

# **Duke Energy Carolinas and Duke Energy Progress System Overview**

## **Highlights**

- Duke Energy Carolinas and Duke Energy Progress provide energy to 4.5 million retail customers in an approximately 53,200-square-mile service territory.
- The Companies:
  - o wn over 36,300 megawatts of winter generating capacity to meet customer demand.
  - provide over 6,000 megawatts of capacity to wholesale customers in the service territory.
  - purchase approximately 2,400 megawatts of capacity through Purchase Power Agreements with wholesale customers.
  - currently have approximately 5,800 megawatts of non-utility generation on their systems.

Duke Energy Carolinas, LLC's ("DEC") and Duke Energy Progress, LLC's ("DEP" and, together with DEC, the "Companies") generation portfolio includes a balanced mix of resources with different operating and fuel characteristics. This mix is designed to reliably provide energy at the lowest reasonable cost to meet the Companies' obligation to serve their customers. DEC- and DEP-owned generation, as well as power the Companies purchase from third parties, is evaluated on a real-time basis to select and dispatch the lowest-cost resources to meet system load requirements.

Duke Energy's two electric utility operating companies in the Carolinas provide electric service to an approximately 53,200-square-mile service area stretching from the western borders of North Carolina and South Carolina to Atlantic coastal counties between the Pamlico River and Georgetown County

of South Carolina. In addition to retail sales to approximately 4.5 million customers (800,000 in South Carolina and 3.7 million in North Carolina), the Companies also sell wholesale electricity to incorporated municipalities and to other public and private utilities. A summary of the Companies' generation system in the Carolinas is presented in Figure B-1 below, and recent historical data, including the number of customers and sales of electricity by customer group, may be found in Appendix D (Electric Load Forecast).

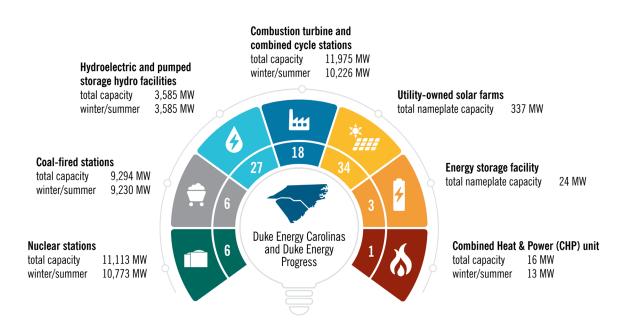


Figure B-1: Overview of Companies' Generating Assets

The Companies' power delivery system consists of approximately 190,000 miles (153,000 in North Carolina and 37,000 in South Carolina) of distribution lines and 19,300 miles (13,400 in North Carolina and 5,900 in South Carolina) of transmission lines. The transmission system is directly connected to all the Transmission Operators that surround DEC's and DEP's respective service territories. There are 78 tie-line circuits connecting with 10 different Transmission Operators:

- i. DEP
- ii. DEC
- iii. Cube Hydro Partners, LLC
- iv. Dominion Energy South Carolina
- v. PJM Interconnection, LLC
- vi. Santee Cooper
- vii. Southeastern Power Administration
- viii. Southern Company
- ix. Smoky Mountain Transmission

#### x. Tennessee Valley Authority

These interconnections allow these utilities to work together to provide an additional level of reliability. The strength of the Companies' systems is also reinforced through coordination with other electric service providers in the SERC East sub-region, SERC Reliability Corporation and North American Electric Reliability Corporation ("NERC").

Figure B-2 below provides a view of the Companies' service areas with locations of the electric generation resources.

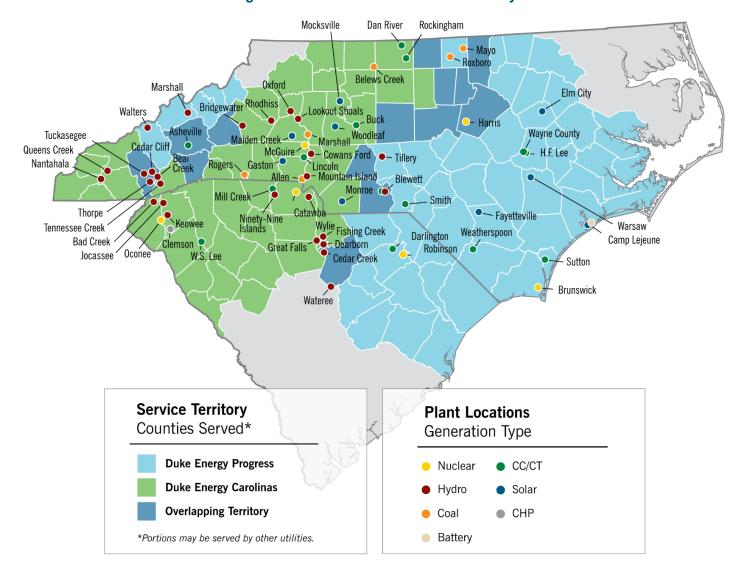


Figure B-2: DEC and DEP Service Territory

# **Duke Energy Carolinas and Duke Energy Progress Owned Generation**

Tables B-1 through B-14 below list the DEC and DEP plants in service in South Carolina and North Carolina with plant statistics, planned uprates, projected retirement dates, relicensing status and the overall system's total generating capability. All generating unit ratings are as of January 1, 2023.

Table B-1: Coal – Existing Generating Units and Ratings

					COAL				
		UNIT	WINTER (MW)	SUMMER (MW)	R LOCATION FUEL TY		RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)
DEC	Allen	1	167	162	Belmont, NC	Coal	Peaking	66	1
DEC	Allen	5	259	259	Belmont, NC	Coal	Peaking	62	1
DEC	Belews Creek *	1	1110	1110	Belews Creek, NC	Coal/Natural Gas	Base	49	13
DEC	Belews Creek *	2	1110	1110	Belews Creek, NC	Coal/Natural Gas	Base	48	13
DEC	Cliffside *	5	546	544	Cliffside, NC	Coal/Natural Gas	Peaking	51	7-8
DEC	Cliffside *	6	849	844	Cliffside, NC	Coal/Natural Gas	Intermediate	11	25
DEC	Marshall *	1	380	370	Terrell, NC	Coal/Natural Gas	Intermediate	58	6
DEC	Marshall *	2	380	370	Terrell, NC	Coal/Natural Gas	Intermediate	57	6
DEC	Marshall *	3	658	658	Terrell, NC	Coal/Natural Gas	Base	54	10
DEC	Marshall *	4	660	660	Terrell, NC	Coal/Natural Gas	Base	53	10
DEP	Mayo	1	713	704	Roxboro, NC	Coal	Intermediate	40	8-12
DEP	Roxboro	1	380	379	Semora, NC	Coal	Intermediate	57	6
DEP	Roxboro	2	673	668	Semora, NC	Coal	Intermediate	55	6
DEP	Roxboro	3	698	694	Semora, NC	Coal	Intermediate	50	7-11
DEP	Roxboro	4	711	698	Semora, NC	Coal	Intermediate	43	7-11
	Total DI	EC Coal	6,119	6,087					
	Total Di	EP Coal	3,175	3,143					
	Total I	NC Coal	9,294	9,230					
	Total	SC Coal	0	0					
	Total DEC/DI	EP Coal	9,294	9,230					

Note: Unit information is provided by state, but resources are dispatched on a systemwide basis.

