188,292,052	38,885	116	828	39	393	2009
87,155,343	757,689	-	-	-	260,839	191,276,425	39,391	117	825	39	438	2010
89,419,047	752,307	-	-	-	260,839	194,253,214	39,702	120	823	39	466	2011
90,644,120	625,026	-	-	-	260,839	196,219,528	39,800	125	822	38	566	2012
92,526,566	604,275	-	-	-	261,009	200,291,593	40,114	127	834	38	610	2013
94,209,470	432,909	-	-	-	260,524	204,422,624	40,484	116	674	1	630	2014
95,095,944	432,909	-	-	-	262,252	210,164,379	40,948	120	673	1	641	2015
95,339,497	382,062	-	-	-	262,252	212,901,684	40,826	123	655	1	728	2016
96,317,522	381,582	-	-	-	259,962	215,413,573	40,836	124	638	-	797	2017
96,760,878	383,698	-	-	-	260,631	215,988,247	40,953	126	642	-	856	2018
97,334,423	355,311	-	-	-	260,631	217,550,598	40,955	105	603	-	916	2019
98,435,595	331,245	-	-	-	260,667	218,719,320	40,915	92	604	-	963	2020
99,232,205	300,195	-	140,682	451,898	260,667	220,768,788	40,968	87	593	-	999	2021

12. 송전설비 현황

('21.12.31 현재) Transmission Facilities

항 목		전 압 별		765 kV	345 kV	154 kV	66 kV	500 kV (HVDC)
		가 공	지 중					
선 로 길 이 (m)	가 공	551,849	4,466,336	8,663,744	77,120	-		
	지 중	-	182,219	2,194,766	1,401	35,171		
	수 중	-	-	2,207	-	-		
	계	551,849	4,648,555	10,860,717	78,521	35,171		
회 선 길 이 (c-m)	가 공	1,023,770	9,426,109	19,756,194	99,663	-		
	지 중	-	473,029	3,907,632	1,401	35,171		
	수 중	-	-	4,413	-	-		
	계	1,023,770	9,899,138	23,668,239	101,064	35,171		
전 선 전 체 길 이 (m)	가 공	18,427,860	100,170,348	86,322,080	295,992	-		
	지 중	-	1,784,933	12,896,885	4,203	140,682		
	수 중	-	-	13,240	-	-		
	계	18,427,860	101,955,281	99,232,205	300,195	140,682		
지 지 물 (기)	철 탑(앵글)	9	11,952	27,367	232	-		
	철 탑(강관)	1,066	315	26	1	-		
	철 주	-	-	58	29	-		
	강 관 주	-	86	806	19	-		
	콘크리트 주	-	-	-	-	-		
	목 전 주	-	-	-	-	-		
	기 타	-	16	46	1	-		
	계	1,075	12,369	28,303	282	-		
애 자 류 (개)	볼소켓(일반형)	873,662	3,816,045	5,471,543	14,410	-		
	볼소켓(내무형)	9,936	192,487	256,083	-	-		
	폴리머(일반형)	-	5,449	9,468	-	-		
	폴리머(내무형)	-	942	5,419	-	-		
	기 타	-	76	21	-	-		
	계	883,598	4,014,999	5,742,534	14,410	-		

(As of Dec. 31. '21)

250 kV (HVDC)	180 kV (HVDC)	계 Total	Voltage	Items
-	28,738	13,787,787	Overhead power line	Route length (m)
11,507	5,173	2,430,237	Under ground power line	
101,467	96,422	200,096	Under water power line	
112,974	130,333	16,418,120	Total	
-	28,738	30,334,474	Overhead power line	Circuit length (c-m)
23,014	9,494	4,449,741	Under ground power line	
202,935	192,844	400,192	Under water power line	
225,949	231,076	35,184,407	Total	
-	57,476	205,273,756	Overhead power line	Total length (m)
46,028	10,347	14,883,078	Under ground power line	
405,870	192,844	611,954	Under water power line	
451,898	260,667	220,768,788	Total	
-	-	39,560	Angle steel tower	Supporter (ea)
-	-	1,408	Tubular steel tower	
-	-	87	Steel pole	
-	24	935	Tubular steel pole	
-	593	593	Concrete pole	
-	-	-	Wooden pole	
-	1	64	Others	
-	618	42,647	Total	
-	3,754	10,179,414	Ball and socket insulator (standard type)	Insulator (ea)
-	-	458,506	Ball and socket insulator (anti-fog type)	
-	-	14,917	Polymer insulator (standard type)	
-	-	6,361	Polymer insulator (anti-fog type)	
-	-	97	Others	
-	3,754	10,659,295	Total	

13. 변전설비 추이

Trends in Substation Facilities

구분 연월별	변전소수 (개) Number of substation (ea)						계 Total	765 kV
	765 kV	345 kV	154 kV	66 kV	22 kV	계 Total		
1961	-	-	5	70	216	291	-	
1999	-	39	373	39	7	458	-	
2000	-	44	399	32	8	483	-	
2001	1	65	449	25	9	549	1,110,000	
2002	3	69	472	20	10	574	7,110,000	
2003	3	71	500	19	10	603	7,110,000	
2004	5	74	514	12	10	615	19,110,900	
2005	5	77	537	9	9	637	21,111,300	
2006	5	80	548	6	7	646	21,114,000	
2007	5	81	571	6	6	669	23,114,400	
2008	5	83	594	5	6	693	23,114,400	
2009	6	86	613	4	6	715	24,114,600	
2010	6	88	628	3	6	731	27,115,200	
2011	6	91	644	3	5	749	29,115,600	
2012	6	96	658	3	5	768	29,115,600	
2013	6	98	678	3	5	790	31,116,000	
2014	6	104	688	3	4	805	29,115,600	
2015	7	107	701	3	4	822	37,117,200	
2016	7	111	705	3	4	830	38,116,200	
2017	7	112	713	3	4	839	38,116,200	
2018	7	113	723	2	5	850	39,116,400	
2019	7	114	736	2	5	864	38,117,400	
2020	8	115	747	2	5	877	42,110,000	
2021	8	118	760	1	5	892	44,110,000	

1) 발전소 스위치야드(50개소. 9891.2MVA) 인수 (2001. 4)

2) 변전소+스위치야드 합계임

변압기용량 Capacity of transformer (kVA)					전력용 콘덴서 Static- condenser (kVAR)	Items End of
345 kV	154 kV	66 kV	22 kV	계 Total		
-	372,800	519,407	316,801	1,209,008	92,950	1961
51,510,300	66,928,800	1,528,500	289,500	120,257,100	6,785,600	1999
53,115,600	70,885,900	1,441,000	257,500	125,700,000	7,955,600	2000
63,577,200	78,118,600	1,225,000	248,200	144,279,000	9,100,600	2001
69,078,300	83,363,800	1,072,500	213,200	160,837,800	11,167,000	2002
75,659,600	89,228,200	831,000	237,200	173,066,000	12,393,000	2003
80,080,500	93,528,200	728,000	252,200	193,699,800	14,583,000	2004
84,381,200	102,168,200	590,000	254,200	208,504,900	15,993,000	2005
90,049,200	104,416,700	485,000	212,200	216,277,100	17,318,000	2006
95,278,600	109,268,200	454,000	134,200	228,249,400	18,642,000	2007
98,884,300	114,808,200	359,000	134,200	237,300,100	19,143,000	2008
104,595,400	118,643,200	354,000	79,200	247,786,400	20,008,000	2009
108,096,100	120,683,200	339,000	84,200	256,317,700	21,448,000	2010
111,596,800	123,226,400	356,000	78,200	264,373,000	20,778,000	2011
115,597,600	126,143,200	312,000	78,200	271,246,600	21,488,000	2012
117,097,800	130,931,200	297,000	78,200	279,520,200	22,177,000	2013
122,378,900	133,386,800	297,000	64,000	285,242,300	23,130,000	2014
124,879,400	135,966,800	267,000	64,000	298,294,400	23,554,800	2015
128,380,100	138,587,700	240,000	94,000	305,418,000	23,720,000	2016
131,880,200	141,538,800	240,000	94,000	311,869,200	23,327,800	2017
137,610,000	139,760,800	80,000	94,000	316,661,200	23,490,000	2018
138,597,200	149,380,800	140,000	94,000	326,329,400	23,467,000	2019
141,570,000	153,020,000	120,000	106,000	336,926,000	24,872,000	2020
144,070,000	156,000,000	-	106,000	344,286,000	21,095,000	2021

1) Switch Yard (50ea, 9891.2MVA) transferred from Power plants (2001. 4)

2) Substation+Switch Yard

14. 변전설비 현황

('21.12.31 현재) Substation Facilities

항목 지역 본부	변 전 소 수 (개) Number of substation (ea)						변 압 기 용 량 Capacity of transformer (kVA)				
	765 kV	345 kV	154 kV	66 kV	22 kV	계 Total	765 kV	345 kV	154 kV	66 kV	22 kV
서 울	-	2	49	-	-	51	-	4,000,000	9,436,000	-	12,000
남 서 울	-	4	57	-	-	61	-	7,500,000	12,240,000	-	-
인 천	-	14	51	-	-	65	-	14,260,000	11,820,000	-	-
경기북부	1	10	44	-	1	56	7,000,000	11,310,000	9,320,000	-	30,000
경 기	1	12	89	-	-	102	8,000,000	21,000,000	20,400,000	-	-
강 원	1	5	45	-	1	52	6,000,000	5,000,000	7,140,000	-	-
충 북	1	5	31	-	1	38	6,000,000	9,500,000	6,820,000	-	-
대전 세종충남	2	11	63	-	-	76	5,110,000	13,000,000	13,740,000	-	-
전 북	-	5	35	-	1	41	-	5,500,000	7,140,000	-	40,000
광주전남	-	12	62	1	-	75	-	8,500,000	12,302,000	-	-
대 구	-	10	71	-	1	82	-	12,500,000	13,560,000	-	24,000
경 북	-	7	26	-	-	33	-	4,500,000	4,800,000	-	-
부산울산	1	12	69	-	-	82	6,000,000	17,500,000	13,080,000	-	-
경 남	1	9	52	-	-	62	6,000,000	10,000,000	10,620,000	-	-
제 주	-	-	16	-	-	16	-	-	3,582,000	-	-
계	8	118	760	1	5	892	44,110,000	144,070,000	156,000,000	-	106,000

※ 변전소+스위치야드 합계임

(As of Dec. 31. '21)

계 Total	차 단 기 수 (개) Number of circuit breaker (ea)							전력용 콘덴서 Static- condenser (MVAR)	분로 리액터 Shunt reactor (MVAR)	Items District Division
	765 kV	345 kV	154 kV	66 kV	22 Kv	기타	계 Total			
13,448,000	-	84	484	-	1,473	8	2,049	310	800	Seoul
19,740,000	-	76	646	-	2,015	-	2,737	810	2,280	Namseoul
26,080,000	-	233	682	-	1,845	-	2,760	350	4,030	Incheon
27,660,000	11	194	579	-	1,451	8	2,243	1,260	2,580	North Gyenggi
49,400,000	11	252	1,290	-	3,393	-	4,946	2,620	1,400	Gyeonggi
18,140,000	11	71	460	15	969	-	1,526	925	730	Gangwon
22,320,000	11	93	494	-	1,078	-	1,676	2,560	730	Chungbuk
31,850,000	27	218	879	-	2,141	-	3,265	2,830	990	Daejeon- Sejong-Chungnam
12,680,000	-	66	437	-	1,120	4	1,627	1,155	550	Jeonbuk
20,802,000	-	135	791	-	1,783	-	2,709	1,540	1,180	Gwangju-Jeonnam
26,084,000	-	149	837	-	2,325	6	3,317	2,255	920	Daegu
9,300,000	-	98	344	-	761	-	1,203	1,160	60	Gyengbuk
36,580,000	17	194	935	-	1,933	-	3,079	1,645	2,090	Busan-Ulsan
26,620,000	8	162	633	-	1,694	-	2,497	1,670	1,140	Gyeongnam
3,582,000	-	-	171	-	376	9	556	5	180	Jeju
344,286,000	96	2,025	9,662	15	24,357	35	36,190	21,095	19,660	Total

※ Substation+Switch Yard

15. 배 전 설 비 추 이

Trends in Distribution Facilities

구 분 연월별	선 로 길 이 Route length (c-m)			전 선 전 체 길 이 Total length (m)		
	고 압 Over 600V	저 압 Under 600V	계 Total	고 압 Over 600V	저 압 Under 600V	계 Total
1961	5,477,695	3,693,705	9,171,400	25,104,692	11,862,898	36,967,590
1999	167,138,259	177,707,090	344,845,349	534,703,474	382,691,239	917,394,713
2000	170,691,038	180,573,197	351,264,235	545,167,333	390,679,674	935,847,007
2001	174,014,701	184,312,749	358,327,450	568,293,628	400,869,857	969,163,485
2002	177,639,356	189,343,785	366,983,141	578,792,921	413,490,966	992,283,887
2003	184,285,116	192,169,056	376,454,172	603,160,164	420,615,949	1,023,776,113
2004	186,501,995	193,861,872	380,363,867	611,006,502	425,863,049	1,036,869,551
2005	187,923,314	197,586,528	385,509,842	627,166,669	437,466,321	1,064,632,990
2006	192,157,443	201,147,528	393,304,971	640,751,661	444,962,242	1,085,713,903
2007	196,035,036	205,449,649	401,484,685	655,507,537	460,633,268	1,116,140,805
2008	200,165,500	209,849,145	410,014,645	671,777,372	473,764,437	1,145,541,809
2009	204,077,565	216,180,666	420,258,231	687,891,649	490,609,569	1,178,501,218
2010	207,028,386	221,231,069	428,259,455	700,476,298	504,456,667	1,204,932,965
2011	209,603,956	225,945,059	435,549,015	711,230,101	517,351,469	1,228,581,570
2012	211,923,637	230,717,608	442,641,245	721,005,989	530,301,284	1,251,307,273
2013	214,478,638	235,205,367	449,684,005	731,276,246	542,800,602	1,274,076,848
2014	217,421,838	239,825,171	457,247,009	743,298,297	555,402,271	1,298,700,568
2015	220,910,123	244,368,150	465,278,273	756,599,603	567,652,714	1,324,252,317
2016	224,186,247	249,913,013	474,099,260	769,694,796	582,439,047	1,352,133,843
2017	228,116,380	253,248,446	481,364,826	783,968,915	591,744,409	1,375,713,324
2018	232,221,087	261,109,888	493,330,975	800,176,874	612,094,707	1,412,271,581
2019	237,242,268	267,161,008	504,403,276	819,176,251	627,508,511	1,446,684,762
2020	242,518,587	272,260,312	514,778,899	838,343,176	639,567,256	1,477,910,432
2021	247,846,171	277,325,819	525,171,990	857,347,610	652,454,411	1,509,802,021

※ 2007년부터 강관주에 인입용 전주(6M) 포함

지 지 물 (기) Supporter (ea)							변 압 기 Transformer		Items End of
철 탑 Steel tower	철 주 Steel pole	콘크리트주 Concrete pole	목 주 Wooden pole	강관주 Tubular pole	FRP	계 Total	대 수 Number (ea)	용 량 Capacity (kVA)	
54	413	72	181,659	-	-	182,198	52,967	649,491	1961
1,346	1,853	6,154,646	1,505	65,088	-	6,224,438	1,187,263	47,875,809	1999
1,392	1,919	6,363,176	966	71,776	-	6,439,229	1,308,947	57,178,373	2000
1,359	1,614	6,608,173	931	82,822	-	6,694,899	1,428,510	65,035,173	2001
1,323	608	6,777,258	424	95,835	-	6,875,448	1,546,088	71,977,545	2002
1,386	507	7,064,665	417	103,982	-	7,170,957	1,618,889	76,355,515	2003
1,360	508	7,152,161	529	106,223	-	7,260,781	1,651,605	78,559,025	2004
1,327	445	7,275,193	452	134,913	-	7,412,330	1,715,164	83,352,474	2005
1,310	374	7,460,698	418	145,442	-	7,608,242	1,787,785	88,265,564	2006
1,293	373	7,638,546	382	253,983	-	7,894,577	1,859,245	92,963,765	2007
1,283	359	7,777,110	362	273,815	-	8,052,929	1,917,237	96,865,950	2008
1,275	353	7,924,738	328	292,064	-	8,218,758	1,961,059	99,630,090	2009
1,245	318	8,035,471	319	305,723	-	8,343,076	1,989,925	101,691,730	2010
1,245	290	8,144,023	305	317,893	-	8,463,756	2,005,113	102,582,045	2011
1,232	282	8,253,238	304	328,367	-	8,583,423	2,027,727	104,081,900	2012
1,226	269	8,360,209	284	336,788	-	8,698,776	2,054,022	105,740,500	2013
1,210	259	8,481,304	268	349,207	161	8,832,409	2,086,448	107,805,206	2014
1,198	238	8,599,819	260	359,143	160	8,960,818	2,118,289	110,082,629	2015
1,166	232	8,749,836	250	370,698	162	9,122,344	2,158,896	112,751,316	2016
1,134	232	8,812,470	231	367,970	162	9,182,199	2,168,825	114,236,801	2017
1,104	212	9,071,579	227	391,435	191	9,464,748	2,259,950	120,057,832	2018
1,099	190	9,239,741	198	400,460	203	9,641,891	2,324,753	125,066,913	2019
1,088	186	9,378,483	182	407,826	202	9,787,967	2,379,603	129,788,561	2020
1,081	177	9,524,863	170	413,947	202	9,940,440	2,434,980	134,492,601	2021

※ Tubular pole(6M) is included in Tubular pole line in 2007.

16. 배전설비 현황 (1)

('21.12.31 현재) Distribution Facilities

구 분			행정구역별	서울 Seoul	부산 Busan	대구 Daegu	인천 Incheon	광주 Gwangju
선로길이 (c-km)	고압	가공	4,195	3,143	3,128	4,047	2,018	
		지중	6,518	2,408	1,726	3,176	1,147	
		수중	-	-	-	5	-	
		계	10,713	5,551	4,854	7,228	3,165	
	저압	가공	2,982	2,754	3,229	4,187	2,347	
		지중	1,013	393	381	590	452	
계		3,995	3,148	3,610	4,777	2,799		
	계	7,177	5,898	6,357	8,234	4,365		
	수중	7,531	2,801	2,107	3,765	1,599		
	계	14,708	8,699	8,464	12,004	5,964		
전선전체 길이 (km)	고압	가공	15,555	11,555	11,645	14,708	7,438	
		지중	19,498	7,203	5,168	9,507	3,436	
		수중	-	-	-	14	-	
		계	35,053	18,758	16,812	24,230	10,874	
	저압	가공	6,399	5,946	8,281	9,639	5,321	
		지중	3,920	1,565	1,496	2,191	1,693	
계		10,319	7,511	9,777	11,829	7,013		
	계	21,954	17,501	19,926	24,347	12,759		
	수중	23,417	8,769	6,664	11,698	5,129		
	계	45,372	26,269	26,590	36,059	17,887		
지지물 (기)	콘크리트 강관 목 철 계	주	161,652	123,420	140,814	181,453	97,516	
		주	19,410	19,763	8,518	9,755	7,293	
		주	28	22	29	2	3	
		주	25	15	2	2	1	
		탑	-	-	5	73	-	
		계	181,115	143,220	149,368	191,285	104,813	
변압기	수량 (대)	가공	152,602	73,034	55,690	76,050	35,525	
		지중	8,544	3,360	2,038	4,367	2,427	
		계	161,147	76,393	57,728	80,417	37,952	
	용량 (MVA)	가공	10,453	4,486	3,407	3,947	1,946	
지중		2,486	915	561	948	631		
	계	12,939	5,401	3,968	4,895	2,577		
개폐기(대)	가공 지중 계	가공	9,732	4,699	5,221	4,604	2,672	
		지중	13,792	5,403	2,947	5,415	2,783	
		계	23,524	10,102	8,168	10,019	5,455	

※ 콘크리트주에 FRP주 포함

(As of Dec. 31. '21)

대 전 Daejon	울 산 Ulsan	세 종 Sejong	경 기 Gyeonggi	Province		
				Items		
1,470	2,535	1,096	32,035	Overhead power line	Over 600 voltage	Route length (c-km)
1,846	997	836	14,080	Under ground power line		
-	-	-	-	Under water power line		
3,316	3,531	1,932	46,115	Sub total		
1,834	2,614	1,681	35,959	Overhead power line	Under 600 voltage	
771	183	169	2,844	Under ground power line		
2,605	2,797	1,850	38,803	Sub total		
3,305	5,148	2,777	67,994	Overhead power line	Total	
2,616	1,180	1,004	16,924	Under ground power line		
-	-	-	-	Under water power line		
5,921	6,328	3,782	84,918	Total		
5,352	9,145	3,882	117,274	Overhead power line	Over 600 voltage		Total length (km)
5,517	2,971	2,503	42,106	Under ground power line		
-	-	-	-	Under water power line		
10,869	12,116	6,385	159,380	Sub total		
3,773	5,684	3,735	87,418	Overhead power line	Under 600 voltage	
3,005	690	605	11,007	Under ground power line		
6,778	6,374	4,339	98,425	Sub total		
9,126	14,829	7,617	204,693	Overhead power line	Total	
8,522	3,661	3,107	53,112	Under ground power line		
-	-	-	-	Under water power line		
17,648	18,491	10,724	257,805	Total		
70,100	108,187	55,930	1,421,300	Concrete pole	Supporter (ea)	
7,785	5,216	1,868	20,903	Tubular pole		
5	3	-	15	Wooden pole		
-	-	-	79	Steel pole		
1	-	5	32	Steel tower		
77,891	113,406	57,803	1,442,329	Total		
27,264	36,706	10,196	459,919	Overhead power line		Number (ea)	Trans- former
2,925	1,131	627	17,224	Under ground power line		
30,190	37,837	10,823	477,144	Total		
1,574	1,916	461	23,699	Overhead power line	Capacity (MVA)	
712	289	150	4,010	Under ground power line		
2,286	2,205	611	27,709	Total		
1,531	2,010	562	22,587	Overhead power line	Switch gear (ea)	
4,484	1,700	817	22,935	Under ground power line		
6,015	3,710	1,380	45,522	Total		

* FRP pole is included in Concrete pole.

