



MSO Fleets: How efficiency metrics inform best practices for cost-cutting and emissions reduction

Customer

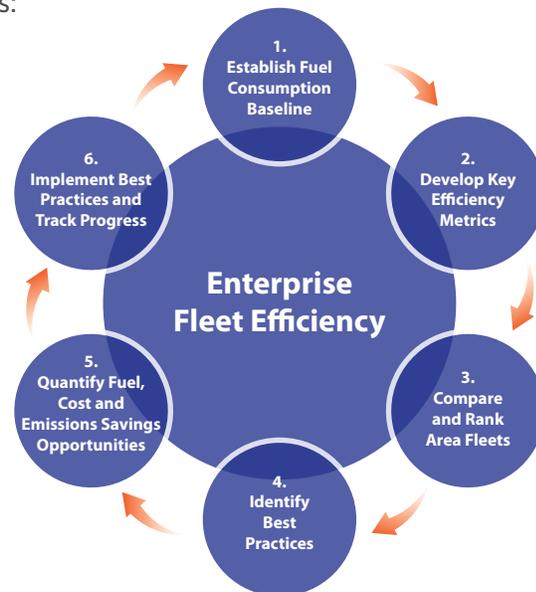
U.S.-based MSO with a footprint in 29 states, offering TV, phone and internet services, as well as home security. This customer operates a fleet of over 20,000 service trucks and vehicles to maintain its network and service customers.

Challenge

As part of an internal energy efficiency and sustainability initiative, driven largely through the client's Operations team and building off a successful anti-idling initiative, Coppervale was engaged to identify and quantify savings for "low-hanging fruit" in fleet efficiency improvements—essentially, an efficiency audit of the company's fleet operations. The client's sweeping geographic breadth across the United States, size of its fleet and number of dispatch centers meant a data-gathering challenge for the client, as well as a disconnect in communication around best practices throughout the enterprise.

Solution

Coppervale took a six-step approach to audit the client's fleet operations:



Industry: Broadband and Telecommunications
Employees: 51,600
Subscribers: 11 million

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1. **Quantify fuel consumption baseline.** First, Coppervale identified the data needed and collect fleet data on each geography served by the MSO to establish a fuel consumption baseline.
2. **Develop key efficiency metrics.** Then, we worked with the client to identify appropriate KPIs unique to the MSO's operating structure and geographic presence; for example, service truck roll operational efficiency and vehicle fuel energy efficiency. These metrics are informed by key business and service metrics, such as number of subscribers, number of truck rolls in a certain time period, fleet composition, and repeat truck rolls and other truck roll data.
3. **Compare and rank fleets.** Using the bespoke metrics identified, Coppervale then compared markets, both dependent and independent of density, to identify which markets' fleets perform best.
4. **Identify best practices.** We interviewed Fleet Managers, Tech Ops, Customer Care and Engineering staff of top performers. Our interviews helped identify best-practice behaviors, technology and decision-making process of these top performers.
5. **Quantify fuel, cost and emissions savings opportunities.** Using the results from best-practice identification, coupled with our comparison of different fleet performances, we worked with the client to identify cost savings and set reasonable reduction expectations for optimum cost, fuel and energy savings.
6. **Implement best practices and track progress.** Coppervale then provide a rank-ordered series of recommendations to achieve these cost savings. Performance improvement areas may include: optimizing procedures, ensuring use of efficient technologies, and creating employee incentives.

Truck Roll Best Practices



Optimized Procedures

Standardize processes for Representatives and Techs to reduce unnecessary service and repeat truck rolls



Efficient Technologies

Implement Call Center & Technical Operations systems to prevent service truck rolls for known issues and to optimize routing



Metrics, Incentives & Training

Create programs to aid Representatives and Techs in handling service truck rolls



Leadership & Communications

Train Call Center & Technical Operations Management processes to reduce unnecessary service and repeat truck rolls

Fuel Efficiency Best Practices



Efficient Routing

Leverage software solutions and encourage superior communication between Techs and Dispatchers



Idle Time Management

Utilize reports and scorecards out of GPS to set and track goals for improvement while inspiring friendly, effective competition



