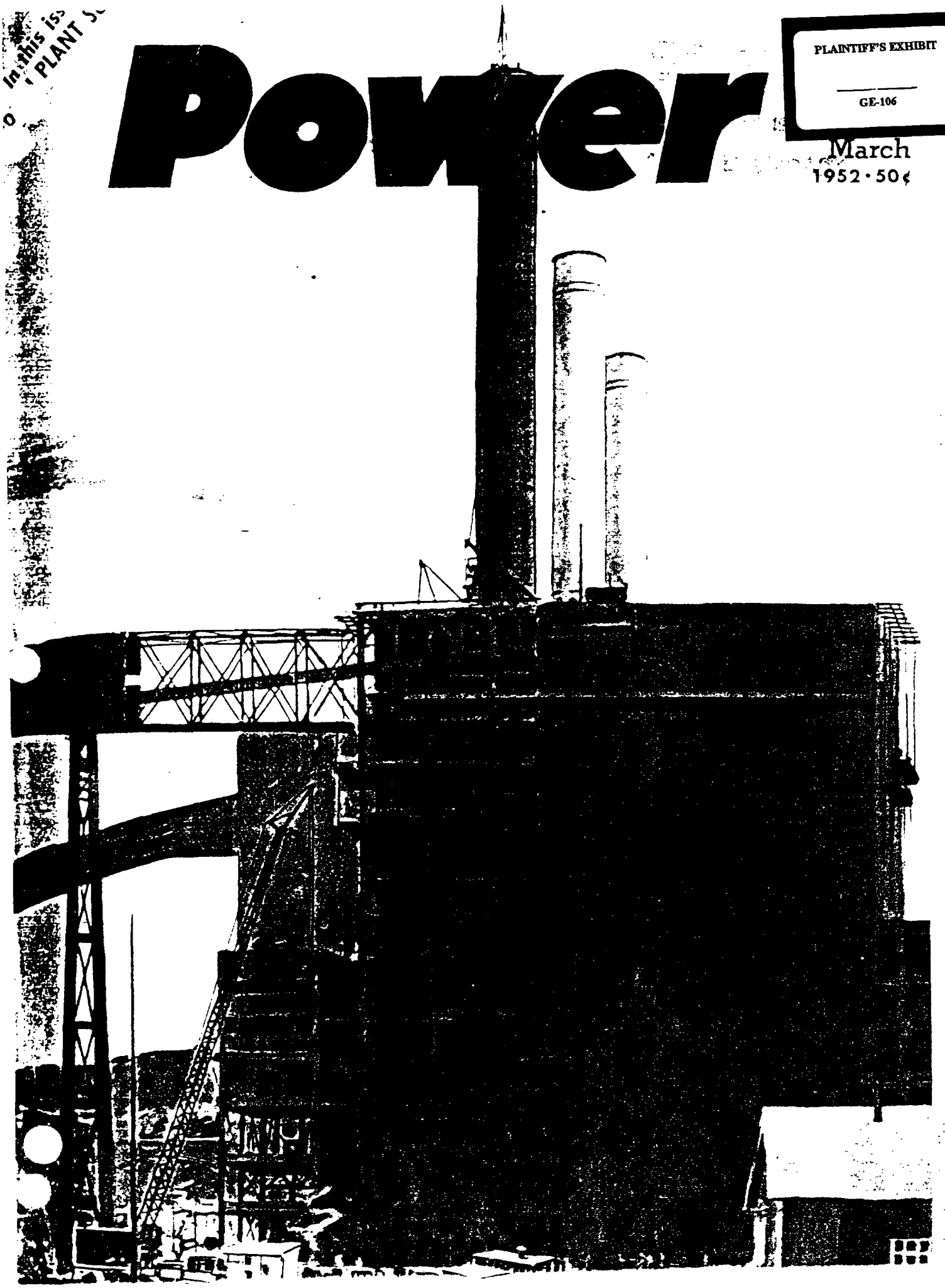
In this is
PLANT S

Power

PLAINTIFF'S EXHIBIT
GE-106

March
1952 • 50¢



1952 Design Survey: Typical Industrial [illegible]stitutional Steam Plants, Above 200 PSI

Compiled by L. C. McCabe, Associate Editor

Company	Location	Consulting engineers	First operation, new units	Nominal steam temperature, F	Nominal pressure, psi	Number	Capacity, each, 1000 lb per hr	Manufacturer	Heating surface, 1000 sq ft	Furnace volume, 1000 cu ft	Heat release, 1000 Btu per cu ft per hr	Furnace bottom
Dow Chemical Co [illegible]	Freeport, Texas	Stone & Webster Engrg Corp	12-51 / 12-52	1250 / 1250	900 / 900	2 / 2	450 / 450	RS / RS	32.3 / 32.3	22.6	30.0 / 30.0	DB / DB
Dow Chemical Co [illegible]	Freeport, Texas	Stone & Webster Engrg Corp	9-52	1250	350	1	450	RS	35.3	22.0	30.5	DB
Dow Chemical Co	[illegible]	Self	3-53	1250	[illegible]	2	400	BW	21.0			ST
Northern Paper Mills	Green Bay, Wis	Sargent & Lundy		1250	950	1	135	RS	12.9	5.9	20.0	
[illegible] Chemicals Co	Texas City, Texas	Ebasco Services, Inc	1-53	1076	850	2	200	RS	21.6	10.0	30.5	DB
[illegible]	[illegible]			1040	550	[illegible]	[illegible]	BW	29.2			
[illegible]	[illegible]			1040	350	2	220	BW	29.2			
[illegible]	[illegible], Texas			[illegible]	[illegible]	1	300	BW	20.5			
[illegible]	[illegible]	[illegible]	[illegible]	1000	425	1	[illegible]	BW	14.1	8.5	31.4	
[illegible]	[illegible]	[illegible] & Co	4-52	1000	950	1	200	BW	54.0	8.5	31.0	DB
[illegible]	[illegible]	[illegible]	1952	1000	905	5	225	FW	30.4	8.6	35.0	DB
[illegible]	Everett, Mass	Self	10-52	380	625	1	100	RS	11.0	4.5	27.7	DB
[illegible]	[illegible]			[illegible]	900	1	[illegible]	CE	11.5	5.7		
[illegible]	[illegible]	Sargent & Lundy	[illegible]	[illegible]	505	2	220	BW	25.6	16.2	16.7	DB
[illegible]	[illegible]		[illegible]	[illegible]	325 / 325	2	157 / 175	CE / BW	11.1	6.3		
[illegible]	[illegible]	Sargent & Lundy	7-52	900	900	1	325	RS	36.4	24.0	17.6	DB
[illegible]	[illegible]	Gibbs & Hill, Inc		485	900	[illegible]	300 / 100	RS				DB / DB
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	750	1	200	FW	26.1	11.1	26.0	
[illegible]	[illegible]		5-51	900	750	3	300	FW	33.5	16.5	25.0	DB
[illegible]	Toronto, Ont	R. A. Hartright	4-51	550	640	1	150	BW	19.3	8.6	23.4	
Canadian [illegible] Ltd	[illegible], Ont	Self	10-52	550	725	1	132	FW	13.2	7.5	21.7	DB
[illegible]	[illegible]		11-52	600	750	2	200	RS	23.9	14.1	19.3	DB
Columbia Cellulose Ltd	Prince Rupert, B. C.			600	750	2	250	FW		15.7	21.2	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	750 / 650 / 750 / 1st	1	40 / 90 / 290 / 110	BW / W / CE / BW	8.4 / 7.5 / 23.7 / 13.3	3.0 / 15.8 / 7.3	16.3 / 23.3	DB / DB / DB

GE – General Electric Co
H – Hydrogen cooled
HF – Hogged fuel
HY – Hydraulic coupling
L – Lignite
M – Motor drive
Ma – Magnetic coupling
Me – Mechanical

MI – Murray Iron Works
Mp – Two motors per fan
MT – One motor, one turbine per fan
Mu – Muntz metal
Ni – Nickel
O – Oil
P – Pulverized-fuel firing
R – Regulator

Re – Regenerative
RS – Riley Stoker Corp
S – Speed control
SS – Spreader stoker
ST – Slag tap
T – Turbine drive
Te – Terry Steam Turbine Co

TG – Traveling-grate stoker
Tu – Tubular
UF – Underfeed stoker
UI – Union Iron Works
V – Vane control
Vo – Henry Vogt Machine Co
WB – Wm Bros Boiler & Mfg Co

WE – Westinghouse Electric Corp
WH – Waste heat
Wi – Wickes Boiler Co
Wo – Worthington Pump & Machy Corp, Moore Steam Turbine Division
Wn – Wood waste
285 – Stoker grate area, sq ft

[1] – Plant to have two 10,000-kw house turbines, fourteen 20,000-kw turbine-generators for six pot lines. Present two pot lines are served by eighty 1200-kw dc generators, gas engine driven
[2] – Blast furnace gas
[3] – Bark, supplemental oil
[4] – Bark, supplemental gas
[5] – Coke breeze
[6] – Built by Foster Wheeler Ltd, under Riley Stoker Corp license
[7] – Furfural residue
[8] – Bark and wood refuse

1952 Design Survey of Typical New

Compiled by B G A Skrotzki, Associate Editor

Company	Location	Plant name	Consulting engineers	First operation new units	Throttle pressure, psig	Steam temp, F: Throttle	Steam temp, F: Reheat	BOILERS: Number	BOILERS: Capacity, each, 1000 lb per hr	BOILERS: Manufacturer	BOILERS: Surface, 1000 sq ft: Boiler & W W	BOILERS: Surface, 1000 sq ft: Superheater	BOILERS: Surface, 1000 sq ft: Reheater
Gulf States Utilities Co	Baton Rouge, La.	Louisiana	Stone & Webster Engrg Corp	1-54	1500	950		3	566	CE	18.4	16.0	
				4-53	850	900		1	500	CE	26.2	6.8	
				10-51	600	750							
	Scott, La.	Nelson	Stone & Webster Engrg Corp	5-54	1300	950		1	600	CE			
	Beaumont, Texas	Neches	Stone & Webster Engrg Corp	4-52	850	900		1	600	CE	19.3	14.0	
Alabama Power Co	Gorgas, Ala.	Gorgas	Southern Services Inc	7-52	1250	950		1	375	BW	17.6	34.2	
				1-53	1250	1000		1	850	BW	11.9	29.4	
[illegible]	[illegible]	[illegible]	[illegible]	8-53	1250	1000		1	350	FW	11.9	29.4	
The Hartford Electric Light Co	Middletown, Conn.	Laurel	Stone & Webster Engrg Corp	1953	1250	950		1	600	BW	11.8		
Carolina Power & Light Co	Goldsboro, N. C.	Goldsboro	Ebasco Services Inc	5-51	1250	950		1	650	BW	13.4	25.9	
Iowa Power & Light Co	Des Moines, Iowa	Des Moines No. 2	Black & Veatch	4-53	1250	950		1	525	BW	13.2	26.3	
	Council Bluffs, Iowa	Council Bluffs	Black & Veatch	12-53	1250	950		1	425	BW	8.9	14.9	
[illegible]	[illegible]	[illegible]	[illegible]	3-52	1250	950		1	625	FW	17.4	40.4	
[illegible]	[illegible]	[illegible]	[illegible]	10-52	1250	950		1	500	CE	25.8	19.7	
Indianapolis Power & Light Co	North of Martinsville, Ind.	White River	Gibbs & Hill, Inc	9-53	1250	950		1	400	BW	22.8	14.5	
[illegible]	[illegible]	[illegible]	[illegible]	4-52	1250	950		1	425	FW	16.7	15.9	
[illegible]	[illegible]	[illegible]	[illegible]	10-53	1250	950		1	625	FW			
Southern Indiana Gas & Electric Co	Newburgh, Ind.	F B Culley	Commonwealth Associates, Inc	1954	1250	950		1	380	BW			
Union Electric Co of Missouri	St Louis County, Mo.	Meramec [18]	[illegible]	12-52	1250	950	350	1	325	FW	44.5	48.8	12.1
				3-53 [14]	1250	950		1	450	BW	8.2	16.9	
Florida Power Corp	Oldsmar, Fla.	Higgins	Burns & Roe, Inc	11-53	1250	950		1	450	CE	17.5		
	Avon Park, Fla.	Avon Park	Burns & Roe, Inc	11-52 [14]	1250	950		1	350	CE	17.5		
	Ellaville, Fla.	Suwanee River	Black & Veatch	1-53	850	900		1	350	CE	26.6		
Texas Electric Service Co	Colorado City, Texas	Morgan Creek	Ebasco Services Inc	5-52	850	900		1	450	CE	24.5	7.5	
	Fort Worth, Texas	Tarrant County	Ebasco Services Inc	5-54	1250	950		1	650	CE			
	Riesel, Texas	Lake Creek	Ebasco Services Inc	7-54	1250	950		1	1100	BW			
Texas Power & Light Co	Trinidad, Texas	Trinidad	Ebasco Services Inc	1953	1250	950		1	775	CE	21.3	20.9	
				12-49	850	900		2	350	BW	25.3	13.3	
Southwestern Public Service Co	Amherst, Texas	Plant "X"		6-53	1250	950		1	1000	CE	20.7		
	Sunray, Texas	Moore County		1954	850	900		1	500	CE	24.5		
	Eddy County, N. M.	Eddy County		1954	850	900		1	500	CE	24.5		
	Carlsbad, N. M.	Carlsbad	Stearns-Roger Mfg Co	8-52	600	825		2	200	BW			
The Tucson Gas Electric Light & Power Co	Tucson, Ariz.	Station No. 3	Sanderson & Porter	5-53	1050	900		1	300	BW			
				3-54	1000	900		1	550	BW			
BELOW 1000 PSIG													
Public Service Co of Oklahoma	Washita, Okla.	Southwestern	Sargent & Lundy	5-52	900	900		2	335	BW	21.5		
				1-54	900	900		1	564	BW	36.3		
Western Massachusetts Electric Co	West Springfield, Mass.	West Springfield	Stone & Webster Engrg Corp	11-49 [18]	475	925		1	450	FW	15.6	14.9	
				11-52	375	925		1	450	CE	15.6	14.9	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	250	900		1	640	FW	21.5	23.0	
Public Service Co of Colorado	Denver, Colo.	Lacombe		1953	850	900		1	775	BW	49.5	18.6	
The Potomac Edison Co	Albright, W. Va.	Albright [20]	Sanderson & Porter	9-52	850	900		1	300	RS	61.0	23.5	
Monongahela Power Co	Albright, W. Va.	Albright [20]	Sanderson & Porter	7-52	850	900		1	200	RS	61.0	23.5	
Georgia Power Co	McManus, Ga.	McManus	Southern Services Inc	3-52	850	900		1	425	FW	7.8	10.4	
Mississippi Power Co	Meridian, Miss.	Sweatt	Southern Services, Inc	5-53	850	900		1	425	FW	7.8	10.0	
[illegible]	Hollywood, Pa.	Hollywood	Ebasco Services Inc	1954	850	900		1	700	FW	17.4	19.4	
Tampa Electric Co	Tampa, Fla.	Hookers Point	Stone & Webster Engrg Corp	11-53	850	900		1	340	BW			
The Empire District Electric Co	Riverton, Kan.	Riverton	Black & Veatch	11-53	850	950		1	450	CE	22.6	13.7	
[illegible]	[illegible]	[illegible]	[illegible]	3-52	850	900		1	300	[illegible]			
California Electric Power Co	Highgrove, Calif.	Highgrove	The Fluor Corp, Ltd	3-52	850	900		2	229	CE	33.3		
	Chattanoochee, Fla.	River Junction	Southern Services, Inc.	12-52	850	900		1	425	FW	7.8	10.4	
	Pensacola, Fla.	Pensacola	Southern Services Inc	11-53	850	900		1	425	FW	7.8	10.4	
				3-52	850	900		1	325	BW	27.1	24.5	
El Paso Electric Co	El Paso, Tex.	Rio Grande	Stone & Webster Engrg Corp	11-54	850	900		1	325	BW			
Savannah Electric & Power Co	Savannah, Ga.	Riverside	Stone & Webster Engrg Corp	3-54	650	900		1	300	BW			
	St Cloud, Fla.	Coughlin	Sargent & Lundy	7-54	650	900		1	200	BW	14.9	5.4	
Central Louisiana Electric Co	Baldwin, La.	Teche	Sargent & Lundy	12-52	850	900		1	200	BW			
	Easton, Texas	Knox Lee	Sargent & Lundy	7-52	850	900		1	300	BW	22.5	7.8	
Southwestern Gas & Electric Co	Lone Star, Texas	Lone Star	Sargent & Lundy	2-53	850	900		1	425	BW	25.1	24.9	
Rock Island Light & Power Co	Tremains Cove, N. Y.	Hudson	Burns & Roe, Inc	1-51	650	900		1	200	BW	18.7	7.3	
				1-51	650	900		1	210	BW	28.2	29.6	
Central Maine Power Co	Augusta, Me.			1-52	650	900		1	210	BW	28.2	9.1	
Central Power & Light Co	Victoria, Texas	Victoria	Sargent & Lundy	5-52	850	900		1	200	BW	28.2	9.2	
The Kansas Power & Light Co	Lawrence, Kan.	Lawrence [14]	Black & Veatch	5-52	750	900		1	275	BW	14.2	11.5	
The United Illuminating Co	New Haven, Conn.	English	Westcott & Mapes	1953	850	900		1	550	BW	11.4	12.3	
BELOW 700 PSIG													
Jamaica Water Supply Co	Near Woodhaven, N. Y.	Greenwood [23]	Burns & Roe, Inc	7-52	650	825		1	210	CE	37.5		
Lake Superior District Power Co	Ashland, Wis.	Bay Front	Sargent & Lundy	4-52	625	900		1	200	BW	21.1	5.9	
Southern Utah Power Co	Cedar City, Utah		Stone & Webster Engrg Corp	10-52	600	825		1	90	BW			
Interstate Power Co	Dubuque, Iowa	Dubuque	Sargent & Lundy	10-52	600	700		1	200	CE	19.1	7.9	
[illegible]	[illegible]	Ross Beach	Black & Veatch	12-52	600	825		1	130	BW	10.2		
[illegible]	Fitchburg, Mass.	Fitchburg	Gibbs & Hill, Inc	[illegible]	600	825		1	155	CE	8.7	4.0	
[illegible]	West, N. J.	[illegible]	Pioneer Service & Engrg Co	[illegible]	600	850		1	75	MB	8.6	2.2	
Montaup Electric Co	Somerset, Mass.	Somerset	Stearns-Roger Mfg Co	7-52	600	750		1	60	[illegible]	10.3		