16. 배전설비 현황 (2)

(‘21.12.31 현재) Distribution Facilities

구 분			행정구역별	강 원 Gangwon	충 북 Chungbuk	충 남 Chungnam	전 북 Jeonbuk	전 남 Jeonnam
선 로 길 이 (c-km)	고 압	가 공	17,001	12,510	21,118	16,713	24,712	
		지 중	1,931	1,610	2,787	2,209	2,358	
		수 중	-	-	4	6	88	
		계	18,931	14,120	23,910	18,928	27,159	
	저 압	가 공	19,748	19,167	31,831	26,446	39,137	
		지 중	892	639	809	705	563	
계		20,641	19,805	32,640	27,152	39,699		
	계	36,749	31,676	52,950	43,160	63,849		
	지 중	2,823	2,249	3,596	2,914	2,921		
	수 중	-	-	4	6	88		
	계	39,572	33,925	56,550	46,080	66,858		
전 선 전 체 길 이 (km)	고 압	가 공	57,832	43,831	74,054	60,628	89,201	
		지 중	5,747	4,790	8,315	6,591	7,017	
		수 중	-	-	13	17	264	
		계	63,579	48,621	82,382	67,237	96,483	
	저 압	가 공	41,444	41,462	67,695	58,231	90,356	
		지 중	3,497	2,426	3,059	2,599	2,107	
계		44,941	43,888	70,755	60,830	92,463		
	계	99,276	85,293	141,749	118,859	179,557		
	지 중	9,244	7,216	11,374	9,191	9,124		
	수 중	-	-	13	17	264		
	계	108,520	92,509	153,136	128,067	188,946		
지 지 물 (기)	콘 크 리 트 강 관 목 주 철 주 철 탐	주	685,303	607,113	1,098,562	904,327	1,361,505	
		주	31,213	10,298	21,908	26,511	55,305	
		주	8	7	2	4	1	
		주	19	-	2	7	5	
		탐	100	39	48	25	568	
	계	716,643	617,457	1,120,522	930,874	1,417,384		
변 압 기	수 량 (대)	가 공	147,221	120,465	214,009	179,566	230,134	
		지 중	2,848	2,512	4,125	4,538	3,487	
		계	150,070	122,976	218,134	184,104	233,622	
	용 량 (MVA)	가 공	7,451	6,019	9,305	8,172	8,602	
지 중		928	766	1,347	1,543	1,172		
	계	8,379	6,785	10,652	9,715	9,774		
개폐기(대)		가 공	7,032	5,890	8,711	10,365	11,260	
		지 중	2,691	2,318	3,857	2,877	2,846	
		계	9,723	8,208	12,568	13,243	14,106	

(As of Dec. 31. '21)

경 북 Gyeongbuk	경 남 Gyeongnam	제 주 Jeju	계 Total	Province		
				Items		
28,561	20,009	3,704	197,996	Overhead power line	Over 600 voltage	Route length (c-km)
2,245	2,895	935	49,703	Under ground power line		
-	38	6	147	Under water power line		
30,806	22,942	4,645	247,846	Sub total		
41,434	25,046	5,146	265,542	Overhead power line	Under 600 voltage	Route length (c-km)
508	415	456	11,783	Under ground power line		
41,942	25,461	5,602	277,326	Sub total		
69,995	45,054	8,850	463,539	Overhead power line	Total	Route length (c-km)
2,753	3,311	1,391	61,486	Under ground power line		
-	38	6	147	Under water power line		
72,748	48,403	10,247	525,172	Total		
100,084	71,827	14,404	708,417	Overhead power line	Over 600 voltage	Total length (km)
6,675	8,641	2,804	148,489	Under ground power line		
-	114	18	442	Under water power line		
106,759	80,583	17,226	857,348	Sub total		
99,584	57,776	14,653	607,397	Overhead power line	Under 600 voltage	Total length (km)
1,902	1,540	1,756	45,058	Under ground power line		
101,486	59,316	16,408	652,454	Sub total		
199,668	129,603	29,057	1,315,813	Overhead power line	Total	Total length (km)
8,577	10,182	4,560	193,547	Under ground power line		
-	114	18	442	Under water power line		
208,245	139,899	33,635	1,509,802	Total		
1,431,836	891,445	184,602	9,525,065	Concrete pole	Supporter (ea)	
62,825	100,058	5,318	413,947	Tubular pole		
14	25	2	170	Wooden pole		
8	12	-	177	Steel pole		
53	132	-	1,081	Steel tower		
1,494,736	991,672	189,922	9,940,440	Total		
275,570	234,242	39,809	2,368,002	Overhead power line	Number (ea)	Trans- former
2,281	2,550	1,993	66,978	Under ground power line		
277,851	236,791	41,801	2,434,980	Total		
11,446	11,089	2,009	115,980	Overhead power line	Capacity (MVA)	Trans- former
728	671	654	18,512	Under ground power line		
12,173	11,760	2,664	134,493	Total		
12,818	11,048	3,011	123,754	Overhead power line	Switch gear (ea)	
1,615	3,687	1,467	81,636	Under ground power line		
14,433	14,735	4,478	205,390	Total		

17. 정보통신설비 추이 (1)

Trends in Information & Communication Facilities

구 분	정보통신설비 Information communication facilities				전 송 설 비 Data transmission facilities (set)				
	교환기 Switch board (ea)	T T X (set)	Email (set)	F A X (set)	광송수신기 Optical fiber transceiver	다 중 무 선 송 수 신 기 M / W	단 신 무 선 송 수 신 기 VHF UHF	주 파 수 공용통신 시스템 (중계/단말) Trunked radio system	반 송 설 비 Carrier tele-phone equip-ment
1961	-	-	-	-	-	-	46	-	-
1999	887	-	336	1,827	3,492	54	2,171	63/3,226	114
2000	893	-	337	1,898	-	28	1,610	63/3,241	-
2001	726	-	-	1,457	81	14	1,089	87/3,512	-
2002	827	-	-	1,579	570	12	240	93/5,545	-
2003	879	-	-	1,690	1,226	10	137	95/7,527	-
2004	936	-	-	1,804	1,517	6	184	95/8,117	-
2005	723	-	-	1,970	1,720	4	240	120/7,529	-
2006	255	-	-	2,001	1,930	4	348	120/7,767	-
2007	253	-	-	2,049	2,059	4	280	120/4,140	-
2008	347	-	-	1,991	2,922	4	221	167/5,372	-
2009	405	-	-	1,732	3,024	4	222	222/5,696	-
2010	225	-	-	2,163	2,758	4	223	214/8,494	-
2011	250	-	-	1,979	2,865	4	250	208/7,041	-
2012	250	-	-	1,979	2,871	4	-	130/6,667	-
2013	255	-	-	1,943	3,174	4	-	130/8,648	-
2014	261	-	-	1,979	3,178	-	-	139/9,521	-
2015	258	-	-	1,864	3,011	-	-	147/11,395	-
2016	257	-	-	1,950	3,856	-	-	147/12,657	-
2017	257	-	-	2,280	3,450	-	-	147/13,578	-
2018	257	-	-	2,280	3,891	-	-	158/17,920	-
2019	268	-	-	2,280	4,493	-	-	159/21,475	-
2020	264	-	-	2,280	5,110	-	-	160/20,981	-
2021	264	-	-	2,280	4,586	-	-	160/18,780	-

1) 2001년도 이전 서버 통계자료는 중간전산기임

2) 2002년도 이후 서버 통계자료는 중간전산기 및 서버(NT서버 포함)가 포함된 수치임

전 산 설 비 Computer facilities (set)			전 력 운 전 제 어 설 비 Power operation & control facilities (set)				Items
주전산기 Main computer	서 버 Server	P C 및 단말기 P / C & Terminal	급 전 종 합 자동화설비 (중앙/단말) Energy management system	원 방 감 시 제 어 설 비 (중앙/단말) Supervisory control & Data acquisition system	계 통 보 호 전 송 장 치 Power line carrier relay equipment	송 전 선 고 장 점 표 정 장 치 Power line fault locator equipment	End of
-	-	-	-	-	-	-	1961
16	190	29,438	1/96	42/564	1,624	23	1999
16	175	29,700	1/103	41/588	1,635	22	2000
15	175	18,920	1/48	43/599	1,696	21	2001
15	189	20,058	-	43/540	1,939	15	2002
15	189	21,130	-	45/569	1,987	11	2003
15	368	21,890	-	51/597	2,163	8	2004
15	371	21,560	-	52/620	2,251	-	2005
15	373	22,740	-	53/620	2,317	-	2006
15	375	23,050	-	53/626	2,442	-	2007
20	2,446	30,614	-	54/666	2,442	-	2008
20	2,890	30,499	-	55/672	2,616	-	2009
20	3,029	34,130	-	-	2,797	-	2010
15	1,194	26,160	-	55/710	2,859	-	2011
2	3,190	26,805	-	-	3,045	-	2012
15	2,767	25,316	-	57/740	3,187	-	2013
	857	25,729	-	57/759	3,452	-	2014
18	632	43,667	-	57/770	3,877	-	2015
18	659	46,192	-	59/781	4,491	-	2016
15	704	47,186	-	64/785	4,781	-	2017
15	700	43,818	-	64/787	4,893	-	2018
18	1,800	46,887	-	67/783	4,440	-	2019
18	852	45,280	-	67/763	4,263	-	2020
18	1,027	43,403	-	67/744	4,196	-	2021

1) Figures prior to year 2001 indicate number of intermediate computers.

2) Figures from year 2002 include number of both intermediate computers and servers.

17. 정보통신설비 추이 (2)

Trends in Information & Communication Facilities

구분 Items	통신선로 Communication cables & wires (km)								
연도말 End of	금속케이블 Metalic cable		동축케이블 Coaxial cable	광케이블 Optical fiber cable		광섬유복합가공지선 Composite over-head ground wire with optical fiber		계 Total	
	길이 Route length	전체길이 Total length	길이 Route length	길이 Route length	전체길이 Total length	길이 Route length	전체길이 Total length	길이 Route length	전체길이 Total length
1961	-	-	-	-	-	-	-	-	-
1999	2,618	105,746	38,073	34,838	635,756	7,973	154,611	83,502	896,113
2000 ¹⁾	-	-	-	-	-	9,796	209,544	9,796	209,544
2001	-	-	-	-	-	10,230	223,768	10,230	223,768
2002	-	-	-	162	3,222	11,712	293,430	11,874	296,652
2003	-	-	-	557	11,764	11,862	303,836	12,419	315,600
2004	-	-	-	840	18,528	12,627	341,180	13,467	359,708
2005	-	-	-	959	14,036	13,135	324,402	14,094	338,439
2006	-	-	-	1,243	23,790	13,317	349,080	14,560	338,439
2007	-	-	-	1,218	26,435	13,386	394,087	14,604	420,522
2008	-	-	-	1,233	26,756	13,805	385,874	15,038	412,630
2009	-	-	-	1,230	28,307	12,685	366,269	13,915	394,576
2010	-	-	-	1,986	50,518	13,972	413,739	15,958	464,257
2011	-	-	-	4,111	109,398	14,731	434,775	18,842	544,173
2012	-	-	-	4,656	122,522	15,078	445,984	19,734	568,506
2013	-	-	-	5,292	138,650	15,735	471,985	21,027	610,635
2014	-	-	-	5,551	145,150	15,895	473,722	21,446	618,872
2015	-	-	-	6,448	170,473	16,147	481,702	22,595	652,175
2016	-	-	-	8,696	260,880	16,173	485,190	24,869	746,070
2017	-	-	-	9,227	272,620	15,779	466,204	25,006	738,824
2018	-	-	-	11,496	317,207	15,636	432,554	27,132	749,761
2019	-	-	-	11,967	311,565	15,761	465,336	27,728	776,901
2020	-	-	-	14,621	352,079	20,484	464,432	35,105	816,511
2021	-	-	-	16,481	408,396	20,467	483,053	36,948	891,449

1) 케이블은 2000년도에 자회사 파워콤에 전량 현물출자됨

1) The cable was invested in Powercomm, a subsidiary company, in 2000.

18. 정보통신설비 현황 (1)

('21.12.31현재) Information & Communication Fac. (As of Dec.31.'21)

구분 Items	종류 Classification		단위 Unit	수량 Quantity
정보통신설비 Information communication facilities	교환기 Switch board	전자교환기 Electronics switching system	대 ea	264
		기타교환기 Others	대 ea	-
	F A X	Facsimile terminal	대 ea	2,280
	망관리시스템 Network management system	L C S	식 set	16
		원격 단말장치	식 set	3,757
	근거리통신망 Local area network	SW Hub	대 ea	12,371
		Router	대 ea	130
전송설비 Data transmission facilities	광송수신기		대 ea	4,586
	무선송수신기 Radio transceiver	다중무선송수신기 M / W	대 ea	-
		단신무선송수신기 V H F	대 ea	-
		주파수공용통신 T R S	중계	식 set	160
단말	식 set		18,780	
전산설비 Computer facilities	주전산기 (Main computer)		대 ea	17
	서버 (Server)		대 ea	1,027
	PC 및 단말기 (P/C&Terminal)		대 ea	43,403

18. 정보통신설비 현황 (2)

('21.12.31현재) Information & Communication Fac. (As of Dec.31.'21)

	종 류 Classification		단 위 Unit	수 량 Quantity	
전자응용 설비 Electronic application facilities	건물자동화시스템 Building automatic system		개소 site	25	
	보안 & 운전감시 카메라 Security system	CCTV	Controller	식 set 10	
			Camera	식 set 553	
전력운전 제어설비 Power operation & control facilities	원방감시 제어설비 Supervisory control and data Acquisition system		중앙 SCADA		식 set 1
			SCADA	Host	식 set 66
	RTU	식 set 744			
	계통보호 전송장치 Power line carrier relay equipment		식 set	4,196	
통신선로 Communication cable & wires	광섬유복합가공지선 With optical fiber composite overhead ground wire(OPGW)	길이 Circuit length	km	20,467	
		전체전선길이 Total length	km	483,053	
전원설비 Electric power source facilities	충전기 Charger		대 ea	1,609	
	축전지 Battery		식 set	3,004	
	무정전 전원장치 Uninterruptable power supply system		식 set	1,395	

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Ⅲ. 구입부문

Power purchasing

19. 전력 구입 실적 (1.종합)

('21.1.1~12.31) Power Purchasing Results

구분 Items 연월별 During	전력시장 Electricity Market			PPA			합계 Total		
	구입량 Volume (MWh)	구입금액 Payment (백만원, mil. won)	구입단가 Unit cost (won/kWh)	구입량 Volume (MWh)	구입금액 Payment (백만원, mil. won)	구입단가 Unit cost (won/kWh)	구입량 Volume (MWh)	구입금액 Payment (백만원, mil. won)	구입단가 Unit cost (won/kWh)
2012	471,799,913	42,613,214	90.32	17,400,164	3,248,681	186.70	489,200,078	45,861,895	93.75
2013	479,286,615	42,288,353	88.23	16,892,263	3,160,590	187.10	496,178,878	45,448,943	91.60
2014	490,371,596	44,727,079	91.21	11,114,215	2,259,768	203.32	501,485,811	46,986,847	93.70
2015	495,113,858	41,913,114	84.65	8,714,833	1,374,699	157.74	503,828,691	43,287,813	85.92
2016	508,878,892	41,828,977	82.20	9,719,059	1,222,800	125.81	518,597,951	43,051,778	83.02
2017	520,229,507	44,984,718	86.47	10,702,251	1,374,914	128.47	530,931,758	46,359,632	87.32
2018	536,287,450	50,850,319	94.82	11,805,158	1,584,893	134.25	548,092,608	52,435,212	95.67
2019	529,074,599	50,141,933	94.77	11,445,729	1,346,275	117.62	540,520,328	51,488,208	95.26
2020	515,107,118	43,766,668	84.97	14,732,141	1,290,879	87.62	529,839,259	45,057,547	85.04
2021	535,985,491	55,295,081	103.17	18,211,454	1,900,427	104.35	554,196,945	57,195,508	103.20
1	49,980,802	4,726,217	94.56	1,218,057	105,951	86.98	51,198,859	4,832,168	94.38
2	41,944,247	3,928,215	93.65	1,425,253	129,232	90.67	43,369,500	4,057,447	93.56
3	43,583,478	4,060,408	93.16	1,904,912	187,539	98.45	45,488,390	4,247,947	93.39
4	40,220,194	3,347,278	83.22	1,809,334	156,814	86.67	42,029,529	3,504,092	83.37
5	40,959,030	4,063,474	99.21	1,660,968	148,474	89.39	42,619,998	4,211,948	98.83
6	42,328,632	3,933,177	92.92	1,699,125	158,968	93.56	44,027,757	4,092,146	92.94
7	50,194,914	6,169,375	122.91	1,692,916	165,752	97.91	51,887,830	6,335,126	122.09
8	48,112,623	4,961,718	103.13	1,383,782	145,811	105.37	49,496,405	5,107,529	103.19
9	42,002,739	3,894,654	92.72	1,428,895	157,739	110.39	43,431,634	4,052,394	93.31
10	42,660,777	4,484,563	105.12	1,571,848	186,303	118.53	44,232,625	4,670,866	105.60
11	43,763,245	5,023,312	114.78	1,268,929	177,839	140.15	45,032,174	5,201,151	115.50
12	50,234,811	6,702,690	133.43	1,147,434	180,003	156.87	51,382,245	6,882,693	133.95

※ 2001. 4. 2 전력시장 개설 Electricity Market was open on Apr. 2. 2001

※ PPA(Power Purchase Agreement) : 전력수급계약

※ 전력시장 구입실적은 수수료, RPS, DR, ETS, ECR 비용 포함

※ The amount of Electricity Market includes a commission, RPS, DR, ETS, ECR

19. 전력 구입 실적 (2.전력시장 구입)

('21.1.1~12.31) Power Purchasing Results (Electricity market)

