

FLEET COST REDUCTION STRATEGIES



**Society of Independent Gasoline Marketers of America
Transportation Share Group Meeting**

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Reasons that Opportunities Exist to Reduce Fleet Costs

- ***Inefficient*** fleet management structures and practices
- ***Ineffective*** fleet management practices
- **Fleet user organization *focus*** on core mission
- **Lack of *information*** on, and ***visibility*** of, costs
- **Lack of appreciation** of the ***magnitude*** of costs
- **Insufficient *ownership*** of, and ***accountability*** for, costs
- **Lack of *understanding*** of vehicle life cycle cost principles
- ***Complexity*** and ***interdependence*** of fleet management and operating activities

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What exactly does “reducing costs” or “saving money” mean?

- **Economic savings**
- **Fiscal (budgetary) savings**
- **Direct cost reductions**
- **Indirect cost reductions**

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When we talk about reducing costs, whose costs are we talking about?

- Those in a particular business unit's budget?
- The company's?
- Employees?
- Suppliers?

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Strategies for Reducing Fleet Costs Quickly – the Low-Hanging Fruit

- **Change the period of time over which you pay for assets**
 - Pay before you go
 - Pay as you go
- **Dispose of / redeploy under-utilized and unneeded resources**
 - Vehicles
 - Personnel

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Strategies for Reducing Fleet Costs Quickly – the Low-Hanging Fruit

- **Reduce fleet user service levels**
 - **Service locations**
 - **Hours of operation / after-hours service availability**
 - **Service request fulfillment rates and response times**

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Strategies for Reducing Fleet Costs Quickly – the Low-Hanging Fruit

- **Pay less for the fleet-related goods and services you buy**
 - **Vehicles**
 - **Fuel**
 - **Vehicle rental**
 - **Maintenance and repair services**
 - **Financing**
- **Get paid more / more quickly for the assets you sell**

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Strategies for Reducing Fleet Costs That Usually Take Time to Bear Fruit

- **Increase operational efficiency**
 - **Fleet-dependent activities**
 - **Fleet management activities**
- **Increase visibility of, and accountability for, costs**
 - **KPI reports**
 - **Cost charge-back system**
- **Change asset replacement cycles to minimize total cost of ownership**

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Increase Efficiency through Outsourcing

- **Light-duty vehicle maintenance and repair and maintenance management**
- **Specialty/low-volume repairs**
- **Parts management**
- **Motor pool operation / short-term rental vehicle provision**
- **Fueling**
- **Vehicle remarketing**

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Increase Efficiency through Business Process Reengineering

- **Fleet operation**
 - Right types/numbers of vehicles for the job
 - Trip planning (routing and scheduling)
 - Vehicle dispatching
 - Vehicle sharing / pooling
- **Fleet management**
 - Program and facility consolidation
 - Fleet standardization
 - Shop automation
 - Mechanic training
 - Policies and procedures

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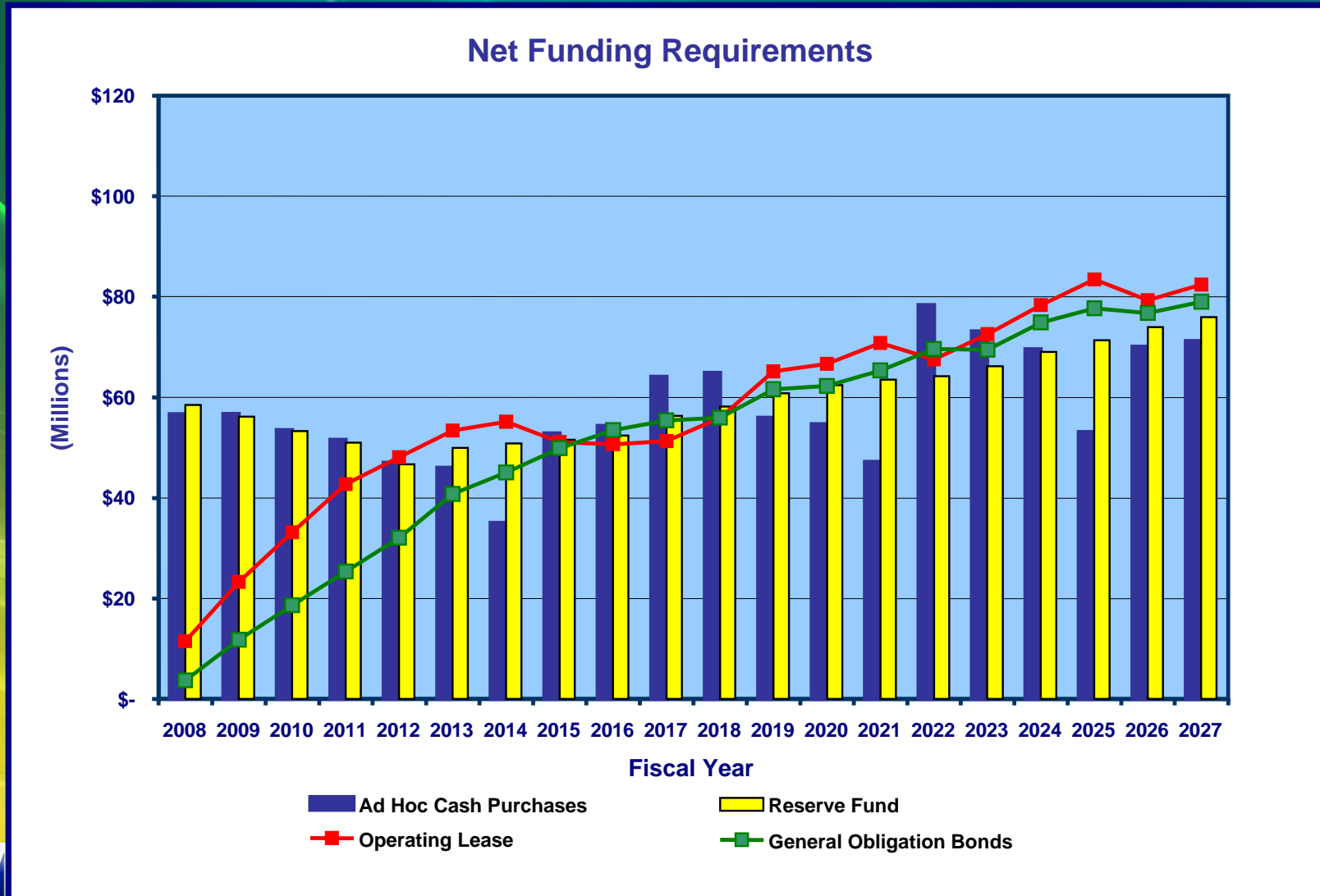
Increase Visibility, Ownership, and Management of Fleet Costs

- **Implement internal cost charge-back system**
 - **Better recognition of vehicle capital and operating costs**
 - **More informed decisions about consumption of fleet resources and services**
 - **Greater pressure on internal fleet management programs to provide fleet resources and services cost and quality competitively or to outsource**
 - **Clear focal point for fleet cost accountability**