Anthracite
AC – Allis-Chalmers Mfg Co
Ad – Admiralty
Ad1 – Admiralty, inhibited
Al – Aluminum-brass
AlAd – Aluminum-Admiralty
AsAd – Arsenical Admiralty
AsAlB – Arsenical aluminum brass
AsCu – Arsenical copper
BW – Babcock & Wilcox Co
Bit – Coal, bituminous
CE – Combustion Engineering-Superheater, Inc
Con – Condenser deaeration
CuNi – Copper-nickel
Cy – Cyclone furnace
D – Damper
DB – Dry bottom
DT – Coal turbine and motor drive
FW – Foster Wheeler Corp
GE – General Electric Co
HY – Hydraulic coupling
L – Lignite
Lo – Louvers
M – Motor drive
Ma – Magnetic coupling
Mo – Two motors per fan
O – Oil
P – Pulverized-fuel fired
PAd – Phosphorized Admiralty
Pi – Adjustable-pitch axial fan
Pl – Plate
R – Regulator
RB – Red brass
Re – Regenerative
RS – Riley Stoker Corp
S – Speed control
Sup – Superloy
SS – Spreader stoker
ST – Stag cup

Steam Central-Station Installations

Furnace volume, 1000 cu ft	Heat release, 1000 Btu per cu ft per hr	Furnace bottom	Economizer surface per boiler, 1000 sq ft	Air-heater surface per boiler, 1000 sq ft	Air-heater type	F-D Fans: Drive	F-D Fans: Air flow control	I-D Fans: Drive	I-D Fans: Gas-flow control	Firing	Fuel: Type	Fuel: Heating value, 1000 Btu per lb	Fuel: Ash-softening temperature, F	Feed Pumps: Drive	Feed Pumps: Flow control	Turbines: Capacity, 1000 kw	Turbines: Speed, rpm	Turbines: Manufacturer	Turbines: Backpressure, psia	Turbines: No. bleed points	Full-load deaerator pressure, psig	Condensers: Surface, 1000 sq ft	Condensers: No. water passes	Condensers: Tube material	Total boiler capacity incl new units, 1000 lb	Total generator capacity incl new units, 1000 kw
31.0	26.5	DB	25.6	69.6	Re	M	V	M	D	G,O	G,O	1015[15]		4M	R	40[9]	3600	WE	155					...	6650	355
28.0	30.0	DB	25.7	55.2	Re	M	V	M	D	G,O	G,O	1015[15]		2M	R	60[11]	3600	WE		4		50.0	2	Ad	4950	263.5
																15	3600	GE	135	0					4350	203.5
36.0	[illegible]		20.4	61.6	Re	M	D			G,O	G,O	1060[15]		2M	R	60[11]	3600	WE		5		50.0	2	Ad	600	60
28.0	30.0	DB	15.6	55.6	Pi	M	D	M	D	G,O	G,O	1060[15]		2M	R	60[11]	3600	WE	0.75	4	90	55.0	2	Ad	2900	245
54.9	19.4		34.2	289.2	Re	M	Hv	M	Hv	P	C			3M	Hv	100	3600	WE	1.0	5	60.3	32.5	2	AsAd	3350	320
44.4	24.8	DB	31.2	164.4	Re	M	D,V			G,O	G,O	1062[15]		3M	R	105	3600	GE		5	Con		2		850	105
44.4	24.8	DB	31.7	164.4	Re	M	D,V			G,O	G,O	1062[15]		3M	R	105	3600	GE		5	Con		2		1700	210
43.3	16.4	DB	21.6	70.2	Re	M	V	M	Hv	P	C	13.4	2500	3M	Hv	60[11]	3600	GE	0.75	5	53.6	47.5	2	Ad	600	60
53.6	14.8	DB	33.6	76.2	Re	M	V	M	D	P	C	13.8	2100	2M	R	60[11]	3600	WE	0.75	5	80.0	60.0	2	AsCu	650	66
53.6	14.7	DB	35.[illegible]	154.6	Re	M	V	M	Ma	P	C,G	9.2	1753	3M	R	60[11]	3600	WE	0.75	5	24.0	55	2	AsCu	2400	190
30.0	17.6	DB	15.[illegible]	114.2	Re	M	V	M	Ma	P	C,G	11.4	1894	2M	R	40[11]	3600	GE	0.75	5	24.0	37.5	2	AsCu	425	40
57.6	14.0	DB	[illegible]	197.6	Tu	M	D,V	M	D,V	P	C	11.5	2200	3M	R	60[11]	3600	WE	0.75	5	50.0	55.0	2	AsCu	1425	140
40.0	18.5	DB	22.5	69.0	Re	Mo	V	Mo	V	P	C	11.0	1950	3M	R	60[11]	3600	GE	0.75	5	65.0	40.0	2	AsAd	1800	180
65.2	8.5	—[19]	14.4	125.8	Re	M	V	M	D	P	An	11.0	2600	3M	1Hv	40[11]	3600	GE	[illegible]	5	66.0	35.0	2	Ac	1240	140
26.9			9.5	45.7	Re	M	V	M	D,V	G,O	G,O	1000[15]	.	2M	R	40[11]	3600	GE	1.25	4	Con	40.0	2	Ad	425	40
	...				Re	M	V		D,V	G,O	G,O	1000[15]		3M	R	60[11]	3600	WE	1.25	4		55.0	2	Ad	1050	100
										P	C	11.0	2000	.		40[11]	3600	AC	...						380	40
36.0	12.6	DB	35.4	265.6	Tu	M	V	M	V	P	C,G	10.7	2100	3M	R	125	3600	WE	1.25	7	60.0	90.0	2	...	925	125
25.0	18.5	DB	11.1	[illegible]	Tu	M	D	M	D	O	O	18.4	...	2M	R	40[11]	3600	GE	0.75	5	24.6	32.5	1	CuNi	900	90
24.5	19.3	DB	16.1	120.0	Re	M	D	M	D	O	O	18.5		3M	R	40[11]	3600	GE	0.75	5	26.4	32.5	1	CuNi	1350	120
24.5	19.3	DB	16.1	120.0	Tu	M	D	M	D	O	O	18.5		3M	R	40[11]	3600	GE	0.75	5	54.5	32.5	1	Ad	600	55
25.5	13.7			16.6	Re	M	D	M	D	O	O	18.5		2M	R	30[11]	3600	AC	0.75	5	32.5	25.0	2	Ad	350	30
22.0	20.5	DB	0	66.6	Tu	M	D	M	D	G,O	G,O	1050[15]	.	2M	R	40[11]	3600	GE	1.75	4	Con	37.5	2	AsCu	890	84
	...	DB			Tu	M	D	M[3]	D[3]	G,O	C,O	1050[15]	.	3M	R	60[11]	3600	WE		4	Con	60.0	2	AsCu	1540	150
		DB			Tu	M	D	—	—	G,O	G,O	1050[15]	.	3M	R	110	3600	GE	1.75	5	Con	75.0	2	AsCu	1100	110
41.0	26.1	DB	32.3	94.8	Tu	M		M		G	G	1000[15]	.	3M	R	65.6	3600	GE	1.75	5	.	60.0	2	AsCu	775	65.6
22.2	21.3	DB		55.6	Re	M	V	M	D	G	G	1057[15]	...	3M	R	60[11]	3600	GE	1.25	4	75.0	60.0	2	Ad	2300	161.2
52.5	22.7	DB	38.4	94.9	Re	M	D,V	M	D,V	G,O	G,O	1000[15]	...	3M	S,Hv	80	3600	GE	1.75	5	63.5	85.0	2	AsAd	1500	120
22.0	29.0	DB	0	...	Re	M	D,V	M	D,V	G,O	G,O	1000[15]	.	2M	S,Hy	40	3600	GE	1.75	5	25.0	42.5	2	AsAd	880	66.3
22.0	25.0	DB	0		Re	M	D,V	M	D,V	G,O	G,O	1000[15]	..	2M	S,Hy	40	3600	WE	1.75	5	25.0	42.5	2	AsAd	500	40
			0		Re	M	D,V	M[3]	D,V	G,O	G,O		...	2M	R	18.8	3600	GE	1.00	4	25.0	22.5	2	AsAd	500	53.2
22.2	30.[illegible]	.	0	53.3	Tu	Mo	V	—[3]	—[3]	G,O	C,O	1073[15]	...	2M	R	25	3600	WE	1.25	3	...	20.0	2	Ad	600	55
22.9	28.2	...	0	73.2	Tu	Mo	V	—[3]	—[3]	G,O	G,O	1073[15]	...	2M	R	50	3600	WE	1.25	3	...	45.0	2	Ad	1150	105
32.2	31.2	DB	.	52.3	Tu	M	D			G,O	G,O	1000[15]	..	2M	R	90[11]	3600	WE	0.75	4	80.0	60.0	2	CuNi	670	80
32.2	26.6	DB		...	Tu	M	D			G,O	G,O	1000[15]		1M	R	80[11]	3600	WE	0.75	4	80.0	60.0	2	CuNi	1334	160
32.2	19.4	DB	12.3	94.4	Re	M	Hv	M	Hv	P,O	C	12.5	.	1M,1T	..	40	3600	GE	0.75	4	41.0	35.0	2	Ac	400	40
32.2	19.4	DB	13.3	94.4	Re	M	Hv	M	Hv	P,O	C	12.5		2M	..	40	3600	GE	0.75	4	41.0	35.0	2	Ac	800	80
[illegible]	18.0	DB	19.0	25.6	Re	M	Ma	M	Ma	P	C	11.3	1900	3M	R	60	3600	WE	0.75	4	65	55.0	2	Ac	3110	300
	——	..	....	..	Tu	.			..	P	C,G	...		..	..	60[11]	3600	WE	0.75			...	...	...	.	—
[illegible]	19.6	DB	0	174.2	Re	M[7]	V	M[7]	V	P	C	—		1M	R	60[11]	3600	GE	1.25	4	86	50.0	2	Ad	1400	120
[illegible]	19.6	DB	0	124.2	Re	M[7]	V	M[7]	D	P	C	..	2200	2M		60[11]	3600	GE	0.75	4	91.5	50.0	2	Ac	700	60
[illegible]	23.2	DB	16.3	37.2	Re	M	Hy	M	Hv	O	O	18.4	.....	2M	R	40[11]	3600	AC	1.0	5	52.0	33.9	2	AlBr	425	40
[illegible]	24.5	DB	16.3	37.3	Re	M	V	M	V	G	G	1020[15]		2M	R	40[11]	3600	GE	1.25	5	90.0	32.5	2	Ac	850	80
[illegible]	9.7	DB	13.1	220.0	Re	M	V	M	V	P	An[21]	10.0	2740	3M		60[11]	3600	GE	0.75	4	88.0	55.0	2	AsAd	1030	96
[illegible]	27.3	...	...	62.2	Re	M	D	M	D	O	O	18.0	...	3M	R	40[11]	3600	GE	.	5	...	42.5	2	CuNi	1390	130
[illegible]	15.4	DB	12.5	85.4	Re	M	V	M	D	P	C,O,G	12.0	2050	2M	R	40[11]	3600	WE	0.75	5	20	40.0	2	AsAd	1765	151
[illegible]	24.1		19.4	32.5	Tu	M	V	M	D,S	SS(546)	C,G	10.6	1950	2M	....	30[11]	3600	GE	.	5		25.0	2	Ac	505	50
[illegible]		DB	[illegible]	34.5	Re	M	V	M	V	G,O	G,O	18.5		4M	R	30[9,11]	3600	GE	1.0	5	62.6	27.5	2	AsCu	640	60
[illegible]	23.3	DB	18.3	[illegible]	Re	M	Hv	M	Hv	P	C	13.1	2200	2M	R	40[11]	3600	GE	0.66	5	52.0	32.5	2	AsAd	425	40
[illegible]	23.3	DB	18.3	37.2	Re	M	Hv	M	Hv	P	C	13.1	2200	2M	R	40[11]	3600	GE	0.56	5	52.0	32.5	2	AsAd	850	80
[illegible]	20.5			58.6	Re	Mo	V	Mo	D	G,O	G,O	1000[15]	.	2M	R	30[11]	3600	WE	1.0	5	49.4	25.0	2	AlBr	735	75
[illegible]	32.2	DB	.	61.[illegible]	Re	M	D,V	M	D,V	G,O	G,O	974[15]	.	2M	R	30[11]	3600	GE	.	4	.	25.0	2	Ad	2410	120
[illegible]	28.2	—	...	[illegible]	Re	M	V	M[3]	V[3]	O	O	18.3	..	2M	R	20[11]	3600	WE		4		16.0	2	Ac	860	72.5
[illegible]	31.5	..	0	31.6	Tu	M	Pi	—[3]	—[3]	G	C	1090[15]	..	2M	R	20[11]	3600	GE	0.75	4	24.7	19.0	2	Acl	500	45
	—				Tu	M	O	—[3]	—[3]	G	G	1020[15]	.	2M	R	20[11]	3600	GE	0.75	4	57.0	19.0	2		...	.
[illegible]	31.2	...	0	53.3	Tu	M	V	—[3]	—[3]	G,O	G,O			1M	R	30[11]	3600	WE	0.75	4		25.0	1	AsCu	600	60
[illegible]	20.3	...	.	101.6	Tu	M		—[3]	—[3]	G	G	1025[15]	..	2M	F	40[11]	3600	GE	1.25	4	63.0	32.5	1	AsAd	425	40
[illegible]	5.9	DB	0.9	40.7	Tu	M	V	M	Hv	P,G,O	P,G,O	10.4	2050	2M	R	20[11]	3600	GE	0.75	4	56.0	18.7	1	Ac	400	40
	—	—	.	----	Re	—		—		P,O	C,O	.	.			30[11]	3600	GE	0.75		.	.	.		310	60
	—	—		----	Re	—		—		P,O	C,O				.	30[11]	3600	GE	0.75					..	620	60
[illegible]	31.7	—	0	50.3	Tu	M	P	—[3]	—[3]	G	C	1000[15]	.	1M,1T	P	30[11]	3600	WE	2.0	4	85.0	30.0[22]	2	AsAd	300	30
[illegible]	23.5	DB	.	55.9	Re		.	M	Ma	P	C,O,G	11.5	1900	1M,1T	P	30[11]	3600	WE	0.75	5	.	36.0[22]	2	AsCu	495	40
[illegible]	17.1	DB	10.[illegible]	82.6	Re	Mo	V	Mo	V	P	C,O	11.7	2300	2M,1T	R	30	3600	GE	1.25	5	72.0	27.5	1	AlBr	1706	135
	—			77.1	Tu	—	[illegible]	—		F	C		..	1M,1T		10	3600	GE	190					.	460	10
[illegible]	22.4	—	2.3	16.5	Tu	M	.	M	D,Ma	SS-38[illegible]	C	13.5	2300	1M	..	20	3600	GE	0.5	4	15.0	13.0	2	Ac	450	45
[illegible]	26.6	...	2.9	.		M	V	M	D,Hv	SS, TG	C	10.5	2100	2M	R	5	3600	WE	.	2		4.5	2	Adi	105	7.5
[illegible]	36.2	—	..	45.0	Tu	M	V	M	Ma	F	C	10.5	1950	2M		25	3600	GE	0.5	4	90.7	22.5	2	PAd	510	50
[illegible]	28.5	DB	0	20.3	Tu	Mo	V	Mo	V	G,O	G,O	1000[15]		1M,1T	R,C	10.5[11]	3600	GE	0.75	4	20.0	12.7	2	Ac	130	11.5
[illegible]	28.5	DB	....	34.6	Re	M	V	M	D	F	C,C	10.8	2200	1T		7.1	3600	GE	2.5		.		.	...	675.0	38.1
[illegible]	22.4	..		5.5	Tu	M	.	M	C	TG SS	C	6.6	2040	1M		6.0	3600	GE	0.75	3	64.[illegible]	5.0	2	Ac	150	10
		DB	0	5.7	Tu	M	.	M	V	SS	C	9.2		2M	R	5.0	3600	GE	0.75	3		5.0	2	Ad	193	12