Note: Cliffside also called the Rogers Energy Center.

Note: Resource type based on NERC capacity factor classifications, which may vary over the forecast period.

Note: \* Denotes unit is capable of dual fuel operations (coal and natural gas). Percentage of capacity for maximum standalone natural gas for each unit: Belews Creek 1, Belews Creek 2, Marshall 3, Marshall 4: up to 50% capable; Cliffside 5, Marshall 1, Marshall 2: up to 40% capable; Cliffside 6: up to 100% capable.

Note: Estimated remaining life may change depending upon the portfolio for some units, so a range has been provided in this table for those units. Detailed retirement dates may be found in Appendix F (Coal Retirement Analysis).

**Table B-2: Combustion Turbines – Existing Generating Units and Ratings** 

	COMBUSTION TURBINES												
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)				
DEC	Lee	7C	48	42	Pelzer, SC	Natural Gas/Oil	Peaking	16	24				
DEC	Lee	8C	48	42	Pelzer, SC	Natural Gas/Oil	Peaking	16	24				
DEC	Lincoln	1	94	73	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	2	96	74	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	3	95	73	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	4	94	73	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	5	93	72	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	6	93	72	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	7	95	72	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	8	94	72	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	9	94	71	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	10	96	73	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	11	95	73	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	12	94	73	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	13	93	72	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	14	94	72	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	15	94	73	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Lincoln	16	93	73	Stanley, NC	Natural Gas/Oil	Peaking	28	17				
DEC	Mill Creek	1	94	71	Blacksburg, SC	Natural Gas/Oil	Peaking	20	20				
DEC	Mill Creek	2	94	70	Blacksburg, SC	Natural Gas/Oil	Peaking	20	20				
DEC	Mill Creek	3	95	71	Blacksburg, SC	Natural Gas/Oil	Peaking	20	20				
DEC	Mill Creek	4	94	70	Blacksburg, SC	Natural Gas/Oil	Peaking	20	20				
DEC	Mill Creek	5	94	69	Blacksburg, SC	Natural Gas/Oil	Peaking	20	20				
DEC	Mill Creek	6	92	71	Blacksburg, SC	Natural Gas/Oil	Peaking	20	20				
DEC	Mill Creek	7	95	70	Blacksburg, SC	Natural Gas/Oil	Peaking	20	20				
DEC	Mill Creek	8	93	71	Blacksburg, SC	Natural Gas/Oil	Peaking	20	20				
DEC	Rockingham	1	179	165	Reidsville, NC	Natural Gas/Oil	Peaking	22	17				

					COMBUSTIC	ON TURBINES			
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)
DEC	Rockingham	2	179	165	Reidsville, NC	Natural Gas/Oil	Peaking	22	17
DEC	Rockingham	3	179	165	Reidsville, NC	Natural Gas/Oil	Peaking	22	17
DEC	Rockingham	4	179	165	Reidsville, NC	Natural Gas/Oil	Peaking	22	17
DEC	Rockingham	5	179	165	Reidsville, NC	Natural Gas/Oil	Peaking	22	17
DEP	Asheville	3	185	160	Arden, NC	Natural Gas/Oil	Peaking	24	16
DEP	Asheville	4	185	160	Arden, NC	Natural Gas/Oil	Peaking	24	16
DEP	Blewett	1	17	13	Lilesville, NC	Oil	Peaking	52	16
DEP	Blewett	2	17	13	Lilesville, NC	Oil	Peaking	52	16
DEP	Blewett	3	17	13	Lilesville, NC	Oil	Peaking	52	16
DEP	Blewett	4	17	13	Lilesville, NC	Oil	Peaking	52	16
DEP	Darlington	12	131	115	Hartsville, SC	Natural Gas/Oil	Peaking	49	16
DEP	Darlington	13	133	115	Hartsville, SC	Natural Gas/Oil	Peaking	49	16
DEP	Smith	1	192	157	Hamlet, NC	Natural Gas/Oil	Peaking	22	18
DEP	Smith	2	192	156	Hamlet, NC	Natural Gas/Oil	Peaking	22	18
DEP	Smith	3	192	155	Hamlet, NC	Natural Gas/Oil	Peaking	22	18
DEP	Smith	4	192	159	Hamlet, NC	Natural Gas/Oil	Peaking	22	18
DEP	Smith	6	192	145	Hamlet, NC	Natural Gas/Oil	Peaking	22	18
DEP	Sutton	4	49	42	Wilmington, NC	Natural Gas/Oil	Peaking	6	34
DEP	Sutton	5	48	42	Wilmington, NC	Natural Gas/Oil	Peaking	6	34
DEP	Wayne	1/10	195	169	Goldsboro, NC	Oil/Natural Gas	Peaking	23	17
DEP	Wayne	2/11	195	174	Goldsboro, NC	Oil/Natural Gas	Peaking	23	17
DEP	Wayne	3/12	195	164	Goldsboro, NC	Oil/Natural Gas	Peaking	23	17

					COMBUSTION TO	JRBINES			
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)
DEP	Wayne	4/13	195	162	Goldsboro, NC	Oil/Natural Gas	Peaking	23	17
DEP	Wayne	5/14	195	153	Goldsboro, NC	Oil/Natural Gas	Peaking	23	26
DEP	Weatherspoon	1	41	31	Lumberton, NC	Natural Gas/Oil	Peaking	53	16
DEP	Weatherspoon	2	41	31	Lumberton, NC	Natural Gas/Oil	Peaking	53	16
DEP	Weatherspoon	3	41	32	Lumberton, NC	Natural Gas/Oil	Peaking	53	16
DEP	Weatherspoon	4	41	30	Lumberton, NC	Natural Gas/Oil	Peaking	53	16
	Total I	DEC CT	3,249	2,633					
	Total I	DEP CT	2,898	2,404					
	Total	NC CT	5,036	4,160					
	Tota	SC CT	1,111	877					
	Total DEC/I	DEP CT	6,147	5,037					
Noto: Un	it information is provid	dod by ot	,	urooo oro dier	notohod on a avete	mwido booio			

Note: Unit information is provided by state, but resources are dispatched on a systemwide basis.

Note: Resource type based on NERC capacity factor classifications, which may vary over the forecast period.