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The Low-Hanging Fruit: Changing Capital Financing Methods



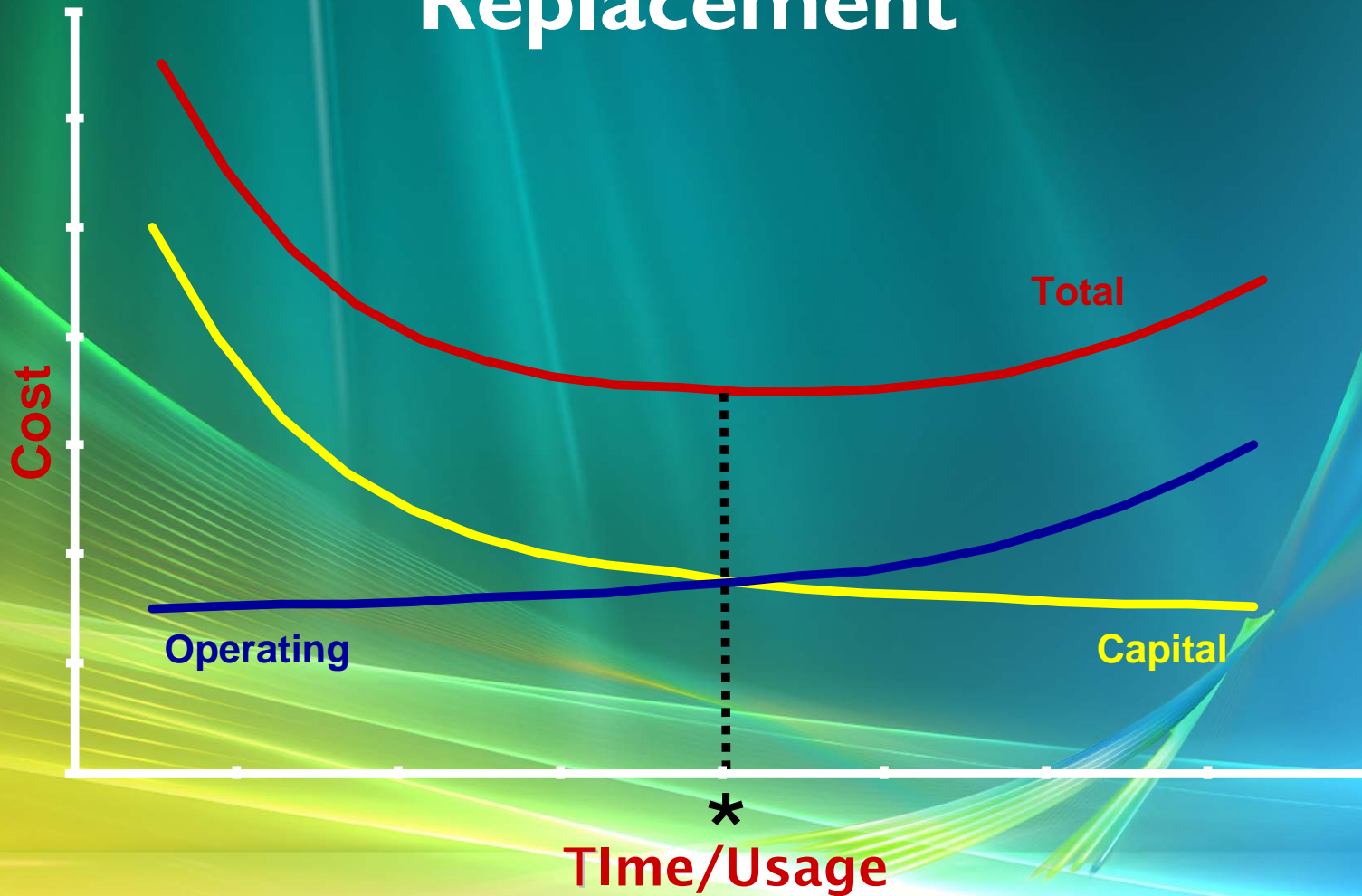
The Low-Hanging Fruit: Changing Capital Financing Method

Total	Year 1	Years 1-5	Years 1-10
Ad Hoc Cash Purchases	\$ 53.9 M	\$ 258.4 M	\$ 528.7 M
Reserve Fund	\$ 55.4 M	\$ 259.6 M	\$ 525.8 M
Bonds	\$ 3.5 M	\$ 89.9 M	\$ 354.0 M
Operating Leases	\$ 10.7 M	\$ 151.0 M	\$ 449.6 M
Annual Average	Year 1	Years 1-5	Years 1-10
Ad Hoc Cash Purchases	\$ 53.9 M	\$ 51.7 M	\$ 52.9 M
Reserve Fund	\$ 55.4 M	\$ 51.9 M	\$ 52.6 M
Bonds	\$ 3.5 M	\$ 18.0 M	\$ 35.4 M
Operating Leases	\$ 10.7 M	\$ 30.2 M	\$ 45.0 M