...ine drive
...ng-grate stoker
...r
...control
... Bros Boiler & Mfg Co
...ghouse Electric Corp
...
...grate area, sq ft

1 – Gross capacity
2 – h-p 3600 rpm, l-p 1800 rpm
3 – No i-d fan, pressurized furnace
4 – Feedheating turbine on main shaft
5 – 3 units installed
6 – 11,000 to 13,000 Btu per lb
7 – 2 fans per boiler
8 – Astoria station (1950 survey) changed to 2 GE units
9 – 2 units installed
10 – Formerly Gilmerton
11 – Preferred-standard unit
12 – Petroleum pitch alternate fuel
13 – Gross capability 82,000 kw
14 – Revised, originally listed 1950 survey
15 – Btu per cu ft
16 – Twin shell, 25,000 sq ft each
17 – Anthracite HHV - 12,540 Btu per lb
18 – Revised, originally listed 1949 survey
19 – Water-filled ash pit
20 – Jointly owned station
21 – River anthracite
22 – Twin shell, 18,000 sq ft each
23 – 1st unit, supplies steam, electricity and water to adjacent industrial plant
24 – 12,500 to 13,900 Btu per lb
25 – Gross capability 100,000 kw
26 – Gross capability 80,000 kw

1952 Design Survey of Typical New

Compiled by B G A Skrotzki, Associate Editor

Company	Location	Plant name	Consulting engineers	First operation, new units	Throttle pressure, psig	Steam temp, F: Throttle	Steam temp, F: Reheat	BOILERS: Number	BOILERS: Capacity, each, 1000 lb per hr	BOILERS: Manufacturer	Surface, 1000 sq ft: Boiler & W W	Surface, 1000 sq ft: Superheater	Surface, 1000 sq ft: Reheater
1000 PSIG AND ABOVE													
Public Service Electric and Gas Co	Kearny, N. J.	Kearny		12-52	2350	1100	1050	1	355	CE	24.7	93.9	14.8
				5-53	2350	1100	1050	1	355	CE	24.7	33.9	14.8
The Ohio Power Co	Beverly, Ohio	Muskingum River	Am Gas & Elec Service Corp	5-53	2000	1050	1050	1	1335	BW	37.4	91.4	—
				7-53	2000	1050	1050	1	1335	BW	37.4	91.4	—
Appalachian Electric Power Co	Glasgow, W. Va.	Kanawha River	Am Gas & Elec Service Corp	3-53	2000	1050	1050	1	1335	BW	39.7	91.4	—
				1-53	2000	1050	1050	1	1335	BW	39.7	91.4	—
Indiana & Michigan Electric Co	Lawrenceburg, Ind.	Tanners Creek	Am Gas & Elec Service Corp	9-52	2000	1050	1000	1	545	BW	46.1	62.8	—
Ohio Edison Co	near Shadyside, Ohio	R E Burger	Commonwealth Associates, Inc	4-54	2000	1050	1000	1	1050	BW	13.3	70.7	21.4
	Niles, Ohio	Niles	Commonwealth Associates, Inc	4-53	1450	1000	1000	1	385	BW	25.7	52.3	29.3
				10-53	1450	1000	1000	1	385	BW	25.7	52.3	29.3
Narragansett Electric Co	Providence, R. I.	South Street	United Engrs & Constructors	12-53	2000	1000		2	450	BW	9.64	13.5	—
Philadelphia Electric Co	Philadelphia, Pa	Delaware		12-52	1300	1000	1000	1	375	BW	17.0	43.5	—
				5-53	1300	1000	1000	1	375	BW	17.0	43.5	—
	Cromby, Pa	Cromby		1953	1300	1000	1000	1	1050	BW	29.6		—
				1955	1300	1000	1000	1	1450	CE	51.6	140.5	—
	Philadelphia, Pa	Richmond		7-50	1250	950		2	300	CE	16.5	32.4	—
Southern California Edison Co	Etiwanda, Calif	Etiwanda	Stone & Webster Engr Corp	10-52	1800	1000	1000	1	320	CE	27.3	75.3	—
				12-52	1800	1000	1000	1	320	CE	27.3	75.3	—
Commonwealth Edison Co	Stickney, Ill	Ridgeland	Sargent & Lundy	5-53	1800	1050	1000	1	1100	BW	27.3	72.0	16.2
				12-53	1800	1050	1000	1	1100	BW	27.3	72.0	16.2
Cleveland Electric Illuminating Co	Eastlake, Ohio	Eastlake		1-53	1800	1050	1000	3	375	CE	44.4	70.0	—
Electric Energy, Inc	Joppa, Ill	Joppa	Ebasco Services Inc	9-52	1800	1050	1000	1	1200	CE	52.3	100.3	15.9
				12-52	1800	1050	1000	1	1200	CE	52.3	100.3	15.9
				1-53	1800	1050	1000	1	1200	CE	52.3	100.3	15.9
				3-53	1800	1050	1000	1	1200	CE	52.3	100.3	15.9
~~Consolidated Edison Co of N. Y., Inc[8]~~	~~New York, N. Y.~~	~~East River~~		2-52	1800	1000	1000	1	1450	FW	57.5	22.5	—
Detroit Edison Co	East China Township, Mich	St. Clair		1-53	1800	1000	1000	1	1070	BW	20.3	50.7	45.1
					1800	1000	1000	2	1070	BW	20.3	50.7	45.1
Duke Power Co	Spencer, N. C.	Buck		4-53	1800	1000	1000	2	900	CE	46.3	67.5	—
Wisconsin Electric Power Co	Milwaukee County, Wis	Oak Creek		5-54	1800	1000	1000	1	795	CE	18.2	12.3	3.1
Pennsylvania Electric Co	Shawville, Pa.		Gilbert Associates, Inc	4-53	1800	1050	1000	2	894	BW	13.0		21.0
	Erie, Pa	Front Street[14]	Gilbert Associates, Inc	3-52	1250	950		2	400	CE	19.2	12.9	—
Rochester Gas & Electric Corp	Rochester, N. Y.	Russell	Gilbert Associates, Inc	3-53	1570	1000	1000	1	430	CE	20.7		—
Pacific Gas and Electric Corp	Antioch, Calif	Contra Costa	Bechtel Corp	1953	1450	1000	1000	1	350	CE	26.1	75.3	13.0
				1953	1450	1000	1000	1	350	CE	26.1	75.3	13.0
	Moss Landing, Calif	Moss Landing	Stone & Webster Engrg Corp	1952	1450	1000	1000	2	350	BW		45.3	15.6
Consumers Power Co	Erie, Mich	J R Whiting	Commonwealth Associates, Inc	7-52	1450	1000	1000	1	630	BW	14.8	52.0	—
				10-52	1450	1000	1000	1	630	BW	14.8	52.0	—
Niagara Mohawk Power Corp	near Albany, N. Y.	Albany		1953	1450	1000	1000	1	675	CE	32.8	42.3	—
				1954	1450	1000	1000	1	675	CE	32.8	42.3	—
Boston Edison Co	North Weymouth, Mass	Edgar	Jackson & Moreland	1952	1450	1000	1000	1	583	CE	14.8	33.0	—
				1954	1450	1000	1000	1	582	CE	14.8	33.0	—
The Cincinnati Gas and Electric Co	near New Richmond, Ohio	Walter C Beckjord	Sargent & Lundy	5-53	1450	1000	1000	1	706	CE	26.0	70.3	—
Virginia Electric and Power Co	Portsmouth, Va.	Portsmouth[10]	Stone & Webster Engrg Corp	2-53	1450	1000	1000	1	750	CE	33.2	46.0	—
The Connecticut Light & Power Co	Uncasville, Conn.	Montville	United Engrs & Constructors	1954	1450	1000	1000	1	525	CE	27.0		—
Delaware Power & Light Co	Wilmington, Del	Edge Moor	United Engrs & Constructors	1954	1450	1000	1000	1	500	CE	29.3	35.4	—
[redacted]	Salt Lake City, Utah	Gadsby	Bechtel Corp	10-52	1450	1000	1000	1	575	[illegible]	35.2	46.5	—
The Dayton Power & Light Co	Miamisburg, Ohio	O H Hutchings	Ebasco Services Inc	1-53	1450	1000	1000	1	430	CE	20.7		—
				5-53	1450	1000	1000	1	430	CE	[illegible]		—
Metropolitan Edison Co	Reading, Pa	Titus	Gilbert Associates, Inc	1-53	1450	1000	1000	1	510	CE	29.3	54.5	9.3
Illinois Power Co	near Wood River, Ill	Wood River	Sargent & Lundy	[illegible]	1450	1000	1000		770	CE	46.3	50.0	11.6
	near West [illegible]	Hennepin[14]	Sargent & Lundy	5-53	1450	1000	1000	1	[illegible]	[illegible]	37.1	50.0	9.8
Houston Lighting & Power Co	Webster, Texas	Webster	Ebasco Services Inc	10-53	1450	1000		1	350	BW	13.3	39.3	—
				9-54	1450	1000		1	350	BW	13.3	39.3	—
	Houston, Texas	Greens Bayou	Ebasco Services Inc	2-52	1450	1000		1	350	BW	13.3	39.3	—
				4-53	1450	1000		1	450	BW	13.3	39.3	—
Consolidated Gas Electric Light & Pwr Co of Baltimore	Baltimore, Md	Gould Street		11-52	1450	1050		1	330	BW	15.3	33.3	—
	Turner, Md	Riverside		4-53	1450	1050		1	425	BW		[illegible]	—
Wisconsin Power and Light Co	North Beloit, Wis	Rock River	Sargent & Lundy	[illegible]	1450	1000	1000		525	[illegible]		15.4	—
Potomac Electric Power Co	Benning, D. C.	Station A	Stone & Webster Engrg Corp	[illegible]	1450	1000			554	CE			—
Florida Power & Light Co	Cutler, Fla	Cutler	Ebasco Services Inc	1952	1450	1000	1000		[illegible]	CE	[illegible]	15.0	1.2
	Riviera, Fla	Riviera	Ebasco Services Inc		1250	950		1	[illegible]	CE	[illegible]		—
[redacted]	~~near Sunbury, Pa~~	~~Sunbury~~	Ebasco Services Inc	5-53	1450	1000	1000	1	1000	FW	[illegible]	[illegible]	37.5
	[redacted]		Ebasco Services Inc	[illegible]	1250	950			1200	FW	[illegible]	[illegible]	—
South Carolina Generating Co	Savannah River, near Beech Island, S. C.	Urquhart	Gilbert Associates, Inc	[illegible]	1450	1000	[illegible]		[illegible]	[illegible]	[illegible]	15.2	—
South Carolina Electric & Gas Co	Charleston, S. C.	~~Hagood~~[7]	Gilbert Associates Inc	[illegible]	1250	950			300	[illegible]	[illegible]		—
Dallas Power & Light Co	Dallas, Texas	Park Lake	Ebasco Services Inc	1955	1450	1000		1	350	BW			—
				[illegible]	1250	950			275	[illegible]			—
	Dallas, Texas	Dallas	Ebasco Services Inc	[illegible]	1250	950			500	CE			—
San Diego Gas & Electric	[illegible], Calif	Encina	Pioneer Service & Engrg Co	3-54	1450	1000	1000		750	FW			—
	[illegible]	Silver Gate	Pioneer Service & Engrg Co	[illegible]	1250	950			275	[illegible]	[illegible]	21.0	—
[redacted]	[redacted]		~~Sargent & Lundy~~	12-52	1450	1000	1000	2	700	FW	[illegible]	[illegible]	21.4
	near Noblesville, Ind	[illegible]	~~Sargent & Lundy~~	3-50	950	950		3	300	CE	28.5	[illegible]	
[illegible]	[illegible]	[illegible]	Gilbert Associates, Inc	6-53	1450	1000	1000	1	465	CE	[illegible]	35.3	10.3
	[illegible]	[illegible]	Gilbert Associates, Inc	[illegible]	[illegible]	[illegible]			[illegible]	BW	[illegible]	[illegible]	—
	[illegible]	[illegible]	Gilbert Associates, Inc	[illegible]	[illegible]	[illegible]			[illegible]	CE	[illegible]	[illegible]	—

An – Anthracite
AC – Allis-Chalmers Mfg Co
Ad – Admiralty
AdI – Admiralty inhibited
AlBr – Aluminum brass
AnAd – Antimony Admiralty
AsAd – Arsenical Admiralty
AsAB – Arsenical aluminum brass
AsCu – Arsenical copper
BW – Babcock & Wilcox Co
Bit – Coal, bituminous
CE – Combustion Engineering-Superheater Inc
Cn – Condensate regeneration
Cu – Cupro nickel
[illegible] – [illegible]
D – Damper
DB – Dry bottom
Dd – Dual turbine and motor drive
FW – Foster Wheeler Corp
GE – General Electric Co
Hc – Hydraulic coupling
L – Lignite
[illegible] – [illegible]
M – Motor drive
Ma – Magnetic coupling
Mo – Two motors per fan
O – Oil
P – Pulverized-fuel fired
PAd – Phosphorized Admiralty
Pi – Adjustable-pitch axial fan
[illegible] – Plate
R – Regulator
RB – Red brass
Re – Regenerative
RS – Riley Stoker Corp
S – Speed control
Sup – Supernav
SS – Spreader stoker
ST – Slag tap

