

# The Business Case for Fleet Optimization: A 10-Year Financial Perspective



## Program Summary:

- **Process Improvement:** Individualized program based on company needs and capabilities.
- **Operational Scale:** Fleet size of 80 trucks and 65 routes.
- **Investment:** \$20,000 monthly for 8 months covering onsite support through process improvement.
- **Cost Increases:** Short term cost increases of \$20,000 due to deferred or missed maintenance on trucks.
- **Early Savings:** \$10,000 in realized operational savings from reduction in breakdowns and down trucks.
- **On-going Savings:** \$20,000 in sustained savings through a cutting 100 operational hours monthly.
- **Fleet Right Sizing:** Elimination of 2 "excess" trucks following an increase in reliability and the decrease in down trucks and breakdowns. Savings include monthly depreciation and cost avoidance in years 3 & 5 not replacing the trucks.

Project Parameters	
Item	Details
Initial Investment	\$20,000/month for 8 months
Cost Increases	\$20,000/month for first 6 months
Early Savings	\$10,000/month (months 5-8)
Ongoing Savings	\$20,000/month from month 9 in perpetuity
Truck Removal (2 trucks)	\$70,000/year (\$5,833.33/month) from month 12
Cost Avoidance	\$450,000 at end of Year 3 and Year 5
Discount Rate	8% annual → 0.6667% monthly

Executive Summary	
Metric	Value
Net Present Value (NPV)	\$2,313,828
Internal Rate of Return (IRR)	263.37%
Payback Period	18 Months
Total Investment (Undiscounted)	\$160,000
Return on Investment	2.293.51%

**Year 1 - Monthly Cash Flows**

Month	Investment	Cost Inc	Early Savings	Ongoing savings	Truck Savings	Net Cash Flow	Cumulative Cash Flow
1	\$ (20,000)	\$ (20,000)				\$ (40,000)	\$ (40,000)
2	\$ (20,000)	\$ (20,000)				\$ (40,000)	\$ (80,000)
3	\$ (20,000)	\$ (20,000)				\$ (40,000)	\$ (120,000)
4	\$ (20,000)	\$ (20,000)				\$ (40,000)	\$ (160,000)
5	\$ (20,000)	\$ (20,000)	\$ 10,000			\$ (30,000)	\$ (190,000)
6	\$ (20,000)	\$ (20,000)	\$ 10,000			\$ (30,000)	\$ (220,000)
7	\$ (20,000)		\$ 10,000			\$ (10,000)	\$ (230,000)
8	\$ (20,000)		\$ 10,000			\$ (10,000)	\$ (240,000)
9				\$ 20,000		\$ 20,000	\$ (220,000)
10				\$ 20,000		\$ 20,000	\$ (200,000)
11				\$ 20,000		\$ 20,000	\$ (180,000)
12				\$ 20,000	\$ 5,833	\$ 25,833	\$ (154,167)

**Annual Cash Flows**

Year	Undiscounted Cash Flow	Discounted Cash Flow	Cumulative Present Value
1	\$ (154,167)	\$ (151,900)	\$ (151,900)
2	\$ 310,000	\$ 282,497	\$ 130,597
3	\$ 760,000	\$ 641,379	\$ 771,976
4	\$ 310,000	\$ 243,057	\$ 1,015,033
5	\$ 760,000	\$ 553,147	\$ 1,568,180
6	\$ 310,000	\$ 209,085	\$ 1,777,265
7	\$ 310,000	\$ 193,598	\$ 1,970,863
8	\$ 310,000	\$ 179,258	\$ 2,150,121
9	\$ 310,000	\$ 165,980	\$ 2,316,101
10	\$ 310,000	\$ 153,685	\$ 2,469,786