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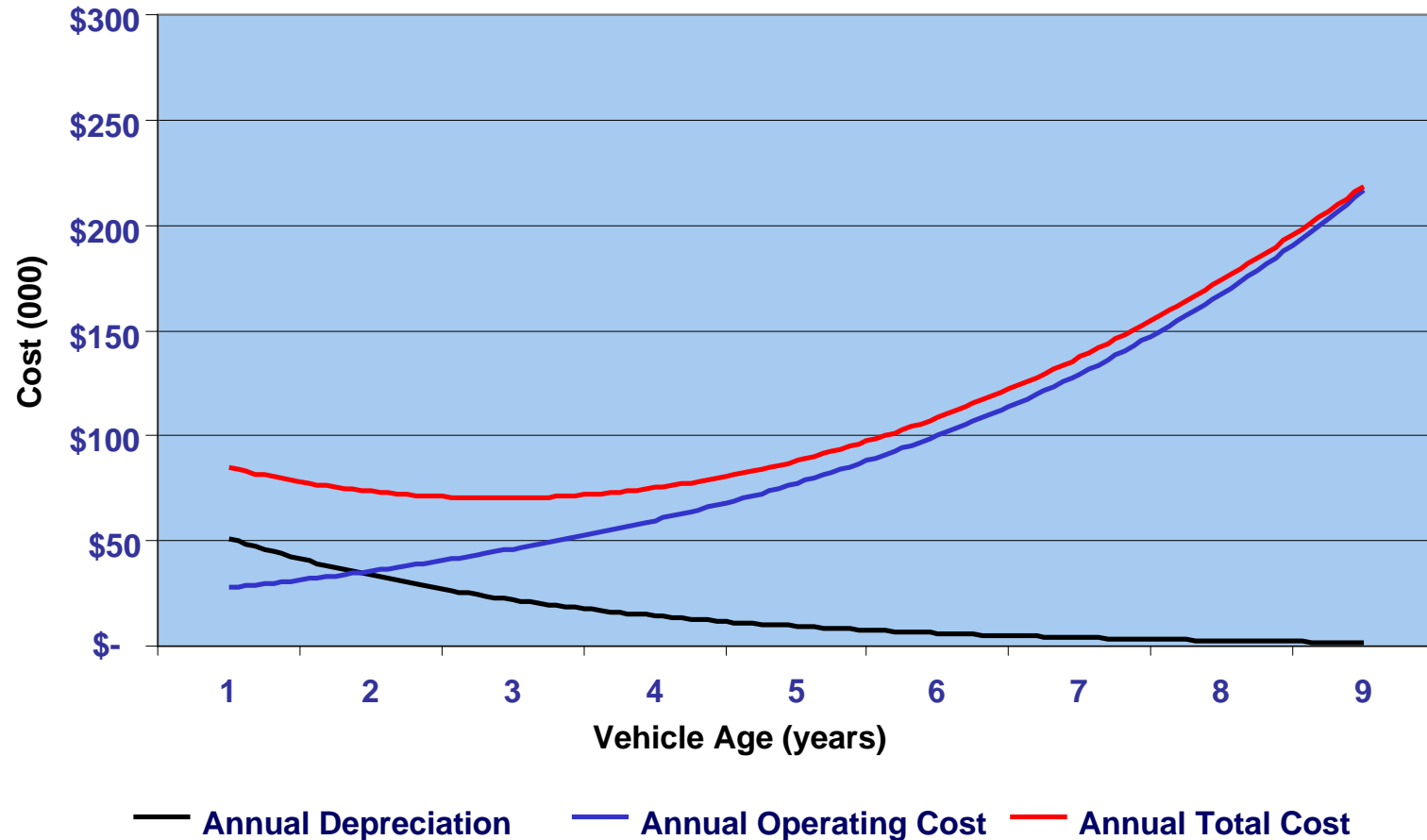
Economic Theory of Optimal Vehicle Replacement



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Determining the Replacement Cycle That will Minimize TCO

Capital, Operating, and Total Cost Trend Lines



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Determining the Replacement Cycle That will Minimize TCO

REPLACEMENT CYCLE (years)	1	2	3	4	5	6	7	8	9
Mileage at replacement	10,578	21,156	31,734	42,312	52,890	63,468	74,046	84,624	95,202
CAPITAL COST									
Estimated Residual Value	\$123,500	\$83,978	\$ 57,991	\$ 44,977	\$ 37,176	\$ 31,991	\$ 28,304	\$ 25,556	\$ 23,436
Annual Depreciation	\$66,500	\$39,522	\$ 25,987	\$ 13,013	\$ 7,801	\$ 5,186	\$ 3,687	\$ 2,748	\$ 2,120
Cumulative Capital Cost	\$66,500	\$106,022	\$ 132,009	\$ 145,023	\$ 152,824	\$ 158,009	\$ 161,696	\$ 164,444	\$ 166,564
OPERATING COST									
Annual Maint & Repair Cost	\$ 19,951	\$ 26,806	\$ 36,017	\$ 48,392	\$ 65,020	\$ 87,361	\$ 117,380	\$ 157,712	\$ 211,904
Annual Fuel Cost	\$ 8,881	\$ 9,239	\$ 9,611	\$ 9,998	\$ 10,401	\$ 10,820	\$ 11,256	\$ 11,710	\$ 12,182
Total Annual Operating Cost	\$ 28,831	\$ 36,045	\$ 45,628	\$ 58,390	\$ 75,421	\$ 98,182	\$ 128,636	\$ 169,422	\$ 224,086
Cumulative Operating Cost	\$ 28,831	\$ 64,876	\$ 110,503	\$ 168,894	\$ 244,315	\$ 342,497	\$ 471,133	\$ 640,556	\$ 864,641
TOTAL COST									
Annual Total Cost	\$ 95,331	\$ 75,567	\$ 71,615	\$ 71,404	\$ 83,222	\$ 103,368	\$ 132,323	\$ 172,170	\$ 226,205
Cumulative Total Cost	\$ 95,331	\$ 170,898	\$ 242,513	\$ 313,917	\$ 397,139	\$ 500,506	\$ 632,829	\$ 804,999	\$1,031,205
Equivalent Annual Cost	\$ 92,633	\$ 84,258	\$ 80,883	\$ 79,672	\$ 81,809	\$ 87,162	\$ 95,824	\$ 108,186	\$ 124,945

↑
Recommended
Replacement
Cycle

↑
Current
Replacement
Cycle

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Vehicle Purchase Prices

Vehicle Type	Purchase Price
35 - 40 Ton Pit Truck	\$ 540,000
50 - 60 Ton Pit Truck	\$ 750,000
85 - 100 Ton Pit Truck	\$ 1,250,000
LD Loaders	\$ 650,000
MD Loaders	\$ 1,200,000
HD Loaders	\$ 1,600,000

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Saving Money by Renewing an Old Fleet

Current v Recommended Replacement Cycles

Vehicle Type	Current Replacmt Age (years)	Recomm Replacmt Age (years)	EAC Under Current Cycle	EAC Under Recomm Cycle
35 - 40 Ton Pit Truck	30	9	\$199,556	\$86,778
50 - 60 Ton Pit Truck	31	9	\$231,065	\$89,475
85 - 100 Ton Pit Truck	20	9	\$272,594	\$157,050
LD Loaders	20	9	\$248,758	\$149,439
MD Loaders	29	9	\$535,607	\$273,560
HD Loaders	20	9	\$493,996	\$356,607