Vehicle Right-sizing & Weight Maintenance

Downsize engine class, maintain a civilized pool fleet, adopt on-board equipment systems



Alternative Fuels

Incorporate DC-drive "hybrid" bucket trucks; consider costs and benefits of alternative fuel vehicles (e.g. electric, natural gas)



Training and Leadership

Equip and encourage supervisors to follow-up on scorecards, reports and training resources for Techs

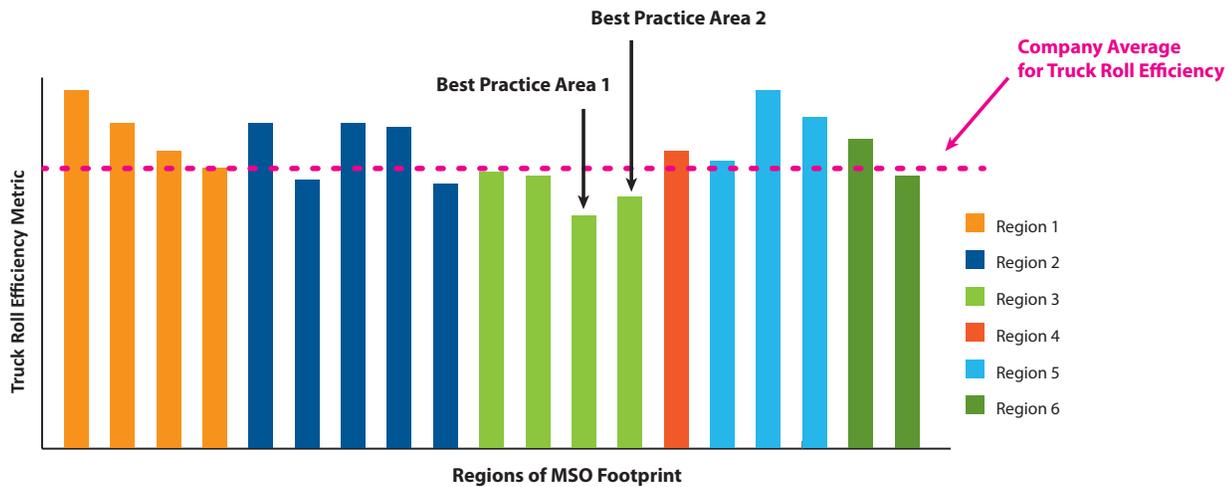


Vehicle Utilization & Preventative Maintenance

Measure/monitor vehicle use and maintenance metrics; implement big-win solutions like tire replacement programs

Results

Coppervale analyzed the client's fleet operations according to individual market area performance, and identified which fleets were under-performing and to what degree. Using this information, coupled with the results of our best-practices interviews, we were able to create a prioritized, actionable series of recommendations to reduce costs and carbon emissions with the best ROI.



Summary of Coppervale Actions

- Coppervale identified 326,000 Truck Rolls reduction opportunity, equaling 5% or \$18M in labor and vehicle costs
- Coppervale identified 19% savings, \$14M or 34K metric tons carbon emissions potential by bringing inefficient fleets' efficiency metrics back to the company average
- Coppervale was re-engaged to develop a fleet efficiency and carbon reduction plan for under-performing fleets
- Through interviews, Coppervale identified company-wide best practices for the best-performing fleets and prepared the company for socializing best-practices for all fleets
- Developed top-ten list of actions for achieving maximum cost savings ("lowest-hanging fruit")
- Top-ten list covered multiple best practices in procedures, technologies, technician behavior and leadership behavior

About Coppervale

Coppervale Enterprises Inc. is a leading energy management, engineering and sustainability consultancy to the broadband industry. Our team consists of energy and carbon management specialists, environmental and sustainability professionals, and veteran cable engineers. Let Coppervale show you how you to improve operational efficiency, reduce your energy costs, and minimize your carbon impact. To find out more, visit us at www.coppervale.org.

Coppervale's energy analysts are experts in reducing energy consumption and carbon emissions, and generating cost savings for our clients.

Start reducing your environmental impact while you save money today.



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