구 분 Items		구 입 량 Volume (MWh)	구 입 금 액 Payment (백만원, mil. won)			구 입 단 가 Unit cost (won/kWh)
			점 유 율 (% of total)	점 유 율 (% of total)	점 유 율 (% of total)	
발 전 회 사 별 Companies	한수원 KHNP	154,842,311	28.9	9,560,902	17.3	61.75
	남 동 KOSEPCO	43,823,563	8.2	5,287,120	9.6	120.65
	중 부 KOMIPO	46,202,663	8.6	5,616,880	10.2	121.57
	서 부 KOWEPO	44,468,646	8.3	5,240,643	9.5	117.85
	남 부 KOSPO	48,605,429	9.1	5,978,244	10.8	123.00
	동 서 KEWESPO	41,529,829	7.7	5,129,242	9.3	123.51
	기 타 Others	156,513,049	29.2	18,482,049	33.4	118.09
발 전 원 별	원자력 Nuclear	150,162,754	28.0	8,450,758	15.3	56.28
	유연탄 Bituminous	186,812,679	34.9	19,000,897	34.4	101.71
	무연탄 Domestic Coal	1,653,642	0.3	171,845	0.3	103.92
	유 류 Oil	2,110,363	0.4	460,317	0.8	218.12
	L N G/복합	163,078,533	30.4	19,955,252	36.1	122.37
	신재생 Renewables	23,367,545	4.4	2,497,514	4.5	106.88
	수 력 Hydro	2,348,560	0.4	252,806	0.5	107.64
	양 수 Pumping	3,666,758	0.7	514,741	0.9	140.38
	RPS 이행비용	-	-	3,498,153	6.3	-
	수요관리(DR)	-	-	228,091	0.4	-
기 타 Others	2,784,656	0.5	264,708	0.5	95.06	
부 하 별 Load	기 저 Base Load	338,629,076	63.2	27,623,500	50.0	81.57
	일 반 Non-Base Load	197,356,415	36.8	27,671,581	50.0	140.21
	합 계 Total	535,985,491	100.0	55,295,081	100.0	103.17

19. 전력 구입 실적 (3. PPA 사업자 구입)

('21.1.1~12.31) Power Purchase Results (Power Purchase Agreement)

구분 Items	구입량 Volume (MWh)	점유율 (% of total)	구입금액 Payment		구입단가 Unit cost (won/kWh)	
			(백만원, mil. won)	점유율 (% of total)		
복 합 화 력	GS EPS	565,609	3.1	64,960	3.4	114.85
	C G N	2,204,479	12.1	306,046	16.1	138.83
	소계	2,770,088	15.2	371,006	19.5	133.93
신 재 생	소수력 small hydro	15,493	0.1	1,451	0.1	93.64
	풍력 wind	12	0.0	1	0.0	92.30
	바이오 Bio	25,931	0.1	2,478	0.1	95.58
	연료전지 Fuel cell	32,096	0.2	2,999	0.2	93.44
	태양광에너지 Solar energy	15,243,545	83.7	1,511,768	79.5	99.17
	해양에너지 Ocean energy	13	0.0	2	0.0	131.27
소계	15,317,089	84.1	1,518,699	79.9	99.15	
기 타	구역전기 Community Energy Service	117,046	0.6	10,041	0.5	85.79
	폐기물 Waste	7,232	0.0	680	0.0	94.10
	소계	124,277	0.7	10,721	0.6	86.27
합계 Total	18,211,454	100	1,900,427	100	104.35	

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IV. 판매 부문

Electricity sales

20. 전력 손실 추이

(단위 : MWh, %) Trends in Power Losses

연도별	송전단 전력량 ¹⁾ Net generation A	송 변 전 손 실 Transmission & Substation losses		
		배분전력량 ²⁾ Distribution B	손실량 Losses A - B	손실률 (%) (A-B)/A
1961	1,683,584	1,495,254	188,330	11.19
2009	411,631,123	404,757,943	6,873,181	1.67
2010	451,432,992	444,144,049	7,288,944	1.61
2011	472,650,336	465,440,440	7,209,896	1.53
2012	484,334,191	476,693,295	7,640,896	1.58
2013	491,002,788	483,172,107	7,830,681	1.59
2014	494,716,613	486,874,854	7,841,759	1.59
2015	499,239,421	491,285,577	7,953,844	1.59
2016	514,118,988	505,937,374	8,181,614	1.59
2017	525,710,752	517,358,021	8,352,731	1.59
2018	543,231,596	534,612,230	8,619,366	1.59
2019	536,197,809	527,752,245	8,445,564	1.58
2020	525,850,762	517,571,775	8,278,987	1.57
2021	549,623,783	540,972,705	8,651,079	1.57
1	50,792,877	49,789,716	1,003,161	1.98
2	42,990,035	42,371,626	618,410	1.44
3	45,095,324	44,621,691	473,633	1.05
4	41,631,529	41,004,279	627,250	1.51
5	42,241,150	41,827,615	413,535	0.98
6	43,663,043	43,314,725	348,319	0.80
7	51,464,312	50,411,662	1,052,649	2.05
8	49,098,601	48,102,430	996,171	2.03
9	43,099,919	42,250,718	849,201	1.97
10	43,873,876	43,384,373	489,503	1.12
11	44,705,483	43,933,866	771,617	1.73
12	50,967,633	49,960,003	1,007,630	1.98

1) 송전단전력량 (A)

- '61~'05년 : (발전량-소내전력량) - 양수전력량

- '06년부터 : (구입전력량 + 한전 도서발전 송전량) - 양수전력량

2) 배분전력량 (B) : 측정계량기 오차등급

- '61~'05년 : 기계식(2.0%) 인력측정

- '06년부터 : 전자식 (0.5%) 자동측정

(unit : MWh, %)

배 전 손 실 ²⁾ Distribution losses			총 합 손 실 Total losses		During
배전판매량 Distribution Power sold C	손 실 량 Losses B - C	손 실 률 (%) (B-C)/B	손 실 량 Losses A - C	손 실 률 (%) (A-C)/A	
1,189,386	305,868	18.17	494,198	29.35	1961
394,861,383	9,896,559	2.45	16,769,740	4.07	2009
433,398,756	10,745,293	2.42	18,034,236	3.99	2010
455,219,953	10,220,487	2.20	17,430,383	3.69	2011
467,042,687	9,650,608	2.02	17,291,504	3.57	2012
472,691,677	10,480,430	2.17	18,311,111	3.73	2013
476,446,201	10,428,653	2.14	18,270,412	3.69	2014
481,260,212	10,025,366	2.04	17,979,210	3.60	2015
495,644,146	10,293,228	2.03	18,474,842	3.59	2016
506,920,655	10,437,366	2.02	18,790,097	3.57	2017
523,872,241	10,739,989	2.01	19,359,355	3.56	2018
517,197,335	10,554,911	2.00	19,000,475	3.54	2019
507,240,791	10,330,984	2.00	18,609,971	3.54	2020
530,199,565	10,773,139	1.99	19,424,218	3.53	2021
48,702,145	1,087,570	2.18	2,090,732	4.12	1
41,575,826	795,800	1.88	1,414,209	3.29	2
43,685,225	936,466	2.10	1,410,099	3.13	3
40,155,070	849,210	2.07	1,476,460	3.55	4
40,990,514	837,101	2.00	1,250,635	2.96	5
42,468,629	846,095	1.95	1,194,414	2.74	6
49,373,853	1,037,809	2.06	2,090,458	4.06	7
47,155,272	947,158	1.97	1,943,329	3.96	8
41,615,554	635,164	1.50	1,484,365	3.44	9
42,429,981	954,392	2.20	1,443,895	3.29	10
43,229,340	704,526	1.60	1,476,143	3.30	11
48,818,155	1,141,848	2.29	2,149,478	4.22	12

1) Net generation (A)

- 1961~2005 :(Gross generation - Auxiliary use) - Pumping storage

- from 2006 : (Power purchasing results + net generation in islands) - Pumping storage

2) Distribution amount (B) : improving the error class of meter

- 1961~2005 : measuring mechanical meter by human (2.0%)

- from 2006 : measuring electronic meter automatically (0.5%)

21. 고객 호수 추이

(단위 : 호) Trends in Number of Customers (Unit : Households)

연·월말 End of	주택용 Resi- dential	일반용 Public & Service	교육용 Educ- ational	산업용 Indu- strial	농사용 Agri- cultural	가로등 Street- lighting	심야 Midnight Power	합 계 Total
1961	770,405	26,422			45	380		797,252
2007	12,392,777	2,451,135	32,649	322,894	1,142,769	821,139	875,447	18,038,810
2008	12,553,340	2,503,422	33,703	329,458	1,195,544	883,533	920,048	18,419,048
2009	12,682,652	2,552,298	33,907	337,683	1,200,032	985,102	935,737	18,727,411
2010	12,904,238	2,632,860	34,376	348,096	1,260,276	1,117,657	931,947	19,229,450
2011	13,181,372	2,710,906	34,625	358,220	1,335,748	1,271,913	922,082	19,814,866
2012	13,514,464	2,817,597	34,788	367,888	1,432,599	1,398,414	910,149	20,475,899
2013	13,822,791	2,893,935	19,912	377,411	1,495,113	1,511,494	897,037	21,017,693
2014	14,117,408	2,954,628	20,217	387,533	1,565,503	1,604,510	882,470	21,532,269
2015	14,419,050	3,016,678	20,489	396,862	1,638,132	1,672,745	866,259	22,030,215
2016	14,728,391	3,088,632	20,663	405,771	1,710,781	1,751,669	846,812	22,552,719
2017	15,085,547	3,115,221	20,972	413,877	1,784,191	1,830,973	826,242	23,077,023
2018	15,317,045	3,173,093	20,992	420,999	1,849,453	1,918,848	801,112	23,501,542
2019	15,487,494	3,231,261	21,057	425,249	1,907,398	2,010,103	777,470	23,860,032
2020	15,609,631	3,278,071	20,996	429,973	1,977,365	2,130,215	752,053	24,198,304
2021	15,728,358	3,358,143	20,971	434,174	2,051,417	2,206,425	723,816	24,523,304
1	15,619,445	3,286,950	21,003	430,141	1,902,309	2,149,133	749,600	24,158,581
2	15,629,469	3,288,655	21,040	430,370	1,903,333	2,146,533	747,471	24,166,871
3	15,637,327	3,289,045	21,049	430,544	2,459,053	2,151,380	744,904	24,733,302
4	15,656,789	3,294,450	21,027	431,031	1,997,315	2,155,946	742,618	24,299,176
5	15,666,008	3,298,674	21,001	431,452	1,933,632	2,162,576	739,603	24,252,946
6	15,675,959	3,306,095	20,979	431,873	1,942,708	2,175,981	736,949	24,290,544
7	15,687,657	3,314,447	20,962	432,387	1,950,437	2,188,505	734,402	24,328,797
8	15,690,499	3,323,434	20,964	432,801	1,959,837	2,185,472	732,022	24,345,029
9	15,700,612	3,329,951	20,977	433,192	1,969,732	2,190,264	729,839	24,374,567
10	15,707,574	3,333,463	20,969	433,471	1,975,351	2,196,587	727,831	24,395,246
11	15,721,323	3,344,623	20,968	433,852	2,533,391	2,201,119	726,157	24,981,433
12	15,728,358	3,358,143	20,971	434,174	2,051,417	2,206,425	723,816	24,523,304

22. 요금적용 전력 추이

(단위: kW) Trends in Billing Demand by Tariff

(unit : kW)

연·월말 End of	주 택 용 Residential	일반용 Pub & Ser	교육용 Educational	산업용 Industrial	농사용 Agricultural	가 로 등 Street lighting	심 야 Midnight	계 Total
1961		602,077			1,893	-		603,970
2007	7,724,189	37,414,442	2,884,761	47,312,475	5,935,305	714,486	464,229	102,449,887
2008	6,368,866	39,154,931	3,253,213	49,385,457	6,496,024	757,549	496,717	105,912,757
2009	6,603,316	40,402,611	3,612,159	51,335,653	7,112,796	823,319	513,736	110,403,590
2010	8,285,618	36,733,244	3,915,254	54,946,898	7,746,197	873,766	551,735	113,052,712
2011	7,352,858	46,932,414	3,951,231	58,843,675	8,586,964	901,764	561,457	127,130,363
2012	8,270,221	47,200,052	4,578,800	60,769,083	9,725,591	948,722	583,698	132,076,167
2013	8,441,223	47,494,772	4,523,631	61,421,501	9,643,455	971,649	588,390	133,084,621
2014	8,612,424	49,801,241	4,231,061	64,371,002	11,343,616	1,077,707	598,598	140,035,649
2015	9,771,619	50,056,608	4,268,931	64,882,595	12,061,741	1,118,414	621,044	142,780,952
2016	11,363,510	53,637,763	4,384,746	66,708,537	12,809,910	1,166,566	828,604	150,899,636
2017	10,799,028	55,381,056	4,636,161	68,276,143	13,463,379	1,899,798	666,765	155,122,330
2018	12,984,167	57,555,236	4,988,795	69,990,266	14,194,703	1,204,319	857,844	161,775,330
2019	12,136,741	58,268,720	5,022,271	69,972,776	14,724,228	1,212,832	679,102	162,016,670
2020	12,745,781	59,491,554	4,755,897	68,657,628	15,483,307	1,204,836	674,377	163,013,380
2021	16,792,405	61,621,238	5,233,149	71,261,410	16,169,433	1,208,662	675,674	172,961,971
1	12,781,144	59,516,559	4,903,562	69,100,492	15,323,073	1,207,353	674,900	163,507,083
2	12,821,092	59,894,517	4,916,172	69,223,714	15,418,018	1,206,446	672,448	164,152,407
3	12,851,005	59,778,772	4,940,592	69,732,385	16,494,507	1,206,873	675,470	165,679,604
4	12,927,929	59,943,999	4,922,174	69,864,600	16,217,719	1,208,095	687,464	165,771,980
5	12,948,765	60,026,858	4,918,219	70,501,436	16,189,921	1,206,875	689,228	166,481,302
6	12,977,719	60,215,669	4,919,728	70,399,879	15,838,958	1,204,609	690,788	166,247,350
7	13,479,592	60,513,486	5,161,576	71,208,880	15,553,345	1,204,701	694,726	167,816,306
8	16,559,771	60,313,721	4,970,868	69,525,240	15,681,205	1,203,095	694,350	168,948,250
9	16,655,855	60,363,174	5,148,989	70,378,345	15,470,747	1,202,495	1,478,349	170,697,954
10	16,666,709	60,509,117	5,158,670	71,247,896	16,015,663	1,204,330	-100,775	170,701,610
11	16,744,283	60,818,354	5,163,472	70,770,805	17,465,641	1,207,565	682,418	172,852,538
12	16,792,405	61,621,238	5,233,149	71,261,410	16,169,433	1,208,662	675,674	172,961,971

23. 판매 전력량 추이

(단위 : MWh) Trends in Power Sales

연·월 별	주 택 용 Residential	일 반 용 Public & Service	교 육 용 Educational	산 업 용 Industrial
1961	222,510		940,277	
2007	55,680,846	82,207,586	5,304,104	194,936,409
2008	57,877,514	86,827,003	5,783,324	203,474,609
2009	59,427,255	89,619,316	6,465,449	207,215,867
2010	63,199,602	97,410,032	7,452,576	232,672,176
2011	63,523,655	99,504,065	7,568,016	251,490,648
2012	65,483,733	101,592,760	7,860,449	258,101,933
2013	65,814,572	102,196,338	7,947,317	265,372,531
2014	64,457,263	100,760,879	7,438,374	272,551,573
2015	65,618,610	103,679,346	7,690,600	273,547,997
2016	68,056,786	108,616,888	8,079,392	278,827,855
2017	68,543,760	111,297,776	8,316,290	285,969,563
2018	72,894,709	116,933,912	8,677,808	292,998,663
2019	72,638,868	116,226,510	8,560,660	289,240,198
2020	76,303,405	113,638,542	7,515,352	278,660,247
2021	79,914,811	119,550,386	8,422,605	291,333,422
1	7,163,277	11,417,099	980,548	25,000,708
2	6,901,936	10,728,354	816,499	22,764,174
3	5,930,234	9,088,994	735,306	24,116,461
4	6,086,579	8,646,192	630,924	23,774,112
5	5,762,210	8,307,485	518,222	23,989,575
6	6,015,866	9,248,591	594,444	24,023,102
7	6,965,073	10,681,354	693,179	25,466,231
8	9,269,032	11,957,353	631,124	24,477,515
9	7,139,003	10,261,824	650,117	24,342,864
10	6,088,250	9,081,965	575,177	23,958,444
11	6,174,042	9,060,200	671,283	23,911,059
12	6,419,309	11,070,976	925,782	25,509,178

(unit : MWh)

농 사 용 Agricultural	가 로 등 Street lighting	심 야 Midnight Power	합 계 Total	During
20,851	5,748		1,189,386	1961
8,215,174	2,793,943	19,467,371	368,605,433	2007
8,869,459	2,847,241	19,390,987	385,070,137	2008
9,671,357	2,954,231	19,121,163	394,474,637	2009
10,654,295	3,081,490	19,690,056	434,160,228	2010
11,231,538	3,145,498	18,606,840	455,070,261	2011
12,776,045	3,158,091	17,619,937	466,592,949	2012
13,865,837	3,156,226	16,495,759	474,848,580	2013
14,504,731	3,221,008	14,657,873	477,591,701	2014
15,702,468	3,341,240	14,074,556	483,654,816	2015
16,579,843	3,462,314	13,415,826	497,038,904	2016
17,250,850	3,556,775	12,811,372	507,746,386	2017
18,503,827	3,582,649	12,557,594	526,149,162	2018
18,882,368	3,571,475	11,378,658	520,498,738	2019
19,028,829	3,506,999	10,616,342	509,269,715	2020
20,603,212	3,444,429	10,161,945	533,430,811	2021
2,081,679	332,000	1,780,250	48,755,561	1
1,996,821	310,936	1,669,242	45,187,963	2
1,677,594	288,002	1,237,775	43,074,366	3
1,539,072	285,450	937,348	41,899,677	4
1,353,592	266,114	645,077	40,842,275	5
1,408,828	253,260	487,784	42,031,874	6
1,523,757	250,063	392,140	45,971,797	7
1,991,938	265,289	337,704	48,929,956	8
1,825,657	273,188	326,232	44,818,885	9
1,486,007	290,794	357,585	41,838,221	10
1,921,546	309,619	781,868	42,829,616	11
1,796,721	319,714	1,208,938	47,250,619	12

24. 용도별 판매 전력량 추이

(단위 : MWh) Trends in Power Sales by Use and Industry

연·월 별	가 정 용		공 공 용		서비스업 및 기타 ¹⁾		농 립 어업	
	Residential	점유율 (% of total)	Public	점유율 (% of total)	Service	점유율 (% of total)	Agri., For. & Fishery	점유율 (% of total)
1965	251,936	10.2	273,655	11.1	403,456	16.4	37,281	1.5
2007	54,173,987	14.7	15,578,580	4.2	112,601,224	30.5	7,794,794	2.1
2008	56,227,938	14.6	16,577,299	4.3	117,635,066	30.5	8,388,827	2.2
2009	57,595,481	14.6	17,932,259	4.5	121,202,975	30.7	9,144,527	2.3
2010	61,194,167	14.1	19,871,542	4.6	129,923,068	29.9	10,041,853	2.3
2011	61,564,249	13.5	20,539,309	4.5	130,762,275	28.7	10,574,980	2.3
2012	63,536,150	13.6	21,422,340	4.6	132,498,775	28.4	12,074,001	2.6
2013	63,970,472	13.5	21,982,156	4.6	132,054,876	27.8	13,061,607	2.8
2014	62,675,310	13.1	21,669,253	4.5	128,629,516	26.9	13,556,457	2.8
2015	63,794,044	13.2	22,178,572	4.6	132,049,197	27.3	14,644,964	3.0
2016	66,173,065	13.3	22,908,419	4.6	137,982,086	27.8	15,396,810	3.1
2017	66,517,357	13.1	23,604,528	4.6	140,952,297	27.8	15,981,131	3.1
2018	70,687,228	13.4	24,568,576	4.7	149,983,027	28.0	17,126,088	3.3
2019	70,455,407	13.5	24,458,148	4.7	148,310,523	28.0	17,304,668	3.3
2020	74,073,575	14.5	23,622,905	4.6	144,443,993	28.4	17,036,659	3.3
2021	77,558,386	14.5	25,025,912	4.7	148,181,597	27.8	18,496,161	3.5
1	6,939,746	14.2	2,625,675	5.4	14,635,497	30.0	1,892,246	3.9
2	6,686,344	14.8	2,330,217	5.2	13,748,613	30.4	1,804,364	4.0
3	5,752,803	13.4	2,108,420	4.9	11,766,385	27.3	1,484,663	3.4
4	5,909,629	14.1	1,915,657	4.6	11,111,708	26.5	1,358,139	3.2
5	5,595,151	13.7	1,743,020	4.3	10,526,011	25.8	1,228,524	3.0
6	5,839,039	13.9	1,896,257	4.5	11,296,932	26.9	1,275,817	3.0
7	6,764,393	14.7	2,116,522	4.6	12,652,013	27.5	1,354,094	2.9
8	9,022,496	18.4	2,136,491	4.4	13,885,601	28.4	1,785,685	3.6
9	6,933,290	15.5	2,004,683	4.5	12,173,223	27.2	1,632,484	3.6
10	5,908,029	14.1	1,826,635	4.4	11,100,499	26.5	1,316,861	3.1
11	5,989,354	14.0	1,937,333	4.5	11,485,154	26.8	1,750,661	4.1
12	6,218,112	13.2	2,385,002	5.0	13,799,959	29.2	1,612,623	3.4

1) 서비스업 및 기타 : 한국표준산업분류상 A. 농업, 임업 및 어업, B. 광업, C. 제조업, O. 공공행정 국방 및 사회보장행정을 제외한 산업.