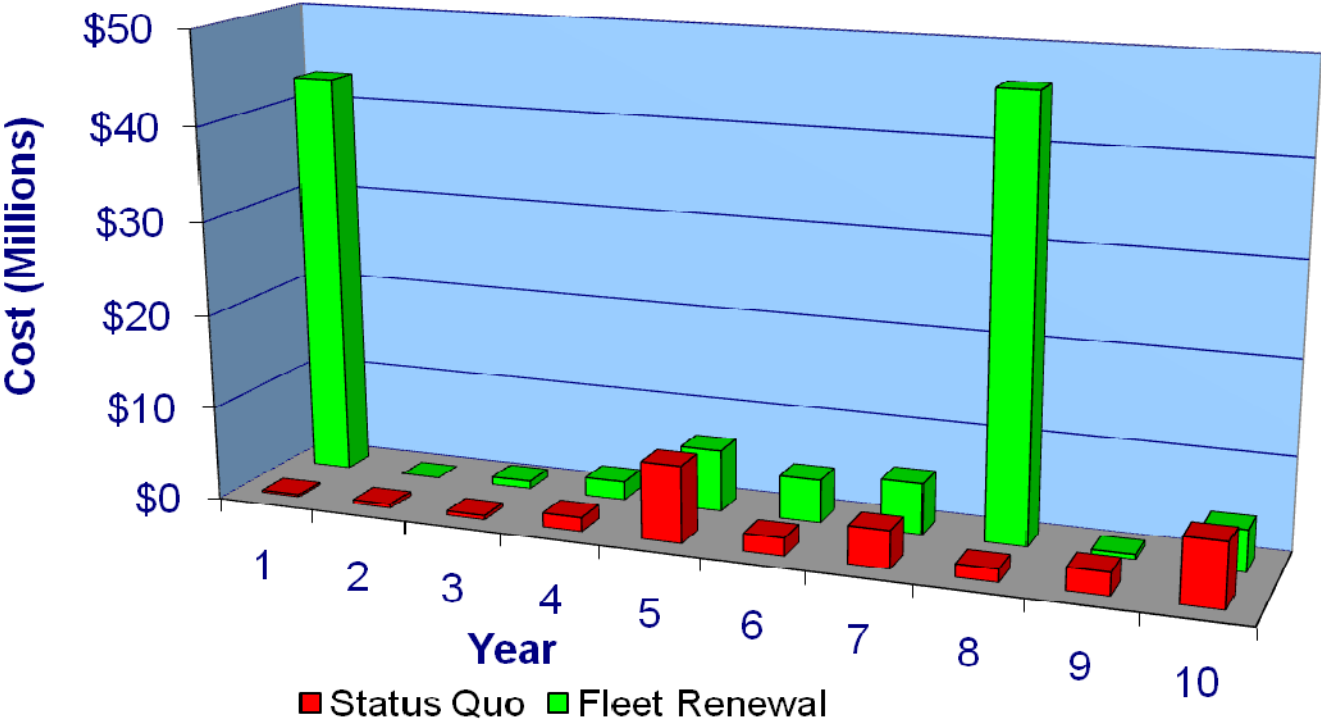
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Saving Money by Renewing an Old Fleet

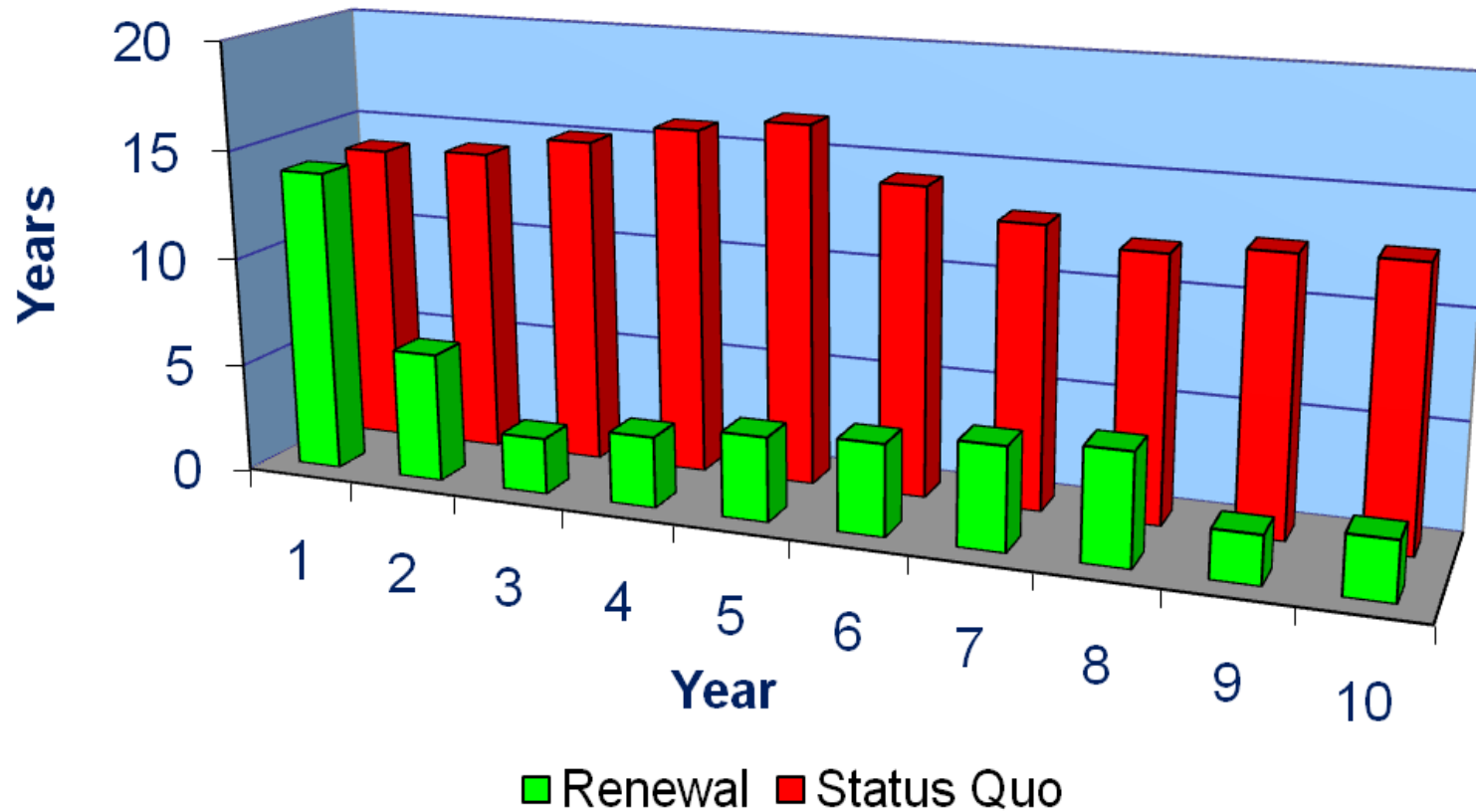
Current v Recommended Replacement Strategies