Table B-3: Combined Cycle – Existing Generating Units and Ratings

					COMBINED CYCI	LE			
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)
DEC	Buck	CT11	206	182	Salisbury, NC	Natural Gas	Base	12	24
DEC	Buck	CT12	206	182	Salisbury, NC	Natural Gas	Base	12	24
DEC	Buck	ST10	306	304	Salisbury, NC	Natural Gas	Base	12	24
DEC	Buck CTCC	-	718	668	-	-	-	-	-
DEC	Dan River	CT8	206	177	Eden, NC	Natural Gas	Base	11	25
DEC	Dan River	СТ9	206	177	Eden, NC	Natural Gas	Base	11	25
DEC	Dan River	ST7	306	308	Eden, NC	Natural Gas	Base	11	25
DEC	Dan River CTCC	-	718	662	-	-	-	-	-
DEC	WS Lee	CT11	248	234	Pelzer, SC	Natural Gas	Base	5	27
DEC	WS Lee	CT12	248	233	Pelzer, SC	Natural Gas	Base	5	27
DEC	WS Lee	ST10	313	313	Pelzer, SC	Natural Gas	Base	5	27
DEC	WS Lee CTCC	-	809	780	-	-	-	-	-
DEP	Asheville	CT5	190	163	Arden, NC	Natural Gas/Oil	Base	4	36
DEP	Asheville	ST6	90	85	Arden, NC	Natural Gas/Oil	Base	4	36
DEP	Asheville	CT7	190	161	Arden, NC	Natural Gas/Oil	Base	3	36
DEP	Asheville	ST8	90	85	Arden, NC	Natural Gas/Oil	Base	3	36
DEP	Asheville CTCC	-	560	494	-	-	-	-	-
DEP	Lee	CT1A	225	170	Goldsboro, NC	Natural Gas/Oil	Base	11	25
DEP	Lee	CT1B	225	170	Goldsboro, NC	Natural Gas/Oil	Base	11	25
DEP	Lee	CT1C	225	170	Goldsboro, NC	Natural Gas/Oil	Base	11	25
DEP	Lee	ST1	379	378	Goldsboro, NC	Natural Gas/Oil	Base	11	25
DEP	Lee CTCC	-	1054	888	-	-	-	-	-
DEP	Smith	CT7	193	152	Hamlet, NC	Natural Gas/Oil	Base	21	19
DEP	Smith	CT8	193	152	Hamlet, NC	Natural Gas/Oil	Base	21	19
DEP	Smith	ST4	184	171	Hamlet, NC	Natural Gas/Oil	Base	21	19

					COMBINED CYCL	.E			
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)
DEP	Smith PB4 CTCC	-	570	475	-	-	-	-	-
DEP	Smith	CT9	215	178	Hamlet, NC	Natural Gas/Oil	Base	12	24
DEP	Smith	CT10	215	178	Hamlet, NC	Natural Gas/Oil	Base	12	24
DEP	Smith	ST5	250	252	Hamlet, NC	Natural Gas/Oil	Base	12	24
DEP	Smith PB5 CTCC	-	680	608	-	-	-	-	-
DEP	Sutton	CT1A	224	173	Wilmington, NC	Natural Gas/Oil	Base	10	26
DEP	Sutton	CT1B	224	173	Wilmington, NC	Natural Gas/Oil	Base	10	26
DEP	Sutton	ST1	271	268	Wilmington, NC	Natural Gas/Oil	Base	10	26
DEP	Sutton CTCC	-	719	614	-	-	-	-	-
	Total DE	с стсс	2,245	2,110					
	Total DE	P CTCC	3,583	3,079					
	Total N	IC CTCC	5,019	4,409					
	Total S	SC CTCC	809	780					
	Total DEC/DE	P CTCC	5,828	5,189					

Note: Unit information is provided by state, but resources are dispatched on a systemwide basis.

Note: W.S. Lee Combined Cycle ("CC") Units CT11, CT12 and ST10 reflects 100% of the CC's capability and does not factor in the 100 MW of capacity owned by North Carolina Electric Membership Corporation ("NCEMC"). The DEC-NCEMC Joint-Owner contract includes an energy buyback provision for DEC of the capacity owned by NCEMC in the W.S. Lee CC facility.

Note: Resource type based on NERC capacity factor classifications, which may vary over the forecast period.

Table B-4: Combined Heat & Power – Existing Generating Units and Ratings

	COMBINED HEAT & POWER											
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)			
DEC	Clemson CHP	GT01	15.5	12.5	Pickens, SC	Natural Gas	Base	4	36			
	То	tal DEC CHP	15.5	12.5								
Note: L	ote: Unit information is provided by state, but resources are dispatched on a systemwide basis.											
Note: F	Resource type based	l on NERC cap	acity factor class	sifications, which	may vary over th	ne forecast period	d.					

Table B-5: Pumped Storage Hydro – Existing Generating Units and Ratings

						PUMPED STO	RAGE HYDI	₹0			
		UNIT	WINTER (MW)	SUMMER (MW)	STORAGE DURATION (HOURS)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)	RELICENSING STATUS
DEC	Jocassee	1	195	195	50	Salem, SC	Pumped Storage	Peaking	50	23	2046
DEC	Jocassee	2	195	195	50	Salem, SC	Pumped Storage	Peaking	50	23	2046
DEC	Jocassee	3	195	195	50	Salem, SC	Pumped Storage	Peaking	50	23	2046
DEC	Jocassee	4	195	195	50	Salem, SC	Pumped Storage	Peaking	50	23	2046
DEC	Bad Creek	1	420	420	20	Salem, SC	Pumped Storage	Peaking	32	4	2027
DEC	Bad Creek	2	420	420	20	Salem, SC	Pumped Storage	Peaking	32	4	2027
DEC	Bad Creek	3	340	340	20	Salem, SC	Pumped Storage	Peaking	32	4	2027
DEC	Bad Creek	4	340	340	20	Salem, SC	Pumped Storage	Peaking	32	4	2027

Total DEC Pumped Storage	2,300 2,3	300	
Note: Unit inform	ation is provided by	y state, but resources	are dispatched on a systemwide basis.
Note: Resource t	ype based on NER	RC capacity factor cla	ssifications, which may vary over the forecast period.
Note: Model assi	ımption is that pum	nped storage assets v	vill be relicensed.

Table B-6: Hydro – Existing Generating Units and Ratings

					HYDRO					
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)	RELICENSING STATUS
DEC	99 Islands	1	4.2	4.2	Blacksburg, SC	Hydro	Peaking	113	13	2036
DEC	99 Islands	2	3.4	3.4	Blacksburg, SC	Hydro	Peaking	113	13	2036
DEC	99 Islands	3	4.2	4.2	Blacksburg, SC	Hydro	Peaking	113	13	2036
DEC	99 Islands	4	3.4	3.4	Blacksburg, SC	Hydro	Peaking	113	13	2036
DEC	Bear Creek	1	9.5	9.5	Tuckasegee, NC	Hydro	Peaking	69	18	2041
DEC	Bridgewater	1	15	15	Morganton, NC	Hydro	Peaking	104	32	2055
DEC	Bridgewater	2	15	15	Morganton, NC	Hydro	Peaking	104	32	2055
DEC	Bridgewater	3	1.5	1.5	Morganton, NC	Hydro	Peaking	104	32	2055
DEC	Cedar Cliff	1	6.4	6.4	Tuckasegee, NC	Hydro	Peaking	71	18	2041
DEC	Cedar Cliff	2	0.4	0.4	Tuckasegee, NC	Hydro	Peaking	71	18	2041
DEC	Cedar Creek	1	15	15	Great Falls, SC	Hydro	Peaking	97	32	2055
DEC	Cedar Creek	2	15	15	Great Falls, SC	Hydro	Peaking	97	32	2055
DEC	Cedar Creek	3	15	15	Great Falls, SC	Hydro	Peaking	97	32	2055
DEC	Cowans Ford	1	81	81	Stanley, NC	Hydro	Peaking	60	32	2055
DEC	Cowans Ford	2	81	81	Stanley, NC	Hydro	Peaking	60	32	2055
DEC	Cowans Ford	3	81	81	Stanley, NC	Hydro	Peaking	60	32	2055
DEC	Cowans Ford	4	81	81	Stanley, NC	Hydro	Peaking	60	32	2055
DEC	Dearborn	1	14	14	Great Falls, SC	Hydro	Peaking	100	32	2055
DEC	Dearborn	2	14	14	Great Falls, SC	Hydro	Peaking	100	32	2055
DEC	Dearborn	3	14	14	Great Falls, SC	Hydro	Peaking	100	32	2055