(unit : MWh)

광업 Mining	점유율 (% of total)	제조업 Manufacturing		계 Total		During
		점유율 (% of total)	점유율 (% of total)	점유율 (% of total)	점유율 (% of total)	
194,629	7.9	1,302,728	52.9	2,463,687	100	1965
1,484,165	0.4	176,972,684	48.0	368,605,433	100	2007
1,446,109	0.4	184,794,897	48.0	385,070,137	100	2008
1,350,156	0.3	187,249,239	47.5	394,474,637	100	2009
1,682,954	0.4	211,446,643	48.7	434,160,228	100	2010
1,928,241	0.4	229,701,207	50.5	455,070,261	100	2011
1,616,370	0.3	235,445,313	50.5	466,592,949	100	2012
1,478,043	0.3	242,301,427	51.0	474,848,580	100	2013
1,570,929	0.3	249,490,235	52.2	477,591,701	100	2014
1,630,853	0.3	249,357,185	51.6	483,654,816	100	2015
1,754,503	0.4	252,824,020	50.9	497,038,904	100	2016
1,746,244	0.3	258,944,828	51.0	507,746,386	100	2017
1,478,382	0.3	262,305,861	50.4	526,149,162	100	2018
1,492,516	0.3	258,477,476	50.1	520,498,738	100	2020
1,552,100	0.3	248,540,483	48.8	509,269,715	100	2020
1,806,892	0.3	262,361,863	49.2	533,430,811	100	2021
150,194	0.3	22,512,203	46.2	48,755,561	100	1
139,042	0.3	20,479,383	45.3	45,187,963	100	2
152,094	0.4	21,810,002	50.6	43,074,366	100	3
159,266	0.4	21,445,278	51.2	41,899,677	100	4
151,343	0.4	21,598,226	52.9	40,842,275	100	5
152,713	0.4	21,571,116	51.3	42,031,874	100	6
151,575	0.3	22,933,200	49.9	45,971,797	100	7
138,057	0.3	21,961,626	44.9	48,929,956	100	8
140,259	0.3	21,934,946	48.9	44,818,885	100	9
144,297	0.3	21,541,900	51.5	41,838,221	100	10
161,866	0.4	21,505,248	50.2	42,829,616	100	11
166,186	0.4	23,068,737	48.8	47,250,619	100	12

25. 제조업종별 판매 전력량 추이 (1)

(단위:MWh) Trends in Power Sales by Manufacturing

연·월 별	식료품 제조 Food, beverage		섬유·의복 Textile, clothes		목재·나무 Lumber, wood	펄프·종이 Pulp, paper	출판·인쇄 Publication, printing
2007	7,821,553		12,016,707		1,557,690	8,452,601	1,349,713
2008	7,786,078		11,716,931		1,584,625	8,343,418	1,447,136
2009	7,990,424		11,543,200		1,588,816	8,144,813	1,465,849
2010	8,736,565		12,361,618		1,754,362	8,459,937	1,558,824
2011	9,268,032		12,779,016		1,779,596	8,758,811	1,542,613
2012	9,792,881		12,723,374		1,771,977	8,513,144	1,537,845
2013	10,018,478		12,428,655		1,858,881	8,689,559	1,480,562
2014	10,105,219		11,965,254		1,927,731	8,547,863	1,432,506
2015	10,485,097		11,604,490		1,903,958	8,521,616	1,410,969
2016	10,998,804		11,425,575		1,917,895	8,615,101	1,398,619
2017	11,282,454		11,260,606		1,925,029	8,386,402	1,397,293
연·월 별	식료품	음료	담배	섬유제품	의복,액세서리,모피제품	가죽, 가방, 신발	목재, 나무제품
2018	10,567,031	1,127,775	180,689	9,464,892	700,396	540,250	1,882,560
2019	10,932,610	1,134,722	194,650	8,664,922	655,391	499,444	1,742,169
2020	11,533,642	1,167,144	201,339	7,654,031	583,366	459,414	1,702,772
2021	12,114,429	1,228,555	193,632	8,165,706	594,224	472,189	1,760,584
1	1,019,531	93,527	16,130	706,884	55,435	46,211	167,686
2	955,169	86,845	13,773	652,039	55,023	42,562	154,890
3	973,920	96,754	16,123	666,272	48,321	40,054	152,412
4	983,228	98,145	15,703	683,061	49,703	39,720	146,979
5	935,541	98,326	15,425	674,630	44,273	35,867	141,329
6	1,006,331	112,335	17,037	680,745	45,851	38,381	141,909
7	1,087,925	115,438	18,236	705,385	50,489	39,747	141,360
8	1,092,289	124,086	15,211	680,214	54,504	38,053	136,002
9	1,052,218	107,428	18,467	675,824	50,881	37,275	139,116
10	997,645	103,309	16,540	650,347	42,974	33,468	133,955
11	986,174	94,294	16,500	682,480	46,108	38,138	146,102
12	1,024,457	98,068	14,488	707,825	50,662	42,713	158,843

※ 제10차 한국표준산업분류 개정으로 2018년부터 새 분류표 적용

(unit : MWh)

석 유 · 화 학 Petroleum, chemistry		요 업 Ceramic industry	1 차 금 속 Basic metal		조 립 금 속 Fabricated metal	During
36,567,621		11,104,987	32,832,202		6,126,424	2007
38,990,325		11,407,989	33,841,622		6,575,676	2008
40,063,497		11,230,106	35,148,660		6,492,322	2009
43,213,196		11,619,995	41,833,962		7,650,775	2010
48,142,390		11,821,835	46,225,677		8,157,747	2011
50,539,522		10,927,942	45,675,836		8,322,460	2012
52,112,317		11,236,441	46,466,613		8,479,272	2013
54,992,167		11,642,680	48,790,672		8,613,090	2014
55,660,380		12,022,646	46,191,526		8,723,716	2015
58,483,202		12,575,440	45,004,788		9,037,399	2016
60,469,128		12,612,253	45,329,277		9,523,399	2017
펄프, 종이, 종이제품	인쇄, 기록매체	코크스, 연탄, 석유정제품	화학물질, 화학제품	의료용 물질, 의약품	고무제품, 플라스틱제품	During
8,215,963	1,244,490	13,061,870	40,265,239	2,222,255	9,042,135	2018
8,039,742	1,220,919	13,360,369	40,187,213	2,346,937	8,883,630	2019
7,853,476	1,187,799	12,549,563	38,342,495	2,498,875	8,679,049	2020
8,009,899	1,204,470	13,281,372	41,256,268	2,675,767	9,473,458	2021
717,258	124,756	1,068,462	3,447,203	202,320	845,333	1
640,079	115,026	977,137	3,173,278	181,970	774,872	2
686,077	99,251	1,066,431	3,436,912	199,313	796,175	3
667,790	96,423	1,045,182	3,363,180	199,879	802,953	4
655,673	85,118	1,103,740	3,422,957	216,481	769,466	5
655,063	91,981	1,083,356	3,364,180	236,461	786,744	6
681,321	100,214	1,175,016	3,630,528	276,214	819,811	7
654,963	100,188	1,161,625	3,618,546	263,422	755,305	8
632,060	98,243	1,117,727	3,501,975	241,062	786,739	9
654,367	85,364	1,077,688	3,398,209	230,149	744,469	10
663,194	97,684	1,135,099	3,307,494	211,668	780,805	11
702,056	110,224	1,269,909	3,591,806	216,830	810,785	12

25. 제조업 종별 판매 전력량 추이 (2)

(단위:MWh)

Trends in Power Sales by Manufacturing

연·월 별	기 타 기 계 Other Machinery	사 무 기 기 Office apparatus	전 기 기 기 Electricity apparatus	영 상·음 향 Sound, image		의 료·광 학 Medical, optical
2007	8,485,521	2,051,186	3,200,455	25,112,282		894,139
2008	8,506,116	1,300,850	3,788,809	27,484,921		1,937,699
2009	8,452,851	708,750	3,993,565	28,512,262		2,593,208
2010	10,903,461	793,214	4,609,257	32,350,381		2,975,862
2011	12,635,962	910,946	5,051,560	35,155,336		2,732,166
2012	13,554,603	928,899	5,151,053	37,681,598		3,191,567
2013	14,262,025	887,415	5,088,701	38,678,769		4,948,416
2014	14,960,420	699,380	5,222,061	38,698,785		5,054,536
2015	15,750,983	441,025	5,353,309	38,440,881		5,615,076
2016	10,096,754	453,424	5,656,438	44,497,525		5,859,907
2017	10,539,701	489,279	5,801,908	47,699,795		5,931,997
연·월 별	비금속 광물제품	1차 금속	금속가공제품	전자,영상, 음향,컴퓨터, 통신장비	의료, 정밀, 광학, 시계	전기장비
2018	12,166,098	44,743,676	9,303,222	51,637,544	4,321,166	6,434,327
2019	11,746,082	41,871,358	8,952,014	51,983,260	4,095,046	6,727,277
2020	11,154,137	36,342,999	8,408,635	53,310,591	3,843,330	6,901,744
2021	11,700,452	35,043,680	8,764,295	57,788,476	4,143,844	7,710,495
1	943,720	3,048,915	842,439	4,740,248	330,296	677,388
2	862,804	2,681,484	776,501	4,291,371	297,323	606,857
3	982,957	3,007,998	758,036	4,652,929	372,854	644,340
4	1,020,092	2,941,537	742,628	4,539,694	356,042	619,977
5	1,015,324	3,116,848	688,208	4,743,512	368,945	617,315
6	977,703	2,722,044	711,565	4,829,655	372,449	647,111
7	982,816	2,838,259	729,676	5,253,541	378,575	684,322
8	934,684	2,807,936	674,910	4,876,707	379,921	645,552
9	911,988	2,803,143	677,676	5,209,481	325,234	628,337
10	964,116	3,006,121	645,781	5,013,411	326,582	633,726
11	1,020,562	2,914,128	724,887	4,718,072	298,183	631,798
12	1,083,685	3,155,269	791,988	4,919,855	337,439	673,771

(unit : MWh)

자 동 차 Motorcar		기 타 운 송 Other transport	가 구 및 기 타 Furniture, others	재 생 재 료 Recycling	계 Total		During
12,942,168		4,171,285	1,738,272	547,879	176,972,684		2007
12,900,114		4,881,640	1,759,633	541,316	184,794,897		2008
11,959,143		5,182,224	1,692,558	486,990	187,249,239		2009
14,787,834		5,419,180	1,873,793	544,423	211,446,643		2010
16,471,822		5,787,304	1,927,332	553,079	229,701,207		2011
17,041,508		5,643,224	1,890,200	557,681	235,445,313		2012
17,588,169		5,387,979	2,118,916	570,258	242,301,427		2013
18,334,344		5,679,767	2,265,057	558,701	249,490,234		2014
18,468,778		5,821,973	2,392,199	548,564	249,357,185		2015
18,276,571		5,435,471	2,547,145	543,961	252,824,020		2016
17,903,597		4,420,507	3,408,876	563,328	258,944,828		2017
기타기계, 장비	자동차, 트레일러	기타 운송장비	가구	기타 제품	산업기계, 장비수리	계 Total	During
10,523,074	17,582,178	4,080,786	679,807	2,239,592	78,846	262,305,861	2018
10,326,686	17,451,506	4,280,604	654,745	2,449,904	76,281	258,477,476	2019
10,169,452	16,488,546	4,169,684	672,950	2,589,300	76,149	248,540,483	2020
11,131,487	17,983,076	4,103,124	702,199	2,780,810	79,373	262,361,863	2021
1,062,439	1,654,566	344,742	77,708	269,972	9,031	22,512,203	1
990,000	1,468,431	344,926	75,785	252,573	8,665	20,479,383	2
921,265	1,559,766	330,628	63,234	231,093	6,890	21,810,002	3
914,958	1,516,468	306,596	59,337	229,805	6,198	21,445,278	4
850,925	1,422,663	307,325	50,592	212,289	5,455	21,598,226	5
897,569	1,520,406	353,200	50,769	222,691	5,577	21,571,116	6
943,401	1,596,833	395,926	51,045	231,181	5,942	22,933,200	7
907,663	1,414,792	339,185	51,613	227,468	6,790	21,961,626	8
898,269	1,396,788	343,191	51,889	223,908	6,027	21,934,946	9
827,437	1,370,767	334,025	45,165	201,073	5,213	21,541,900	10
912,521	1,481,650	306,649	57,312	227,662	6,083	21,505,248	11
1,005,040	1,579,948	396,728	67,752	251,094	7,502	23,068,737	12

26. 행정 구역 별 고객 호수 추이 (1)

(단위 : 호) Trends in Number of Customers by Province

연도별 \ 시도별	서울 Seoul	부산 Busan	대구 Daegu	인천 Incheon
1961	219,134	-	-	-
2007	3,032,471	1,146,331	775,419	810,596
2008	3,036,105	1,147,170	785,574	823,213
2009	3,061,319	1,152,245	791,320	834,374
2010	3,127,242	1,168,269	800,585	862,705
2011	3,213,280	1,192,817	820,940	884,924
2012	3,297,656	1,217,929	839,322	905,425
2013	3,396,721	1,238,164	851,861	916,535
2014	3,441,223	1,252,737	870,345	936,198
2015	3,467,528	1,263,051	891,935	955,702
2016	3,506,464	1,270,512	918,572	978,238
2017	3,563,803	1,279,193	929,637	1,005,645
2018	3,605,300	1,282,195	941,398	1,020,655
2019	3,647,702	1,286,717	932,965	1,026,667
2020	3,692,337	1,287,766	933,257	1,032,731
2021	3,713,891	1,290,387	928,295	1,042,093
1	3,694,242	1,288,424	929,566	1,028,870
2	3,697,465	1,288,314	929,030	1,028,869
3	3,698,946	1,288,167	929,170	1,036,830
4	3,701,346	1,288,767	929,032	1,034,885
5	3,702,846	1,289,294	929,209	1,030,992
6	3,704,349	1,289,833	928,762	1,032,192
7	3,706,528	1,290,256	928,961	1,033,353
8	3,707,636	1,290,060	928,737	1,034,180
9	3,709,396	1,289,759	928,517	1,034,636
10	3,712,375	1,289,472	928,247	1,034,837
11	3,712,837	1,290,585	928,836	1,043,664
12	3,713,891	1,290,387	928,295	1,042,093

(unit:Households)

광 주	대 전	울 산	세 종	경 기	Province
Gwangju	Daejeon	Ulsan	Sejong	Gyeonggi	End of
-	-	-	-	65,480	1961
436,176	426,486	344,838	-	3,266,588	2007
443,834	432,523	353,728	-	3,364,828	2008
451,057	443,519	360,482	-	3,448,837	2009
462,672	465,250	372,924	-	3,547,389	2010
471,124	483,447	385,869	-	3,666,846	2011
484,454	504,791	401,743	68,018	3,784,921	2012
504,496	513,418	414,659	74,187	3,889,183	2013
516,639	522,331	427,835	80,165	3,998,459	2014
526,471	538,213	440,557	83,028	4,117,575	2015
531,637	556,529	450,632	85,756	4,248,808	2016
543,151	576,795	459,420	89,514	4,369,707	2017
545,480	584,853	465,067	92,326	4,482,784	2018
550,818	588,843	468,077	98,581	4,563,003	2019
553,028	591,180	470,696	100,758	4,615,521	2020
558,106	594,286	471,793	103,381	4,687,268	2021
553,047	591,441	470,770	100,866	4,612,185	1
553,578	591,777	470,745	100,953	4,612,912	2
558,196	593,519	471,694	105,982	4,688,060	3
554,413	592,340	470,823	101,304	4,636,858	4
554,681	592,554	470,980	101,490	4,635,776	5
555,151	592,815	471,636	101,726	4,651,440	6
555,639	593,056	471,768	101,964	4,655,310	7
555,904	592,771	471,609	102,159	4,653,023	8
556,482	592,943	471,645	102,736	4,658,903	9
556,770	593,104	471,632	102,962	4,663,163	10
561,971	594,975	472,714	108,133	4,742,910	11
558,106	594,286	471,793	103,381	4,687,268	12

26. 행정구역별 고객호수추이 (2)

(단위 : 호) Trends in Number of Customers by Province

연도별 \ 시도별	강 원 Gangwon	충 북 Chungbuk	충 남 Chungnam	전 북 Jeonbuk	전 남 Jeonnam
1961	24,626	30,418	58,205	58,015	70,043
2007	808,944	795,998	1,044,357	905,310	1,077,482
2008	832,089	820,888	1,076,938	926,633	1,106,823
2009	850,629	838,126	1,103,222	903,752	1,135,861
2010	868,928	865,909	1,141,204	943,598	1,160,472
2011	886,990	890,383	1,184,303	973,340	1,201,817
2012	908,906	916,759	1,171,169	1,022,299	1,251,282
2013	930,463	940,692	1,208,741	1,046,867	1,284,336
2014	950,946	964,440	1,243,023	1,109,077	1,308,664
2015	975,262	991,176	1,281,942	1,133,398	1,335,482
2016	1,000,910	1,016,059	1,317,480	1,155,045	1,364,679
2017	1,026,182	1,041,172	1,357,245	1,178,675	1,393,273
2018	1,062,000	1,065,629	1,390,063	1,193,339	1,423,206
2019	1,089,261	1,089,307	1,423,311	1,217,739	1,454,637
2020	1,112,938	1,108,181	1,451,902	1,243,394	1,497,359
2021	1,137,935	1,129,889	1,482,070	1,272,614	1,527,926
1	1,114,818	1,109,649	1,454,674	1,223,409	1,474,830
2	1,115,803	1,110,739	1,456,014	1,218,405	1,476,783
3	1,138,856	1,146,032	1,569,585	1,292,305	1,600,472
4	1,119,846	1,114,307	1,461,216	1,259,737	1,506,239
5	1,121,852	1,116,277	1,463,294	1,223,603	1,484,490
6	1,124,262	1,118,739	1,465,861	1,225,310	1,489,627
7	1,126,645	1,121,465	1,469,371	1,227,777	1,492,309
8	1,129,164	1,123,248	1,471,754	1,229,492	1,494,739
9	1,131,821	1,125,354	1,474,849	1,231,659	1,497,449
10	1,133,549	1,126,601	1,476,788	1,233,148	1,499,693
11	1,157,993	1,163,027	1,592,783	1,307,565	1,624,981
12	1,137,935	1,129,889	1,482,070	1,272,614	1,527,926

(unit:Households)