Gross Fleet Acquisition Costs



Fleet Renewal v Status Quo

Average Asset Age

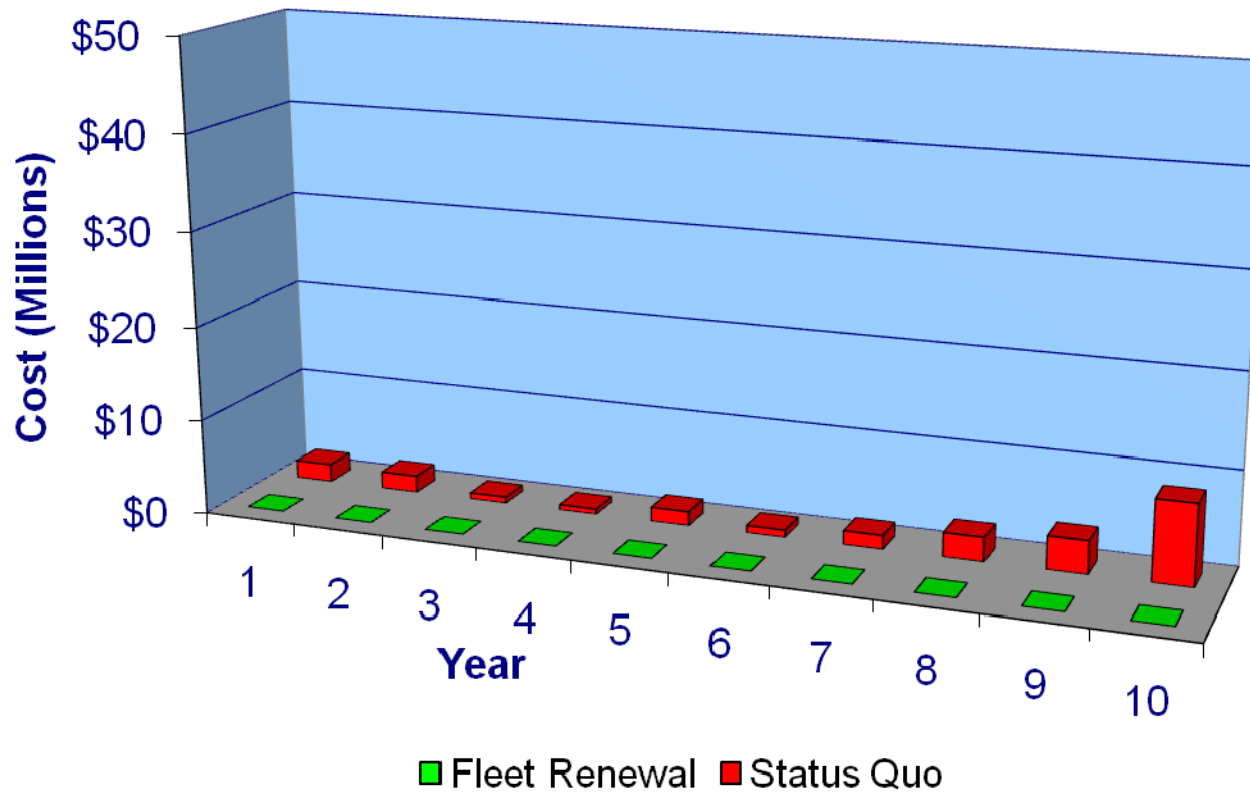


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Fleet Renewal v Status Quo

Fleet Refurbishment Costs

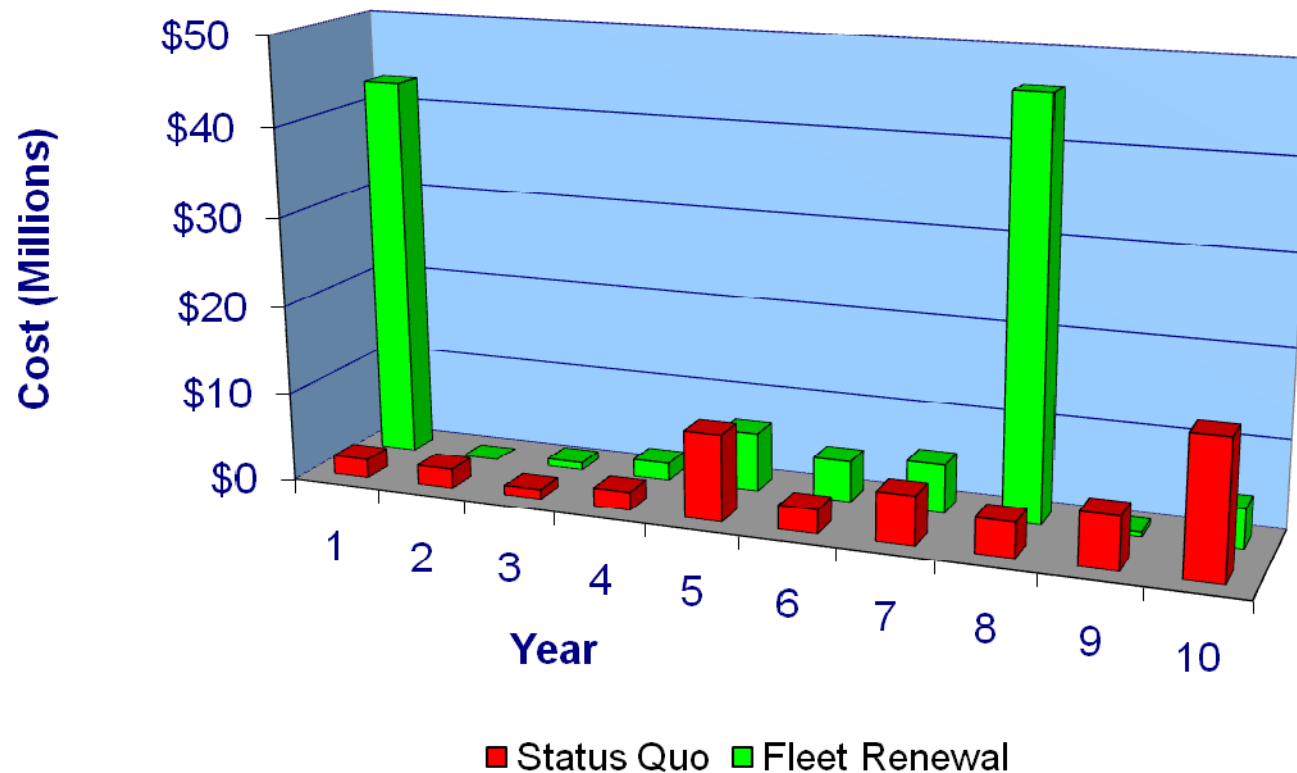


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Fleet Renewal v Status Quo

Combined Fleet Acquisition and Refurbishment Costs

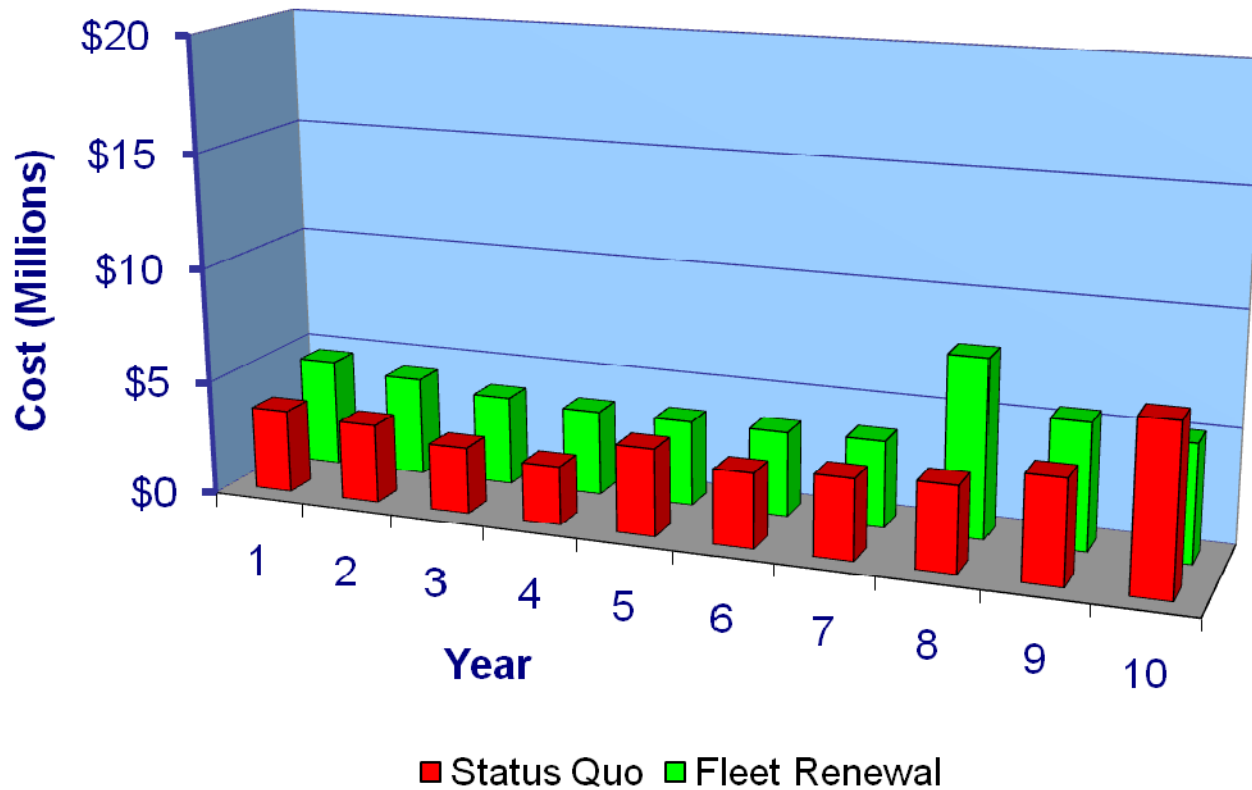


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Fleet Renewal v Status Quo

Fleet Acquisition & Refurbishment Depreciation

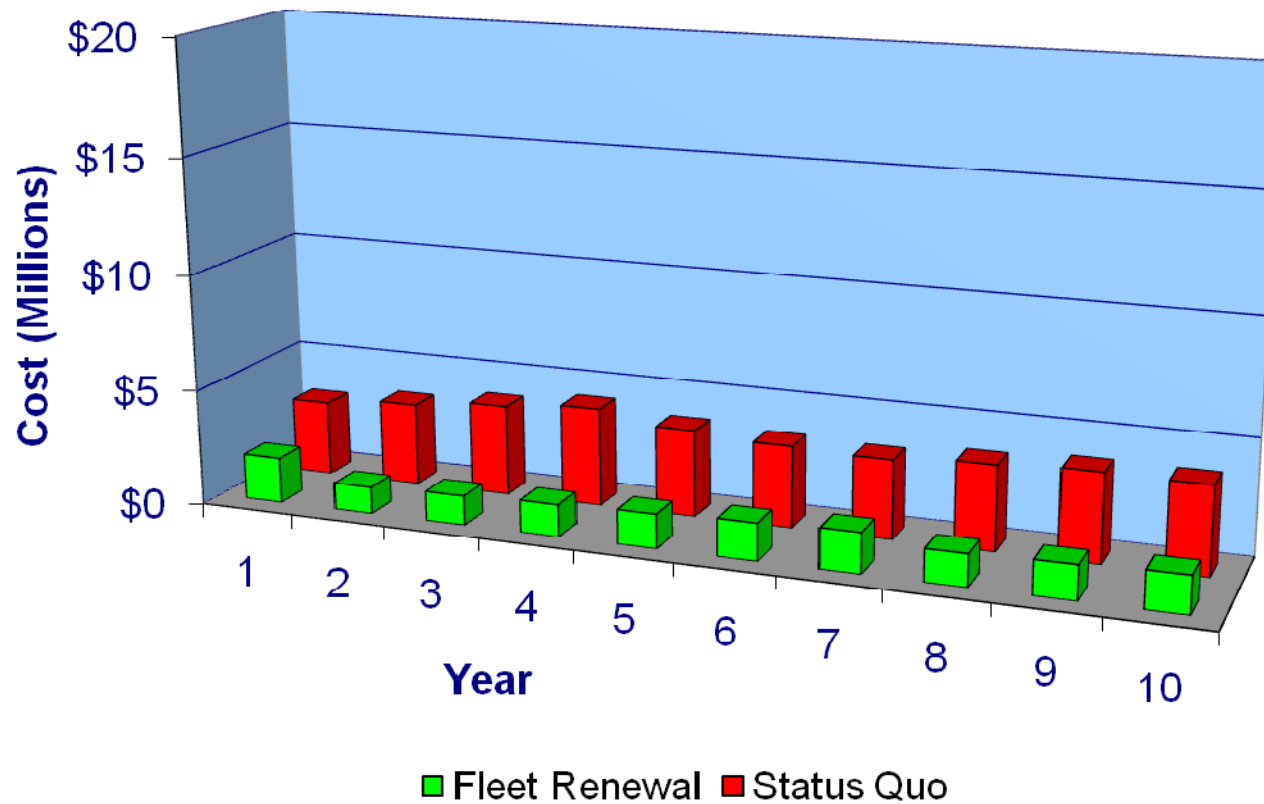


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Fleet Renewal v Status Quo

Fleet Maintenance and Repair Costs

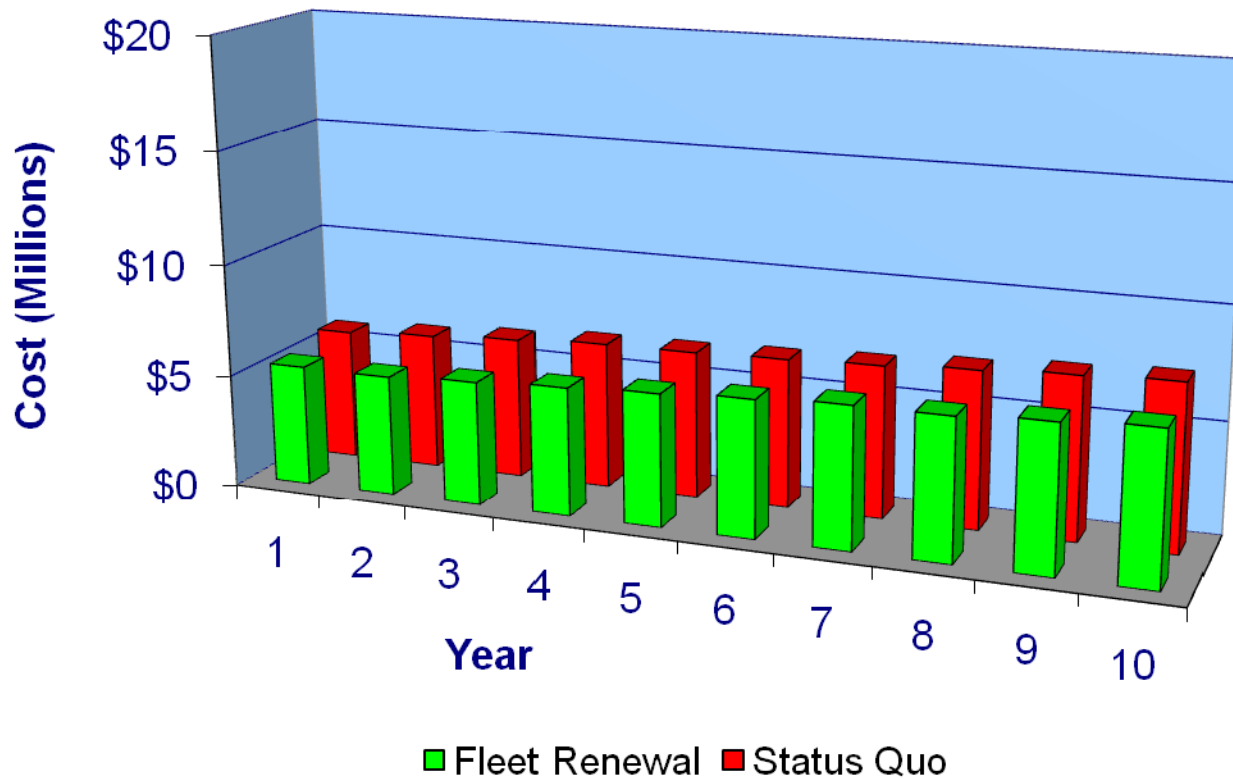


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Fleet Renewal v Status Quo

Fleet Fuel Cost

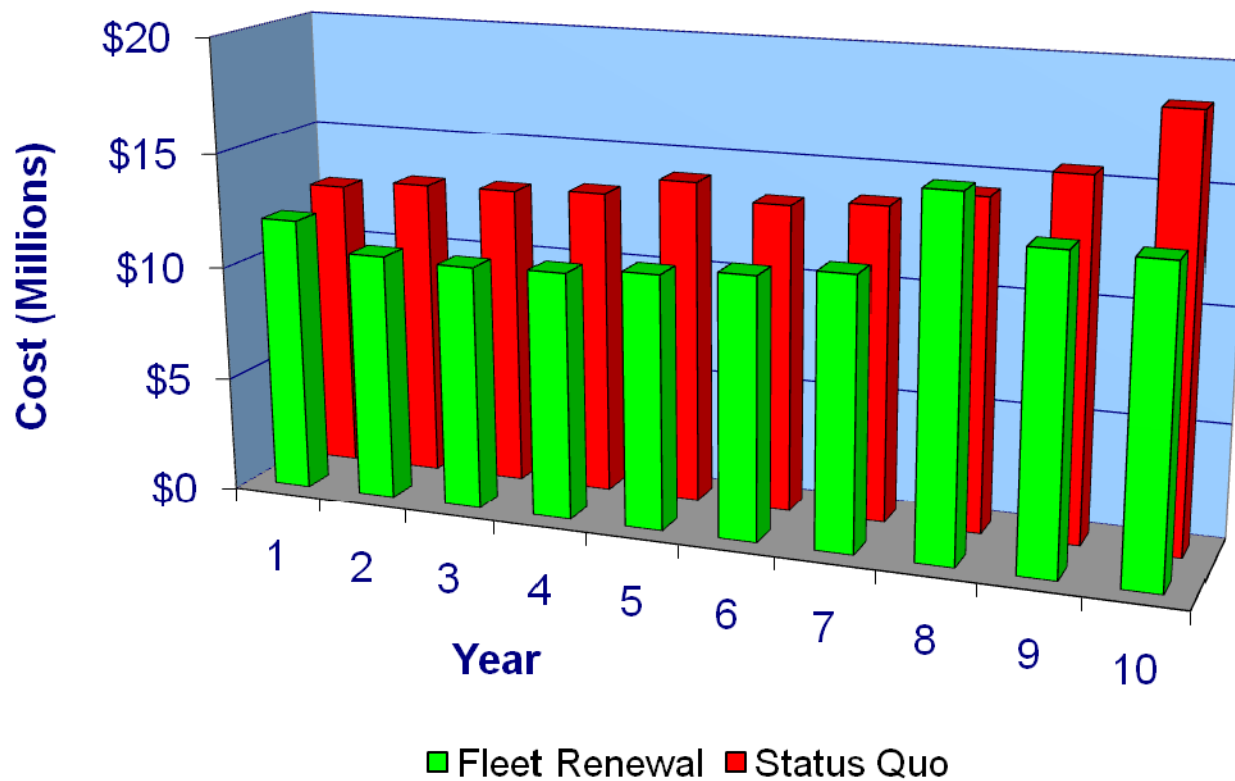


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Fleet Renewal v Status Quo

Total Fleet Costs

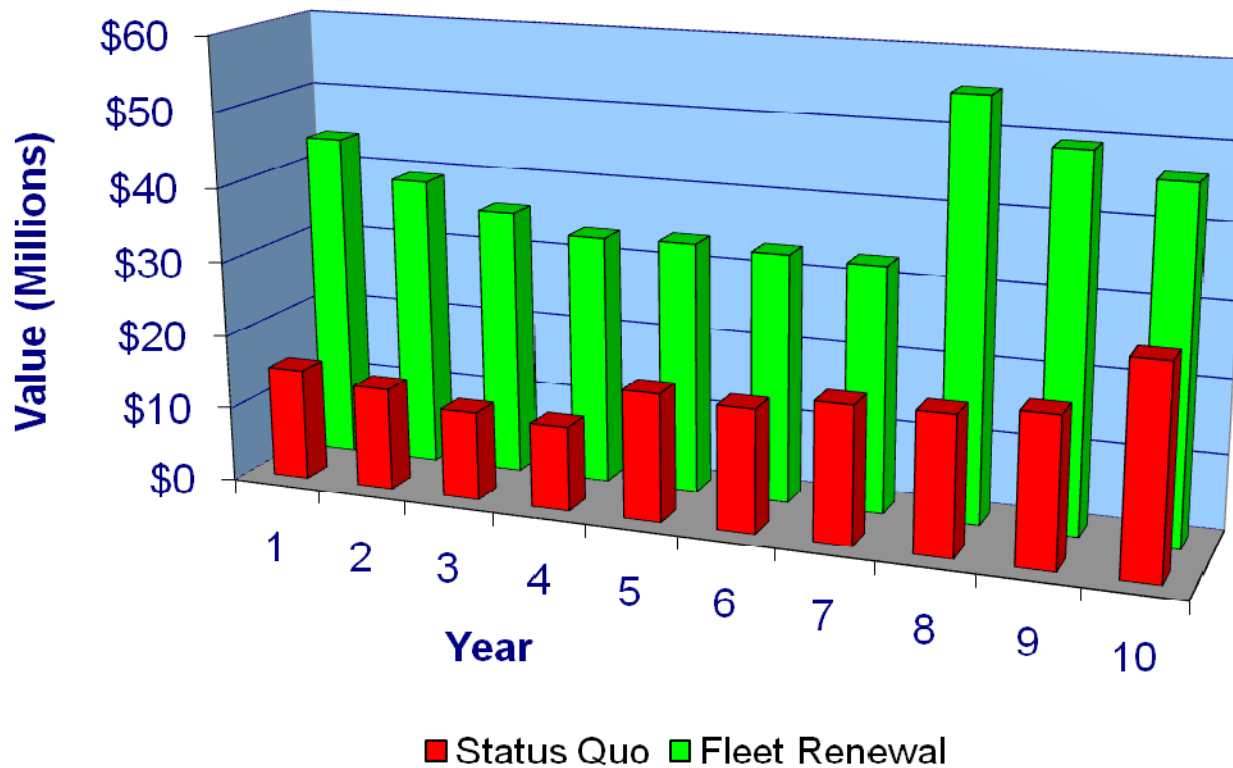


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Fleet Renewal v Status Quo

Fleet Market Value



