

Alaska Bulk Fuel Aggregation Study

Appendix F: How Facility Life Affects the Financial Analysis Results

September 2026

A sensitivity analysis shows how model results change when one assumption is adjusted while the other assumptions remain the same. Although other model assumptions could also be tested, facility life was selected because it directly affects how often a facility must be replaced and is an important driver of the cost differences between the **collaborative partnership** and **regional cooperative** scenarios. The original model assumes a 25-year facility life under the **collaborative partnership** scenario and a 35-year facility life under the **regional cooperative** scenario.

Table 1 compares the **collaborative partnership** scenario with the **regional cooperative** scenario facility lives of 25, 30, and 35 years for a large facility distributing 70,000 gallons annually.

Table 1. Sensitivity of Cost per Gallon to Regional Cooperative Facility Life

Scenario	Facility Life	Cost Per Gallon	Savings Compared with Collaborative Partnership
Collaborative Partnership	25 years	\$10.65	—
Regional Cooperative	25 years	\$10.92	(\$0.27)
Regional Cooperative	30 years	\$10.18	\$0.47
Regional Cooperative	35 years	\$9.66	\$0.99

The sensitivity analysis shows:

- Under the original 35-year assumption, the **regional cooperatives** have costs of \$9.66 per gallon, or \$0.99 less than the **collaborative partnership** cost of \$10.65 per gallon.
- If the **regional cooperative** facility life is reduced to 30 years, it remains less expensive, but the estimated savings decrease to \$0.47 per gallon.
- If both scenarios have the same 25-year facility life, the facilities participating in a **regional cooperative** cost \$10.92 per gallon, or \$0.27 more than facilities participating in a **collaborative partnership**.

These results indicate that the **regional cooperative** scenario does not need the full 10-year facility-life advantage assumed in the original model to remain less expensive. It remains the lower-cost option with the tested five-year advantage, but the cost advantage reverses when both scenarios are assumed to have the same facility life.