경 북	경 남	제 주	개 성	계	Province
Gyeongbuk	Gyeongnam	Jeju	Gaeseong	Total	End of
103,507	161,063	6,761	-	797,252	1961
1,471,397	1,430,566	265,851	-	18,038,810	2007
1,524,494	1,472,953	271,002	253	18,419,048	2008
1,566,729	1,508,845	276,850	244	18,727,411	2009
1,607,210	1,551,878	282,977	238	19,229,450	2010
1,662,139	1,599,848	296,567	232	19,814,866	2011
1,729,293	1,660,652	311,032	248	20,475,899	2012
1,777,464	1,705,087	324,574	245	21,017,693	2013
1,826,845	1,744,017	339,072	253	21,532,269	2014
1,884,765	1,785,232	358,644	254	22,030,215	2015
1,937,384	1,828,814	385,200	-	22,552,719	2016
1,980,254	1,865,308	418,037	-	23,077,023	2017
2,015,725	1,889,174	442,334	14	23,501,542	2018
2,047,790	1,912,803	461,797	14	23,860,032	2019
2,086,877	1,935,540	484,825	14	24,198,304	2020
2,122,187	1,958,431	502,738	14	24,523,304	2021
2,087,999	1,937,311	486,466	14	24,158,581	1
2,089,563	1,938,228	487,679	14	24,166,871	2
2,163,445	1,963,864	488,165	14	24,733,302	3
2,096,356	1,942,534	489,159	14	24,299,176	4
2,100,829	1,944,576	490,189	14	24,252,946	5
2,105,816	1,946,087	486,924	14	24,290,544	6
2,110,077	1,947,546	496,758	14	24,328,797	7
2,113,805	1,949,145	497,589	14	24,345,029	8
2,118,367	1,951,104	498,933	14	24,374,567	9
2,120,370	1,952,582	499,939	14	24,395,246	10
2,195,375	1,981,643	501,427	14	24,981,433	11
2,122,187	1,958,431	502,738	14	24,523,304	12

27. 행정 구역 별 판매 전력량 추이 (1)

(단위 : MWh) Trends in Power Sales by Province

시도별 연도별	서울 Seoul	부산 Busan	대구 Daegu	인천 Incheon
1961	384,492	-	-	-
2007	42,972,816	17,905,735	12,925,891	19,446,553
2008	44,096,350	18,709,380	13,265,254	19,915,366
2009	44,984,457	18,689,437	13,133,729	20,032,122
2010	47,295,093	20,263,682	14,479,996	21,827,577
2011	46,902,989	20,561,979	14,821,948	22,241,136
2012	47,234,102	20,664,842	14,954,958	22,651,946
2013	46,555,105	20,364,705	15,080,052	22,673,441
2014	45,018,863	19,980,898	14,858,787	22,578,048
2015	45,381,484	20,002,307	14,947,708	23,211,766
2016	46,493,234	20,467,093	15,268,114	23,875,857
2017	46,298,158	21,007,358	15,386,372	24,515,313
2018	47,810,210	21,216,605	15,675,749	24,921,926
2019	47,167,206	20,802,410	15,265,585	24,280,690
2020	45,787,926	20,503,969	14,758,568	23,638,583
2021	47,295,807	21,067,833	15,443,949	24,901,194
1	4,400,410	1,862,280	1,443,838	2,258,624
2	4,134,045	1,762,335	1,342,988	2,089,431
3	3,550,752	1,656,492	1,222,748	2,021,302
4	3,449,257	1,654,340	1,210,022	1,952,161
5	3,324,763	1,572,221	1,153,415	1,904,260
6	3,701,621	1,676,954	1,232,554	2,000,698
7	4,406,553	1,861,381	1,344,663	2,191,297
8	5,103,868	2,037,219	1,461,379	2,387,486
9	4,145,083	1,842,289	1,301,387	2,065,171
10	3,578,614	1,680,885	1,175,079	1,925,023
11	3,537,141	1,674,216	1,221,063	1,946,417
12	3,963,700	1,787,220	1,334,812	2,159,324

(unit : MWh)

광 주 Gwangju	대 전 Daejeon	울 산 Ulsan	세 종 Sejong	Province End of
-	-	-	-	1961
6,803,616	7,823,147	22,739,544	-	2007
7,044,868	8,087,633	24,132,175	-	2008
7,169,715	8,224,741	24,682,548	-	2009
7,860,057	8,867,405	26,515,702	-	2010
8,047,388	9,059,776	28,198,242	-	2011
8,130,493	9,160,107	29,362,724	578,610	2012
8,274,074	9,225,140	29,992,969	2,345,527	2013
8,197,277	9,102,524	30,115,123	2,437,031	2014
8,333,873	9,182,737	30,286,140	2,641,139	2015
8,558,369	9,379,633	32,095,217	2,801,869	2016
8,683,649	9,423,804	31,609,850	2,918,758	2017
8,773,811	9,648,827	33,748,169	3,087,693	2018
8,603,297	9,415,699	34,138,999	3,226,179	2019
8,531,108	9,405,221	33,157,834	3,393,223	2020
8,973,447	9,748,621	33,593,123	4,295,363	2021
811,864	912,804	2,943,785	334,176	1
767,227	847,141	2,646,795	304,010	2
697,761	771,955	2,812,601	296,000	3
696,052	751,324	2,716,614	287,524	4
659,751	708,974	2,682,797	275,185	5
713,735	774,709	2,685,454	292,890	6
790,946	862,437	2,881,832	315,299	7
876,521	965,782	2,911,724	339,002	8
781,758	830,846	2,861,562	309,351	9
705,604	754,358	2,797,170	286,701	10
710,814	753,811	2,746,286	297,290	11
761,414	814,480	2,906,502	957,934	12

27. 행정구역별 판매 전력량 추이 (2)

(단위 : MWh) Trends in Power Sales by Province

시도별 연도별	경 기 Gyeonggi	강 원 Gangwon	충 북 Chungbuk	충 남 Chungnam	전 북 Jeonbuk
1961	207,248	116,339	24,490	61,951	50,630
2007	78,107,276	13,567,824	16,678,098	28,051,143	15,166,073
2008	81,848,570	13,895,753	17,375,035	30,427,966	15,927,799
2009	83,743,497	13,992,115	17,591,645	32,115,473	16,684,299
2010	93,074,875	14,848,027	19,444,836	38,809,312	18,949,073
2011	96,844,503	15,876,041	20,453,358	42,650,112	21,168,359
2012	100,291,952	15,904,382	21,361,911	44,492,412	21,462,325
2013	102,227,067	15,794,741	21,665,043	45,466,812	21,708,655
2014	102,180,707	15,778,144	22,179,262	47,294,961	22,297,413
2015	105,048,003	16,206,618	22,949,032	47,286,062	22,086,860
2016	109,403,901	16,498,768	24,008,863	48,453,931	22,733,495
2017	114,847,859	16,552,836	24,843,477	50,180,209	22,799,647
2018	122,695,954	16,845,836	26,239,895	52,012,705	22,961,959
2019	123,022,307	16,368,275	26,732,303	52,644,854	22,280,693
2020	124,688,964	16,120,067	26,901,894	50,422,732	20,538,912
2021	133,445,948	16,808,006	28,402,063	48,801,626	21,486,861
1	12,319,589	1,629,812	2,596,409	4,434,196	1,997,136
2	11,464,174	1,539,605	2,373,601	4,039,445	1,830,234
3	10,668,287	1,395,074	2,344,911	4,077,387	1,771,153
4	10,338,339	1,334,516	2,274,004	3,876,573	1,725,471
5	10,024,930	1,291,702	2,232,679	3,877,528	1,667,691
6	10,512,799	1,274,174	2,283,540	3,770,865	1,697,453
7	11,597,452	1,320,822	2,404,437	4,137,216	1,803,462
8	12,196,364	1,449,135	2,507,863	4,257,399	1,923,328
9	11,371,799	1,312,553	2,310,912	3,978,322	1,791,056
10	10,387,205	1,280,881	2,232,923	3,855,222	1,679,464
11	10,761,065	1,406,178	2,333,918	4,108,694	1,736,069
12	11,803,946	1,573,555	2,506,864	4,388,778	1,864,342

(unit : MWh)

전 남 Jeonnam	경 북 Gyeongbuk	경 남 Gyeongnam	제 주 Jeju	개 성 Gaeseong	계 Total	Province End of
50,543	119,169	173,192	1,332	-	1,189,386	1961
20,341,400	36,249,730	26,788,262	3,038,325	-	368,605,433	2007
21,868,193	37,164,797	28,074,968	3,183,210	52,820	385,070,137	2008
23,589,470	37,983,313	28,393,041	3,352,343	112,692	394,474,637	2009
25,059,934	41,589,052	31,549,222	3,574,624	151,763	434,160,228	2010
27,136,865	44,167,300	33,071,206	3,710,080	158,975	455,070,261	2011
28,484,719	44,799,525	33,014,947	3,864,639	178,351	466,592,949	2012
30,302,068	45,444,247	33,530,619	4,094,900	103,415	474,848,580	2013
31,722,943	46,016,364	33,435,157	4,220,090	178,108	477,591,701	2014
32,637,829	44,956,836	33,876,325	4,429,553	190,544	483,654,816	2015
33,096,902	44,647,503	34,497,477	4,738,201	20,479	497,038,904	2016
33,562,076	45,455,611	34,647,864	5,013,545	-	507,746,386	2017
34,118,388	45,958,814	35,158,610	5,272,604	1,405	526,149,162	2018
32,385,388	44,314,767	34,472,017	5,374,285	3,786	520,498,738	2019
30,973,975	41,001,627	34,069,974	5,373,288	1,851	384,580,752	2020
33,486,886	44,258,297	35,734,059	5,687,730	-	533,430,811	2021
2,844,658	3,998,481	3,449,241	518,258	-	48,755,561	1
2,738,900	3,673,374	3,131,331	503,324	-	45,187,963	2
2,724,005	3,621,472	2,991,661	450,805	-	43,074,366	3
2,670,493	3,619,611	2,881,552	461,823	-	41,899,677	4
2,722,103	3,600,524	2,712,794	430,958	-	40,842,275	5
2,648,105	3,506,078	2,822,799	437,447	-	42,031,874	6
2,856,350	3,702,200	3,008,611	486,838	-	45,971,797	7
3,073,050	3,766,708	3,128,818	544,310	-	48,929,956	8
2,836,764	3,678,036	2,906,446	495,549	-	44,818,885	9
2,726,495	3,627,776	2,697,874	446,949	-	41,838,221	10
2,679,718	3,609,835	2,868,923	438,179	-	42,829,616	11
2,966,246	3,854,201	3,134,010	473,291	-	47,250,619	12

28. 행정구역별 용도별 판매전력량 (1)

('21.12.31 현재, 단위 : MWh) Power Sales by Province & Usage

시도별 용도별	서울 Seoul	부산 Busan	대구 Daegu	인천 Incheon
1. 가정용	14,656,127	4,974,889	3,461,331	4,586,787
2. 공공용	3,575,378	1,280,159	866,403	943,788
3. 서비스업	27,499,011	7,507,103	5,562,421	7,572,381
4. 농림어업	19,189	110,847	79,759	166,780
5. 광업	1,902	19,576	15,128	87,829
6. 제조업	1,544,200	7,175,259	5,458,907	11,543,628
식료품	229,770	588,799	215,988	647,223
음료	15,592	21,263	22,341	14,937
담배	88	4	34	13
섬유제품	108,992	261,194	734,602	38,272
의복·모피	310,266	38,375	39,972	12,711
가죽·가방	21,502	104,194	4,097	6,929
목재·나무	4,201	45,325	16,502	513,450
펄프·종이	37,773	29,569	459,703	50,909
인쇄·매체	204,727	26,082	38,962	86,836
연탄·석유	3,193	5,515	13,056	901,502
화학	42,368	274,846	190,597	366,478
의료·의약	16,638	13,010	15,069	327,460
플라스틱	49,867	193,589	215,194	276,272
비금속	24,756	89,499	76,779	196,273
1차 금속	12,425	2,005,157	280,566	1,985,355
금속가공	51,333	786,774	612,020	624,201
전자·통신	62,799	102,955	259,983	1,307,722
의료·광학	43,783	67,875	90,830	2,021,417
전기장비	19,253	137,952	297,138	185,469
기타기계	136,043	985,736	490,896	893,800
자동차	16,930	1,129,922	1,286,734	502,177
기타운송	19,758	218,617	48,875	51,922
가구	3,520	10,187	15,859	114,586
기타제품	107,280	36,174	31,556	414,074
산업기계	1,343	2,645	1,555	3,637
합계	47,295,807	21,067,833	15,443,949	24,901,194

※ 제10차 한국표준산업분류 개정으로 새 분류표 적용

(As of Dec. 31. '21, unit : MWh)

광 주	대 전	울 산	세 종	경 기	Province
Gwangju	Daejeon	Ulsan	Sejong	Gyeonggi	End of
2,215,918	2,102,655	1,638,730	612,111	20,775,255	Residential
568,578	1,107,741	505,195	342,947	5,941,474	Public
3,272,320	4,112,045	3,497,844	1,520,211	37,299,472	Service
76,903	37,039	90,321	90,952	2,712,094	Agri., For. & Fishery
3,490	877	15,117	11,510	271,724	Mining
2,836,237	2,388,264	27,845,916	1,717,632	66,445,929	Manufacturing
135,456	141,766	181,879	110,529	2,742,042	Food
41,626	18,495	15,115	9,363	305,586	Beverage
14,127	64,379	-	-	3,204	Tobacco
140,867	30,573	794,738	26,896	1,474,890	Textile
1,801	2,399	911	283	137,027	Apparel, fur
154	2,896	418	2,243	175,447	Leather, luggage
6,316	4,702	17,620	1,197	500,613	Wood, cork
50,884	540,988	580,987	370,162	1,909,845	Pulp, paper
18,402	14,821	3,633	3,866	673,633	Printing, media
624	618	6,085,161	317	41,939	Petroleum, cokes
69,093	227,197	11,015,276	147,510	5,984,298	Chemicals
2,224	54,673	4,408	44,001	956,292	Pharmaceuticals
316,139	374,948	596,678	127,579	2,308,095	Plastics
22,429	52,177	175,947	396,789	1,792,694	Non-metal
54,321	48,358	4,100,923	39,712	1,980,014	Basic metal
164,353	57,161	192,940	12,525	2,158,925	Fabricated metal
816,994	298,833	35,984	234,153	33,034,901	Electronic, computer
28,650	47,503	18,490	2,681	597,352	Medical, optical
233,907	89,024	570,876	70,821	1,115,707	Electrical equipment
202,561	94,759	181,995	32,801	3,927,790	Other Machinery
500,347	190,949	2,265,967	78,725	2,905,822	Motor vehicles
6,020	8,038	1,003,006	136	80,430	Other transport
5,048	4,032	1,215	469	442,026	Furniture
2,155	18,654	800	4,548	1,181,054	Other manufacture
1,739	322	950	327	16,302	Industrial machinery
8,973,447	9,748,621	33,593,123	4,295,363	133,445,948	Total

28. 행정구역별 용도별 판매전력량 (2)

('21.12.31 현재, 단위 : MWh) Power Sales by Province & Usage

시도별 연도별	강원 Gangwon	충북 Chungbuk	충남 Chungnam	전북 Jeonbuk	전남 Jeonnam
1. 가정용	2,289,719	2,385,627	3,184,715	2,588,903	2,578,822
2. 공공용	1,478,686	1,360,538	1,121,942	1,082,470	1,373,405
3. 서비스업	6,398,541	5,365,193	7,230,648	5,146,076	5,739,917
4. 농림어업	783,547	920,412	2,291,760	1,704,721	3,461,170
5. 광업	452,010	128,817	341,587	69,757	82,528
6. 제조업	5,405,503	18,241,476	34,630,974	10,894,934	20,251,044
식료품	506,910	1,211,162	1,341,884	1,671,103	850,474
음료	116,978	140,690	84,892	112,874	22,894
담배	5	5,796	14	-	-
섬유제품	13,923	179,526	171,810	667,959	168,120
의복·모피	1,177	5,749	9,213	13,568	4,426
가죽·가방	269	61,387	15,624	5,780	605
목재·나무	23,564	59,294	130,428	264,414	24,365
펄프·종이	24,747	839,135	778,567	1,072,650	96,801
인쇄·매체	3,678	34,065	48,617	8,464	1,916
연탄·석유	1,257	15,947	4,368,299	3,757	1,782,675
화학	92,586	1,786,806	3,907,125	2,048,646	11,517,313
의료·의약	105,609	717,012	270,490	34,448	49,401
플라스틱	94,009	1,152,168	1,106,867	250,996	370,081
비금속	3,049,750	2,294,049	893,663	616,046	567,606
1차 금속	944,326	391,285	4,722,811	2,318,215	3,384,074
금속가공	34,831	805,879	564,207	133,950	136,578
전자·통신	58,655	5,191,666	11,086,797	459,813	55,441
의료·광학	37,216	87,311	631,219	27,410	12,480
전기장비	37,035	1,477,416	917,515	158,572	460,652
기타기계	30,084	444,625	766,500	164,708	68,093
자동차	173,438	711,643	2,690,227	796,880	66,655
기타운송	37,589	15,741	32,899	39,754	583,010
가구	6,872	29,410	9,274	4,523	7,495
기타제품	7,982	578,663	76,101	15,024	6,263
산업기계	3,012	5,050	5,933	5,380	13,625
합계	16,808,006	28,402,063	48,801,626	21,486,861	33,486,886

(As of Dec. 31. '21, unit : MWh)

경 북 Gyeongbuk	경 남 Gyeongnam	제 주 Jeju	개 성 Gaeseong	계 Total	Province End of
3,709,248	4,826,057	971,492	-	77,558,386	Residential
1,706,260	1,437,292	333,656	-	25,025,912	Public
8,788,905	9,042,660	2,626,848	-	148,181,597	Service
2,135,822	2,369,741	1,445,104	-	18,496,161	Agri., For. & Fishery
228,781	68,712	7,547	-	1,806,892	Mining
27,689,281	17,989,597	303,083	-	262,361,863	Manufacturing
559,796	873,591	106,057	-	12,114,429	Food
77,073	124,395	84,441	-	1,228,555	Beverage
34,051	71,917	-	-	193,632	Tobacco
3,145,234	207,626	487	-	8,165,706	Textile
10,061	6,138	146	-	594,224	Apparel, fur
6,774	63,853	16	-	472,189	Leather, luggage
82,622	64,471	1,500	-	1,760,584	Wood, cork
347,648	794,446	25,088	-	8,009,899	Pulp, paper
13,735	21,711	1,322	-	1,204,470	Printing, media
46,461	11,009	41	-	13,281,372	Petroleum, cokes
2,775,867	782,246	28,015	-	41,256,268	Chemicals
46,964	10,192	7,876	-	2,675,767	Pharmaceuticals
939,909	1,094,644	6,423	-	9,473,458	Plastics
993,358	432,310	26,329	-	11,700,452	Non-metal
9,051,156	3,722,344	2,639	-	35,043,680	Basic metal
806,988	1,618,947	2,683	-	8,764,295	Fabricated metal
4,149,463	630,793	1,523	-	57,788,476	Electronic, computer
186,291	242,550	787	-	4,143,844	Medical, optical
980,590	957,698	871	-	7,710,495	Electrical equipment
821,257	1,887,576	2,263	-	11,131,487	Other Machinery
2,424,074	2,242,292	292	-	17,983,076	Motor vehicles
134,834	1,822,116	378	-	4,103,124	Other transport
24,383	22,047	1,252	-	702,199	Furniture
25,115	273,972	1,397	-	2,780,810	Other manufacture
5,577	10,717	1,259	-	79,373	Industrial machinery
44,258,297	35,734,059	5,687,730	-	533,430,811	Total

29. 전력 판매 수입 추이

(단위 : 천원) Trends in Revenues from Sales

연·월 별	주 택 용 Residential	일 반 용 Public & Service	교 육 용 Educational	산 업 용 Industrial
1961	1,354,665		2,433,469	
2007	6,365,005,846	8,030,374,517	409,465,882	12,584,835,586
2008	6,654,217,289	8,274,672,801	454,427,465	13,477,191,102
2009	6,801,453,931	8,827,082,130	540,273,405	15,270,616,921
2010	7,574,768,788	9,637,137,528	650,061,294	17,830,665,027
2011	7,621,964,092	10,118,763,673	712,750,750	20,428,280,261
2012	8,099,666,224	11,428,849,503	855,546,883	23,959,881,861
2013	8,359,482,143	12,466,201,558	921,824,186	26,723,313,244
2014	8,066,376,737	13,073,321,416	849,078,687	29,116,998,686
2015	8,116,164,990	13,526,415,520	870,691,773	29,382,565,885
2016	8,270,443,259	14,164,678,060	900,914,372	29,866,595,242
2017	7,437,258,827	14,515,430,182	857,124,037	30,715,446,368
2018	7,790,409,259	15,198,335,856	903,498,217	31,191,485,295
2019	7,623,684,703	15,147,479,418	889,053,067	30,821,348,917
2020	8,232,506,704	14,955,272,361	781,516,149	29,914,726,353
2021	8,723,165,593	15,358,188,585	856,494,476	30,730,573,149
1	835,362,064	1,474,259,432	92,308,119	2,788,518,891
2	783,878,886	1,410,955,696	80,837,961	2,571,025,085
3	603,197,598	1,119,574,374	71,279,161	2,242,640,103
4	632,688,935	995,376,764	56,140,746	2,190,119,151
5	577,625,822	964,517,069	46,892,749	2,155,823,577
6	619,401,850	1,233,749,115	66,608,972	2,762,050,093
7	750,209,474	1,522,671,061	81,012,046	2,970,617,737
8	1,123,747,093	1,651,171,232	75,934,894	2,806,196,303
9	754,340,334	1,270,919,523	66,374,521	2,279,262,574
10	653,089,236	1,042,898,379	54,217,409	2,222,670,262
11	673,011,842	1,194,552,818	71,766,550	2,772,639,971
12	716,612,457	1,477,543,122	93,121,349	2,969,009,402