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Economic Comparison of Fleet Renewal and Status Quo Scenarios

Fleet Costs/Asset Value Under Fleet Renewal Scenario (millions)											
Cost Category/Year	1	2	3	4	5	6	7	8	9	10	Total
Gross Replacement Costs	\$ 43.2	\$ -	\$ 0.8	\$ 2.0	\$ 6.6	\$ 4.6	\$ 5.5	\$ 46.3	\$ 0.5	\$ 4.4	\$ 113.9
Total Annual Depreciation	\$ 4.7	\$ 4.3	\$ 3.9	\$ 3.7	\$ 3.7	\$ 3.7	\$ 3.8	\$ 7.8	\$ 5.5	\$ 5.1	\$ 46.3
Annual M&R Cost	\$ 2.0	\$ 1.2	\$ 1.3	\$ 1.4	\$ 1.5	\$ 1.6	\$ 1.7	\$ 1.4	\$ 1.5	\$ 1.6	\$ 15.1
Annual Fuel Cost	\$ 5.3	\$ 5.3	\$ 5.5	\$ 5.7	\$ 5.9	\$ 6.1	\$ 6.3	\$ 6.3	\$ 6.5	\$ 6.7	\$ 59.7
Annual Total Cost	\$ 12.0	\$ 10.8	\$ 10.7	\$ 10.8	\$ 11.1	\$ 11.4	\$ 11.8	\$ 15.5	\$ 13.5	\$ 13.4	\$ 121.1
Ending Fair Market Value	\$ 44.0	\$ 39.2	\$ 35.9	\$ 33.4	\$ 33.7	\$ 33.3	\$ 32.9	\$ 55.3	\$ 49.4	\$ 46.3	
Fleet Costs/Asset Value Under Status Quo Scenario (millions)											
Cost Category/Year	1	2	3	4	5	6	7	8	9	10	Total
Gross Replacement and Refurbshmt Costs	\$ 2.1	\$ 2.2	\$ 1.1	\$ 2.0	\$ 9.7	\$ 2.7	\$ 5.5	\$ 4.0	\$ 5.9	\$ 15.4	\$ 50.6
Total Annual Depreciation	\$ 3.6	\$ 3.4	\$ 2.9	\$ 2.6	\$ 3.8	\$ 3.3	\$ 3.5	\$ 3.7	\$ 4.5	\$ 7.3	\$ 38.7
