

*Table AR-5  
Asset Renewal Circuit Breakers*

<b>System Additions</b>	<b>Projected In-Service Year</b>	<b>Planning Zone</b>	<b>Need Category</b>
Circuit breaker replacements	2013	Various	Type U Bushings (12 units) 69kV
Circuit breaker replacements	2013	Various	Planning stability issues (1 units) 69 KV
Circuit breaker replacements	2013	Various	Type S bushings (1 unit) 69 kV
Circuit breaker replacements	2013	Various	Type U Bushings (4 units) 138kV
Circuit breaker replacements	2013	Various	End of life, part obsolescence (6 units) 138 kV
Circuit breaker replacements	2013	Various	EPA SF6 emission reduction (7units) 345 kV
Circuit breaker replacements	2014	Various	End of life, parts obsolescence (7 units) 138 kV
Circuit breaker replacements	2014	Various	Mechanism design issues (11 units) 69 kV
Circuit breaker replacements	2014	Various	Type U Bushings (4 units) 138kV
Circuit breaker replacements	2014	3	Type U Bushings (1 unit) 69kV
Circuit breaker replacements	2014	5	Over duty rating (1 unit) 138 kV

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Asset Renewal Circuit Breakers (continued)*

<b>System Additions</b>	<b>Projected In-Service Year</b>	<b>Planning Zone</b>	<b>Need Category</b>
Circuit breaker replacements	2015	4	Mechanism design issues (7 units) 69 kV
Circuit breaker replacements	2015	4	End of life, parts obsolescence (1 units) 69 kV
Circuit breaker replacements	2015	Various	End of life, parts obsolescence (6 units) 138 kV
Circuit breaker replacements	2015	4	Bushing flange oil leak (4 units) 345 kV
Circuit breaker replacements	2016	Various	Mechanism design issues (8 units) 69 kV
Circuit breaker replacements	2016	Various	End of life, parts obsolescence (3 units) 69 kV
Circuit breaker replacements	2016	Various	End of life, parts obsolescence (2 units) 138 kV
Circuit breaker replacements	2016	3	Bushing flange oil leak (3 units) 345 kV
Circuit breaker replacements	2017-2022	Various	Mechanism design issues (15 units) 69 kV
Circuit breaker replacements	2017-2022	Various	End of life, parts obsolescence (3 units) 69 kV
Circuit breaker replacements	2017-2022	Various	Mechanism design issues (3 units) 138 kV

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Asset Renewal Circuit Breakers (continued)*

<b>System Additions</b>	<b>Projected In-Service Year</b>	<b>Planning Zone</b>	<b>Need Category</b>
Circuit breaker replacements	2017-2022	Various	End of life, parts obsolescence (5 units) 138 kV
Circuit breaker replacements	2017-2022	Various	Bushing flange oil leak (18 units) 345 kV
Circuit breaker replacements	2017-2022	Various	End of life, parts obsolescence (8 units) 345 kV