(Unit : Thousand won)

농 사 용 Agricultural	가 로 등 Street lighting	심 야 Midnight Power	합 계 Total	During
31,943	15,684		3,835,761	1961
348,729,286	199,695,515	757,883,324	28,695,989,957	2007
375,930,913	206,418,500	885,900,130	30,328,758,201	2008
407,448,194	226,430,707	901,714,120	32,975,019,408	2009
453,201,035	250,009,506	994,227,831	37,390,071,008	2010
479,851,320	274,238,526	1,011,202,798	40,647,051,421	2011
548,102,427	312,298,567	1,033,474,501	46,237,819,965	2012
630,970,913	338,753,964	1,047,827,078	50,488,373,086	2013
686,214,233	365,234,262	986,847,399	53,144,071,420	2014
742,907,237	378,803,714	946,136,976	53,963,686,067	2015
786,031,602	392,456,597	906,403,930	55,287,523,060	2016
820,634,504	403,630,974	864,485,918	55,614,010,810	2017
877,588,497	407,555,748	848,713,533	57,217,586,406	2018
901,438,826	406,828,844	766,666,517	56,556,500,292	2019
921,881,230	401,011,598	711,663,815	55,918,578,210	2020
946,732,375	389,133,677	667,199,674	57,671,487,528	2021
93,504,818	34,733,357	128,872,055	5,447,558,737	1
90,567,425	34,160,437	121,035,597	5,092,461,086	2
77,430,655	31,989,501	79,239,829	4,225,351,220	3
71,604,279	32,717,797	49,190,651	4,027,838,324	4
63,123,120	31,437,227	34,574,499	3,873,994,064	5
63,953,965	30,873,686	27,292,790	4,803,930,471	6
69,701,420	30,216,567	23,638,690	5,448,066,996	7
87,458,430	30,959,076	20,900,307	5,796,367,336	8
81,857,441	31,185,733	19,770,453	4,503,710,579	9
74,008,270	32,568,657	20,778,603	4,100,230,816	10
85,972,296	33,962,893	50,661,940	4,882,568,309	11
87,550,258	34,328,745	91,244,258	5,469,409,590	12

30. 판매 단가 추이

(단위:원/kWh) Trends in Average Revenues per kWh Sold (Unit : won/kWh)

연·월 별	주택용 Resi- dential	일반용 Public & Service	교육용 Edu- cational	산업용 Indu- strial	농사용 Agri- cultural	가로등 Street- lighting	심야 Mid- night	합 계 Total
1961	6.09		2.59		1.53	2.73		3.22
2007	114.31	97.68	77.20	64.56	42.45	71.47	38.93	77.85
2008	114.97	95.30	78.58	66.24	42.38	72.50	45.69	78.76
2009	114.45	98.50	83.56	73.69	42.13	76.65	47.16	83.59
2010	119.85	98.93	87.23	76.63	42.54	81.13	50.49	86.12
2011	119.99	101.69	94.18	81.23	42.72	87.18	54.35	89.32
2012	123.69	112.50	108.84	92.83	42.90	98.89	58.65	99.10
2013	127.02	121.98	115.99	100.70	45.51	107.33	63.52	106.33
2014	125.14	129.75	114.15	106.83	47.31	113.39	67.33	111.28
2015	123.69	130.46	113.22	107.41	47.31	113.37	67.22	111.57
2016	121.52	130.41	111.51	107.11	47.41	113.35	67.56	111.23
2017	108.50	130.42	103.07	107.41	47.57	113.48	67.48	109.53
2018	106.87	129.97	104.12	106.46	47.43	113.76	67.59	108.75
2019	104.95	130.33	103.85	106.56	47.74	113.91	67.38	108.66
2020	107.89	131.60	103.99	107.35	48.45	114.35	67.03	109.80
2021	109.16	128.47	101.69	105.48	45.95	112.97	65.66	108.11
1	116.62	129.13	94.14	111.54	44.92	104.62	72.39	111.73
2	113.57	131.52	99.01	112.94	45.36	109.86	72.51	112.70
3	101.72	123.18	96.94	92.99	46.16	111.07	64.02	98.09
4	103.95	115.12	88.98	92.12	46.52	114.62	52.48	96.13
5	100.24	116.10	90.49	89.87	46.63	118.13	53.60	94.85
6	102.96	133.40	112.05	114.97	45.40	121.91	55.95	114.29
7	107.71	142.55	116.87	116.65	45.74	120.84	60.28	118.51
8	121.24	138.09	120.32	114.64	43.91	116.70	61.89	118.46
9	105.66	123.85	102.10	93.63	44.84	114.15	60.60	100.49
10	107.27	114.83	94.26	92.77	49.80	112.00	58.11	98.00
11	109.01	131.85	106.91	115.96	44.74	109.69	64.80	114.00
12	111.63	133.46	100.59	116.39	48.73	107.37	75.47	115.75

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V. 경영 관리

Management

31. 경 영 분 석 비 율

Ratios of Business Analysis

연 도 별 During	자기자본 비율 Stockholders' equity Ratio (%)	부채비율 Debt equity ratio (%)	비유동비율 Fixed assets to stockholders' equity (%)	비유동장기 적합율 Fixed assets to stockholders' equity and long- term liabilities (%)	유동비율 Current ratio (%)	당좌비율 Quick ratio (%)
1999	47.3	111.5	201.4	114.0	29.0	23.9
2000	49.3	101.7	193.9	110.7	31.9	25.1
2001	64.8	53.2	147.2	104.2	54.4	52.8
2002	66.7	50.0	143.1	106.3	44.8	43.6
2003	66.7	50.0	143.2	108.2	38.5	37.4
2004	68.4	46.3	139.7	105.6	47.1	45.9
2005	68.5	46.0	139.1	104.9	51.5	49.8
2006	67.6	47.9	139.3	105.6	53.5	50.9
2007	67.1	49.1	140.7	105.6	52.8	49.6
2008	61.2	63.3	153.0	106.2	53.7	50.8
2009	58.7	70.3	159.8	106.1	53.4	51.0
2010	55.2	81.3	169.5	105.6	56.6	55.9
2011	39.4	153.6	228.1	103.3	77.6	55.9
2012(연결)	34.9	186.2	258.9	103.8	74.0	55.8
2013(연결)	33.1	202.3	272.6	103.7	75.5	54.4
2014(연결)	33.5	198.6	267.9	103.4	77.9	56.9
2015(연결)	38.8	157.9	225.5	100.4	97.0	75.2
2016(연결)	41.1	143.4	216.5	103.3	79.7	57.5
2017(연결)	40.1	149.1	222.9	102.7	81.7	56.1
2018(연결)	38.4	160.6	232.8	101.3	90.4	57.5
2019(연결)	34.9	186.8	258.6	102.7	80.4	51.3
2020(연결)	34.8	187.5	258.4	103.0	79.4	53.4
2021(연결)	30.9	223.2	289.5	105.4	69.5	45.5

총자본 순이익율 Net income to stockholders' equity and liabilities (%)	자기자본 순이익율 Net income to stockholders' equity (%)	매출액 순이익율 Net income to net sales (%)	수지비율 Total expenses to total revenues (%)	총자본 회전율 Stockholders' equity and liabilities turnover ratio (times)	자기자본 회전율 Net worth turnover ratio (times)	총자본 투자효율 Productivity of capital (%)
2.6	6.1	9.5	91.1	0.3	0.6	16.1
2.8	5.8	9.8	91.0	0.3	0.6	15.5
3.1	5.5	9.0	91.9	0.3	0.6	11.4
5.8	8.8	14.5	87.5	0.4	0.6	14.2
4.2	6.3	10.3	90.7	0.4	0.6	11.6
5.0	7.4	12.2	89.1	0.4	0.6	13.0
4.1	5.9	9.8	91.2	0.4	0.6	11.4
3.3	4.9	7.7	92.9	0.4	0.6	10.3
2.4	3.6	5.4	95.0	0.4	0.7	9.3
-4.5	-6.9	-9.4	108.9	0.5	0.7	0.0
-0.1	-0.2	-0.2	100.2	0.5	0.8	6.3
-0.1	-0.1	-0.2	100.1	0.5	1.0	6.6
-2.4	-6.3	-7.6	107.3	0.3	0.8	8.2
-2.2	-6.1	-6.2	106.0	0.3	0.9	7.5
0.1	0.1	0.3	99.7	0.4	1.1	9.2
1.8	5.2	4.9	95.3	0.4	1.1	11.7
7.9	22.1	22.8	80.8	0.3	1.0	20.2
4.0	10.2	11.9	88.5	0.3	0.9	15.4
0.8	1.8	2.4	97.7	0.3	0.8	11.8
-0.6	-1.9	-1.9	101.9	0.3	0.8	8.7
-1.2	-3.4	-3.8	103.7	0.3	0.8	8.6
1.0	2.9	3.6	96.6	0.3	0.8	11.7
-2.5	-8.0	-8.6	108.2	0.3	0.9	6.8

32. 종업원수

(단위 : 명) Employees of KEPCO (Unit : Persons)

연도말 End of	경영 Administration	사무 Office clerk	기술 Engineer	기능 Skilled worker	계 Total
1961	-	3,116	5,775	1,204	10,095
2003	-	4,583	8,608	3,931	17,122
2004	-	4,682	9,454	3,945	18,081
2005	-	4,697	9,676	3,888	18,261
2006	-	4,681	9,868	3,792	18,341
2007	-	4,782	10,086	3,731	18,599
2008	-	4,772	10,134	3,628	18,534
2009	335	4,388	9,728	3,434	17,885
2010	361	4,233	9,574	5,542	19,710
2011	409	4,184	9,255	5,455	19,303
2012	422	4,197	9,345	5,314	19,278
2013	400	4,367	9,616	5,261	19,644
2014	407	4,465	9,812	5,215	19,899
2015	386	4,516	10,124	5,170	20,196
2016	396	4,586	10,691	5,284	20,957
2017	373	4,730	11,354	5,170	21,627
2018	402	4,805	11,886	5,179	22,272
2019	404	4,891	12,548	5,136	22,979
2020	394	5,038	12,906	5,058	23,396
2021	389	5,024	12,896	4,979	23,288
전력거래소 (KPX)	20	112	338	-	469
한수원 (KHNP)	149	1,014	9,387	440	10,990
남동 (KOEN)	49	310	2,239	8	2,606
중부 (KOMIPO)	55	366	2,124	34	2,579
서부 (WP)	54	264	2,119	7	2,444
남부 (KOSPO)	50	374	2,035	2	2,461
동서 (EWP)	46	268	1,990	8	2,312

※ 1) 2001. 4. 2 발전부문 6개자회사 및 전력거래소로 분리

1) On Apr. 2, 2001, KEPCO's power generation division was divided into 6 generation subsidiary companies and a Power Exchange.

33. 노동생산성

Labor Productivity

연도별 During	발전량 ¹⁾ Power generated (MWh)	판매량 Power sold (MWh)	경상평균인원 Average employees electric operating only (Persons)	1인당 생산성 Productivity			
				발전량 Power generated (MWh/인)	증가율 Increase over previous year (%)	판매량 Power sold (MWh/人)	증가율 Increase over previous year (%)
1961	1,772,921	1,189,386	7,542	235	-	158	-
2002	292,182,776	278,451,371	18,934	15,432	6.6	14,706	8.2
2003	306,866,082	293,599,230	19,116	16,053	4.0	15,359	4.4
2004	327,191,191	312,095,586	19,754	16,563	3.2	15,799	2.9
2005	349,758,383	332,412,828	20,356	17,182	3.7	16,330	3.4
2006	362,446,663	348,719,371	20,480	17,698	3.0	17,027	4.3
2007	380,201,047	368,605,433	20,577	18,477	4.4	17,913	5.2
2008	394,929,871	385,070,137	20,976	18,828	1.9	18,358	2.5
2009	406,779,556	394,474,637	20,371	19,969	6.1	19,365	5.5
2010	435,384,166	434,160,228	19,790	22,000	10.2	21,938	13.3
2011	443,409,223	455,070,261	19,452	22,795	3.6	23,395	6.6
2012	448,516,180	466,592,949	19,278	23,266	2.1	24,203	3.5
2013	448,756,663	474,848,580	19,644	22,844	-1.8	24,173	-0.1
2014	442,914,458	477,591,701	19,899	22,258	-2.6	24,001	-0.7
2015	432,758,183	483,654,816	19,915	21,730	-2.4	24,286	1.2
2016	436,314,042	497,038,904	20,408	21,380	-1.6	24,355	0.3
2017	426,484,068	507,746,386	20,976	20,332	-4.9	24,206	-0.6
2018	418,327,451	526,149,162	21,573	19,391	-4.6	24,389	0.8
2019	409,069,939	520,498,738	22,328	18,321	-5.5	23,311	-4.4
2020	394,522,245	509,269,715	22,850	17,266	-5.8	22,288	-4.4
2021	400,373,182	533,430,811	23,314	17,173	-0.5	22,880	2.7

1) 타사 발전량 제외 Excludes generated power by Other co.

※ 2001년의 경상평균인원은 발전부문 분리('01. 4. 2) 후 한전의 총평균인원임.

In 2001, Average employees are KEPCO's total average manpower after power generation division was divided.

34. 재무상태표

(단위 : 백만원) Balance Sheet

연도별 계정과목	2014	2015	2016	2017
1. 유동자산	16,819,855	22,025,325	19,708,526	19,141,707
가. 현금 및 현금성 자산	1,796,300	3,783,065	3,051,353	2,369,739
나. 유동금융자산	176,428	5,335,621	2,671,989	1,958,357
다. 매출채권 및 기타채권	7,697,862	7,473,548	7,788,876	7,928,972
라. 재고 자산	4,537,469	4,946,413	5,479,443	6,002,086
마. 기타 자산	2,611,796	486,678	716,865	882,553
2. 비유동자산	146,888,434	153,232,034	158,128,516	162,647,208
가. 비유동 금융자산	2,040,921	2,495,554	2,657,494	2,038,913
나. 장기매출 채권 등	1,724,357	1,798,419	1,903,515	1,754,797
다. 유형자산	135,812,499	141,361,351	145,743,056	150,882,414
라. 투자부동산	317,264	269,910	353,680	284,714
마. 무형자산	823,642	858,414	983,403	1,189,703
바. 관계기업 투자지분	5,508,724	5,693,530	5,510,448	5,330,696
사. 기타 자산	661,027	754,856	976,920	1,165,971
자 산 총 계	163,708,289	175,257,359	177,837,042	181,788,915
1. 유동부채	21,600,068	22,710,842	24,739,226	23,424,281
2. 비유동부채	87,283,211	84,604,042	80,047,271	85,399,993
부 채 계	108,883,279	107,314,884	104,786,497	108,824,274
1. 납입자본	4,053,578	4,053,578	4,053,578	4,053,578
2. 이익 잉여금	35,303,647	48,187,241	53,173,871	53,370,558
3. 기타자본구성요소	14,244,106	14,393,648	14,496,244	14,257,309
4. 지배기업 소유주에게 귀속되는 자본	53,601,331	66,634,467	71,723,693	71,681,445
5. 비지배지분	1,223,679	1,308,008	1,326,852	1,283,196
자 본 총 계	54,825,010	67,942,475	73,050,545	72,964,641
부 채 및 자 본 총 계	163,708,289	175,257,359	177,837,042	181,788,915

※ 2010년부터 연결재무제표 적용

(Unit : Million won)

2018	2019	2020	2021	End of Accounts
19,745,068	19,483,001	20,561,941	22,050,845	1. Current Assets
1,358,345	1,810,129	2,029,584	2,635,238	a. Cash and cash equivalents
2,359,895	1,586,509	2,800,220	1,868,796	b. Current financial assets, net
7,793,592	7,701,452	7,918,470	8,122,415	c. Accounts and other receivables, net
7,188,253	7,050,700	6,742,909	7,608,182	d. Inventories, net
1,044,983	1,334,211	1,070,758	1,816,214	e. Current non-financial and other assets
165,503,993	178,114,791	182,580,170	189,058,025	2. Non-Current Assets
2,113,613	2,563,498	2,472,821	2,909,810	a. Non-current financial assets, net
1,819,845	2,002,297	1,861,569	1,906,861	b. Non-current accounts and other receivables, net
152,743,194	164,701,827	168,709,387	173,119,781	c. Property, plant and equipment, net
159,559	158,580	225,195	212,784	d. Investment properties, net
1,228,524	1,167,953	1,153,896	1,149,724	e. Intangible assets, net
5,878,345	5,914,831	6,170,533	7,471,384	f. Investments in associates
1,560,913	1,605,805	1,986,769	2,287,681	g. Investments in joint ventures and other assets
185,249,061	197,597,792	203,142,111	211,108,870	Total Assets
21,841,533	24,231,656	25,881,222	31,732,220	1. Current Liabilities
92,314,766	104,476,487	106,594,043	114,064,801	2. Non-Current Liabilities
114,156,299	128,708,143	132,475,265	145,797,021	Total Liabilities
4,053,578	4,053,578	4,053,578	4,053,578	1. Contributed Capital
51,519,119	49,202,133	51,133,601	45,246,982	2. Retained Earnings
14,171,228	14,240,607	14,109,501	14,468,450	3. Other Components of Equity
69,743,925	67,496,318	69,296,680	63,769,010	4. Equity attributable to Owners of the company
1,348,837	1,393,331	1,370,166	1,542,839	5. Non-controlling Interests
71,092,762	68,889,649	70,666,846	65,311,849	Total Equity
185,249,061	197,597,792	203,142,111	211,108,870	Total Liabilities and Equity

* Consolidated Financial was applied since 2010

35. 손익계산서

(단위 : 백만원) Income Statement

연도별 계정과목	2014	2015	2016	2017
1. 매출액	57,474,883	58,957,722	60,190,384	59,814,862
가. 재화의 판매로 인한 매출액	53,706,828	54,367,036	55,379,487	55,772,548
나. 용역의 제공으로 인한 매출액	451,013	453,487	356,743	351,157
다. 건설계약으로 인한 매출액	2,965,185	3,761,204	4,026,857	3,212,184
라. 공사부담금 수익으로 인한 매출액	351,857	375,995	427,297	478,973
2. 매출원가	49,762,952	45,457,729	45,549,553	52,098,855
가. 재화의 판매로 인한 매출원가	46,509,555	41,348,917	41,237,372	48,454,036
나. 용역의 제공으로 인한 매출원가	500,787	545,692	557,037	597,423
다. 건설계약으로 인한 매출원가	2,752,610	3,563,120	3,755,144	3,047,396
3. 판매비와 관리비	1,924,366	2,153,261	2,639,232	2,762,855
4. 영업이익 (1 - 2 - 3)	5,787,565	11,346,732	12,001,599	4,953,152
5. 기타수익	402,329	432,219	412,887	390,145
6. 기타비용	88,220	108,848	188,624	180,055
7. 기타이익(손실)	107,396	8,610,773	70,498	156,627
8. 금융수익	885,290	1,182,988	791,543	1,530,618
9. 금융원가	3,140,038	3,015,457	2,437,087	3,127,952
10. 지분법 적용 관련 이익	274,984	207,379	-137,348	-108,317
11. 법인세 비용 차감전 순손익 (4 + 5 - 6 + 7 + 8 - 9 + 10)	4,229,306	18,655,786	10,513,468	3,614,218
12. 법인세 비용	1,430,339	5,239,413	3,365,141	2,172,824
13. 당기순이익 (11 - 12)	2,798,967	13,416,373	7,148,327	1,441,394
가. 지배기업의 소유주에게 귀속 되는 당기순이익	2,686,873	13,289,127	7,048,581	1,298,720
나. 비지배 지분에 귀속되는 당기순이익	112,094	127,246	99,746	142,674