Annual M&R Cost	\$ 3.2	\$ 3.6	\$ 3.9	\$ 4.3	\$ 3.8	\$ 3.5	\$ 3.4	\$ 3.7	\$ 3.9	\$ 3.8	\$ 37.1
Annual Fuel Cost	\$ 5.8	\$ 6.0	\$ 6.3	\$ 6.5	\$ 6.5	\$ 6.6	\$ 6.8	\$ 7.0	\$ 7.2	\$ 7.4	\$ 66.1
Annual Total Cost	\$ 12.7	\$ 13.1	\$ 13.1	\$ 13.3	\$ 14.1	\$ 13.4	\$ 13.7	\$ 14.4	\$ 15.6	\$ 18.5	\$ 141.8
Ending Fair Market Value	\$ 15.1	\$ 13.8	\$ 11.9	\$ 11.4	\$ 17.2	\$ 16.5	\$ 18.4	\$ 18.6	\$ 19.9	\$ 27.8	
Savings (Costs) Associated with Fleet Renewal Scenario (millions)											
Cost Category/Year	1	2	3	4	5	6	7	8	9	10	Total
Cumulative Savings from (Cost of) Renewal	\$ 0.7	\$ 2.9	\$ 5.3	\$ 7.8	\$ 10.8	\$ 12.8	\$ 14.7	\$ 13.6	\$ 15.7	\$ 20.7	
Increase (Decrease) in Value of Assets	\$ 29.0	\$ 25.4	\$ 24.0	\$ 22.1	\$ 16.5	\$ 16.8	\$ 14.5	\$ 36.7	\$ 29.5	\$ 18.5	
Net Annual Savings (Costs) from Renewal	\$ 29.6	\$ 28.3	\$ 29.3	\$ 29.9	\$ 27.3	\$ 29.6	\$ 29.2	\$ 50.4	\$ 45.2	\$ 39.3	
NPV Savings (Costs) from Fleet Renewal											\$ 25.9

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Cumulative Savings From Fleet Renewal

	Year 5 Subtotal	Year 10 Subtotal	Year 15 Subtotal	Year 20 Subtotal
NPV of Savings	\$8.8	\$14.9	\$23.7	\$30.4