Steam Central-Station Installations

Furnace volume, 1000 cu ft	Heat release, 1000 Btu per cu ft per hr	Furnace bottom	Economizer surface per boiler, 1000 sq ft	Air-heater surface per boiler, 1000 sq ft	Air heater type	F-D Fans: Drive	F-D Fans: Air flow control	I-D Fans: Drive	I-D Fans: Gas flow control	Firing	Fuel: Type	Fuel: Heating value, 1000 Btu per lb	Fuel: Ash softening temperature, F	Feed pumps: Drive	Feed pumps: Flow control	Turbines: Capacity, 1000 kw	Turbines: Speed, rpm	Turbines: Manufacturer	Turbines: Backpressure, psia	Turbines: No bleed points	Full-load deaerator pressure, psig	Condensers: Surface, 1000 sq ft	Condensers: No water passes	Condensers: Tube material	Total boiler capacity incl new units, 1000 lb	Total generator capacity incl new units, 1000 kw
52.0	21.6	[illegible]	[illegible]	135.[illegible]	Re	M	Hv	M	D	P,O	G,O	13.[illegible]		5M	Hv	145	3600	GE	0.75	8	Con	70	1	AlBr	5520	479
52.0	21.5	[illegible]	[illegible]	135.[illegible]	Re	M	Hv	M	D	P,O	G,O	13.[illegible]				145	3600	GE	0.75	6	Con	70	1	AlBr	6275	674
103.3	15.2	[illegible]	[illegible]	246.5	Re	M	V	M	V	P	C	12.5	2000	3M	R	217.3[1]	3600	GE	0.75	7	62	90	1	AsAd	1335	217.3
103.3	15.2	ST	[illegible]	246.5	Re	M	V	M	V	P	C	12.5	2000	3M	R	217.3[1]	3600[2]	GE	0.75	7	62	90	1	AsAd	2670	434.6
139.0	13.4	DB	[illegible]	246.5	Re	M	V	M	V	P	C	12.0	2800	3M	R	217.3[1]	3600[2]	GE	0.75	7	62	90	1	AsAd	2670	434.6
139.0	13.4	DB	16.[illegible]	246.[illegible]	Re	M	V	M	V	P	C	12.0	2800	3M	R	217.3[1]	3600[2]	GE	0.75	7	62	90	1	AsAd	2670	434.6
79.6	16.4	DB	[illegible]	142.[illegible]	Re	M	V	M	V	P	C	11.4	2300	3M	R	154[1]	3600	GE	0.75	7	69	65	1	AnAd	1890	306
—		DB	[illegible]	427.[illegible]	Tu	M	V	M[3]	—[3]	P	C	11.0	2100	3M	R	125	3600	WE	1.25	5		75	2	Ad	3450	325
—		ST	[illegible]	377.[illegible]	Tu	M	V	—[3]	—[3]	Cv	C	11.0	2100	3M		106	3600	WE	1.0	5		65	2	Ad	885	106
—		ST	[illegible]	377.3	Tu	M	V	—[3]	—[3]	Cv	C	11.0	2100	3M	R	106	3600	WE	1.0	5		65	2	Ad	1770	212
29.6	18.0	DB	10.5	63.[illegible]	Re	M	V	M	D,Lc	P	C	13.9	2350	3M	Hv	50[4]	3600	WE	215	5	125	45	1	CuNi	2640	205
46.6	24.0	DB	19.[illegible]	363.0	Tu	M	V	M	D	P	C,O	13.3	2350	2M	R	125	3600	WE	0.5	7	Con	60	1	Ad	3875	311.8
46.6	24.0	DB	19.[illegible]	363.0	Tu	M	V	M	D	P	C,O	13.3	2350	2M	R	125	3600	GE	0.5	7	Con	60	1	Ad	4750	436.8
99.5	22.4	DB			Tu	M	V	M	D	P	C,O	13.3	2350	2M	R	150	3600	GE	0.5	6	Con	72	1	Ad	1050	150.0
125.5	15.0	DB	43.[illegible]	1[illegible]	Re	M		M		P	C,O	13.3	2350	3M	R	200	3600	WE	0.5	6	Con	95	1	Ad	2500	350.0
60.0	15.5	DB	22.[illegible]	156.4	Re	M		M	V	P	C,O	13.3	2350	2T	R	165	3600	GE	0.5	5	Con	75	1	Ad	4640	467.0
35.0			15.[illegible]	45.[illegible]	Re	M	DV	M	D	G,O	G,O	18.5		3M	R	100	3600	GE	1.0	6	18.8	80	2	AsCu	920	100
35.0			15.[illegible]	45.6	Re	M	DV	M	D	G,O	C,O	18.5		3M	R	100	3600	GE	1.0	6	18.8	80	2	AsCu	1840	200
38.6	38.[illegible]	[illegible]	14.3	41[illegible]	Tu	M	V	M	V	Cv	C	10.0	2000	3M	R	150	3600[2]	WE	0.5	6	104.5	100	1	Ad	4020	450
38.6	38.5	[illegible]	[illegible]	41[illegible]	Tu	M	V	M	V	Cv	C	10.0	2000	3M	R	150	3600[2]	AC	0.5	6	104.5	100	1	Ad	5120	600
47.6	23.[illegible]	DF	22.[illegible]	195.3	Re	M	S,V	M	S,V	P	C	11.4	2100	9M 1T	R	125[5]	3600	GE	0.5	6	45.1	60	1	RB	2625	375
114.0	14.5	DF	25.6	220.4	Re	M[7]	DV	M[7]	D	P	C,O	11.0[6]	2100	3M	R	125	3600	GE	1.25	6	Con	90	2	Ad	1200	125
114.0	14.5	DF	25.6	220.4	Re	M[7]	DV	M[7]	D	P	C,O	11.0[6]	2100	3M	R	125	3600	GE	1.25	6	Con	90	2	Ad	2400	250
114.0	14.5	DF	25.6	220.4	Re	M[7]	DV	M[7]	D	P	C,O	11.0[6]	2100	3M	R	125	3600	GE	1.25	6	Con	90	2	Ad	3600	375
114.0	14.5	DB	25.6	220.4	Re	M[7]	DV	M[7]	D	P	C,O	11.0[6]	2100	3M	R	125	3600	GE	1.25	6	Con	90	2	Ad	4800	500
108.8	17.2	DF	65.6	355.6	Re	M	V	M	D	P	C	13.3	2056	3M	R	160	3600	WE	0.5		138.0	125	1	AlBr	7670	690
75.3	19.0	DB	15.1	305.6	Re	M	Hv	M	Hv	P	C	11.6	2100	3M	Hv	125	3600[2]	GE	0.5	6	Con	75	1	Ad	2210	375
75.3	19.0	DB	15.1	305.6	Re	M	Hv	M	Hv	P	C	11.6	2100	6M	Hv	125[9]	3600[2]	AC	0.5	6	Con	76	1	Ad		
86.5	13.9	DB	1[illegible]	187.0	Re	M	V	M	Hv	P	C	12.8	2100	3M	Hv	125[9]	3600	GE	0.75	6	90.0	75	2	Adl	4025	443
105.6	10.0	DB	34.0	264.4	Re	M	S	M	S	P	C	12.4	2050	2M		120[4,9]	3600[2]	AC	0.5	6	Con	85	1	AsAd	3180	480
50.7	24.0	DB	[illegible]	256.0	Tu	M	V	M	V	P	C	13.0	2100	6M	R	100	3600	GE	0.5	7		62.5	2	Sun	1788	215
25.5	19.6	DB	14.4	105.4	Re	M	V	M	V	P	C	11.3	2000	3M	R	50	3600	GE	0.5	5	100.0	37.5	2	Ad	1200	123.7
																18.7	3600	GE	275		100.0					
30.4	19.4	DB	5.4	126.0	Re	M	V	M	V	P	C	12.8	2100	3M	2R, 1Hv	50	3600	GE	0.5	6		32.5	2	Ad	1260	140
41.0	27.0		1[illegible]	9[illegible]	Re	M	DV	M	D	O,G	O,C	18.5		3M		100	3600	GE	0.75	6	100	57.5	2	AlBr	4550	500
41.0	27.0		1[illegible]	91.[illegible]	Re	M	DV	M	D	O,G	O,G	18.5		3M		100	3600	WE	0.75	6	100	57.5	2	AlBr		
54.9	21.0		4.4	155.4	Re	M	DV	M	D	O,G	O,G	18.5		6M		100[9]	3600	GE	0.75	6	90	57.5	2	AlBr	4550	500
52.3	18.[illegible]	DB	14.[illegible]	22[illegible]	Tu	M	Hv	M	Hv	P	C	1[illegible].0	2100	2M	Hv	85	3600	GE	0.75	6	Con	47.5	2	PAd	1380	170
52.3	16.0	DB	14.3	227.0	Tu	M	Hv	M	Hv	P	C	11.0	2100	2M	Hv	85	3600	GE	0.75	6	Con	47.5	2	PAd		
58.0	15.8	DB	15.4	99.[illegible]	Re	M	V	M	S	P	C	13.0	2050	3M	S, Hv	80	3600	GE	0.5	7	90.0	50.0	1	Ad	2025	240
58.0	15.8	DB	15.4	9[illegible]	Re	M	V	M	S	P	C	13.0	2050	3M	S, Hv	80	3600	GE	0.5	7	90.0	50.0	1	Ad	2700	320
42.0	[illegible]	DB	[illegible]	157.8	Re	M	V	M	S	P	C,C	13.9	2600	2M		81.3	3600	WE	0.75	5	35.0	45.0	1	AlBr	2961	320.3
42.0	[illegible]	DB	1[illegible].3	157.8	Re	M	V	M	S	P	C,C	13.9	2600	2M		81.3	3600	WE	0.75	5	35.0	45.0	1	AlBr	2544	401.6
64.2	14.7	DB	5.5	192.6	Re	M	DV	M	D, Ma	P	C	13.0	2500	3M	Hv	100[11]	3600	GE	0.75	5	76.4	55.0	2	AsCu	1410	200
41.0	26.0	DB	15.6	126.4	Re	M	V	M	V	P	C,O	13.0	2300	3M	Hv	90[11]	3600	GE	0.75	5	75.0	65.0	2	AlBr	750	90
47.0	15.8	DB	[illegible]	7[illegible]	Re	M	V		Hv	P	C	12.5	2100	3M	R	75	3600	GE	0.75	6	Con	60.0	2	AlBr		180
	15.8	DB	[illegible]	144.5	Tu	M	D	M	S,D	P	C,O[12]	13.2	2000	3M	Hv	75	3600	GE	1.25	6	20.0	40.0	1	Adl	1800	207
[illegible]3.5	14.[illegible]	DB	[illegible]	13[illegible]	Re	M	DV	M	DV	P	C,O	12.9	1950	2M	Hv	75[11]	3600	WE	0.75	5	21.0	37.5	1	AnAd	1195	120
30.4	19.5	DB	5.6	[illegible]	Re	M	DV	M	D, Ma	P	C	13.0	2200	1M	R	60[11]	3600	GE	0.75	6	40.0	45.0	2	Ad	2290	300
30.4	19.5	DB	5.6	[illegible]	Re	M	DV	M	D, Ma	P	C	13.0	2200	1M	R	60[11]	3600	GE	0.75	6	40.0	45.0	2	Ad	2820	360
44.6	15.6	DB	[illegible]	204.4	Re	M	V	M	V	P	C,O	13.0	2000	2M	Hv	75	3600	GE	0.5	5	25.0	42.5	2	PAd	1530	225
58.[illegible]	14.5	[illegible]	[illegible]	156.5	Tu	M	V	M	Hv	P	C,O	10.7	1960	2M	Hv	90[11]	3600	GE	0.75	5	78.0	70.0	2	AsCu	2050	250
49.[illegible]	14.[illegible]	[illegible]	[illegible]	[illegible]	Tu	M	V	M	Hv	P	C	10.4	1960	1M, 1T	Hv	60[13]	3600	GE	0.5	5	80.0	50.0	2	Ad	525	60
45.0	24.6		[illegible]	157.5	Tu	M	V	—[3]		C,O	C,C	1060[15]		3M	R	80	3600	GE	1.75	4	120.0	80.0	2	PAd	350	60
45.0	24.6		[illegible]	152.5	Tu	M	V	—[3]		C,O	C,O	10[illegible][15]		3M	R	80	3600	GE	1.75	4	120.0	80.0	2	PAd	1900	160
45.0	24.6		[illegible]	[illegible]	Tu	M	V	—[3]		C,O	C,O	1060[15]		3M	R	80[11]	3600	WE	1.75	4	120.0	80.0	2	AsCu	2250	275
45.0	24.6		[illegible]	152.5	Tu	M	V	—[3]		C,O	C,O	1060[15]		3M	R	80[11]	3600	WE	1.75	4	120.0	80.0	2	AsCu	3200	350
46.5	[illegible]	DB	[illegible]	[illegible]	Re	M	V	M	D	P	C,O	[illegible][24]	1900	3M	P	80[25]	3600	GE	0.5	5	94.0	77.0	2	AsAlB	1700	172
43.0	[illegible]	[illegible]	[illegible]	109.6	Re	M	V	M	Hv	P	C,O	[illegible][24]	1900	3M	P	60[26]	3600	GE	0.5	5	66.0	55.0	2	AsAlB	2900	330
18.0			[illegible]	[illegible]	[illegible]	M		M		O	C	10.4	2000	2M	Hv	60	3600	AC	0.5	5	100.0	50.0	2	AnAd	525	60
55.4	14.6	DB	[illegible]	[illegible]	[illegible]	M	D	M	Ma	P	C,C	12.0	2100	3M	Hv	75	3600	GE	400						4750	260
40.0	19.[illegible]		[illegible]	[illegible]	Re	M	D	M	D	O	O	15.0		3M		50	3600	GE	1.25	6	Con	50.0[16]	2	AlBr		125
44.0			[illegible]	44.[illegible]	Re	M	D	M	D	O	C	16.3		3M		60[11]	3600	GE	1.25	5	Con	60.0	2	AlBr		125
95.[illegible]	14.6	DB	49.0	[illegible]	Re	M	V	M	Ma	P	C,A	[illegible][17]	2000	3M	R	125	3600	WE	0.75	5	69.5	65.0	2	Ad	3400	375
105.0	14.[illegible]	DB	47.[illegible]	23[illegible]	Re	M	V	M	V	P	C	12.7	2000	3M	R	125	3600	GE	0.75	5	63.[illegible]	60.0	2	Ad	1200	125
44.6	[illegible]	DB	[illegible]	204.4	Re	M	V	M	V	P	C,O	12.0	2000	2M	R	75[9]	3600	GE	1.25	6	25.0	45.0	2	PAd	1020	150
28.0	17.8	DB	[illegible]	64.0	Re	M	Ma	M[3]	Ma	O	C	16.5		2M	R	40[11]	3600	WE	1.00	5	115.0	35.0	2	AlBr	560	85
—					Tu	M	V	—[3]	—	G,O	C,C	1000[15]		3M	R	80	3600	WE							1725	137
—					Tu	M		—[3]	—	C,O	C,C	1000[15]		3M	R	65[11]	3600	GE	1.75	4		60.0	2	AsCu	775	[illegible]7
—					Tu	M		M	D	C,O	C,C	1000[15]		2M	R	50[11]	3600	GE	1.25	4	75.0	55.0	2	AsCu	2425	237
					Re	M	D, Hv	M	D, Hv	G,O	C,O	18.0		3M		90	3600	GE		5		70.0	2	AlBr	750	80
[illegible]	26.[illegible]	DB	[illegible]	[illegible]	Re	M	DV	M	D, Hv	G,O	G,O	18.0		3M	R	50	3600	GE	0.75	5		37.5	2	AlBr	2150	185
	15.[illegible]	DB	[illegible]	[illegible]	Re	M		M	D, Hv	P	C	[illegible]	2090	4M	Hv	90[9,11]	3600	WE	0.75	5	70.3	70.0	2	AsAc	1400	180
22.5	16.9	[illegible]		[illegible]	Re	M		M	D, Hv	P	C	12.4	2100	3M 1T		40[9]	3600	WE	0.75	4	57.3	40.0	2	Ad	900	80
57.[illegible]	15.0	DB	[illegible]	[illegible]	Re	M		M		P	C	[illegible]	2400	3M	2Hv	75	3600	GE	0.55	7	72.0	50.0	1	AsAd	1680	180
1[illegible]	22.4		[illegible]	[illegible]	Tu	M		M	Ma	TG (742)	Ar	11.[illegible]	2900	2M	R	40	3600	GE	0.75	5	25.[illegible]	42.5	2	AsAd	770	85
5.[illegible]	[illegible]		[illegible]	[illegible]	Tu	M		M	Ma	TG (672)	Ar	[illegible]	2800	M T Du	R	30[11]	3600	GE	0.75	4	39.0	23.0	2	Ad	800	80

T – Turbine drive
TG – Traveling-grate stoker
Tu – Tubular
V – Vane control
WB – William Bros Boiler & Mfg Co
WE – Westinghouse Electric Corp
WW – Waterwalls
(672) – Stoker grate area, sq ft

1 – Gross capacity
2 – H-p 3600 rpm, l-p 1800 rpm
3 – No i-d fan, pressurized furnace
4 – Feedheating turbine on main shaft
5 – 3 units installed
6 – 11,000 to 13,000 Btu per lb
7 – 2 fans per boiler
8 – Astoria station (1950 survey) changed to 2 GE units
9 – 2 units installed
10 – Formerly Gilmerton
11 – Preferred-standard unit
12 – Petroleum pitch alternate fuel
13 – Gross capability 83,000 kw
14 – Revised, originally listed 1950 survey
15 – Btu per cu ft
16 – Twin shell, 25,000 sq ft each
17 – Anthracite HHV - 12,540 Btu per lb
18 – Revised, originally listed 1949 survey
19 – Water-filled ash pit
20 – Jointly owned station
21 – River anthracite
22 – Twin shell, 18,000 sq ft each
23 – 1st unit, supplies steam, electricity and water to adjacent industrial plant
24 – 12,500 to 13,900 Btu per lb
25 – Gross capability 100,000 kw
26 – Gross capability 80,000 kw