※ 연결재무제표 기준

(Unit : Million won)

2018	2019	2020	2021	End of Accounts
60,627,610	59,172,890	58,569,314	60,574,819	1. Sales
57,897,804	56,894,876	56,684,312	58,702,209	a. Sales of goods
392,867	408,290	429,350	456,400	b. Sales of service
1,742,391	1,264,916	812,175	754,998	c. Sales of construction contracts
594,548	604,808	643,477	661,212	d. Sales of contributions for construction
58,207,721	57,779,835	51,804,596	63,559,178	2. Cost of Sales
55,976,628	55,750,468	50,353,315	62,079,313	a. Cost of goods
592,224	1,030,601	441,851	580,902	b. Cost of service
1,638,869	998,766	1,009,430	898,963	c. Cost of construction contracts
2,627,890	2,669,576	2,678,443	2,875,784	3. Selling and administrative expenses
-208,001	-1,276,521	4,086,275	-5,860,143	4. Operation income
375,346	393,165	392,971	372,921	5. Other income
231,330	241,913	417,720	257,932	6. Other expenses
-621,124	-582,258	35,094	8,519	7. Other gains, net
796,870	1,009,706	1,510,249	1,402,614	8. Finance income
2,470,743	2,782,156	2,896,443	3,245,777	9. Finance expenses
358,163	214,139	281,107	494,584	10. Profits of associates and joint ventures using equity method
-2,000,819	-3,265,838	2,991,533	-7,085,214	11. Income before income tax
-826,321	-1,002,303	899,064	-1,855,989	12. Income tax expense
-1,174,498	-2,263,535	2,092,469	-5,229,225	13. Net income attributable to
-1,314,567	-2,345,517	1,991,347	-5,315,055	a. Owners of the company
140,069	81,982	101,122	85,830	b. Non-controlling interests

* Consolidated Financial

36. 자본금 변천 (1)

(단위 : 천원) History of Capital Equity

(Unit : Thousand won)

연 도 별 During	증자자본액 Increase in Capital equity	증자후자본액 After increase	비 고 Remarks
1961	3,835,742	3,835,742	3사 통합 Merger of three electric companies
1963	3,835,742	7,671,484	무상증자 Stock dividends by transferring revaluation surplus
1964	3,835,742	11,507,226	"
1967	8,631,218	20,138,444	"
1968	30,052,698	50,191,142	포괄증자 Increase in capital equity by means of mixed capital increase method
1969	9,296,217	59,487,359	"
1970	4,180,335	63,667,694	"
1972	8,544,927	72,212,621	"
1973	5,119,989	77,332,610	"
1973	2,000,000	79,332,610	유상증자 Issue of common stock at par value
1974	9,136,200	88,468,810	포괄증자 Increase in capital equity by means of mixed capital increase method
1974	4,945,084	93,413,894	유상증자 Issue of common stock at par value
1975	55,506,366	148,920,260	포괄증자 Increase in capital equity by means of mixed capital increase method
1975	16,328,422	165,248,682	유상증자 Issue of common stock at par value
1976	91,436,892	256,685,732	"
1976	74,693,248	331,378,732	포괄증자 Increase in capital equity by means of mixed capital increase method
1977	68,000,000	399,378,732	유상증자 Issue of common stock at par value
1978	30,000,000	429,378,732	"
1979	38,700,000	468,078,732	"
1980	32,404,170	500,482,902	"
1981	125,000,000	625,482,902	유상증자 Issue of common stock at par value
1982	944,290,287	1,569,773,189	자본잉여금과 이익잉여금 자본전입 Capitalization of capital surplus and retained earnings
1982	18,400,000	1,588,173,189	정부출자 Government investment
1983	4,000,000	1,592,173,189	정부출자 Government investment
1983	6,000,000	1,598,173,189	"

36. 자본금 변천 (2)

(단위 : 천원) History of Capital Equity

(Unit : Thousand won)

년 도 별 During	증자자본액 Increase in Capital equity	증자후자본액 After increase	비 고 Remarks
1983	4,500,000	1,602,673,189	"
1985	390,000,000	1,992,673,189	자본잉여금 자본전입 Capitalization of capital surplus
1986	1,049,000,000	3,041,673,189	자본잉여금 자본전입 Capitalization of capital surplus
1989	△4	3,041,673,185	감자(주식공개에 따른 단수정리) Reduction of capital
1993	15,810	3,041,688,995	정부출자 Government investment
1994	37,267,080	3,078,956,075	DR 발행 DR Issuance
1995	39,400,670	3,118,356,745	DR 발행 (34,883,720) 및 CB 전환 (4,516,950) DR Issuance & Conversion of Convertible bond
1996	19,907,275	3,138,264,020	CB 전환 Conversion of Convertible bond
1997	2,822,300	3,141,086,320	"
1998	12,745	3,141,099,065	"
1999	58,357	3,199,455,725	"
2000	1,048,655	3,200,504,380	"
2003	3,238,485	3,203,742,865	정부출자 Government investment
2005	4,095,695	3,207,838,560	정부출자 Government investment
2011	1,981,825	3,209,820,385	정부출자 Government investment
2012	-	3,209,820,385	-
2013	-	3,209,820,385	-
2014	-	3,209,820,385	-
2015	-	3,209,820,385	-
2016	-	3,209,820,385	-
2017	-	3,209,820,385	-
2018	-	3,209,820,385	-
2019	-	3,209,820,385	-
2020	-	3,209,820,385	-
2021	-	3,209,820,385	-



VI. 주요지표 국제비교

International comparison of major indexes

VI. 주요지표 국제 비교

International Comparison of Major Index

국가별 항 목	단위 Unit	한 국 Korea ('19)	일 본 Japan ('19)	러시아 Russia ('19)	미 국 United States ('19)	캐나다 Canada ('19)
발전 설비 ¹⁾	MW	129,092	293,897	275,800	1,212,584	145,214
수 력	"	6,508	50,033	51,800	100,816	80,764
화 력	"	85,085	189,784	191,900	829,875	35,697
원 자 력	"	23,250	33,083	30,300	106,351	14,033
신재생·기타	"	15,102	20,997	1,700	175,542	14,721
발전전력량 ²⁾	100만kWh	585,301	970,771	1,121,000	4,131,152	633,412
수 력	"	6,247	86,314	196,000	287,949	375,981
화 력	"	401,252	792,810	714,000	2,569,164	127,263
원 자 력	"	145,910	61,035	209,000	809,057	95,469
신 재 생	"	31,893	30,612	2,100	464,981	34,697
설비 이용율	%	51.3	35.0	...	...	51.1
고 객 호 수	1,000호	23,860	88,329	...	154,898	...
가 정 용	"	13,722	...	...	135,250	...
상 공 업 용	"	9,906	...	...	19,648	...
기 타	"	232	...	...	-	...
판매 전력량	100만kWh	520,498	836,038	...	3,811,151	495,156
가 정 용	"	70,455	...	...	1,440,289	172,721
상 공 업 용	"	425,585	...	...	2,363,230	154,181
기 타	"	24,458	...	...	7,632	168,255
최 대 전 력	MW	90,314	164,610	151,700	786,214	95,233
부 하 율	%	71.2	60.7	79.7	59.9	66.4
송배전손실률	%	3.5	...	...	5.1	3.4
인구 1 인당 전력 소비량	kWh/인	10,490	7,545	6,888	...	15,076

1) 2) 자가설비, 자가발전량 포함분임 3) 소비전력량 실적치임
4) 2021년 해외전기사업통계(JEPIC) 발췌

중 국 China ('19)	프랑스 France ('19)	독 일 Germany ('19)	스웨덴 Sweden ('19)	영 국 United Kingdom ('19)	이탈리아 Italy ('19)	Nations Item
2,010,060	135,328	226,396	42,808	77,898	116,435	Generating facilities ¹⁾
358,040	25,557	14,662	16,462	4,365	22,541	Hydro
1,189,570	18,589	78,529	8,343	43,910	61,582	Thermal etc.
48,740	63,130	9,516	8,624	9,261	-	Nuclear
413,710	28,051	123,688	9,379	20,362	32,312	Renewable etc.
7,326,900	537,700	609,406	168,422	323,801	293,853	Power generation ²⁾
1,302,100	60,000	19,730	65,393	7,602	48,154	Hydro
5,046,500	42,600	266,223	16,390	146,319	195,734	Thermal etc.
348,700	379,500	75,071	66,130	56,184	-	Nuclear
629,600	55,600	248,382	20,509	113,694	49,966	Renewable
43.7	45.4	30.7	44.9	42.4	28.8	Utilization Plant factor
603,454	...	...	5,555	31,275	37,752	Customers
...	...	...	4,718	28,712	32,314	Residential
...	...	...	681	2,563	883	Commercial & Industrial
...	...	...	156	...	4,556	Others
5,911,100	...	439,830	...	273,493	272,157	Power sold
...	...	...	...	102,154	64,363	Residential
...	...	...	...	147,123	104,491	Commercial & Industrial
...	...	...	...	24,216	103,303	Others
...	88,500	...	...	48,230	58,816	Peak load
...	61.1	...	...	70.5	50.9	Load factor
5.9	7.7	...	8.5	8.0	5.6	Loss factor (T & D)
5,186	6,739	6,107	12,451	4,431	5,053	Electricity consumption per capita

Statistics of Electric Power in Korea 제91호
2021년 한국전력통계



Ⅶ. 광복후 창사전 주요통계

Major statistical indicator from 1945 to 1960

Ⅶ. 광복 후 창사전 주요 통계

Major Statistical Indicator from 1945 to 1960

구 분	단 위	1945	1946	1947	1948	1949	1950	1951	1952
발전 설비	kW	199,159	199,159	199,159	226,059	230,059	231,059	264,559	281,559
총 발전량	MWh	711,327	676,124	828,760	696,999	654,969	420,651	336,629	639,676
소내 전력량	MWh	...	10,335	20,183	27,821	47,924	38,332	23,559	40,995
소내 전력을	%	...	1.5	2.4	4.0	7.3	9.1	7.0	6.4
양수용전력량	MWh	-	-	-	-	-	-	-	-
송전단전력량	MWh	...	565,911	747,734	460,249	519,992	380,119	291,024	593,131
송배전손실량	MWh	...	14,711	16,999	23,862	24,910	10,339	8,188	31,348
송배전손실을	%	...	2.6	2.3	5.2	4.8	2.7	2.8	5.3
판매 전력량	MWh	...	...	...	...	...	...	...	...
수요 성장율	%	...	...	...	...	...	...	...	...
최대 전력	kW	115,000	119,000	146,000	122,000	115,000	74,000	59,000	117,000
평균 전력	kW	81,202	77,183	94,607	79,007	74,763	48,019	38,428	72,823
부하율	%	70.6	64.9	64.8	64.8	65.0	64.9	65.1	62.2
이용율	%	...	...	...	...	...	...	...	...
판매 단가	원/kWh	...	...	...	...	...	...	...	...
고객 호수	호	...	...	...	...	...	...	...	...
종업원 수	명	...	...	...	...	...	...	...	...
(경상평균)									
자본금	백만원	422	425	425	425	425	425	425	425
총 자산	백만원	980	742	1,375	1,515	1,721	1,919	2,012	3,648
인구 1인당 소비전력량	kWh/명	...	...	...	...	...	...	...	...
종업원 1인당 판매전력량	MWh/명	...	...	...	...	...	...	...	...

1953	1954	1955	1956	1957	1958	1959	1960	Items
281,559	298,039	300,599	344,654	367,254	367,254	367,254	367,254	Generating facilities
736,065	899,096	879,272	1,118,308	1,323,013	1,511,674	1,686,237	1,696,951	Gross generation
39,556	41,748	44,263	59,135	76,699	74,789	75,384	87,830	Auxiliary use
5.4	4.6	5.0	5.3	5.8	5.0	4.5	5.2	Auxiliary use factor
—	—	—	—	—	—	—	—	Pumping storage
696,509	857,348	841,127	1,060,352	1,248,171	1,438,912	1,613,052	1,611,613	Net generation
33,745	37,918	277,766	387,250	475,368	484,667	492,103	457,275	T&D losses
4.8	4.4	33.0	36.5	38.1	33.7	30.5	28.4	Loss factor (T&D)
...	567,284	563,361	673,102	772,803	954,245	1,120,949	1,154,338	Power sold
...	...	-0.69	19.48	14.81	23.48	17.47	2.98	Growth rate
124,600	149,860	143,720	215,320	260,300	280,280	282,400	288,060	Peak load
84,025	102,637	100,374	127,312	151,029	172,565	192,493	193,187	Average load
67.4	68.5	69.8	59.1	50.0	61.6	68.2	67.1	Load factor
26.4	29.7	29.0	34.2	40.5	46.3	51.6	51.8	Plant factor
...	...	3.35	3.35	8.17	8.17	8.17	8.17	Average revenues per kWh sold
...	590,192	604,760	655,918	660,402	682,577	724,415	759,125	Customers
...	...	...	...	7,921	7,860	7,999	8,080	Employees (Average employees electric operating only)
...	...	...	...	(5,631)	(5,609)	(5,591)	(5,783)	
4,245	4,245	4,245	4,245	4,245	4,335	4,335	2,021	Capital equity (Million won)
90,052	161,800	4,541	6,837	9,221	58,188	Total assets (Million won)
...	35	42	49	46	Generation per capita
...	139	173	140	141	Consumption per capita

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부 록

Appendix

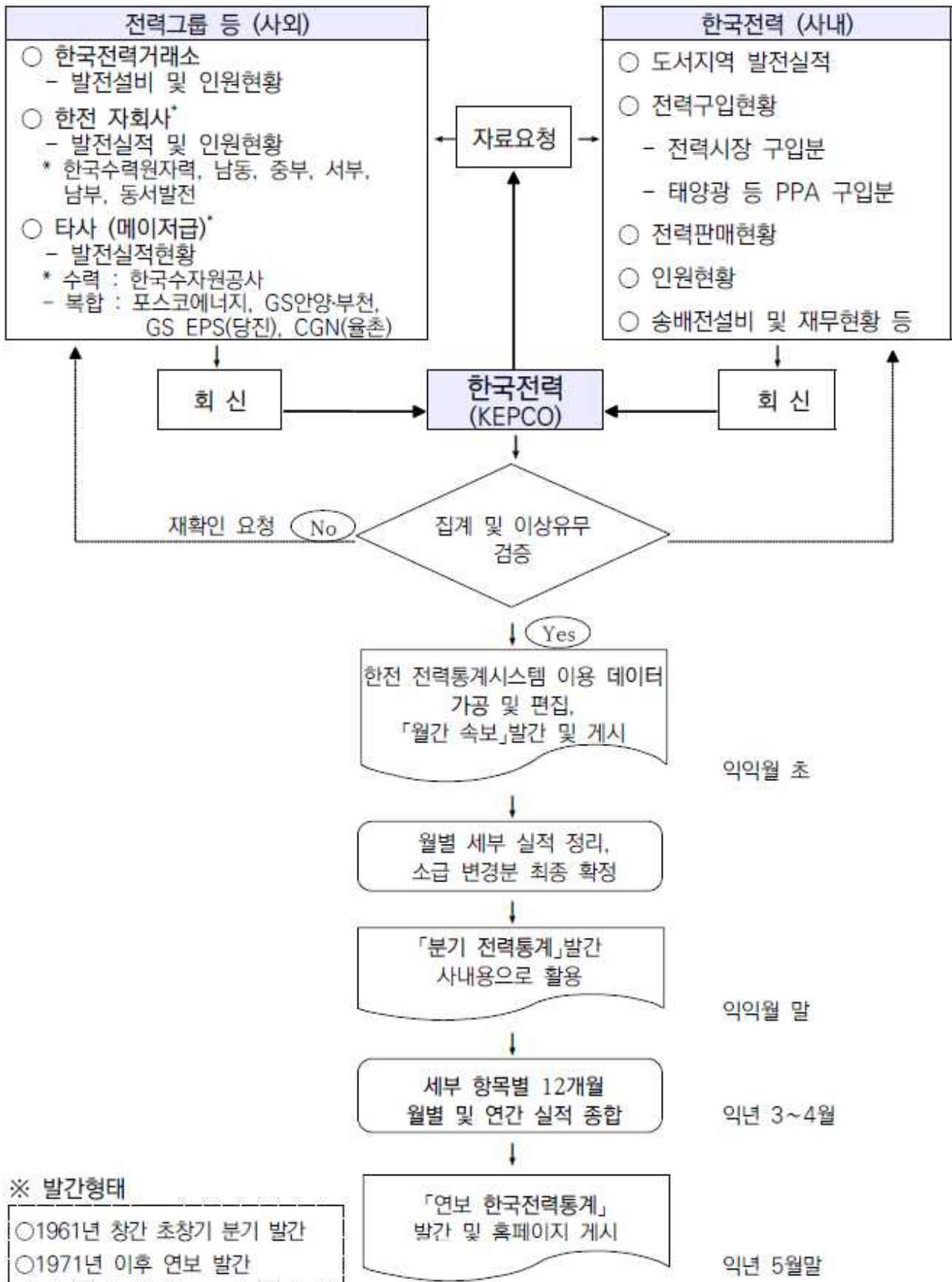
I. 통계 개요

1. 통계명 : 한국전력통계
2. 법적근거 : 통계법 제18조에 의해 승인된 보고통계
[승인번호 제310002호(1976. 7.23)]
3. 작성기관/부서명 : 한국전력공사 경영혁신처 그룹경영실
4. 보고목적 : 발전설비·용량, 전력구입량, 전력설비 등에 대한 전력통계로서 전력정책 수립 기초자료 제공
5. 통계(활용)분야 : 에너지
6. 작성 및 공표주기
 - 가. 공표주기 : 1년
 - 나. 공표시기 : 작성 기준년도 익년 5월
 - 다. 대상기간 : 전년 1월 ~ 12월
 - 라. 기준시점 : 전년 12월말 기준
 - 마. 통계 작성대상의 변동이 발생한 경우 : 다음연도 발행 시 수정/보완

7. 주요 연혁

- 1961. 9. 30 한국전력통계 1호(창간호) 발행
 - 한국전력주식회사 설립, 한성전기, 조선전업, 남산전기 등 전력3사의 통계자료 통합하여 발간
- 1976. 7. 23 통계청에서 한국전력통계 최초 승인(승인번호 310002)
- 2001. 4 전력산업 구조개편에 따라 발전부문 분리 및 전력거래소 신설
 - 전력거래 및 전력구입 분야 추가
- 2019. 4. 23 에너지원별 발전설비·발전량, 행정구역별 발전설비·발전량 추가 및 발전전력량 추이 변경
 - 에너지원별 전력통계 강화
- 2021. 4. 6 제조업별 판매전력량 추이 변경
 - 제조업 업종에 제10차 한국표준산업 분류표 적용, 15개→25개 중분류 품목
- 2021. 5. 17 폐기물 에너지를 신재생에서 기타로 항목 변경
 - 신재생에너지 법률 개정으로 '20. 1월부터 신재생에서 기타로 분류
- 2022. 4. 14 송전설비 추이, 현황 양식 변경
 - HVDC 500kV, 250kV 항목 추가

8. 통계 작성 방법



II. 주요 용어해설

1. 발전 및 전력수급 부문

가. 발전원별(발전설비별) 분류 체계

1) 수력 水力 Hydro

- 정 의 : 물의 낙차를 이용하여 물의 위치에너지가 운동에너지로 전환하는 과정에서 수차를 구동하여 발전하는 발전소
- 일반 一般 General
- 소수력 小水力 Small hydro power : 설비용량 10MW 이하의 수력발전. 수차, 발전기 및 전력변환장치 등으로 구성된다
- 양수 揚水 Pumping : 심야 경부하시 하부 저수지 물을 상부 저수지로 펌핑(양수), 주간 최대부하시 이 물로 첨두부하 전력을 공급하는 발전소

2) 기력 汽力 Steam

- 정 의 : 증기 터빈을 이용한 화력발전소
- 무연탄 無煙炭 Anthracite coal : 국내탄 발전소
- 유연탄 有煙炭 Bituminous coal : 수입 석탄 발전소
- 중유 重油 Heavy oil : 유류 발전소
- LNG : 천연가스 발전소