					HYDRO					
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)	RELICENSING STATUS
DEC	Fishing Creek	1	11	11	Great Falls, SC	Hydro	Peaking	107	32	2055
DEC	Fishing Creek	2	10	10	Great Falls, SC	Hydro	Peaking	107	32	2055
DEC	Fishing Creek	3	10	10	Great Falls, SC	Hydro	Peaking	107	32	2055
DEC	Fishing Creek	4	11	11	Great Falls, SC	Hydro	Peaking	107	32	2055
DEC	Fishing Creek	5	9	9	Great Falls, SC	Hydro	Peaking	107	32	2055
DEC	<b>Great Falls</b>	1	0	0	Great Falls, SC	Hydro	Peaking	116	32	2055
DEC	Great Falls	2	0	0	Great Falls, SC	Hydro	Peaking	116	32	2055
DEC	<b>Great Falls</b>	5	0	0	Great Falls, SC	Hydro	Peaking	116	32	2055
DEC	<b>Great Falls</b>	6	0	0	Great Falls, SC	Hydro	Peaking	116	32	2055
DEC	Keowee	1	76	76	Seneca, SC	Hydro	Peaking	52	23	2046
DEC	Keowee	2	76	76	Seneca, SC	Hydro	Peaking	52	23	2046
DEC	<b>Lookout Shoals</b>	1	9	9	Statesville, NC	Hydro	Peaking	108	32	2055
DEC	<b>Lookout Shoals</b>	2	9	9	Statesville, NC	Hydro	Peaking	108	32	2055
DEC	<b>Lookout Shoals</b>	3	9	9	Statesville, NC	Hydro	Peaking	108	32	2055
DEC	Mountain Island	1	14	14	Mount Holly, NC	Hydro	Peaking	100	32	2055
DEC	Mountain Island	2	14	14	Mount Holly, NC	Hydro	Peaking	100	32	2055
DEC	Mountain Island	3	17	17	Mount Holly, NC	Hydro	Peaking	100	32	2055
DEC	Mountain Island	4	17	17	Mount Holly, NC	Hydro	Peaking	100	32	2055
DEC	Nantahala	1	45	45	Topton, NC	Hydro	Peaking	81	19	2042
DEC	Oxford	1	20	20	Conover, NC	Hydro	Peaking	95	32	2055
DEC	Oxford	2	20	20	Conover, NC	Hydro	Peaking	95	32	2055
DEC	Queens Creek	1	1.4	1.4	Topton, NC	Hydro	Peaking	74	9	2032
DEC	Rhodhiss	1	9.5	9.5	Rhodhiss, NC	Hydro	Peaking	98	32	2055
DEC	Rhodhiss	2	11.5	11.5	Rhodhiss, NC	Hydro	Peaking	98	32	2055
DEC	Rhodhiss	3	12.4	12.4	Rhodhiss, NC	Hydro	Peaking	98	32	2055

					HYDRO					
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)	RELICENSING STATUS
DEC	Tennessee Creek	1	11.5	11.5	Tuckasegee, NC	Hydro	Peaking	68	18	2041
DEC	Thorpe	1	19.7	19.7	Tuckasegee, NC	Hydro	Peaking	82	18	2041
DEC	Tuckasegee	1	2.5	2.5	Tuckasegee, NC	Hydro	Peaking	73	18	2041
DEC	Wateree	1	17	17	Ridgeway, SC	Hydro	Peaking	104	32	2055
DEC	Wateree	2	17	17	Ridgeway, SC	Hydro	Peaking	104	32	2055
DEC	Wateree	3	17	17	Ridgeway, SC	Hydro	Peaking	104	32	2055
DEC	Wateree	4	17	17	Ridgeway, SC	Hydro	Peaking	104	32	2055
DEC	Wateree	5	6	6	Ridgeway, SC	Hydro	Peaking	104	32	2055
DEC	Wylie	1	18	18	Fort Mill, SC	Hydro	Peaking	98	32	2055
DEC	Wylie	2	18	18	Fort Mill, SC	Hydro	Peaking	98	32	2055
DEC	Wylie	3	18	18	Fort Mill, SC	Hydro	Peaking	98	32	2055
DEC	Wylie	4	6	6	Fort Mill, SC	Hydro	Peaking	98	32	2055
DEP	Blewett	1	4	4	Lilesville, NC	Hydro	Intermediate	111	32	2055
DEP	Blewett	2	4	4	Lilesville, NC	Hydro	Intermediate	111	32	2055
DEP	Blewett	3	4	4	Lilesville, NC	Hydro	Intermediate	111	32	2055
DEP	Blewett	4	5	5	Lilesville, NC	Hydro	Intermediate	111	32	2055
DEP	Blewett	5	5	5	Lilesville, NC	Hydro	Intermediate	111	32	2055
DEP	Blewett	6	5	5	Lilesville, NC	Hydro	Intermediate	111	32	2055
DEP	Marshall	1	2	2	Marshall, NC	Hydro	Intermediate	113	N/A	Exempt
DEP	Marshall	2	2	2	Marshall, NC	Hydro	Intermediate	113	N/A	Exempt
DEP	Tillery	1	21	21	Mt. Gilead, NC	Hydro	Intermediate	98	32	2055
DEP	Tillery	2	18	18	Mt. Gilead, NC	Hydro	Intermediate	98	32	2055
DEP	Tillery	3	21	21	Mt. Gilead, NC	Hydro	Intermediate	98	32	2055
DEP	Tillery	4	25	25	Mt. Gilead, NC	Hydro	Intermediate	98	32	2055
DEP	Walters	1	36	36	Waterville, NC	Hydro	Intermediate	93	11	2034

RELICENSING STATUS
2034
2034

Note: Unit information is provided by state, but resources are dispatched on a systemwide basis.

Note: Resource type based on NERC capacity factor classifications, which may vary over the forecast period.

Note: Model assumption is that hydro assets will be relicensed.

Table B-7: Solar – Existing Generating Units and Ratings

	SOLAR										
		WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)			
DEC	NC Solar	182	182	NC	Solar	Intermittent	Various	Varies			
DEP	NC Solar	155	155	NC	Solar	Intermittent	Various				
Total	DEC/DEP Solar	337	337								
Note: Unit	information is prov	vided by state	, but resources a	re dispatched on a	a systemwide basis	S.					
Note: Sola	ar capacity ratings	reflect namep	ate capacity.								