Federal and Cooperative Installations

Furnace volume, 1000 cu ft	Heat release, 1000 Btu per cu ft per hr	Furnace bottom	Economizer surface per boiler, 1000 sq ft	Air heater surface per boiler, 1000 sq ft	Air heater type	F-D Fans: Drive	F-D Fans: Air flow control	I-D Fans: Drive	I-D Fans: Gas flow control	Firing	Fuel: Type	Fuel: Heating value, 1000 Btu per lb	Fuel: Ash softening temperature, F	Feed Pumps: Drive	Feed Pumps: Flow control	Turbines: Capacity, 1000 kw	Turbines: Speed, rpm	Turbines: Manufacturer	Turbines: Backpressure, psia	Turbines: No. bleed points	Full-load deaerator pressure, psig	Condensers: Surface, 1000 sq ft	Condensers: No. water passes	Condensers: Tube material	Total boiler capacity incl new units, 1000 lb	Total generator capacity incl new units, 1000 kw
					Re	M		V		P	C	11.5	1950	3M	Hv	180	3600	GE	1.0	6	32.0	95.0	1	Adl	1280	180
—					Re	M		V		P	C	11.5	1950	3M	Hv	180	3600	GE	1.0	6	95.0	95.0	1	Adl	2560	360
72.6	[illegible]	[illegible]			Re	M	[illegible]	V	D	P	C	11.5	1950	3M	Hv	135	3600	WE	1.0	7	71.5	70.0	1	Adl	1000	135
72.6	[illegible]	[illegible]			Re	M	[illegible]	V	D	P	C	11.5	1950	3M	Hv	135	3600	WE	1.0	7	71.5	70.0	1	Adl	2000	270
72.6	[illegible]	[illegible]			Re	M	[illegible]	V	C	P	C	11.5	1950	3M	Hv	135	3600	WE	1.0	7	71.5	70.0	1	Adl	3000	405
72.6	[illegible]	[illegible]			Re	M	[illegible]	V	D	P	C	11.5	1950	3M	Hv	135	3600	WE	1.0	7	71.5	70.0	1	Adl	4000	540
55.0	[illegible]	[illegible]			Re	M	V	V	D	P	C	11.5	1950	3M	Hv	112.5	3600	GE	1.0	7	86.4	60.0	1	Adl	4850	562.5
55.0	[illegible]	[illegible]			Re	M	V	V	D	P	C	11.5	1950	3M	Hv	112.5	3600	GE	1.0	7	86.4	60.0	1	Adl	5700	675
55.0	[illegible]	DB	[illegible]		Re	M	V	V	D	P	C	11.5	1950	3M	Hv	112.5	3600	GE	1.0	6	86.4	70.0	1	Adl	1000	112.5
55.0	[illegible]	DB	[illegible]		Re	M	V	V	D	P	C	11.5	1950	3M	Hv	112.5	3600	GE	1.0	6	86.4	70.0	1	Adl	2200	225
55.0	[illegible]	DB	[illegible]		Re	M	V	V	D	P	C	11.5	1950	3M	Hv	112.5	3600	GE	1.0	6	86.4	70.0	1	Adl	3000	337.5
55.0	[illegible]	DB	[illegible]		Re	M	V	M	D	P	C	11.5	1950	3M	Hv	112.5	3600	GE	1.0	6	86.4	70.0	1	Adl	4000	450
93.0	14.5	DB	14.6		Re	M	V	V	D	P	C	11.5	1950	3M	Hv	135	3600	WE	1.0	7	71.5	60.0	1	Adl	1000	135
93.0	14.5	DB	14.6		Re	M	V	V	D	P	C	11.5	1950	3M	Hv	135	3600	WE	1.0	7	71.5	60.0	1	Adl	2000	270
93.0	14.5	DB	14.6		Re	M	V	V	D	P	C	11.5	1950	3M	Hv	135	3600	WE	1.0	7	71.5	60.0	1	Adl	3000	405
93.0	14.5	DB	14.6		Re	M	V	V	D	P	C	11.5	1950	3M	Hv	135	3600	WE	1.0	7	71.5	60.0	1	Adl	4000	540
79.5	15.[illegible]	DB	34.7		Re	M	V	M	D	P	C	11.2	1950	3M	Hv	112.5	1800	GE	1.0	6	62.7	70.0	1	Adl	1000	112.5
79.5	15.[illegible]	DB	34.7		Re	M	V	M	D	P	C	11.2	1950	3M	Hv	112.5	1800	GE	1.0	6	62.7	70.0	1	Adl	2000	225
79.5	15.[illegible]	DB	34.7		Re	M	V	M	D	P	C	11.2	1950	3M	Hv	112.5	1800	GE	1.0	6	62.7	70.0	1	Adl	3000	337.5
79.5	15.[illegible]	DB	34.7		Re	M	V	M	D	P	C	11.2	1950	3M	Hv	112.5	1800	GE	1.0	6	62.7	70.0	1	Adl	4000	450
79.5	15.[illegible]	DB	34.7		Re	M	V	M	D	P	C	11.2	1950	3M	Hv	112.5	3600	WE	1.0	6	62.7	70.0	1	Adl	5000	562.5
79.5	15.[illegible]	DB	34.7		Re	M	V	M	D	P	C	11.2	1950	3M	Hv	112.5	3600	WE	1.0	6	62.7	70.0	1	Adl	6000	675
45.0	21.4	DB	17.9	169	Tu	M	D,V,Hv	M	D,Hv	O,G	O,G	18.6		3M	Hv	100	3600	WE	0.75	5	105.0	55.0	1	Ad	850	100
49.0	21.4	DB	17.9	169	Tu	M	D,V,Hv	M	D,Hv	O,G	O,G	18.8		3M	Hv	100	3600	WE	0.75	5	105.0	55.0	1	Ad	1700	200
49.2	14.0	DB	9.[illegible]	69.2	Re	M	V	M	Ma	P,G	C,G	11.4	1900	2M	Hv	60	3600	GE	0.5	5	65.0	55.0	2	AsCu	575	60
33.0	15.[illegible]	DB	9.2	60.5	Re	M	Hv	M	Hv	P,G	C,G	11.4	1900	1M,1T	Hv	40[4]	3600	GE	0.5	5	60.0	35.0	2	AsCu	2100	173
20.0	25.9		12.7	41.5	Re	Mc	D,V	Mc	D,V	O,C	O,G	18.2		3M	R	40[4]	3600	AC	0.75	5	64.0	35.0	2	AsCu	1375	120
—		DB														30[2]	3600	GE	1.0	4	20.0	27.5	1	AsCu	660	60
—	16.4	DB	4.[illegible]	62.[illegible]	Re	M	V	M	Hv	P,G	C,G	12.0		4M,1T	R	30	3600	GE	1.0	4	20.0	27.5	1	AsCu	990	90
22.0	21.0	DB	8.[illegible]	43.2	Tu	M[5]	Hv	M	Hy	P	C	12.9	2490	2M	R	40[4]	3600	AC	0.75	5	56.0	35.0	2	Ad	930	96.5
15.7	20.5	ST	11.6	[illegible]	Tu	M	Hv	M	Hv	P	C	12.9	2490	2M	R	25	3600	AC	0.5	6	25.0	23.0	2	Ac	1000	56.5
15.7	20.5	ST	11.6	[illegible]	Tu	M	Hv	M	Hv	P	C	12.9	2490	2M	R	25	3600	AC	0.5	6	25.0	23.0	2	Ac	1275	81.5
28.6	25.0		19.[illegible]	125.[illegible]	Tu	M[8]				G,O	G,O			3M	R	60[4]	3600	WE	1.25	5	55.0	55.0	2	Adl	1215	120
13.2	31.5	DB		45.3	Tu	M	V	M	V	G,O	G,O	1080[7]		1M,1T	R	30[4]	3600	WE	0.75	4	55.0	27.5	2	Adl		
30.0	16.4		[illegible]	62.3	Re	M	V	Mc	D	P,G	C,C	11.8	1900	3M	....	40	3600	....	...	5		40.0	2	Ad	440	40
7.2		DB		32.8	Tu		D	M	D	P,O,G	C,O,G	...				10	3600	WE		3		12.0	2	Ac	280	16.5
18.7	22.8	DB		57.2	Re	M	D	M	V	O,G	O,G			2M	R	30[4]	3600	GE	1.5	4	30.9	27.0	2	AsCu	350	30
69.6	15.4	DB	9.5	165.2	P	M	D	M	D	P	C	13.6	2100	12M	R	80[2]	1800	CP		5		60.0	2	Ac	3400	320
11.1	34.3	DB		40.1	Re	M	V	M	V	O,G	O,G	1100[7]		2M	R	30[4]	3600	AC	1.0	5		27.5	2	PAd	560	50
8.7	32.2	DB		25.3	Re	Mc	V	Mc	V	O,G	O,G	18.7		2M	R	20	3600	GE	1.0	4	155.0	17.5	2	AsCu	815	60
15.7	18.0	DB		49.5	Re	M	V	Mb	D	P	C	12.5	2400	6M		20[2]	3600	EI		4		18.0	2	Ac	440	40
—	18.8	DB		25.5	Tu	M	V	Mc	S,D	G	C	1000[7]		2M,2T	R	15[2,4]	3600	GE	0.75	4	24.0	15.0	2	Adl	320	30
14.5	24.6	DB		34.5	Re	M	S,V	M	S,D,V	O,G	C,G	16.4		2M	R	30[4]	3600	AC	0.88	5	27.5	27.5	2	PAd	900	70
15.7	18.9	DB			Tu	M		Mc	D	P,O,G	C,O,G	11.2	1995	2M,2T	R	20[2,4]	3600	WE	0.75	4	27.0	22.5	2	Ac	440	40
6.1	20.0	DB			Tu	M	V	M	V	O	G	18.3		3M		7.5	3600	GE	0.75	3	60.0	10.0	2	AsCu	500	29
					Tu	M	V	M	V	C	G			4M	R	15[2,4]	3600	EI	0.75	4	60.0	16.0		Ac	320	30
5.0		DB			Tu	M	V	M	V	SS(250)	C	13.6	2100	3M,1T		10[1]	3600	GE	0.75	3		8.0	2	Ac	300	30
5.0	27.0	DB			Tu	M	V	M,Mc	D,Ma	SS(182)	C,O,G	12.4	2360	4M	R	7.5[2]	3600	GE	1.0	3	70.0	8.0	1	PAd	180	15
5.2	24.0	DB			Tu	M	V	M	D	G,O	G,O	1020[7]		2M	R	7.5	3600	GE	0.75	3	15	9.0	2	AsAc	205	15
4.8	24.3		3.8		Tu	M	S,V	M	S,D	SS(180)	C,O	13.2	2000	3M,1T	R	7.5[1]	3600	DL	1.0	3	25.0	10.0	2	Ad	270	22.5
6.5	25.2	DB	3.3		Tu	Mc	D	Mc	D	SS(265)	C,G	11.0	2050	2M	R	11.5	3600	EI	1.0	4		14.0	2	PAd	305	26.5
3.3	42.0	DB		14.7	Tu	M	V	M	D	G	G	1027[7]		1M,1MT	R	9.4	3600	WE	1.0		60.0	9.0	2	Mu	270	22.5
5.5	21.8	ST			Re	M	D	M	Hv	P	C	12.0	2100	3M	R	7.5[2]	3600	DL	0.75	3	95.0	6.5	1	Ac	180	15
3.3	[illegible]				Tu	M	V	Mc	V	O	C	18.9		3M,1T	R	5.0[2]	3600	AC	1.0	3	30.0	6.7	2	AlB	130	10
16.2	[illegible]				Tu	M	V	M	Hv	P	C	11.2	1980	2M		18.75[2]	3600	CP	1.0	3	30.0	14.0	1	AdBr	350	29
—	[illegible]			11.5	Tu				D	P	C	11.2	1950	2M		6.25[1]	3600	CP	1.0	2	30.0		1	AdBr		
—					Tu	MT	V	MT	V	SS	C	12.9		3M,1T,1MT	R	7.5	3600	EI	1.0	3	22.0				480	[illegible]
7.2	29.5		3.5	5.4	Tu	MT	V	MT	S,D	TG(460)	C	[illegible]	2150	4M,2T	R,S	12.5	3600	EI	0.75	3	15.0	10.0	2	AsCu	450	33
3.6	29.6	DB				M	D	MT	D	SS(160)	C,G	11.6	2250	1M,1T	R	1.8	3600	GE				3.8	2		125	7.3
3.7	30.5	DB	4.4			M		M		UF	C	13.4	2600	1M,1T		7.5									226	17.5
—		DB			Tu	M	V	M	V	P,O	C,O	[illegible]		1M,1T	R	3.0	3600	EI	1.0	2	15.0	2.7	2	Mu	70	7.8
—					Tu	M	D	M	D	P	C	13.8	2400	1M,1T	R	5.0[2]	3600	WE	1.0	2	20.0		2		200	[illegible]
1.3						MT	D	M	D	TG(122.5)	C	12.4	2000	1M,1T	R	1.8	3600	GE				3.8	2		67	3.5
4.4		DB		[illegible]	Tu	M	D,V	Mc	D,V	O,G	C,O	1000[7]		1M,2T	R	5.0	3600	EI	0.75	2		5.0	3	Ac	125	[illegible]
8.6	26.8	DB		29.4	Tu	MT	V	MT	D,Hv	[illegible]	C	18.3		1M	R	20	3600	CP	0.5	2	15.0	26.3	2	Ac	695	55
—	29.5		6.0			M		M	D	SS	C	11.3	2100													
—						M	D	M	D	SS	C	14.0	2700	1M,1T	R	3.0	3600	EI	0.5	1	15.0		2	B	90	5.5
—																5.0	3600	WE	0.75	1	20.0	6.0	2	Cu	230	20.5
—	25.6	DB		4.8	Tu	T	D	M	D	O	G			1M,1T	R		3600	WE		2		4.5	2	Ad	90	...
—																2.0	3600	EI		1		3.5	2	Ac	48	3.9
—		DB			Tu	M		M	D	SS(67.2)	C			1M,1MT	R	0.75	3600	AC		1		1.6	2	Mu	47	1.1

MI – Murray Iron Works
2M – Two motors per fan
1M1T – One motor, one turbine per fan
Mu – Muntz metal
O – Oil
P – Pulverized-fuel fired
PAd – Phosphorized admiralty

R – Regulator
Re – Regenerative
RS – Riley Stoker Corp
– Speed control
SP – Springfield Boiler Co
SS – Spreader stoker
ST – Slag tap

T – Turbine drive
TG – Traveling-grate stoker
Tu – Tubular
UF – Underfeed stoker
UI – Union Iron Works
V – Vane control
WB – Wm Bros Boiler & Mfg Co

WE – Westinghouse Electric Corp
WI – Wickes Boiler Co
WW – Waterwalls
(250) – Stoker grate area, sq ft
1 – 3 units installed
2 – 2 units installed
3 – 4 units installed

4 – Preferred standard
5 – Pressurized furnace
6 – Includes 1000-kw diesel
7 – Btu per cu ft
8 – 2 f-d fans, no i-d fan
9 – Revised, originally listed in 1950 survey

U. S. and Canadian Hydroelectric Plants

Compiled by F. A. Annett, Contributing Editor

Company or government agency	Design or consulting engineers	Project name	[1] New or redeveloped	River	State	Project started, date	[2] Dam type	Crest length, ft	Max height, ft	[3] Design head, ft	Date in service
NEW ENGLAND STATES											
Central Maine Power Co	New England Power Service Co	Williams	New	Kennebec	Me.	1937	CGG	340	35		1939
Central Vermont Public Serv Corp	NEPSCO Services & W. P. Creager	Weybridge	Red.	Otter Creek	Vt.	1950	CG	320	39		1951
Holyoke Water Power Co	Jackson & Moreland	No. 3 Station	Red.	Connecticut	Mass.	1949	CM	1,020	30		1952
Poneman Mills		Taftville	Red.		Conn.	1949					1951
MIDDLE ATLANTIC STATES											
Niagara Mohawk Power Corp		Stewart Bridge	Red.	Sacandaga	N.Y.	1947	[5] Earth	1,650	112		1952
Central Hudson Gas & Elec Corp	Chas T. Main, Inc	Neversink	New	Neversink	N.Y.	1948	[5] Earth	2,300	200		1952
Rochester Gas & Electric Corp	Rochester Gas & Elec Corp; Louis J. Bernstein	Station 26A	Red.	Genesee	N.Y.	1951	SG				1952
Brownville Board Corp		Brownville	Red.		N.Y.	1949					1951
EAST NORTH CENTRAL STATES											
U. S. Corps of Engineers	U. S. Corps of Engineers; Eric Floor & Associates	St. Mary's Falls	New	St. Mary's	Mich.	1947					1951
Wisconsin-Michigan Power Co	Mead & Hunt, Inc	Michigamme Falls	New	Michigamme	Mich.	1951	CGE	1,421	52		1952
Wisconsin Michigan Power Co	Mead & Hunt, Inc	Hemlock Falls	New	Michigamme	Mich.	1951	CG&E				1952
Wisconsin Michigan Power Co	Mead & Hunt, Inc	Lower Paint Dam	New	Paint	Mich.	1951	CG&E	516	35		1952
City of Plainwell		Plainwell	New		Mich.	1951					1951
Clark Woodworking Co		Alpena	New		Mich.	1951					1951
Utica Milling Co		Utica	Red.		Mich.	1951					1951
Newsosa-Edwards Paper Co		Port Edwards	Red.		Wis.	1951					1951
Little Rapids Pulp Co		West DePere	Red.		Wis.	1951					1951
St. Anthony Falls Water Power Co			New		Minn.	1951					1952
WEST NORTH CENTRAL STATES											
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Angostura	New	Cheyenne	S.D.	1946	CG&EF	2,050	190		1951
U. S. Corps of Engineers	U. S. Corps of Eng. Chas T. Main	Garrison	New	Missouri	N.D.	1947	Earth	12,000	210		1955
U. S. Corps of Engineers	U. S. Corps of Engineers; Eric Floor & Associates	Fort Randall	New	Missouri	S.D.	1946	Earth	10,300	160		1954
Union Electric Co of Missouri	Stone & Webster Engrg Corp	Bagnell Dam	New	Osage	Mo.	1930	CG	2,543	148		1931
SOUTH ATLANTIC STATES											
Solvay Process		South Point	New		Va.	1950					1951
U. S. Corps of Engineers	U. S. Corps of Engineers; Chas T. Main, Inc	Buggs Island	New	Roanoke	Va. & N.C.	1947	CG	22,357	144		1952
U. S. Corps of Engineers	U. S. Corps of Engineers	Philpott	New	Smith	Va.	1948	CG	920	220		1951
Nantahala Power & Light Co	Aluminum Co of America	Cedar Cliff	New	E. Fk. Tuckasegee	N.C.	1950	RBEF	679	117		1952
The English Mica Co		Spruce Pine	New		N.C.	1951					1951
So. Carolina Electric & Gas Co	Company's Engineering Staff	Columbia	Red.	Broad	S.C.	1950	RFTC	1,000	34		1952
Sonoco Products Co		Hartsville	Red.		S.C.	1951					1951
U. S. Corps of Engineers	U. S. Corps of Engineers; Chas T. Main, Inc	Clark Hill	New	Savannah	S.C. & Ga.	1947	CG	5,660	200		1953
U. S. Corps of Engineers	U. S. Corps of Engineers; Eric Floor & Associates	Buford	New	Chattahoochee	Ga.	1949	Earth	1,630	195		1955
Georgia Power Co	Southern Services, Inc; S. H. Woodward	Furman Shoals	New	Oconee	Ga.	1950	CG&EF	2,732	102		1952
Georgia Power Co	Stone & Webster; Chas T. Main, Inc	Bartlett's Ferry	New	Chattahoochee	Ga.	1924	CG&EF	2,000	147		1926
U. S. Corps of Engineers	U. S. Corps of Engineers	Jim Woodruff	New	Chattahoochee	Fla.	1949	CG&EF	6,084	107		1953
EAST SOUTH CENTRAL											
Alabama Power Co		Martin Dam	New	Tallapoosa	Ala.	1923	CG	1,277	168		1926
Tennessee Valley Authority	Tennessee Valley Authority	Pickwick Landing	New	Tennessee	Tenn.	1935	CG&E	7,715	113		1938
Tennessee Valley Authority	Tennessee Valley Authority	Guntersville	New	Tennessee	Ala.	1935	CG	3,885	94		1939
Tennessee Valley Authority	New extension, Tennessee Valley Authority	Hales Bar	New	Tennessee	Tenn.	1905	CG	2,335	112		1913-35
Tennessee Valley Authority	Tennessee Valley Authority	Chickamauga	New	Tennessee	Tenn.	1936	CG	5,234	58		1940
Tennessee Valley Authority	Tennessee Valley Authority	Boone	New	S. Fk. Holston	Tenn.	1950	CG	1,330	140		1952
Tennessee Valley Authority	Tennessee Valley Authority	Fontana	New	Little Tenn.	N. C.	1942	CG	2,365	440		1944
Tennessee Valley Authority	Tennessee Valley Authority	Cherokee	New	Holston	Tenn.	1940	CG&EF	6,760	175		1941
Tennessee Valley Authority	New extension, TVA	Ocoee No. 2	Red.	Ocoee	Tenn.	1912	CRF	450	50		1913
U. S. Corps of Engineers	U. S. Corps of Engrs; Chas T. Main	Dale Hollow	New	Obey	Tenn.	1942	CG	1,717	165		1944
U. S. Corps of Engineers	U. S. Corps of Engineers; Chas T. Main, Inc	Center Hill	New	Caney Fork	Tenn.	1942	CG&E	1,460	240		1951
U. S. Corps of Engineers	U. S. Corps of Engineers; Chas T. Main, Inc	Wolf Creek	New	Cumberland	Ky.	1942	CG&E	5,736	240		1951
U. S. Corps of Engineers	U. S. Corps of Engineers; Ebasco Engineering Corp	J. P. Hickey	New	Cumberland	Tenn.		PG				
WEST CENTRAL STATES											
U. S. Corps of Engineers	U. S. Corps of Engineers; Harza Engineering Co	Blakely Mountain	New	Ouachita	Ark.	1948	Earth	7,150	220		1954
U. S. Corps of Engineers	U. S. Corps of Engineers; Chas T. Main, Inc	Bull Shoals	New	White	Ark.	1947	CG	2,256	204		1951
Grand River Dam Authority	Holway & Neufer	Pensacola Dam	New	Grand	Okla.	1938	MA	6,400	150		1941
U. S. Corps of Engineers	U. S. Corps of Engrs; Ebasco Engrg. Co	Eufaula	New	Canadian	Okla.	1946	CG&E	2,650	110		1964
U. S. Corps of Engineers	U. S. Corps of Engineers	Tenkiller Ferry	New	Illinois	Okla.	1948	PGE	2,160	155		1952
City of Tulsa		Spavinaw Dam	New		Okla.	1950					1924
Lower Colorado River Authority	Ebasco Engineering Co	Buchanan	New	Colorado	Texas	1938	CG&EF	755	205		1938
Lower Colorado River Authority	Ebasco Engineering Co	Marble Falls	New	Colorado	Texas	1939	CG	820	80		1951
U. S. Corps of Engineers	U. S. Corps of Engineers; Ebasco Engineering Co	Whitney Dam	New	Brazos	Texas	1946	CG&EF	1,601	153		1951
Texas Water Power & Water Commission; Southern States Inc. America	Ebasco Engineering Co; Bureau of Reclamation	Falcon Dam	New	Rio Grande	Mex. to Texas	1950	EF	26,254	150		1954

