

## Appendix C – End of System Service Life

This chart presents the system service life that CASR would consider for a particular piece of equipment to extend a building's compliance timeline (Table 36). This does not mean the building owner is required to replace the equipment at the time listed in the chart. Building owners may experience longer or shorter service life depending on their maintenance practices. The chart was created by consulting multiple ASHRAE data sources, calculating an average lifespan per equipment, and adding additional time. If there is a specific type of equipment missing from the chart, then the average service life for that equipment's category should be used.

TABLE 36: SERVICE LIFE CHART FOR TIMELINE EXTENSIONS

Equipment Item	Full Service Life in Years	50% Thres-hold	Equipment Item	Full Service Life in Years	50% Thres-hold
<b>Air Conditioners</b>	16	8	<b>Fans</b>	22	11
Window unit	11	5	Centrifugal	28	14
Residential single or Split package	17	8	Axial	22	11
Commercial through the wall	17	8	Propeller	17	8
Water-cooled package	17	8	Ventilating roof-mounted	22	11
<b>Heat Pumps</b>	17	8	<b>Coils</b>	20	10
Residential/Commercial air-to-air	17	8	DX, water, or steam	22	11
Commercial water-to-air	17	8	Electric	17	8
<b>Rooftop Air Conditioners</b>	20	10	<b>Heat Exchangers</b>	26	13
Single-zone	20	10	<b>Reciprocating Compressors</b>	22	11
Multi-zone	20	10	<b>Packaged Chillers</b>	34	17
<b>Boilers, Hot Water</b>	24	12	Reciprocating or centrifugal	25	12
Gas fired	24	12	Absorption	43	21
Oil fired	22	10	<b>Cooling Towers</b>	28	14
Electric	31	15	Galvanized metal	22	11
<b>Burners</b>	23	11	Wood	26	13
<b>Furnaces gas or oil fired</b>	20	10	Ceramic	37	18
<b>Unit Heaters</b>	18	9	Stainless Steel	26	13
Gas or electric	14	6	<b>Air-cooled Condensers</b>	22	11
Hot water or steam	22	11	<b>Evaporative Condensers</b>	22	11
<b>Domestic Water Heater</b>	10	5	<b>Insulation</b>	22	11
<b>Radiant Heaters</b>	27	13	Molded	20	10
Electric	24	12	Blanket	24	12
Hot water or steam	30	15	<b>Pumps</b>	18	9
<b>Air Terminals</b>	27	13	Base-mounted	22	11
Diffusers, Grilles, and Registers	30	15	Pipe-mounted	12	6
Induction and fan coil units	30	15	Sump and well	12	6
VAV and double-duct boxes	22	11	Condensate	17	8
<b>Air Washers</b>	19	9	Close-coupled, end-suction	21	10
<b>Ductwork</b>	30	15	Frame-mounted, end-suction	21	10
<b>Dampers</b>	22	11	Split-case, multistage pump	21	10
<b>Packaged DX</b>	19	9	Split-case, single stage	32	16
Air-cooled	17	8	Vertical in-line	21	10
Rooftop	20	10	<b>Air Handling Units</b>	27	13
Water-cooled	19	9	Constant volume	30	15
<b>Packaged Terminal</b>	30	15	Dual duct	40	20
Air conditioner or heat pump	30	15	Multi-zone	26	13
<b>Steam Turbines</b>	33	16	Single-zone	20	10
<b>Electric Motors</b>	20	10	Variable air volume	22	11
<b>Motor Starters</b>	19	9	Variable volume, variable temp	23	11
<b>Electric Transformers</b>	33	16	<b>Reciprocating Engines</b>	22	11