Table B-8: Energy Storage – Existing Generating Units and Ratings

	ENERGY STORAGE											
		WINTER (MW)	SUMMER (MW)	STORAGE DURATION (HOURS)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)			
DEP	Asheville-Rock Hill	8.8	8.8	1	Asheville, NC	Energy Storage	Intermittent	3	22			
DEP	<b>Hot Springs</b>	4.4	4.4	1	Hot Springs, NC	Energy Storage	Intermittent	2	23			
DEP	Camp Lejeune	11.0	11.0	1	Camp Lejeune, NC	Energy Storage	Intermittent	-	25			
T	Total Energy Storage 24.2 24.2											
Note:	Note: Unit information is provided by state, but resources are dispatched on a systemwide basis.											
Note:	Resource type based o	n NERC ca	pacity factor	classifications,	which may vary over	the forecast period						

Table B-9: Nuclear – Existing Generating Units and Ratings

					NU	CLEAR				
		UNIT	WINTER (MW)	SUMMER (MW)	LOCATION	FUEL TYPE	RESOURCE TYPE	AGE (YEARS)	ESTIMATED REMAINING LIFE (YEARS)	RELICENSING STATUS
DEC	McGuire	1	1199	1158	Huntersville, NC	Nuclear	Base	42	18	2041
DEC	McGuire	2	1187	1158	Huntersville, NC	Nuclear	Base	39	20	2043
DEC	Catawba	1	1199	1160	York, SC	Nuclear	Base	38	20	2043
DEC	Catawba	2	1180	1150	York, SC	Nuclear	Base	37	20	2043
DEC	Oconee	1	865	847	Seneca, SC	Nuclear	Base	50	10	2033
DEC	Oconee	2	872	848	Seneca, SC	Nuclear	Base	49	10	2033
DEC	Oconee	3	881	859	Seneca, SC	Nuclear	Base	49	11	2034
DEP	Brunswick	1	975	938	Southport, NC	Nuclear	Base	46	13	2036
DEP	Brunswick	2	953	932	Southport, NC	Nuclear	Base	48	11	2034
DEP	Harris	1	1009	964	New Hill, NC	Nuclear	Base	37	23	2046
DEP	Robinson	2	793	759	Hartsville, SC	Nuclear	Base	53	7	2030
	Total DEC N	uclear	7,383	7,180						
	Total DEP N	uclear	3,730	3,593						
	Total NC N	uclear	5,323	5,150						
	Total SC N	uclear	5,790	5,623						
Tota	al DEC/DEP N	uclear	11,113	10,773						

Note: Unit information is provided by state, but resources are dispatched on a systemwide basis.

Note: Catawba Units 1 and 2 capacity reflects 100% of the station's capability. Breakdown of Catawba ownership: DEC 19.246%; NCEMC 30.754%; NCMPA#1 37.5%; PMPA 12.5%.

Note: Model assumption is that nuclear assets will receive license renewal.

**Table B-10: Total Generation Capability** 

	TOTAL GENERATION CAPABILITY								
WINTER CAPACITY (MW) SUMMER CAPACITY (MW)									
TOTAL DEC SYSTEM – NC	13,238	12,602							
TOTAL DEC SYSTEM – SC	9,312	8,959							
TOTAL DEP SYSTEM – NC	12,736	11,637							
TOTAL DEP SYSTEM – SC	1,057	989							
TOTAL DEC/DEP SYSTEM - NC	25,879	24,156							
TOTAL DEC/DEP SYSTEM - SC	10,465	10,032							
<b>TOTAL DEC/DEP SYSTEM</b> 36,343 34,187									
Note : Unit information is provided b	y state, but resources are dispatched on	a systemwide basis.							

Table B-11 below provides a listing of the planned additions and uprates included in the 2023 Carolinas Resource Plan.

**Table B-11: Planned Additions/Uprates** 

		Р	LANNED ADDIT	IONS / UPRATES	
	UNIT	WINTER (MW)	SUMMER (MW)	DATE	GENERATION TYPE
DEC	Bad Creek 3	80	80	Mar 2023	Pumped Storage
DEC	Bad Creek 4	40	40	Feb 2024	Pumped Storage
DEC	Buck	20	20	June 2027	Combined Cycle
DEC	Dan River	20	20	Dec 2027	Combined Cycle
DEC	WS Lee	14	14	Dec 2026	Combined Cycle
DEC	McGuire 1	75	75	Sept 2029	Nuclear
DEC	McGuire 2	75	75	Nov 2030	Nuclear
DEC	Catawba 1	75	75	May 2031	Nuclear
DEC	Oconee 1	15	15	Jan 2024	Nuclear
DEC	Oconee 2	15	15	Jan 2024	Nuclear
DEC	Oconee 3	15	15	Jan 2024	Nuclear
DEP	Asheville CC 1	15	15	Apr 2026	Combined Cycle
DEP	Asheville CC 2	15	15	Apr 2026	Combined Cycle
DEP	HF Lee CC	60	60	Dec 2025	Combined Cycle
DEP	Richmond PB4	20	20	June 2028	Combined Cycle
DEP	Richmond PB5	40	40	June 2028	Combined Cycle
DEP	Sutton CC	38	38	Dec 2026	Combined Cycle
DEP	Brunswick 1	13	13	Mar 2029	Nuclear
DEP	Brunswick 2	13	13	Mar 2028	Nuclear
	DEC Total	444	444		
	DEP Total	214	214		
	DEC and DEP Total	658	658		

Note: This capacity not reflected in unit ratings in above tables.

**Note**: Bad Creek Unit 4 uprate is modeled as 40 MW due to total plant limitation of 280 MW when uprates at all four units have been completed.

Tables B-12 below provide an overview of the unit retirements to date for both DEC and DEP while Table B-13 below provides a listing of the planning unit retirement dates included in the 2023 Carolinas Resource Plan.

**Table B-12: Unit Retirements** 

			UNIT	RETIREMENT	'S	
	UNIT NAME	LOCATION		ITY (MW) / SUMMER	FUEL TYPE	RETIREMENT DATE
DEC	99 Islands 5	Blacksburg, SC	0	0	Hydro	12/31/18
DEC	99 Islands 6	Blacksburg, SC	0	0	Hydro	12/31/18
DEC	Allen 2	Belmont, NC	167	162	Coal	12/31/21
DEC	Allen 3	Belmont, NC	270	258	Coal	3/31/21
DEC	Allen 4	Belmont, NC	267	257	Coal	12/31/21
DEC	Bryson City 1 <sup>F</sup>	Whittier, NC	0.5	0.5	Hydro	8/16/19
DEC	Bryson City 2 F	Whittier, NC	0.4	0.4	Hydro	8/16/19
DEC	Buck 3 <sup>A</sup>	Salisbury, NC	76	75	Coal	5/15/11
DEC	Buck 4 <sup>A</sup>	Salisbury, NC	39	38	Coal	5/15/11
DEC	Buck 5 <sup>C</sup>	Spencer, NC	131	128	Coal	4/1/13
DEC	Buck 6 <sup>C</sup>	Spencer, NC	131	128	Coal	4/1/13
DEC	Buck 7C <sup>B</sup>	Spencer, NC	30	25	Natural Gas/Oil	10/1/12
DEC	Buck 8C <sup>B</sup>	Spencer, NC	30	25	Natural Gas/Oil	10/1/12
DEC	Buck 9C <sup>B</sup>	Spencer, NC	15	12	Natural Gas/Oil	10/1/12
DEC	Buzzard Roost 6C <sup>B</sup>	Chappels, SC	22	22	Natural Gas/Oil	10/1/12
DEC	Buzzard Roost 7C <sup>B</sup>	Chappels, SC	22	22	Natural Gas/Oil	10/1/12
DEC	<b>Buzzard Roost 8C</b>	Chappels, SC	22	22	Natural Gas/Oil	10/1/12
DEC	Buzzard Roost 9C B	Chappels, SC	22	22	Natural Gas/Oil	10/1/12
DEC	Buzzard Roost 10C B	Chappels, SC	18	18	Natural Gas/Oil	10/1/12
DEC	Buzzard Roost 11C B	Chappels, SC	18	18	Natural Gas/Oil	10/1/12
DEC	Buzzard Roost 12C B	Chappels, SC	18	18	Natural Gas/Oil	10/1/12
DEC	Buzzard Roost 13C B	Chappels, SC	18	18	Natural Gas/Oil	10/1/12
DEC	Buzzard Roost 14C B	Chappels, SC	18	18	Natural Gas/Oil	10/1/12
DEC	Buzzard Roost 15C <sup>B</sup>	Chappels, SC	18	18	Natural Gas/Oil	10/1/12
DEC	Cliffside 1 A	Cliffside, NC	39	38	Coal	10/1/11
DEC	Cliffside 2 A	Cliffside, NC	39	38	Coal	10/1/11
DEC	Cliffside 3 A	Cliffside, NC	62	61	Coal	10/1/11
DEC	Cliffside 4 A	Cliffside, NC	62	61	Coal	10/1/11
DEC	Dan River 1 <sup>A</sup>	Eden, NC	69	67	Coal	4/1/12
DEC	Dan River 2 <sup>A</sup>	Eden, NC	69	67	Coal	4/1/12
DEC	Dan River 3 A	Eden, NC	145	142	Coal	4/1/12
DEC	Dan River 4C B	Eden, NC	0	0	Natural Gas/Oil	10/1/12
DEC	Dan River 5C B	Eden, NC	31	24	Natural Gas/Oil	10/1/12
DEC	Dan River 6C B	Eden, NC	31	24	Natural Gas/Oil	10/1/12
DEC	Franklin 1 F	Franklin, NC	0.5	0.5	Hydro	8/16/2019
DEC	Franklin 2 <sup>F</sup>	Franklin, NC	0.5	0.5	Hydro	8/16/2019
DEC	Gaston Shoals 3 F	Blacksburg, SC	0	0	Hydro	8/16/2019
DEC	Gaston Shoals 4 <sup>F</sup>	Blacksburg, SC	0	0	Hydro	8/16/19
DEC	Gaston Shoals 5 F	Blacksburg, SC	2	2	Hydro	8/16/19
DEC	Gaston Shoals 6 F	Blacksburg, SC	2.5	2.5	Hydro	8/16/19
DEC	Great Falls 3	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Great Falls 4	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Great Falls 7	Great Falls, SC	0	0	Hydro	5/31/18