Operation of Other ...

…capacity, hp	Added capacity, no. of units	Date of added capacity	Ultimate capacity, hp	No. units installed	Waterwheel capacity, hp	Waterwheel type	Speed, rpm	Static head, ft	Design head, ft	[3]Waterwheel manufacturer	[3]Governor manufacturer	Scroll case, concrete or steel	Penstock valve, type	Generator capacity, kva	Synchronizing, automatic or manual	[4]Thrust-bearing location	Design power factor	Kilovolts	Cycles	[3]Generator manufacturer
					[illegible]	Kaplan	150	44	44	MS	W	Concrete	Head gt	8,000	Manual	AG	0.86	6.9	60	GE
10,150		195[illegible]	[illegible]		[illegible]	Kaplan	[illegible]	44	44	MS	W	Concrete	Head gt	6,500	Manual	AG	0.93	6.9	60	GE
670		195[illegible]	[illegible]		[illegible]	Kaplan	[illegible]	31-25	31	MS	W	Concrete	Head gt	3,000	Automatic	AG	0.80	4.16	60	WE
22,000			[illegible]		22,000	Kaplan	[illegible]	52.5	52.5	MS	W	Concrete	Head gt	18,750	Auto or man	AG	0.80	13.8	60	GE
1,300			[illegible]		650	Francis	225	27	27	JL	W	Concrete	Head gt	436	Manual	AG	0.80	2.4	60	WE
42,500			42,500	1	42,500	Francis	105.9	100	97	BL			Head gt	37,500	Manual	BG	0.80	13.8	60	GE
41,000			41,000	1	41,000	Francis	300	551-463	474	NN	W	Cast St	Butterfly	31,250	Manual	AG	0.80	13.8	60	GE
5,000			5,000	1	5,000	Kaplan	150	25	25	AC	W	Plate St	Head Gt	4,500	Manual	AG	0.80	4.4	60	AC
451			451	1	451	Francis	145	20	20	JL		Concrete	Head gt	Drives mill machinery						
			[illegible]		6,975	Propeller	80	23-18	21	AC	W	Concrete	Head gt	5,333	Manual	BG	0.90	13.8	60	GE
23,925					3,000	Kaplan	128.5	23-19	21	MS	W	Concrete	Head gt	2,500	Manual	BG	0.90	4.16	60	GE
13,000			13,000		6,500	Francis	277	60	60	AC	W	Concrete	Head gt	5,333	Automatic	AG	0.90	4.8	60	AC
3,800			3,800		3,800	Kaplan	200	34	34	AC	W	Concrete	Head gt	3,111	Automatic	AG	0.90	4.16	60	AC
155			155	1	155	Francis	514	25	21	AC		Open Flume	Head gt	100	Induction generator			0.48	60	AC
140			140	1	140	Francis	130	12	12	JL		Concrete	Head gt	Drives pumps						
85			85	1	85	Francis	380	22	22	JL		Concrete	Head gt	Drives mill machinery						
115			115	1	115	Francis	423	27	27	JL		Concrete	Head gt	Drives mill machinery						
1,000			1,000	1	1,000	Francis	240	22	22	JL		Concrete	Head gt	Connects to existing generator						
288			288	2	144	Francis	69	7	7	JL		Concrete	Head gt	Drives mill machinery						
11,680			11,680	10	1,168	Francis	225	24	24	JL		Concrete	Head gt	875	Manual	AG	0.80	4.11	60	EM
1,675			1,675	1	1,675	Francis	514	133-93	104	JL	W	Cast iron	Butterfly	1,333	Manual	AG	0.90	2.4	60	IE
264,000			440,000	[illegible]	68,000	Francis	90	187-100	150	BL		Plate st	Head gt	84,210	Manual	BG	0.95	13.8	60	GE
230,000			460,000	4	57,500	Francis	87.5	145-76	112	AC		Plate st	Head gt	42,100	Manual	BG	0.95	13.8	60	WE
				6	33,500	Francis	112.5	94	90	AC	AC	Plate st	Head gt	23,868	Manual	BG	0.9	13.8	60	WE
207,050			274,050	[illegible]	3,025	Francis	[illegible]	94	90	AC	AC	Plate st	Head gt	3,000	Manual	AG	1.70	2.4	60	WE
	[illegible]	1953		[illegible]	33,500	Francis	112.5	94	90	AC	AC	Plate st	Head gt	23,888	Manual	BG	0.9	13.8	60	WE
3,200			3,200	4	800	Impulse	900			BL										
				[illegible]	51,000	Francis	85.7	108-60	90	NN	W	Plate st	Head gt	35,555	Manual	BG	0.90	13.8	60	WE
175,200			328,200	[illegible]	19,900	Francis	138.5	108-60	90	BL	W	Plate st	Head gt	13,333	Manual	BG	0.90	13.8	60	WE
				[illegible]	1,600	Francis	450	108-60	90	JL	W	Service unit	Head gt	1,250	Manual	AG	0.80	0.48	60	WE
				[illegible]	9,640	Francis	277	177-109	152	JL	W	Plate st	Head gt	7,500	Manual	AG	0.90	13.8	60	GE
20,140			20,140	[illegible]	640	Francis	720	177-109	152	JL	W	Service unit	Head gt	750	Manual	AG	0.80	0.48	60	GE
9,400			9,400	[illegible]	9,400	Francis	360	172-168	170	MS	W	Plate st	Head gt	7,500	Automatic	AG	0.85	6.6	60	EM
135			135	[illegible]	135	Francis	141	12	12	JL		Concrete	Head gt	Drives mill machinery						
3,000			3,000	2	1,500	Francis	164	35-27	25	JL	K	Plate st	Head gt	1,525	Manual	HS	0.80	4.8	60	WE
270			220	1	220	Francis	150	10	10	JL		Concrete	Head gt	Drives existing GE generator						
388,600			386,600	[illegible]	55,000	Francis	100	150-111	135	NN	AC	Plate st	Head gt	44,444	Manual	BG	0.90	13.8	60	GE
				[illegible]	1,800	Francis	600	150-111	135	JL	W	Plate st	Head gt	1,250	Manual	AG	0.80	0.48	60	GE
				[illegible]	55,000	Francis	100	150-103	135			Plate st	Head gt	44,444	Manual	BG	0.90	13.8	60	
118,400			118,400	1	8,400	Francis	277	150-103	136			Plate st	Head gt	6,667	Manual	BG	0.90	13.8	60	
60,000			60,000	2	30,000	Francis	105.9	92-72	85	MS	W	Concrete	Head gt	25,000	Manual	BG	0.80	6.9	60	GE
				3	22,000	Francis	150	117-87	112	2 MS, 1 AC	W	Plate st	Head gt	18,750	Manual	AG	0.80	12.0	60	2WE
66,000	1	1951	94,500	[illegible]	28,500	Francis	150	117-87	112	MC	W	Plate st	Head gt	[illegible]	Manual	AG	0.80	6.9	60	2GE
42,000			42,000	3	14,000	Kaplan	75	32-14	28.5	NN	W	Concrete	Head gt	[illegible]	Manual	BG	0.90	13.8	60	WE
				[illegible]	45,000	Francis	120	146-88		1IM, 2AC	W	Plate st	Head gt	37,500	Manual	AG	0.88	12.00	60	GE
135,000	[illegible]	1952	[illegible]	[illegible]	78,000	Francis	112.5	146-66	145	MS	W	Plate st	Head gt	60,000	Manual	BG	0.80	12.0	60	GE
	[illegible]	1952		[illegible]	48,000	Kaplan	81.8	63-29	47	AC	AC	Concrete	Head gt	40,000	Manual	BG	0.90	13.8	60	WE
96,000	[illegible]	1953	302,000	[illegible]	55,000	Kaplan	81.8	63-29	47	AC	AC	Concrete	Head gt	40,000	Manual	BG	0.90	13.8	60	WE
				[illegible]	34,000	Kaplan	69.2	42	42	MS	W	Concrete	Head gt	27,000	Manual	BG	0.90	13.8	60	GE
102,000	1	1951	141,000	[illegible]	39,000	Kaplan	69.2	42	42	MS	W	Concrete	Head gt	27,000	Manual	BG	0.99	13.8	60	GE
				[illegible]	7,700	Francis	112.5	37.5	137.5	MS		Plate st	Head gt	6,500	Automatic	AG	1.00	6.5	60	GE
				[illegible]	4,200	Francis	112.5	37.5	37.5	MS		Plate st	Head gt	3,750	Automatic	AG	0.80	6.6	60	GE
86,000	[illegible]	1950	140,000	[illegible]	4,100	Francis	100	37.5	37.5	MS		Plate st	Head gt	3,133	Automatic	AG	0.80	6.6	60	GE
				[illegible]	34,000	Kaplan	69.2	37.5	37.5	MS	W	Concrete	Head gt	27,000	Manual	BG	0.90	13.8	60	GE
108,000	[illegible]	1951	144,000	[illegible]	36,000	Kaplan	75	36	36	BL	W	Concrete	Head gt	30,000	Manual	BG	0.90	13.8	60	AC
102,500			102,500	3	34,500	Francis	100	124-36	90	NN	W	Concrete	Head gt	31,250	Manual	BG	0.80	13.8	60	WE
183,000		1952	274,500	[illegible]	91,500	Francis	150	429-244	330	AC	AC	Plate st	Head gt	75,000	Manual	BC	0.90	13.8	60	WE
83,000	1	1952	166,000	[illegible]	41,500	Francis	100	149-55	100	MS	W	Plate st	Head gt	33,333	Manual	BG	0.90	13.8	60	GE
				[illegible]	15,000	Francis	360	255-235	250	WS	AC	Cast iron	Butterfly	[illegible]	Manual	HS	0.80	6.6	60	EC
20,000	[illegible]	1951	25,000	[illegible]	10,000	Francis	360	255-235	250	IM	AC	Cast iron	Butterfly	11,750	Manual	HS	0.80	6.6	60	GE
50,000	[illegible]	1951	75,000	[illegible]	25,000	Francis	163.6	[illegible]	140	MS	W	Plate st	Head gt	20,000	Manual	BG	0.90	13.8	60	WE
				[illegible]	62,500	Francis	105.9	206-134	160	BL	W	Plate st	Head gt	50,000	Manual	BG	0.90	13.8	60	GE
182,750			188,750	[illegible]	1,250	Francis	720	206-134	160	MC	W	Service unit		1,000	Manual	AG	0.80	0.48	60	EC
				[illegible]	62,500	Francis	105.9	214-111	160	BL	W	Plate st	Head gt	50,000	Manual	BG	0.90	13.8	60	GE
377,000			377,000	[illegible]	2,000	Francis	600	214-111	160	JL	W	Service unit		[illegible]	Manual	AG	0.80	0.48	60	EC
180,000			180,000	4	45,000	Kaplan	75	60-45	[illegible]	BL		Concrete	Head gt	36,000	Manual	BG	0.80	13.8	60	GE
106,000			166,000	[illegible]	[illegible]	Francis	[illegible]	[illegible]	[illegible]	MS	W	Plate st	Butterfly	41,667	Manual	BG	0.90	13.8	60	WE
				[illegible]	[illegible]	Francis	[illegible]	[illegible]	190	AC	W	Welded or st	Head gt	40,100	Manual	BC	0.90	13.8	60	AC
211,000			[illegible]	[illegible]	[illegible]	Francis	[illegible]	[illegible]	190	JL	W	Service unit	Head gt	1,250	Manual	AG	0.80	0.48	60	GE
				[illegible]	[illegible]	Francis	[illegible]	[illegible]	[illegible]	AC	W	Plate st	Head gt	16,000	Manual	BG	0.90	13.8	60	WE
80,000	[illegible]	[illegible]	[illegible]	[illegible]	750	Francis	[illegible]	[illegible]	[illegible]	AC	W	Cast st	Service unit	625	Manual	HS	0.80	0.48	60	WE
64,000			[illegible]	[illegible]	[illegible]	Francis	[illegible]	[illegible]	[illegible]	BL	W	Concrete	Head gt	12,500	Auto or man	BC	0.90	13.8	60	AC
47,000			47,000	[illegible]	[illegible]	Francis	150	[illegible]	[illegible]	MS	W	Plate st	Butterfly	15,000	Manual	BC	0.90	13.8	60	EC
150			[illegible]	[illegible]	[illegible]	Francis	[illegible]	[illegible]	[illegible]	JL		Concrete	Head gt	[illegible]	Manual	HS	0.80	0.48	60	WE
66,000			[illegible]	[illegible]	[illegible]	Francis	[illegible]	[illegible]	[illegible]	BL	W	Plate st	Head gt	25,000	Auto or man	BC	0.90	13.8	60	GE
42,000			[illegible]	[illegible]	[illegible]	Propeller	[illegible]	[illegible]	[illegible]	MC	W	Concrete	Head gt	16,666	Auto or man	BC	0.90	6.9	60	WE
41,000			[illegible]	[illegible]	[illegible]	Francis	[illegible]	[illegible]	[illegible]	NN	W	Plate st	Head gt	16,667	Manual	BG	0.90	13.8	60	AC
88,500			[illegible]	6	14,750	Francis	[illegible]	[illegible]	[illegible]	AC	W	Plate st	Head gt & Butterfly	[illegible]	Auto or man	AG	0.90	6.9	60	GE