PV Increase in Asset Value	\$13.1	\$11.0	\$19.0	\$7.3
Total PV Savings	\$21.9	\$25.9	\$42.7	\$37.7

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Net Fleet Replacement *Funding* Requirements by Financing Approach

Total	Year 1	Years 1-5	Years 1-10
Ad Hoc Purchases	\$ 7.5 M	\$ 36.6 M	\$ 72.5 M
Loans	\$ 0.5 M	\$ 17.6 M	\$ 53.0 M
Operating Leases	\$ 0.8 M	\$ 20.5 M	\$ 60.0 M
Annual Average	Year 1	Years 1-5	Years 1-10
Ad Hoc Purchases	\$ 7.5 M	\$ 7.3 M	\$ 7.3 M
Loans	\$ 0.5 M	\$ 3.5 M	\$ 5.3 M
Operating Leases	\$ 0.8 M	\$ 4.1 M	\$ 6.0 M

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How Mercury Associates Helps Organizations Reduce Fleet Costs

1. **Alternative capital financing studies**
2. **Fleet rightsizing studies**
3. **Review and reengineer fuel, fuel card, vehicle purchase, vehicle financing, and parts contracts**
4. **Evaluate and reengineer fleet management business processes**
5. **Identify outsourcing options, benefits, and costs**
6. **Define KPIs and design performance measurement programs**
7. **Design and implement cost charge-back systems**

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Questions

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