			UNIT RE	TIREMENTS		
	UNIT NAME	LOCATION		ITY (MW) / SUMMER	FUEL TYPE	RETIREMENT DATE
DEC	Great Falls 8	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Lee 1	Pelzer, SC	100	100	Coal	11/6/14
DEC	Lee 2	Pelzer, SC	102	100	Coal	11/6/14
DEC	Lee 3 D	Pelzer, SC	170	170	Coal	5/12/15
DEC	Lee 3	Pelzer, SC	170	170	Natural Gas Boiler	3/31/22
DEC	Mission 1 <sup>E</sup>	Murphy, NC	0.6	0.6	Hydro	8/16/19
DEC	Mission 2 <sup>E</sup>	Murphy, NC	0.6	0.6	Hydro	8/16/19
DEC	Mission 3 <sup>E</sup>	Murphy, NC	0.6	0.6	Hydro	8/16/19
DEC	Riverbend 4 <sup>A</sup>	Mt. Holly, NC	96	94	Coal	4/1/13
DEC	Riverbend 5 A	Mt. Holly, NC	96	94	Coal	4/1/13
DEC	Riverbend 6 <sup>C</sup>	Mt. Holly, NC	136	133	Coal	4/1/13
DEC	Riverbend 7 <sup>C</sup>	Mt. Holly, NC	136	133	Coal	4/1/13
DEC	Riverbend 8C B	Mt. Holly, NC	0	0	Natural Gas/Oil	10/1/12
DEC	Riverbend 9C <sup>B</sup>	Mt. Holly, NC	30	22	Natural Gas/Oil	10/1/12
DEC	Riverbend 10C <sup>B</sup>	Mt. Holly, NC	30	22	Natural Gas/Oil	10/1/12
DEC	Riverbend 11C <sup>B</sup>	Mt. Holly, NC	30	20	Natural Gas/Oil	10/1/12
DEC	Rocky Creek 1	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Rocky Creek 2	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Rocky Creek 3	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Rocky Creek 4	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Rocky Creek 5	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Rocky Creek 6	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Rocky Creek 7	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Rocky Creek 8	Great Falls, SC	0	0	Hydro	5/31/18
DEC	Tuxedo 1 <sup>E</sup>	Flat Rock, NC	3.2	3.2	Hydro	8/16/19
DEC	Tuxedo 2 <sup>E</sup>	Flat Rock, NC	3.2	3.2	Hydro	8/16/19
DEP	Asheville	Arden, NC	158	155	Coal	1/29/20
DEP	Asheville	Arden, NC	192	189	Coal	1/29/20
DEP	Cape Fear 5	Moncure, NC	148	144	Coal	10/1/12
DEP	Cape Fear 6	Moncure, NC	175	172	Coal	10/1/12
DEP	Cape Fear 1A	Moncure, NC	14	11	Oil	3/31/13
DEP	Cape Fear 1B	Moncure, NC	14	12	Oil	3/31/13
DEP	Cape Fear 2A	Moncure, NC	15	12	Oil	3/31/13
DEP	Cape Fear 2B	Moncure, NC	14	11	Oil	10/1/12
DEP	Cape Fear 1	Moncure, NC	12	11	Steam Turbine	3/31/11
DEP	Cape Fear 2	Moncure, NC	12	7	Steam Turbine	3/31/11
DEP	Darlington 1	Hartsville, SC	63	50	Natural Gas/Oil	3/20
DEP	Darlington 2	Hartsville, SC	64	48	Oil	3/31/20
DEP	Darlington 3	Hartsville, SC	63	50	Natural Gas/Oil	3/31/20
DEP	Darlington 4	Hartsville, SC	66	48	Oil	3/31/20
DEP	Darlington 5	Hartsville, SC	66	51	Natural Gas/Oil	5/31/18
DEP	Darlington 6	Hartsville, SC	62	43	Oil	3/31/20
DEP	Darlington 7	Hartsville, SC	65	47	Natural Gas/Oil	3/31/20
DEP	Darlington 8	Hartsville, SC	66	44	Oil	3/31/20
DEP	Darlington 9	Hartsville, SC	65	50	Oil	6/30/17

		UNI	T RETIREMEI	VIS		
	UNIT NAME	LOCATION		TY (MW) SUMMER	FUEL TYPE	RETIREMENT DATE
DEP	Darlington 10	Hartsville, SC	65	49	Oil	3/31/20
DEP	Darlington 11	Hartsville, SC	67	52	Natural Gas/Oil	11/8/15
DEP	Lee 1	Goldsboro, NC	80	74	Coal	9/15/12
DEP	Lee 2	Goldsboro, NC	80	68	Coal	9/15/12
DEP	Lee 3	Goldsboro, NC	252	240	Coal	9/15/12
DEP	Lee 1	Goldsboro, NC	15	12	Oil	10/1/12
DEP	Lee 2	Goldsboro, NC	27	21	Oil	10/1/12
DEP	Lee 3	Goldsboro, NC	27	21	Oil	10/1/12
DEP	Lee 4	Goldsboro, NC	27	21	Oil	10/1/12
DEP	Morehead 1	Morehead City, NC	15	12	Oil	10/1/12
DEP	Robinson 1	Hartsville, SC	179	177	Coal	10/1/12
DEP	Robinson 1	Hartsville, SC	15	11	Natural Gas/Oil	3/31/13
DEP	Weatherspoon 1	Lumberton, NC	49	48	Coal	9/30/11
DEP	Weatherspoon 2	Lumberton, NC	49	48	Coal	9/30/11
DEP	Weatherspoon 3	Lumberton, NC	79	74	Coal	9/30/11
DEP	Sutton 1	Wilmington, NC	98	97	Coal	11/27/13
DEP	Sutton 2	Wilmington, NC	95	90	Coal	11/27/13
DEP	Sutton GT1	Wilmington, NC	12	11	Oil/Natural Gas	3/1/17
DEP	Sutton GTA	Wilmington, NC	31	23	Oil/Natural Gas	7/8/17
DEP	Sutton GTB	Wilmington, NC	33	25	Oil/Natural Gas	7/8/17
		Total DEC Retirements	3,010	2,899		
		<b>Total DEP Retirements</b>	2,629	2,329		
		<b>Total NC Retirements</b>	3,990	3,767		
		<b>Total SC Retirements</b>	1,649	1,461		
	Total	DEC/DEP Retirements	5,639	5,228		

Note A: Unit ratings are based off rating at the time of retirement which may be different than original unit rating.