Compiled by F A Annett, Contributing Editor

Company or government agency	Design or consulting engineers	Project name	[1]New or redeveloped	River	State	Project started, date	[2]Dam type	Crest length, ft	Max height, ft.	Date of initial operation
MOUNTAIN STATES										
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Davis Dam	New	Colorado	Ariz.& Nev.	1941	R&E	1,500	135	
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Mary's Lake	New	Colo. Big Thompson	Colo.	1947				
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Pole Hill	New	Colo. Big Thompson	Colo.	1950				
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Flatiron	New	Colo. Big Thompson	Colo.	1951				
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Boysen	New	Big Horn	Wyo.	1947	EF	1,000	150	
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Alcova	New	North Platte	Wyo.		EF	363	265	
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Canyon Ferry	New	Missouri	Mont.	1943	CG	1,000	220	
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Hungry Horse	New	So Fk Flathead	Mont.	1948	CA	2,100	520	
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Anderson Ranch	New	Boise	Idaho	1941	EF	1,350	330	
Corps of Engineers	Sverdrup & Parcel Inc	Albeni Falls	New	Pend Oreile	Idaho	1950	CG	755	83	
Idaho Power Co	Ebasco Services, Inc	C J Strike	New	Snake	Idaho	1950	EF	9,000	120	
Washington Water Power Co	Ebasco Services, Inc	Cabinet Gorge	New	Clark Fork	Idaho	1951	CA	320	170	
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	American Falls	New	Snake	Idaho		CG	3,227	94	
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Palisades	New	Snake	Idaho		EF	2,200	260	
PACIFIC COAST STATES										
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Grand Coulee	New	Columbia	Wash.	1934	CG	4,500	553	
U. S. Corps of Engineers	U. S. Corps of Engineers	Chief Joseph	New	Columbia	Wash.	1949	CG	2,150	220	
City of Seattle, Dept of Ltg	Dr J L Savage	Ross Dam	New	Skagit	Wash.	1937	CA	1,200	540	
City of Seattle, Dept of Ltg	Dr J L Savage	Gorge	Red.	Skagit	Wash.	1948	CG	180	33	
City of Tacoma, Lighting Div	Lighting Div Engr Staff	Cushman No. 2	New	Skokomish	Wash.					
U. S. Corps of Engineers	U. S. Corps of Engineers	McNary Dam	New	Columbia	Wash. & Ore.	1947	CG&EF	8,800	168	
U. S. Corps of Engineers	U. S. Corps of Engineers	Effort	New	North Sanitam	Ore.	1949	CG	1,580	450	
U. S. Corps of Engineers	U. S. Corps of Engineers	Big Cliff	New	North Sanitam	Ore.	1950	CG	295	172	
Portland General Electric Co	Portland General Electric Co	Station M	Red.	Clackamas	Ore.	1909		414	40	
Portland General Electric Co	Ebasco Services & Gen T M Robbins	Pelton	New	Deschutes	Ore.	1951	CA	360	185	
California Oregon Power Co	Pioneer Service & Engr Co	Soda Springs	New	North Umpqua	Ore.	1949	CA	200	70	
California Oregon Power Co	Pioneer Service & Engr Co	Slide Creek	New	North Umpqua	Ore.	1949	CG	80	20	
California Oregon Power Co	Pioneer Service & Engr Co	Fish Creek	New	Fish Creek	Ore.	1951	RFTC	215	51	
California Oregon Power Co	Pioneer Service & Engr Co	Clearwater No. 1	New	Clearwater	Ore.	1951	EF	384	30	
California Oregon Power Co	Pioneer Service & Engr Co	Clearwater No. 2	New	Clearwater	Ore.	1951	RFTC	457	76	
U. S. Bureau of Reclamation	U. S. Corps of Engineers U. S. Bureau of Reclamation	Folsom	New	American	Calif.		CA&EF	12,000	340	
Pacific Gas & Electric Co	Pacific Gas & Electric Co	Bear River	New	Bear	Calif.	1950	RF	360	135	
Southern Calif. Edison Co	International Engineering Co Bechtel Corp-Morrison-Knudsen Co	Big Creek No. 4	New	San Joaquin	Calif.	1949	CG	345	228	
Dept of Water & Power City of Los Angeles	F J Converse Chas T Leeds Chester Marrlave, C R Rankine & Dept's Power System Engrs	Owens Gorge No. 1 Owens Gorge No. 2 Owens Gorge No. 3	New	Owens	Calif.	1948				
Imperial Irrigation District	Gibbs & Hill, Inc	Drop No. 2	New	All American Canal	Calif.	1952				
ALASKA										
U. S. Bureau of Reclamation	U. S. Bureau of Reclamation	Eklutna	New	Lake Eklutna	Alaska		EF			
CANADA					Province					
Newfoundland Lt & Pr Co	Montreal Engineering Co	Mobile	New	Mobile	N.F.	1949	CG	250	5	
Avon River Power Co	Montreal Engineering Co	White Rock	Red.	Gaspereau	N.S.	1951	CG			
Nova Scotia Power Commission		Gulch	New	Bear	N.S.	1950				
Maine & New Brunswick Pr Co		Tinker	New	Aroostook	N.B.	1950				
New Brunswick Power Comm	Power Corp of Canada	Tobique Narrows	New	Tobique	N.B.	1950	CG	350	90	
Northern Quebec Power Co	Power Corp of Canada	Quinze	New	Ottawa	Que	1921	S&RF	2,500	90	
Quebec Hydro-Elec Commission		Beauharnois No. 1	New	St. Lawrence	Que.	1929	P&G	1,500	84	
Quebec Hydro-Elec Commission	H G Acres Co	Beauharnois No. 2	New	St. Lawrence	Que	1948	P&G	1,900	84	
Shawinigan Water & Power Co	Shawinigan Engineering Co	Trenche	New	St. Maurice	Que.	1946	CG			
Electricite de Mont Laurier			New	Lievre	Que	1948				
Aluminum Co of Canada, Ltd	Shawinigan Engineering Co	Chute du Diable	New	Peribonka	Que	1950	CG	1,240	70	
Aluminum Co of Canada Ltd	Shawinigan Engineering Co	Chute a la Savine	New	Peribonka	Que.	1951	CG	1,240	90	
Manicouagan Power Co	H G Acres & Co	McCormick Dam	New	Manicouagan	Que	1951	CG	4,615	210	
Quit Power Co	Stratter, Hunter & Co	Marguerite River	New	Marguerite	Que	1951	CG	950	170	
Hydro-Elec Power Comm of Ont	Hydro-Elec Power Comm of Ont	Sir Adam Beck-Niagara No. 2	New	Niagara	Ont	1950				
Hydro-Elec Power Comm of Ont	Hydro-Elec Power Comm of Ont	Chats Falls	New	Ottawa	Ont. & Que	1942	CBG	1,060	75	
Hydro-Elec Power Comm of Ont	Hydro-Elec Power Comm of Ont	Des Joachims	New	Ottawa	Ont. & Que	1947	CG	1,410	150	
Hydro-Elec Power Comm of Ont	H G Acres Co	Otterdux	New	Ottawa	Ont. & Que.	1948	CG	1,000	150	
Penmans Electric Co	H G Acres Co	Waltham	Red.	Rideau	Que	1940	RFTC	50	9	
Great Lakes Power Co	Marcia Engineering Co	Scott Falls	New	Michipicoten	Ont	1950	E&C	1,400	90	
Great Lakes Power Co	Marcia Engineering Co	Moon Creek	New	Michipicoten	Ont.	1951	E&C	1,270		
Winnipeg Electric Co	Power Corp of Canada	Seven Sisters	New	Winnipeg	Man	1949	CG	620		
Manitoba Dept of Mines & Res	Winnipeg Elec Co Engr Staff	Pine Falls	New	Winnipeg	Man	1948	CG	1,200		
Sherritt Gordon Mines Ltd	H G Acres & Co	Grand Rapids	New	Saskatchewan	Man.	1951	CG	1,250		
Calgary Power Ltd	Montreal Engineering Co	Three Sisters	New	Bow	Alta	1948	EF	2,000	90	
Calgary Power Ltd	Montreal Engineering Co	Kananaskis Falls	New	Bow	Alta	1950				
Calgary Power Ltd	Montreal Engineering Co	Ryndale	New	Bow	Alta	1950				
Northwest Territories Power Comm		Mayo River	New	Mayo	Yukon	1951	RE	400		
British Columbia Electric Co	[illegible] Electric Co [illegible] Engineering Co	Lake Buntzen No. 3	Red.	Coquitlam	B.C.	1950	CG	1,250		
British Columbia Electric Co	[illegible] Electric Co Stewart Cheates & Knowles	Wahleach Lake	New	Wahleach Lake	B.C.	1950	EF	1,300		
British Columbia Power Comm	[illegible] Ltd	Long Hart	New	Chilliwack	B.C.	1945	CG	2,300	70	
British Columbia Power Comm	[illegible] Power Comm Staff	Whatcom	New	Whatcom	B.C.	1948				
British Columbia Power Comm	[illegible] & Co	Clowhom Falls	New	Clowhom	B.C.	1950	CG	1,150		

[1] U. S. and Canada Hydro Eligibles

"The term "New" applies to a new project on a site not developed before.

"Redeveloped" indicates a project on a site that has been developed before but has new owners, purposes and operations or a new plant.

[2] CG, concrete gravity; CA, concrete arch; CG & EF, concrete gravity and earth fill; CGG, concrete gravity with gates; E & C, earth and concrete; EF, earth fill; GM, grande masonry; MA, multiple arch; P & J, piers and gates; RC, reinforced concrete; R & E, rock and earth fill; RFTC, rock-filled timber crib; SG, sector gates; S & RF, spillway and rock filled.

AC – Allis-Chalmers Mfg Co
BL – Baldwin-Lima-Hamilton Corp
CAC – Canadian Allis-Chalmers, Ltd
CVL – Canadian Vickers Ltd
DEW – Dominion Engineering Works, Ltd
IM – I P Morris
JL – James Leffel & Co
JIC – John Inglis Co, Ltd
MS – J Morgan Smith Co
MSC – S Morgan Smith Co
NN – Newport News Shipbuilding & Dry Dock Co

Initial capacity, hp	Added capacity, no. of units	Date of added capacity	Ultimate capacity, hp	No. units installed	Waterwheel capacity, hp	Waterwheel type	Speed, rpm	Static head, ft	Design head, ft	[3]Waterwheel manufacturer	[3]Governor manufacturer	Scroll case, concrete or steel	Penstock valve, type	Generator capacity, kva	Synchronizing, automatic or manual	[4]Thrust bearing location	Design power factor	Kilovolts	Cycles	[3]Generator manufacturer
312,500			312,500	5	62,500	Francis	94.7	147-100	127	BL	W	Plate st	Head gt	45,000	Auto. or man	AG	1.00	13.8	60	GE
12,300			12,300	1	12,300	Francis	327	227-217	212	NN	W	Plate st	Head gt	9,000	Automatic	AC	0.90	6.9	60	GE
47,500			47,500	1	47,500	Francis	450	850-810	815	PW	W	Cast st	Head gt	35,000	Automatic	AG	0.95	13.8	60	EC
96,000			96,000	2	48,000	Francis	514	1130-1090	1045	PW	W	Cast steel		35,000	Auto. or man	AG	0.95	13.8	60	WE
21,000			21,000	2	10,500	Francis	180	112-70	96	NN	W			8,333	Manual	AG	0.90	6.9	60	WE
53,000			53,000	2	26,500	Francis	163.6	165-140	155	NN	W	Plate st	Butterfly	18,950	Manual	AG	0.95	6.9	60	EC
72,500			70,500	3	22,500	Francis	150	160-80	125	NN	W	Plate st	Head gt	16,667	Manual	BG	1.00	6.9	60	GE
420,000			420,000	4	105,000	Francis	180	485-262	400	AC	W	Welded pl st	Head gt	75,000	Auto. or man	AG	1.00	6.9	60	GE
37,000			55,500	2	18,500	Francis	277	330-175	260	JL	W	Cast st	Butterfly	15,000	Manual	AG	1.00	6.9	60	WE
55,800			55,800	3	18,600	Kaplan	94.5	33-8	22	BL		Concrete	Head gt	15,778	Manual	BG	0.90	13.8	60	GE
114,000			114,000	3	38,000	Propeller	138.5	68	69	NN	W	Concrete	Head gt	30,000	Manual	BG	0.92	13.8	60	GE
282,000			282,000	{3	70,500	Propeller	120	100-85	99	BL	W	Plate st	Head gt	55,555	Manual	BG	0.90	13.8	60	WE
				1	70,500	Kaplan	120	100-85	99	BL	W	Plate st	Head gt	55,555	Manual	BG	0.90	13.8	60	WE
42,000			42,000	3	14,000	Francis	150	100-50	82	.	.	Plate st	Head gt	11,000	Manual	AC	0.90	6.9	60	.
117,900			157,200	3	39,300	Francis	163.6	245-122	190	.		Plate st	Butterfly	29,600	Automatic	AG	0.95	6.9	60	.
				{5	170,900	Francis	120	368	300	NN	W	Cast st	Head gt	125,000	Auto. or man.	AG	1.00	13.8	60	WE
536,000	9	1949-51	2,102,900	3	14,000	Francis	400	368	300	PW	W	Service unit	Head gt	10,000	Auto. or man	AG	0.90	2.4	60	WE
				9	170,000	Francis	120	362	330	NN	W	Cast st	Head gt	125,000	Auto. or man	AG	1.00	13.8	60	WE
1,600,000			2,700,000	16	100,000	Francis	100	179-148	165	NN		Plate st	Head gt	67,365	Manual	BG	0.95	13.8	60	WE
360,000			480,000	3	120,000	Francis	150		355	BL		Welded pl st	Butterfly	100,000	Auto. or man.	AC	0.90	13.8	60	WE
92,500			92,500	1	92,500	Francis	164	375-240	335	AC	W	Welded pl st	Butterfly	66,700	Manual	BG	0.90	11.00	60	WE
75,000	1	1952	112,500	2	37,500	Francis	300	484-450	440	AC	AC	Cast st	Butterfly	30,000	Manual	AG	0.90	12.6	60	AC
899,400			1,567,200	{8	111,300	Kaplan	97.5	92-65	80	MS	AC	Concrete	Head gt	77,684	Manual	BG	0.95	13.8	60	GE
				2	4,500	Francis	277	92-65	80	PW	W	Concrete	Head gt	3,750	Manual	BG	0.80	4.16	60	EM
140,000			140,000	2	70,000	Francis	163.6	375-225	290	BL	W	Plate st	Head gt	55,555	Manual	BG	0.90	13.8	60	WE
26,500			26,500	1	26,500	Francis	163.6	98-75	91	BL	W	Plate st	Head gt	20,000	Manual	BG	0.90	13.8	60	WE
25,725	1	1952	32,550	1	6,825	Francis	300	65-80	51	MS	W	Plate st	Head gt	5,000	Manual	HS	1.00	11.00	60	GE
156,000		.	156,000	3	52,000	Francis	128.5	150	150	PW	W		. .	40,000	Manual		0.90	13.8	60	GE
16,000			16,000	1	16,000	Francis	164	107	107	AC	W	Plate st	Head gt	12,941	Automatic	AG	0.85	6.9	60	GE
25,000			25,000	1	25,000	Francis	200	169	169	AC	W	Plate st	Head gt	21,176	Automatic	AG	0.85	6.9	60	GE
15,400			15,400	1	15,400	Impulse	400	1034	995	PW	PW	...	Butterfly	12,941	Automatic	HS	0.85	6.9	60	GE
21,000			21,000	1	21,000	Francis	514	661-620	634	MS	W	Welded pl st	Butterfly	17,647	Automatic	AG	0.85	7.2	60	WE
36,000		.	36,000	1	36,000	Francis	450	750-745	742	MS	W	Steel	Butterfly	30,588	Automatic	AG	0.85	11.5	60	GE
225,000			225,000	3	75,000	Francis	163.6	340-145	300	NN	.	Plate st	Head gt	60,000	Manual	AG	0.90	13.8	60	WE
13,500	1	1953	53,500	1	40,000	Impulse	400	2009-1893	1960	PW	PW	. .	Spherical	32,000	Manual	AG	0.90	11.5	60	GE
115,550			115,550	{2	57,500	Francis	257	420-362	383	PW	W	Welded pl st	Butterfly	42,000	Auto. or man.	AG	1.00	11.5	1AC, 1GE	
				1	550	Francis	1200	420-362	383	JL	W	Plate st	. . .	400	Manual	AG	0.80	0.18	60	EC
				{1	51,200	Francis	400	820	743	PW	W	Cast st	Plug	37,500	Automatic	AG	1.00	11.5	60	WE
153,600	.	1951	153,600	1	51,200	Francis	400	90	743	PW	W	Cast st	Plug	37,500	Automatic	AG	1.00	11.5	60	WE
				1	51,200	Francis	400	90	743	PW	W	Cast st	Plug	37,500	Automatic	AG	1.00	11.5	60	WE
15,000		. .	15,000	2	7,500	Kaplan	100	25.5	25.5	BL	W	Concrete	Head gt	6,250	.	BG	0.80	6.9	60	GE
50,000			50,000	2	25,000	Francis	600	870-780	800		W	Cast st	Butterfly	16,667	Manual	AG	0.90	6.9	60	.
13,000		.	13,000	1	13,000	Francis	514	380-369	370	DEW	W	Welded pl st	Butterfly	11,000	Auto. or man	AG	0.85	6.9	60	CWC
4,000			4,000	1	4,000	Francis	200	65-60	60	CVL	W	Welded pl st	Head gt	4,000	Automatic	AC	0.80	6.9	60	CWC
8,500		. .	8,500	1	8,500	Francis		250	. .		.		. . . .		.	.	. .	. .	.	
5,000		. .	5,000	1	5,000	Francis	300	85	85	MSC	W	Concrete	Head gt	4,400	Manual	AG	0.85	12.0	60	CWC
27,000		. .	27,000	2	13,500	Kaplan	225	80-66	75	MSC	W	Concrete	Head gt	12,500	Manual	AG	0.80	6.9	60	CGE
	{2	1929	119,000	{2	15,000	Francis	187	70-90	70	DEW	.	Plate st	Head gt	10,000	Manual	AG	0.80	11.0	25	SEC
20,000	1	1951	. .	2	10,000	Francis	187	70-90	70	DEW	.	Plate st	Head gt	10,000	Manual	AG	0.80	11.0	25	SEC
				1	35,000	Francis	107	70-90	90	CAC	W	Welded pl st	Head gt	32,500	Manual	AG	0.80	11.0	25	CGE
				{4	53,000	Francis	75	62-75	80	DEW	DEW	Concrete	Head gt	43,886	Manual	BG	0.85	13.2	1OC, 3CGE	
440,000	6	1939-49	2,136,000	2	8,000	Francis	180	82-75	60	DEW	DEW	Concrete	Head gt	7,200	Manual	AG	0.90	13.2	60	CGE
				10	52,000	Francis	75	82-75	90	DEW	DEW	Concrete	Head gt	46,625	Manual	BG	0.90	13.2	60	CGE
503,000	6	1950-52	.	{6	53,000	Francis	75	82-75	80	CAC	W	Concrete	Head gt	51,000	Automatic	BG	0.80	13.8	60	CWC
				6	53,000	Francis	75	82-75	80	DEW	W	Concrete	Head gt	51,000	Automatic	AG	0.80	13.8	60	CGE
325,000	3	1951	390,000	5	65,000	Francis	128.6	160	160	DEW	W	Plate st	Head gt	53,000	Automatic	AG	0.90	13.8	60	CGE
2,650			2,650	2	1,325	Propeller	180	22	22	DEW	W	Concrete	Head gt	1,125	Manual	AG	0.80	2.4	60	CGE
282,500		.	282,500	5	56,500	Francis	105.9	115-95	110	CAC	W	Concrete	Head gt	52,500	Manual	BG	0.70	13.8	60	CWC
282,500		. .	282,500	5	56,500	Francis	105.9	115-95	110	DEW	W	Concrete	Head gt	[illegible]	Manual	AG	0.70	13.8	60	CGE
56,200		. .	337,200	1	56,200	Francis	112.5	128-116	124	MSC	W	Welded pl st	Head gt	[illegible]	Automatic	AG	0.95	13.8	60	CGE
26,000		.	26,000	2	13,000	Francis	200	122-70	122	CAC	W	Plate st	Butterfly	11,000	Manual	AG	0.80	13.8	60	CGE
700,000		.	1,200,000	7	100,000	Francis	150	305-294	292	DEW	W	Plate st	Head gt	85,500	Automatic	AG BC	0.95	13.8	60	{6CGE 1CWC
264,000		. .	264,000	{4	33,000	Francis	94.7	82-72	72	CAC	W	Concrete	Head gt	27,000	Automatic	BC	0.95	13.8	60	CWC
				4	33,000	Francis	94.7	82-72	72	JLC	W	Concrete	Head gt	27,000	Automatic	BC	0.95	13.8	60	CWC
495,500	1	1951	495,500	8	55,000	Francis	105.9	135-124	130	DEW	W	Plate st	Head gt	50,000	Manual	AG	0.90	13.8	60	CWC
168,000	2	1951	168,000	8	21,000	Propeller	94.7	45-25	45	DEW	W	Concrete	Head gt	17,000	Manual	AG	0.90	13.8	60	CGE
	{1	1945		1	2,700	Francis	514	135-125	125	JL	W	Cast st	Steel cone	1,800	Manual	HS	0.85	2.5	60	CWC
3,200		.	10,500	1	1,500	Francis	360	135-125	125	MSC	W	Plate st	Steel cone	1,250	Manual	HS	0.85	2.5	60	CWC
	2	1950-51		2	3,000	Francis	460	132-125	125	CVL	W	Plate st	Butterfly	2,810	Manual	AG	0.85	2.5	60	CWC
20,000			20,000	2	10,000	Kaplan	225	75-67	70	MSC	W	Plate st	Head gt	8,500	Manual	AG	0.80	12.5	60	CGE
15,000		.	15,000	2	7,500	Kaplan	200	57-47	48	MCC	W	Concrete	Head gt	5,000	Manual	AG	1.00	11.5	60	CGE
112,500	2	1949-50	275,000	{3	37,500	Propeller	55.5			1MC 1AC 1DEW	W	Concrete	Head gt	32,500	Manual	AG	0.85	11.00	60	CGE
				2	37,500	Propeller	128.5	66	66	DEW	W	Concrete	Head gt	32,500	Manual	AG	0.85	11.00	60	CGE
114,000	1	1952	114,000	6	19,000	Propeller	94.7	37	37	DEW	W	Concrete	Head gt	15,500	Auto. or man	AC	0.90	13.8	60	CGE
7,000			7,000	2	3,500	Francis	300	55	55	CAC	W	Concrete	Head gt	2,750	Manual	AG	0.80	2.4	60	CGE
4,700		.	4,700	1	4,700	Propeller	[illegible]	60-37	52	DEW	W	Welded pl st	Butterfly	4,000	Automatic	BC	0.85	6.9	60	CWC
9,000		.	9,000	1	9,000	Francis	[illegible]	77	77	DEW	W	Welded pl st	Head gt	7,500	Auto. or man.	AG	0.85	13.2	60	CWC
22,000			22,000	1	22,000	Francis	300	337	318	DEW	W	Welded pl st	Head gt	20,000	Auto. or man	AG	0.85	13.2	60	CWC
3,700			3,700	1	3,700	Francis	450	125-120	118	DEW	W	Plate st	Head gt	3,000	Manual	AG	0.85	6.9	60	CGE
70,000			70,000	1	70,000	Francis	514	412-330	400	PW & VEW	PW	Plate st	Head gt	62,500	Automatic	BG	0.80	13.8	60	CWC
87,000			87,000	1	87,000	Impulse	360	2039	1590	PW & VEW	PW	Cast st	Spherical	75,000	Automatic	AG	0.80	13.8	60	CGE
56,000	4	1949-52	166,000	6	28,000	Francis	327.3	480-394	390	DEW	W	Plate st	Butterfly	25,000	Manual	AG	0.80	13.8	60	CWC
33,000			66,000	2	16,500	Francis	600	715-667	630	CAC	W	Welded pl st	Butterfly	12,500	Manual	AG	0.90	6.9	60	CGE
4,000		..	12,000	2	2,000	Francis	600	170-120	150	PW & VEW	W	Cast st	Butterfly	1,875	Manual	AG	0.80	4.16	60	BCL

