buildup. At 15%, there is more H_2 wasted during the purge event. This would show up in the life cycle cost of the system rather than in the capital cost of the fuel cell system.

The cost, volume, weight, and parasitic power load were compared for all four H_2 recirculation configurations examined as seen in Figure 32 and Figure 33. A breakdown in the cost of the four configurations is shown in Figure 34. The Blower-Only system is the highest cost, weight, and parasitic load out of all the configurations. The Pulsed-Ejector system is the lowest cost, volume, weight, and parasitic load. The piping can be a significant part of the cost and depends on the number of components and spacing of components within the system. The Dual-Ejector with Bypass configuration is used for the 2017 baseline system and the Pulsed-Ejector with Bypass is used for the 2020 and 2025 systems.

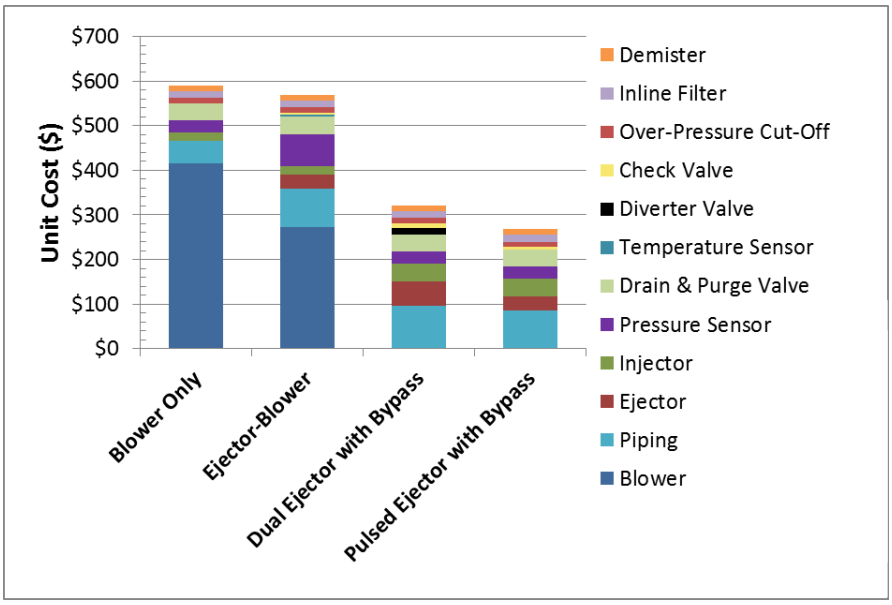

Figure 32. Bar graph showing breakdown in cost at 500k systems per year for the four H_2 recirculation systems modeled by SA