Note B: Retirement assumptions associated with the conditions in the North Carolina Utilities Commission Order in Docket No. E-7, Sub 790, granting a Certificate of Public Convenience and Necessity to build Cliffside Unit 6.

Note C: Combustion turbines retirement dates were accelerated in 2009 based on derates, availability of replacement parts and the general condition of the remaining units.

Note D: The decision was made to retire Buck 5 and 6 and Riverbend 6 and 7 early on April 1, 2013. The original expected retirement date was April 15, 2015.

Note E: The conversion of the Lee 3 coal unit to a natural gas unit was effective March 12, 2015.

Note F: Sold to Northbrook Energy on August 16, 2019.

**Table B-13: Planning Unit Retirements** 

		PLA	NNING UNIT	RETIREMENTS A,B,C,D					
	UNIT & PLANT NAME						LOCATION	FUEL TYPE	EXPECTED RETIREMENT
DEC	Allen 1	167	162	Belmont, NC	Coal	See Appendix I			
DEC	Allen 5	275	266	Belmont, NC	Coal	See Appendix I			
DEP	Asheville 3	185	160	Arden, NC	Natural Gas/Oil	12/2039			
DEP	Asheville 4	185	160	Arden, NC	Natural Gas/Oil	12/2039			
DEC	Belews Creek 1	1,110	1,110	Belews Creek, NC	Coal	See Appendix			
DEC	Belews Creek 2	1,110	1,110	Belews Creek, NC	Coal	See Appendix			
DEP	Blewett 1	17	13	Lilesville, NC	Oil	12/2039			
DEP	Blewett 2	17	13	Lilesville, NC	Oil	12/2039			
DEP	Blewett 3	65	13	Lilesville, NC	Oil	12/2039			
DEP	Blewett 4	66	13	Lilesville, NC	Oil	12/2039			
DEC	Buck CTCC	718	668	Salisbury, NC	Natural Gas	12/2047			
DEC	Cliffside 5	546	544	Cliffside, NC	Coal	See Appendix I			
DEC	Cliffside 6	844	844	Cliffside, NC	Coal	See Appendix I			
DEP	Darlington 12	131	118	Hartsville, SC	Natural Gas/Oil	12/2039			
DEP	Darlington 13	133	116	Hartsville, SC	Natural Gas/Oil	12/2039			
DEP	HF Lee CTCC	1,054	888	Goldsboro, NC	Natural Gas	12/2048			
DEC	Lee 7C	48	42	Pelzer, SC	Natural Gas/Oil	12/2047			
DEC	Lee 8C	48	42	Pelzer, SC	Natural Gas/Oil	12/2047			
DEC	Lincoln 1	94	73	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 2	96	74	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 3	95	73	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 4	94	73	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 5	93	72	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 6	93	72	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 7	95	72	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 8	94	72	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 9	94	71	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 10	96	73	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 11	95	73	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 12	94	73	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 13	93	72	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 14	94	72	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 15	94	73	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Lincoln 16	93	73	Stanley, NC	Natural Gas/Oil	12/2040			
DEC	Marshall 1	380	370	Terrell, NC	Coal	See Appendix I			
DEC	Marshall 2	380	370	Terrell, NC	Coal	See Appendix I			
DEC	Marshall 3	658	658	Terrell, NC	Coal	See Appendix I			
DEC	Marshall 4	660	660	Terrell, NC	Coal	See Appendix I			
DEP	Mayo 1	746	727	Roxboro, NC	Coal	See Appendix			
DEC	Mill Creek 1	94	71	Blacksburg, SC	Natural Gas/Oil	12/2043			
DEC	Mill Creek 2	94	70	Blacksburg, SC	Natural Gas/Oil	12/2043			
DEC	Mill Creek 3	95	71	Blacksburg, SC	Natural Gas/Oil	12/2043			

	UNIT & PLANT NAME		ITY (MW) / SUMMER	LOCATION	FUEL TYPE	EXPECTED RETIREMENT
DEC	Mill Creek 4	94	70	Blacksburg, SC	Natural Gas/Oil	12/2043
DEC	Mill Creek 5	94	69	Blacksburg, SC	Natural Gas/Oil	12/2043
DEC	Mill Creek 6	92	71	Blacksburg, SC	Natural Gas/Oil	12/2043
DEC	Mill Creek 7	95	70	Blacksburg, SC	Natural Gas/Oil	12/2043
DEC	Mill Creek 8	93	71	Blacksburg, SC	Natural Gas/Oil	12/2043
DEC	Rockingham 1	179	165	Reidsville, NC	Natural Gas/Oil	12/2040
DEC	Rockingham 2	179	165	Reidsville, NC	Natural Gas/Oil	12/2040
DEC	Rockingham 3	179	165	Reidsville, NC	Natural Gas/Oil	12/2040
DEC	Rockingham 4	179	165	Reidsville, NC	Natural Gas/Oil	12/2040
DEC	Rockingham 5	179	165	Reidsville, NC	Natural Gas/Oil	12/2040
DEP	Roxboro 1	380	379	Semora, NC	Coal	See Appendix F
DEP	Roxboro 2	673	665	Semora, NC	Coal	See Appendix F
DEP	Roxboro 3	698	691	Semora, NC	Coal	See Appendix F
DEP	Roxboro 4	711	698	Semora, NC	Coal	See Appendix F
DEP	Smith 1	192	157	Hamlet, NC	Natural Gas/Oil	12/2041
DEP	Smith 2	192	156	Hamlet, NC	Natural Gas/Oil	12/2041
DEP	Smith 3	192	155	Hamlet, NC	Natural Gas/Oil	12/2041
DEP	Smith 4	192	159	Hamlet, NC	Natural Gas/Oil	12/2041
DEP	Smith 6	192	145	Hamlet, NC	Natural Gas/Oil	12/2041
DEP	Smith CTCC 4	570	475	Hamlet, NC	Natural Gas	12/2042
DEP	Smith CTCC 5	680	608	Hamlet, NC	Natural Gas	12/2047
DEP	Sutton CTCC	719	614	Wilmington, NC	Natural Gas	12/2049
DEP	Wayne 1/10	195	169	Goldsboro, NC	Oil/Natural Gas	12/2040
DEP	Wayne 2/11	195	174	Goldsboro, NC	Oil/Natural Gas	12/2040
DEP	Wayne 3/12	195	164	Goldsboro, NC	Oil/Natural Gas	12/2040
DEP	Wayne 4/13	195	162	Goldsboro, NC	Oil/Natural Gas	12/2040
DEP	Wayne 5/14	195	153	Goldsboro, NC	Oil/Natural Gas	12/2040
DEP	Weatherspoon 1	41	32	Lumberton, NC	Natural Gas/Oil	12/2039
DEP	Weatherspoon 2	41	32	Lumberton, NC	Natural Gas/Oil	12/2039
DEP	Weatherspoon 3	41	33	Lumberton, NC	Natural Gas/Oil	12/2039
DEP	Weatherspoon 4	41	31	Lumberton, NC	Natural Gas/Oil	12/2039
	Total DEC	10,097	9,395			
	Total DEP	9,129	8,069			
	Total DEC/DEP	19,226	17,464			
	Total DEC NC	9,250	8,748			
	Total DEC SC	847	647			
	Total DEP NC	8,865	7,839			
	Total DEP SC	264	230			

Note A: Retirement assumptions are for planning purposes only; retirement dates determined in analysis.