PW – Pelton Water Wheel Co
VEW – Vancouver Engineering Works, Ltd
W – Woodward Governor Co
BCL – Bepco Canada, Ltd
CGE – Canadian General Electric Co. Ltd
CWC – Canadian Westinghouse Co. Ltd
EC – Elliott Co.

EM – Electric Machinery Mfg Co
GE – General Electric Co
IE – Ideal Electric & Mfg Co
OC – Oerlikon Canada Ltd
SEC – Swedish Electric Co. Ltd
WE – Westinghouse Electric Corp

[4]AG – indicates that the thrust bearing is above the generator, BG thrust bearing is below the generator, HS, horizontal-shaft machine.

[5]Dam, tunnels and steel pipe conduits are being designed and built by the New York Board of Water Supply as part of its *Delaware River water system*.

[6]Two power plants are being built, one in Mexico and one in the United States, three 14,750-hp units in each.

(Does not include municipal plants)

Government agency	Project	State	River	Ultimate capacity, hp	Initial capacity, hp	Installed capacity, hp	On order or being installed, hp
U. S. Bureau of Reclamation	Eklutna	Alaska	Lake Eklutna	50,000	50,000	.....	50,000
	Grand Coulee	Wash.	Columbia	3,102,000	538,000	3,102,000	.....
	Hungry Horse	Mont.	So. Fork Flathead	420,000	420,000	.....	420,000
U. S. Corps of Engineers	Bonneville	Ore. & Wash.	Columbia	729,000	137,000	729,000	.....
	Big Cliff	Ore.	North Santiam	26,500	26,500	.....	26,500
	Detroit	Ore.	North Santiam	140,000	140,000	.....	140,000
	Chief Joseph	Wash.	Columbia	2,700,000	1,000,000	.....	1,700,000
	McNary Dam	Ore. & Wash.	Columbia	1,367,400	899,400	.....	899,400
	Albeni Falls	Idaho	Pend Oreille	58,800	58,800	.....	58,800
U. S. Bureau of Reclamation	Anderson Ranch	Idaho	Boise	55,500	37,000	37,000	.....
	American Falls	Idaho	Snake	42,000	42,000	.....	.....
	Minidoka	Idaho	Snake	28,500	9,000	19,500	.....
	Palisades	Idaho	Snake	117,200	117,900	.....	.....
	Shasta	Calif.	Sacramento	522,000	419,000	522,000	.....
	Keswick	Calif.	Sacramento	102,000	102,000	102,000	.....
	Folsom	Calif.	American	225,000	225,000	.....	225,000
Imperial Irrigation District	Drop No. 2	Calif.	All Am. Canal	15,000	15,000	.....	15,000
	Drop No. 3	Calif.	All Am. Canal	15,000	7,500	7,500	.....
	Drop No. 4	Calif.	All Am. Canal	28,200	13,300	28,300	.....
U. S. Bureau of Reclamation	Parker Dam	Ariz. & Calif.	Colorado	160,000	120,000	160,000	.....
	Davis Dam	Ariz. & Calif.	Colorado	311,000	311,000	311,000	.....
	Hoover Dam	Ariz. & Nev.	Colorado	1,357,000	522,000	1,442,000	300,000
	Elephant Butte	N. M.	Rio Grande	34,500	34,500	34,500	.....
	Green Mountain	Colo.	Blue	30,000	30,000	30,000	.....
	Estes Park	Colo.	Colo. Big Thomson	63,000	63,000	63,000	.....
	Marv's Lake	Colo.	Colo. Big Thomson	11,300	11,300	11,300	.....
	Pole Hill	Colo.	Colo. Big Thomson	47,500	47,500	.....	47,500
	Flatiron	Colo.	Colo. Big Thomson	96,000	96,000	.....	96,000
	Kortes	Wyo.	North Platte	55,500	55,500	55,000	.....
	Shoshone	Wyo.	Shoshone	20,000	20,000	20,000	.....
	Heart Mountain	Wyo.	Shoshone	3,300	3,300	8,300	.....
	Boysen	Wyo.	Big Horn	21,000	21,000	.....	21,000
	Alcova	Wyo.	North Platte	53,000	53,000	.....	53,000
	Seminoe	Wyo.	North Platte	45,000	45,000	45,000	.....
	Canyon Ferry	Mont.	Missouri	70,500	70,500	.....	70,500
U. S. Corps of Engineers	Fort Peck	Mont.	Missouri	150,000	70,000	120,000	.....
Platte Valley Pub Pr & Irr Dist	Sutherland	Neb.	North Platte	35,000	35,000	35,000	.....
Consumer Public Power Dist	Spencer	Neb.	Niobrara	3,240	1,540	3,240	.....
Loup River Public Power Dist	Monroe	Neb.	Loup	9,600	9,600	9,600	.....
	Columbus	Neb.	Loup	54,000	54,000	54,000	.....
Central Neb. Pub Pr & Irr Dist	Jeffery Canyon	Neb.	Platte	26,000	26,000	26,000	.....
	Johnson No. 1	Neb.	Platte	26,000	26,000	26,000	.....
	Johnson No. 2	Neb.	Platte	50,000	25,000	25,000	.....
U. S. Bureau of Reclamation	Angostura	S. D.	Cheyenne	1,675	1,675	1,675	.....
U. S. Corps of Engineers	Fort Randall	S. D.	Missouri	460,000	230,000	.....	230,000
	Garrison	N. D.	Missouri	440,000	175,000	.....	176,000
	St. Mary's Falls	Mich.	St. Mary's	72,750	23,325	23,325	.....
	Norfolk	Ark.	North Fork	168,000	42,540	84,540	.....
	Blakely Mountain	Ark.	Ouachita	106,000	106,000	.....	106,000
	Bull Shoals	Ark.	White	211,000	159,000	.....	211,000
	Narrows	Ark.	Little Missouri	36,000	24,000	24,000	.....
Grand River Dam Authority	Pensacola Dam	Okla.	Grand	120,750	80,750	120,750	.....
U. S. Corps of Engineers	Fort Gibson	Okla.	Grand	96,000	64,000	.....	64,000
	Tenkiller Ferry	Okla.	Illinois	47,000	47,000	.....	47,000
	Dennison Dam	Okla. & Texas	Red	282,080	56,080	114,080	.....
Lower Colorado River Authority	Buchanan Dam	Texas	Colorado	51,900	34,600	51,900	.....
	Tom Miller	Texas	Colorado	20,000	20,000	20,000	.....
	Inks Dam	Texas	Colorado	16,000	16,000	16,000	.....
	Marshall Ford	Texas	Colorado	90,000	90,000	90,000	.....
	Granite Shoals	Texas	Colorado	66,000	66,000	.....	66,000
	Marble Falls	Texas	Colorado	42,000	42,000	.....	42,000
Brazos Riv Conserv & Reclam Dist	Possum Kingdom	Texas	Brazos	51,000	34,000	34,000	.....
International Boundary & Water Comm.	Falcon Dam	Texas & Mex.	Rio Grande	88,500	88,500	.....	88,500
U. S. Corps of Engineers	Whitney Dam	Texas	Brazos	41,400	41,400	.....	41,400
	Wolf Creek	Ky.	Cumberland	377,000	377,000	.....	377,000
Tennessee Valley Authority	Kentucky	Ky.	Tennessee	220,000	176,000	220,000	.....
	Pickwick	Tenn.	Tennessee	302,000	96,000	247,000	55,000
	Wilson	Ala.	Tennessee	610,000	206,000	610,000	.....
	Wheeler	Ala.	Tennessee	360,000	90,000	360,000	.....
	Guntersville	Ala.	Tennessee	141,000	102,000	141,000	.....
	Hales Bar	Tenn.	Tennessee	140,000	72,000	72,000	68,000
	Chickamauga	Tenn.	Tennessee	144,000	108,000	144,000	.....
	Watts Bar	Tenn.	Tennessee	210,000	126,000	210,000	.....
	Ocoee	Tenn.	Ocoee	132,000	132,000	132,000	.....
	Fort Loudoun	Tenn.	Tennessee	176,000	88,000	176,000	.....
	Cherokee	Tenn.	Holston	166,000	83,000	83,000	83,000
	Douglas	Tenn.	French Broad	166,000	83,000	124,500	.....
	South Holston	Tenn.	Holston	49,500	49,500	49,500	.....
	Boone	Tenn.	So. Fork Holston	103,500	103,500	.....	103,500
	Watauga	Tenn.	Watauga	69,000	69,000	69,000	.....
	Fontana	N. C.	Little Tennessee	274,500	183,000	183,000	91,500
	Appalachia	Tenn.	Hiwassee	108,000	108,000	108,000	.....
	Hiwassee	N. C.	Hiwassee	160,000	80,000	80,000	.....
	Chatuge	N. C.	Hiwassee	20,700	20,700	.....	.....
	Nottely	Ga.	Nottely	13,800	13,800	.....	.....
	Ocoee No. 3	Tenn.	Ocoee	33,300	33,300	33,300	.....
	Ocoee No. 2	Tenn.	Ocoee	25,000	25,000	25,000	.....
	Watauga Dam	Tenn.	Watauga	9,200	9,200	9,200	.....
[illegible]	Kerr Bogs Island	Va. & N. C.	Roanoke	225,000	172,000	.....	172,000
	Fort Patt	Va.	Smith	19,640	19,640	19,640	.....
	[illegible]	Tenn.	Calney Fork	188,250	188,250	188,250	.....
	[illegible]	Tenn.	Obey	50,000	50,000	50,000	25,000
	[illegible]	Tenn.	Cumberland	180,000	180,000	.....	180,000
	Allatoona	Ga.	Etowah	192,900	102,900	102,900	.....
	[illegible]	Ga.	Chattahoochee	118,400	118,400	.....	118,400
	[illegible] Woodruff	Ark.	Chattahoochee	42,000	42,000	.....	42,000
	[illegible]	Ga. & S. C.	Savannah	388,600	388,600	.....	388,600
U. S. Corps of Engineers	[illegible] Clubert	S. C.	Santee	215,720	173,000	175,720	.....
	[illegible] Jamesville	S. C.	Santee	2,720	2,720	2,720	.....
Tennessee Valley Authority	Blue Ridge	Ga.	Toccoa	20,000	22,200	22,200	.....
102 Total Capacity				21,438,225	12,333,220	11,244,740	6,237,200