3) 복합화력 複合火力 Combined cycle

- 정 의 : 1차 가스터빈 2차 증기터빈(or 열공급) 발전형식
- 열공급 熱供給 Heat & Electric : 일산, 분당, GS 파워 안양, 부천 CC 등
- 일반 一般 General : 나머지 CC
 - 대산복합, 남제주복합은 유류 사용, 나머지 LNG

4) 내연력 內燃力 Internal combustion

- 정 의 : 연소실내에서 공기와 연료를 혼합 고온 고압의 동작가스를 만들어 기계적인 일로 변화하는 내연 기관으로 발전하는 발전소

5) 원자력 原子力 Nuclear

- 정 의 : 핵분열 에너지를 이용하는 발전방식으로 화력발전소의 보일러 부분이 원자로 계통으로 치환되어 포화 증기를 발생하고 그 이외는 화력발전소와 유사

6) 집단 集團 Group energy

- 정 의 : 열병합시설, 자원회수시설 등에서 생산된 에너지로 주거, 상업 또는 산업단지의 사용자에게 열과 전기를 공급

7) 신재생 New & Renewable

- 정 의 : 화석에너지의 대체용으로 원칙적으로 수력 포함(단, 양수발전 제외)
- 종 류
 - 태양에너지 : 태양광을 흡수하여 기전력을 발생, 전기를 생산하는 방식
 - 풍력 : 바람의 힘을 회전력으로 변환시켜 전기를 생산하는 방식
 - 해양에너지 : 조석, 조류, 파랑, 해수, 수온 밀도차 등 여러 가지 형태로 해양에 부존하는 에너지원
 - 바이오에너지 : 생물자원을 변환시켜 전기를 생산하는 에너지
 - 연료전지: 연료와 산화제를 전기화학적으로 반응시켜 전기에너지를 발생시키는 방식
 - 석탄액화가스 : 석탄을 액화 및 가스화하여 얻어지는 에너지

8) 기타 Others

- 증류탑폐열, 여열회수, 천연가스압터빈, 부생(浮生)가스, 폐기물에너지(신재생에너지법 개정으로 폐기물에너지를 '20년 1월 이후 신재생에서 기타로 분류) 등

나. 발전 연료

1) 사용량 Consumption

- 석탄(Ton) : 무연탄+유연탄
 - 무연탄 無煙炭 (or 국내탄) Anthracite coal (ton)
 - 유연탄 有煙炭 (or 석 탄) Bituminous coal (ton)
- 중유 重油 Heavy oil (kl) = BC+저유황유(LSWR)+오리멸전
 - BC유 Bunker C : 등급 구분 없이 종합, 기타 중유 : 저유황유+오리멸전
- 경유 輕油 Diesel oil (kl) = 경유(DO)+등유
- LNG(Ton) : 가스
 - 복합화력의 경우 열공급분 포함

2) 사용열량 Caloric consumption (Gcal = 10⁶ kcal = 10⁹ cal)

- 공급된 연료에서 유용하게 사용되는 화학적 에너지 (=사용량×단위열량)

3) 발열량 (단위열량) Caloric value (kcal / kg or l)

- 연료별 연간 종합 발열량 = 열량 산술합 ÷ 연료 사용량 산술합

다. 발전실적

1) 평균전력 平均電力 = 평균부하 平均負荷 Average load (kW)

- 일정기간내 부하전력의 평균값
- 기준 운전기간중 총발전량(MWh)×1,000/ 역일시간 (일수×24)
 - 총계에는 대체 및 집단, 상용자가 구입분 포함

2) 송전단전력량 送電端電力量 Net generation (MWh)

- 발전소측에서 한전 송전선로에 보내는 전력량
 - '61~'05년 : 발전량-소내전력량
 - 2006년 이후 : 구입량 (거래용 계량값) + 한전 도서발전 송전량

3) 소내전력량 所內電力量 Auxiliary use (MWh)

- 발전소 구내 소비전력량
 - '61~'05년 : 소내전력량계 계량값[발전기 운전 중 소비전력과 운휴 중 한전 전기 수전전력량(기동전력량)을 합산한 값]
 - 2006년 이후 : 발전량-구입량(송전단전력량)

4) 부하율 負荷率 Load factor (%)

- 최대전력 분산 or 억제 결과를 나타내는 부하관리 지표
- 부하율 = (평균전력÷최대전력)×100

5) 이용률 利用率 Utilization plant capacity (%)

- 일정 기간내에 발전설비의 이용 비율로 발전소 전 설비 출력에 대한 평균출력의 비로 나타냄
- (평균전력/설비용량)×100 또는 (발전량-시운전발전량) / 역일가능발전량×100
 - ※ 시운전 발전량이 전력거래 될 경우 시운전 발전량은 없는 것으로 판단
 - 역일가능 발전량 = 설비용량 × 일수 × 24(h)

6) 열효율 熱效率 Thermal efficiency

- 터빈을 돌리는 열에너지가 일로 전환되는 에너지 비율

라. 전력수급 電力需給 Power Supply & Demand

1) 공급능력

- 발전설비 총용량에서 고장 또는 정비 등 발전이 불가능한 발전기를 제외한 용량
- 실제 출력가능 용량으로 산정하며 총발전설비 용량보다 공급능력이 큰 경우도 있음.

2) 최대전력

- 전력수요중 최대값으로 소내전력량을 포함한 발전단 1시간 평균전력중 최대값

3) 공급예비율

- 최대전력대비 공급가능 발전설비용량 비율 = $(\text{공급능력} - \text{최대전력}) / \text{최대전력} \times 100\%$

4) 설비에비율

- 최대전력대비 잉여설비용량 비율 = $(\text{총 설비용량} - \text{최대전력}) / \text{최대전력} \times 100\%$

2. 전력구입 및 송배전 손실부문

가. 전력구입

1) SMP : System Marginal Price (계통한계가격)

- 거래시간별로 적용되는 전력량에 대한 전력시장 가격

2) PPA : Power Purchase Agreement (전력구매계약)

- 발전회사가 단일 구매자인 전력회사(한전)에 전력을 판매하는 형태

3) RPS : Renewable portfolio standard (신재생에너지 공급의무화제도)

- 발전사업자에게 발전량 일부를 신재생에너지로 공급하도록 의무화하고 전력 시장을 통해 보전해 주는 제도

4) DR : Demand Response (수요자원거래)

- 수요관리사업자가 전기사용자를 모집하여 수요자원을 구성, 시장 필요시 의적적 또는 자발적으로 수요조절량을 거래(개별고객 수요감축 또는 증대)하고 정산금을 받은 제도

5) ETS : Emission Trading Scheme (온실가스 배출권거래제)

- 온실가스 多배출업체에 대해 배출허용량을 설정하여 배출권을 할당하고, 배출권 과부족량에 대해 업체간 거래를 허용, 실제 배출량 만큼의 배출권을 제출하도록 하는 제도

6) ECR : Emergency Capacity Reserve(비상대기예비력)

- 기후·환경 등 제약에 의해 가동이 제한된 석탄발전기가 전력계통의 안정적인 운영 등을 위해 전력거래소가 급전지시할 경우를 대비 입찰하는 제도

나. 송배전 손실

(단위 : MWh, %)

구 분	항 목	산 식
송변전	손실량	송전단전력량-배전(분)량
	손실률	(송변전 손실량/송전량)×100
배 전	손실량	배전(분)량-(배전)판매량
	손실률	(배전손실량/배전(분)량)×100
	사업소별 손실	배전 1차 사업소별 손실량 집계
총 합 송배전	손실량	송전단전력량-(배전)판매량
	손실률	(종합 손실량/송전량)×100

1) 송전단전력량 送電端 電力量 Net generation

- 발전소에서 송전선로에 보내는 전력량
 - '61~'05년 : 발전량-소내전력량
 - 2006년 이후 : 시장 구입량(발전소 기동전력량 포함) + PPA + 도서발전송전량

2) 배전량 配電量 Distribution

- 154kV 변전소(66kV 포함)의 주변압기 2차측 전력량과 직거래 고객에게 공급되는 전력량의 합(도서발전량, PPA구입량, 분산형 전원 발전량 포함)
 - 2006년 이후 : 발전소 기동전력량 포함

3) 송변전손실량 送變電損失量 Transmission & Substation Losses

- 발전소 송전단에서 154kV 변전소 사이에서 발생하는 전력손실량

4) 배전손실량 配電損失量 Distribution losses

- 전력이 배전선로(발전소, 변전소 또는 송전선로에서 다른 발전소나 변전소를 거치지 않고 수급지점에 이르는 전선로와 이에 속하는 개폐장치, 변압기 등 한전 전기설비)를 통해 수급지점에 이르는 동안 발생하는 손실로 계량오차, 위약, 검침시차 등에 의해 발생하는 손실 포함.

5) 종합손실량 綜合損失量 Total losses

- 발전소 송전단과 고객측 계량기 사이에서 소비되는 전력량

- 종합손실량 = 송전단전력량 - (배전)판매량*

* 송전단전력량은 매월1일 ~ 말일까지 실적을 나타내는 반면 영업판매량은 검침일에 따라 전월실적을 포함하고 있어, 해당 월 1일~말일까지 판매량 산출을 위하여 일수 계산한 배전판매량.

3. 송배전 및 판매부문

가. 송전선로

1) 선로길이 線路길이, Route length

- 선로의 두 2점 사이의 경간(지지물 사이의 수평거리)를 말하며 지중 선로에 있어서는 두 점 사이의 한 줄의 케이블 경간을 의미

2) 회선길이 回線길이 : Circuit length

- 회선길이, 보통 송전선로는 3상(A,B,C상) 3선식으로 구성된 1조를 1회선이라 하며, 선로의 길이를 1회선당 거리로 나타내는 것
(예) 2회선 선로길이가 50km 인 경우 회선공장은 2회선 × 50km, 100C-km

3) 전선전체길이 電線全體길이 : Total [conductor] length

- 회선별, 선식별로 각각 다르게 구성된 전력선의 길이를 모두 합하여 한 선으로 연이은 전력선의 총길이
(예) 2회선(1회선이 3선) 선로길이가 50km 인 경우, 전선연장으로 표시하면 선로길이 50km × 2회선 × 3선 = 300km이다

4) 지지물 支持物, Supporter

- 송전선로 및 선로에 부착된 금구류 등을 버티기 위해 세워진 구조물

5) 철탑 鐵塔, Steel tower

- 전기를 발전소로부터 변전소, 혹은 변전소에서 변전 지지물까지 전달시켜 주는 가교역할을 하는 철재 조립 구조물, 송전 철탑의 주요 재질로는 앵글(angle) 및 파이프(pipe) 등이 사용

6) 콘크리트주 Concrete pole

- 철근 또는 철골 콘크리트의 재질로 된 전주. 공장에서 원심력을 응용하여 속이 빈 형태로 만든 철근 콘크리트주

7) 애자 碍子 Insulator

- 전선을 철탑 또는 전주의 완금에 기계적으로 고정시키고 전기적으로 절연하기 위해서 사용하는 절연 지지체. 즉, 전선과 전주 등과의 절연간격을 확보하여 주는 역할을 하며, 핀 애자 및 현수 애자 등이 있음.

나. 변전설비

1) 변전소 變電所 Substation

- 발전소에서 생산된 전력을 전기사용자에게 효율적으로 공급 하기 위하여 수전 된 전력의 전압을 조정하여 구외로 전송하는 장소

2) 변전용량 變電容量 Capacity of Transformer (MVA)

- 계통의 부하를 연속적으로 담당할 수 있는 변압기 용량

3) 차단기 遮斷器 Circuit Breaker

- 정상상태의 전류를 투입, 통전, 차단하며 또한 단락과 이상상태에 있어서 차단 이 가능하도록 설계된 개폐장치

4) 電力用 콘덴서 Static-Condenser (MVAR)

- 송전선로의 과부하 또는 장공장선로의 저전압보상을 위한 콘덴서

5) 分路 리액터 Shunt-Reactor (MVAR)

- 송전선로의 경부하, 또는 무부하 운전시 수전단 전압이 송전단 전압 보다 높아 지는 현상을 방지하기 위해 설치하는 리액터

다. 배전설비

1) 회선길이 回線길이 : Circuit length (C-km)

- 배전선로 3상 1회선 길이 또는 단상 1회선 길이로 통상 1회선의 경우 전주와 전주사이 길이

2) 선로전체길이 線路全體길이 : Total length (km)

- 배전선로의 전력선의 길이를 모두 합하여 1선으로 연이은 총길이

3) 철탑 鐵塔 Steel tower (基)

- 기초가 4개소로 각각의 기초를 시행하는 사각형 철탑조 지지물

4) 철주 鐵柱 Steel pole (基)

- 기초가 1개소인 사각형 철탑조 지지물

5) 콘크리트주 Concrete pole (基)

- 철근 또는 철탑 콘크리트의 재질로 된 가장 흔한 전선 지지물 일명 전봇대

6) 변압기 變壓器 Transformer (kVA)

- 특고압을 저압으로 변환하기 위해 전주 또는 지상에 설치된 변압기

7) 가스절연 개폐기 가스絶緣 開閉器 Gas Insulated Switch gear (臺)

- 배전선로에 설치되어 있는 선로 구분용으로 사용되는 부하개폐기

라. 전력판매

1) 고객호수 顧客戶數 Number of Customers (호)

- 전기요금에 청구된 전기사용계약 구좌수
 - 종합계약아파트와 같이 고압 아파트 단지 전체를 1개의 전기사용계약으로 체결한 경우, 세대수와 관계없이 고객호수는 1호로 계상

2) 계약종별 契約種別 Classification of Contract

- 전기사용계약단위의 경제활동에 따라 전기요금 및 공급조건을 달리하기 위하여 분류한 기준
- 전기공급약관의 기준에 따라 주택용전력, 일반용전력, 교육용전력, 산업용전력, 농사용전력, 가로등전력, 심야전력으로 분류

3) 요금적용전력 料金適用電力 Billing Demand (kW)

- 기본요금 계산의 기준이 되는 전력
 - 주택용의 요금적용전력은 고압아파트 및 심야전력(을)의 요금적용 전력임

4) 판매전력량 販賣電力量 Power Sold (kWh)

- 고객에게 판매한 전력량
 - 한전 사용량 및 발전소 기동전력은 포함되나, 양수발전소의 양수펌핑 사용량은 제외
 - 월 기준 : 해당월 1검침일~말일 검침일 고객에게 검침일전 한달 동안 판매한 전력량 (전력량계를 검침한 검침일이 속한 월의 판매량)
 - 검침일정 (검침일수 : 총 21일)

구 분	1차	2차	3차	4차	5차	6차	7차
검침일	1~5	8~12	15~17	18~19	22~24	25~26	말일

※ 1개월 계산기간 : 전월 검침일 ~ 당월 검침일 전일

5) 용도별 用途別 By Use and Industry

- 계약종별과 관계없이 용도 및 산업분류에 의한 분류
- 한국표준산업분류에 따라 신규접수시 고객별로 부여한 용도코드에 의해 분류

구 분		분 류 기 준
가정용		순수 주거용 고객(일반주택, 아파트, 연립주택)
공공용		관공용(정부 및 지자체, 산하기관), 국군용, 유엔군용, 기타 공공용(교육서비스, 뉴스 공급업 등)
서비스업		수도, 전철, 전기사업자(판매·송변전·건설용발전소), 순수서비스업(가정용, 공공용, 생산부문, 수도, 전철, 전기사업자이외 고객)
생산 부문	농림어업	표준산업분류 대분류 농업 및 임업, 어업
	광업	표준산업분류 대분류 광업
	제조업	표준산업분류 대분류 제조업

6) 전력판매수입 電力販賣收入 Revenues from Electricity Sales

- 전력판매에 따라 청구된 전기요금 (수금액과 별개)
- 지 침 : 전기요금 = 기본요금 + 사용량요금
- 전력산업기반기금 및 부가가치세 불포함

7) 판매단가 販賣單價 Average Revenues per kWh sold

- 정 의 : 전력판매량 1kWh 당 평균판매단가
- 지 침 : 판매단가 = 전력판매수입(기본요금+사용량요금) / 전력판매량

III. 단 위

1. 주요단위

구분	단 위	표 시	구분	단 위	표 시
힘	Newton(뉴턴)	N	주 파 수	Hertz(헤르츠)	Hz
일	Joule(주울)	J	광 속	Lumen(루멘)	lm
피 상 전 력	Volt Ampere	VA	조 명 도	Lux(룩스)	lx
유 효 전 력	Watt(와트)	W	방 사 능	Curi(큐리)	Ci
무 효 전 력	var(바)	var	자 속	Weber(웨버)	Wb
전 위 (압)	Volt(볼트)	V	조 사 선 량	Roentgen(뢴트겐)	R
전 하	Coulomb(쿨롱)	C	흡 수 선 량	Rad(라드)	Rad
정 전 용 량	Farad(파라드)	F	방 사 선 량	Rem(렘)	REm
전 류	Ampere(암페어)	A	전 자 볼 트	Electron Volt	eV
전 기 저 항	Ohm(옴)	Ω	연 소 도	Megga Watt Day	MWD
콘 덕 턴 스	Mho(모오)	$\bar{\Omega}$		Per Metric Ton	/MTU
도 전 율	Mho/meter	$\bar{\Omega}/m$	핵반응단면적	barm($10^{-24}cm^2$)	Barn
저 항 률	ohm meter	$\Omega \cdot m$	분리작업량	Separative Work Unit	SWU
인 덕 턴 스	Henry(헨리)	H	원 자 질 량	Atomic Mass Unit	AMU

2. 단위표기 기본원칙 (한국산업규격 기준)

가. 기본원칙

- 단위기호는 복수일 경우에도 그 모양을 바꾸지 않고, 마침표도 찍지 않음
- 소문자를 사용하며, 고유명사에서 유래된 기호는 최초의 문자만 대문자로 표기함

어원(유래)	Watt	Joule	Ampere	Volta	Pascal	Hertz
단위표기	W	J	A	V	Pa	Hz

나. 접두어 표기

- 단위의 10의 정수 제곱을 나타낼 때에는 아래의 접두어를 붙인다.

배수	접두어 명칭	접두어 기호	비 고	배수	접두어 명칭	접두어 기호	비 고
10	데카(deca)	da	소문자	10 ⁻¹	데시(dec)	d	소문자
10 ²	헥토(hecto)	h	"	10 ⁻²	센티(centi)	c	"
10 ³	킬로(kilo)	k	"	10 ⁻³	밀리(milli)	m	"
10 ⁶	메가(mega)	M	대문자	10 ⁻⁶	마이크로(micro)	μ	"
10 ⁹	기가(giga)	G	"	10 ⁻⁹	나노(nano)	n	"
10 ¹²	테라(tera)	T	"	10 ⁻¹²	피코(pico)	p	"
10 ¹⁵	페타(peta)	P	"	10 ⁻¹⁵	펨토(femto)	f	"
10 ¹⁸	엑사(exa)	E	"	10 ⁻¹⁸	아토(atto)	a	"

- (주) ① 배수표시 접두어중 Mega, Giga, Tera, Peta, exa 등은 다른 단위기호 또는 접두어 즉 milli, gram, ton 등과 혼동을 피하기 위하여 대문자로 표기한다.
- ② 접두어는 중복해서 사용하지 않는다.
- ③ 단위기호의 앞에 접두어의 기호를 붙인 것은 하나의 새로운 단위기호로 본다.

다. 표준 단위

구 분	단위의 명칭	바로 쓰는 예		잘못 쓰는 예
		표준단위	응용단위	
길	이 미 터	m	μm, mm, cm, km	MM, CM, KM, Km
주 파 수	헬 츠	Hz	kHz, MHz, GHz	KHz
질 량	킬 로 그 램	kg	g, μg, mg	KG, Kg
일	줄	J	kJ, MJ	KJ
동 력, 전 력	와 트	W	kW, MW	KW, Kw, kw, Mw
전 력 량	와 트 시	Wh	kWh, MWh, GWh	KWH, MW, MWH, GWH
전 류	암 페 어	A	mA, kA	KA
전 하	쿨 롱	C	μC, kC	KC
전 압	볼 트	V	mV, kV, MV	KV, kv, Mv
저 항	옴	Ω	kΩ, MΩ	KΩ
무 효 전 력	바	var	kvar	KVAR, Kvar
피 상 전 력	볼 트 암 페 어	VA	kVA, MVA	KVA
열	칼 로 리	cal	kcal	Kcal, KCAL



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