Note C: For planning purposes, the 2023 Carolinas Resource Plan assumes Subsequent License Renewal ("SLR") for existing nuclear facilities beginning at end of current licenses. Total planning retirements exclude nuclear capacities.

Note D: Details on coal unit retirement dates may be found in Appendix F (Coal Retirement Analysis).

Note B: Only retirement dates within the planning horizon are included in this table.

**Table B-14: Operating License Renewal** 

	Operating License Renewal - Nuclear										
	Plant and Unit Name	Location	Original Operating License Expiration	Date of Approval	Extended Operating License Expiration						
DEC	Catawba Unit 1	York, SC	12/6/2024	12/5/2003	12/5/2043						
DEC	Catawba Unit 2	York, SC	2/24/2026	12/5/2003	12/5/2043						
DEC	McGuire Unit 1	Huntersville, NC	6/12/2021	12/5/2003	3/3/2041						
DEC	McGuire Unit 2	Huntersville, NC	3/3/2023	12/5/2003	3/3/2043						
DEC	Oconee Unit 1	Seneca, SC	2/6/2013	5/23/2000	2/6/2033						
DEC	Oconee Unit 2	Seneca, SC	10/6/2013	5/23/2000	10/6/2033						
DEC	Oconee Unit 3	Seneca, SC	7/19/2014	5/23/2000	7/19/2034						
DEP	Robinson 2	Hartsville, SC	07/31/2010	04/19/2004	07/31/2030						
DEP	Brunswick 2	Southport, NC	12/27/2014	06/26/2006	12/27/2034						
DEP	Brunswick 1	Southport, NC	09/08/2016	06/26/2006	09/08/2036						
DEP	Harris #1	New Hill, NC	10/24/2026	12/17/2008	10/24/2046						

**Note**: See Appendix J (Nuclear) for details on SLRs that will extend the operation of the nuclear fleet beyond the Extended Operating License Expiration dates listed above.

### **Wholesale Purchases**

Tables B-15 and B-16 below contain a summary of DEC and DEP wholesale sales contracts, while Tables B-17 and B-18 below contain a summary of DEC and DEP firm wholesale purchased power contracts.

**Table B-15: DEC Aggregated Wholesale Sales Contracts** 

DEC Aggregated Wholesale Sales Contracts - Winter									
Year	2023	2024	2025	2026	2027	2028	2029	2030	2031
MW	1,927	1,950	1,965	1,980	1,998	2,014	2,028	2,041	2,054

Note: For wholesale contracts, DEC and DEP assume all wholesale contracts will renew unless there is an indication that the contract will not be renewed.

Note: For the period that the wholesale load is undesignated, contract volumes are projected using the same methodology as was assumed in the original contract (e.g., econometric modeling, past volumes with weather normalization and growth rates, etc.).

**Table B-16: DEP Aggregated Wholesale Sales Contracts** 

DEP Aggregated Wholesale Sales Contracts - Winter									
Year	2023	2024	2025	2026	2027	2028	2029	2030	2031
MW	4,100	4,140	4,169	4,226	4,279	4,304	4,357	4,402	4,445

Note: For wholesale contracts, DEC and DEP assume all wholesale contracts will renew unless there is an indication that the contract will not be renewed.

Note: For the period that the wholesale load is undesignated, contract volumes are projected using the same methodology as was assumed in the original contract (e.g., econometric modeling, past volumes with weather normalization and growth rates, etc.).

**Table B-17: DEC Firm Wholesale Purchase Power Contracts** 

Purchased Power Contract	Winter Capacity (MW)	Location	Volume of Purchases (MWh) (Jan '22 – Dec '22)
Peaking / Gas	5	NC	6,939
Intermediate / Hydro	8	SC - GA - AL	13,632
Peaking / Fuel Oil	16	NC	242,550
Base / Nuclear	51	NC	446,760
Base / System	2	NC	17,520

Note: Data represented above represents contractual agreements. These resources may be modeled differently in the IRP.

Table B-18: DEP Firm Wholesale Purchase Power Contracts

Purchased Power Contract	Winter Capacity (MW)	Location	Volume of Purchases (MWh) (Jan '22 – Dec '22)					
Peaking / Gas	1,725	NC/SC	1,754,941					
Intermediate / Gas	649	NC	2,001,430					
Note: Data represented above represents contractual agreements. These resources may be modeled differently in the IRP.								

## **Non-Utility Generation Summary**

Table B-19 below contains a summary of the non-utility generation contracts for DEC by state and Table B-20 below provides similar information for DEP. This information reflects contracts as of December 31, 2022.

**Table B-19: DEC Non-Utility Generation Summary** 

Generation Type	Designation	Utility	State	No. of Facilities	Capacity (MW AC)
Biomass	Intermediate	DEC	NC	18	50
Coal	-	DEC	NC	1	0.01
Hydroelectric	Baseload	DEC	NC	23	32
Natural Gas	Intermediate	Intermediate DEC NC		1	500
Nuclear	-	DEC	NC	1	0.01
Other	Intermediate	DEC	NC	9	4
Solar	Intermediate	DEC	NC	18,953	1,291
Battery	-	DEC	SC	1	0.1
Biomass	Intermediate	DEC	SC	3	8
Hydroelectric	Baseload	DEC	SC	14	37
Natural Gas	Intermediate	DEC	SC	2	136
Other	-	DEC	SC	2	0.001
Solar	Intermediate	DEC	SC	11,163	190
Wind	Intermediate	DEC	SC	1	0
		19,006	1,877		
		11,186	371		
		30,192	2,248		

**Table B-20: DEP Non-Utility Generation Summary** 

Generation Type	Designation	Utility	State	No. of Facilities	Capacity (MW AC)
Biomass	Intermediate	DEP	NC	17	157
Diesel	Peaking	DEP	NC	17	9
Hydroelectric	Baseload	DEP	NC	15	16
Natural Gas	Intermediate	DEP	NC	1	273
Other	Intermediate	DEP	NC	4	5
Solar	Intermediate	DEP	NC	18,093	2,941
Wind	Intermediate	DEP	NC	4	0.02
Biomass	Intermediate	DEP	SC	2	12
Diesel	Peaking	DEP	SC	1	0.4
Solar	Intermediate	DEP	SC	2,091	127
		18,151	3,401		
		2,094	139		
		20,245	3,540		