



Driving Safety and Savings in Natural Gas Logistics

Applying a comprehensive fact-based analytical approach, Tenzing Consulting helped a major energy company find key insights into its transportation safety issues and unlocked a new logistics strategy that improves safety while reducing cost.

A Scattershot Approach That Missed the Target

The production of natural gas is, by necessity, a far-flung enterprise involving huge numbers of people, equipment, and motor vehicles. In gas production, the movement of fluids, materials, and heavy equipment into and out of field locations is constant and pervasive. It is also, as one might guess, inherently dangerous. For this large, growing energy producer, its increased size and faster operational tempo were leading to an increasing number of serious vehicle-related accidents. This not only meant injuries, but also carried significant financial costs.

Historically, managing logistics services, such as carrier selection, ordering, scheduling, safety requirements, and carrier performance feedback, was done in the field, close to day-to-day operations. With hundreds of field sites acting independently of each other across North America, the company experienced wide variations in efficiency, costs, safety results, and other key metrics. The culture of independence and decentralization led to wide-spread inefficiencies.

Imagine running five errands on a Saturday morning, but instead of planning it ahead of time and coordinating a single circuit of stops before returning home, you make five separate trips and come home after each one. Not only that, but your spouse is going to the same places for the same reasons, and neither one of you knows it. Similar situations were happening daily in this operation and no one knew it.

An Issue That No Longer Could Be Ignored

This client situation had spiraled beyond a concern over occasional inefficiencies. Having experienced a serious accident at one of its business units that reflected poorly on the company overall, leadership intensified its awareness and attention to safety issues. This demanded that they critically examine how to improve safety in every aspect of its operations, including, gas field logistics.

- The company engaged Tenzing Consulting to take a closer look at the situation and develop a strategy to address this chronic and complex problem.

Fact Versus Myth

To begin with, this situation seemed to be a conundrum. The widely accepted wisdom was that worsening safety performance was the result of recent cost cutting that had compromised the quality of operations and of the carriers being used for transportation. They were resigned to the fact that they would have to “buy” back their safety at a time when financial performance was also under severe pressure.

Another widely held belief was that large regional carriers, which were used very little across the far-flung enterprise, were inherently safer than the small, scrappy local carriers who had little money to invest in maintaining equipment and training their drivers. A solid factbase, and deep analysis was needed to confirm or debunk these beliefs before developing a strategy.

The first step taken by a joint team of Tenzing consultants and key client representatives included visits to most of the affected field locations to conduct on-site reviews of the logistics processes in place. The team gathered information and perspective from 75 individuals and 10 major sites across the company. The project scope quickly turned its focus to fluid services, which had the greatest impact on safety incidents, miles driven, and operating cost.

Some of the common problems found across the collection of fluid services-related field sites included:

- Minimal planning resulting in sporadic routing of vehicles and minimal notice given to carriers for deliveries and pick ups.
- Different pricing models ranging from 10 cents to 22 cents to pick up an identical barrel at different sites.
- As many as three different entities played a role in scheduling, each with limited visibility of the others, thereby preventing coordination.
- There was no significant difference in safety performance among different classes of carriers, in fact, the “local guys” were slightly better.

The biggest finding from the project was almost too obvious, namely the primary factor that impacts the number of accidents is the number of miles driven. So rather than have the principal improvement focus on some of the problems mentioned above, the most impactful way to improve transportation safety is to lower the number of miles driven each year. This also yields a double win as operating costs are reduced.



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Developing a Strategy to Correct the Problems

These insights into safety and operations enabled the team to build a cogent strategy and an action plan to ensure that its logistics more strongly supported the company's overall performance goals.

Much of the plan stemmed from a strategy of adhering to a three-point mission statement:

1. Safety: Reduce total vehicle and severe vehicle accident rates by 10-20%.
2. Service: Avoid any major negative carrier impact to operations.
3. Cost: Reduce annual expenditures by 5-15%.

The tactics to achieve this mission included better route planning, ensuring consistent commercial terms, aligning performance metrics, and steering work to a core set of preferred carriers that demonstrate a safety-oriented culture.

Seems logical, the facts dictate the strategy, but an incredible challenge still loomed ahead—getting six independent business units, called “assets,” to agree on a common strategy. Good practices existed across the network, no one unit was doing everything well. This meant change for every operation if the goals are to be achieved. Several weeks of painstaking reviews and internal debate ensued culminating in the strategy being adopted and codified in all business plans.

Results From the Long Haul

Now, with a clear plan in place, backed by facts, and the consensus of all business to move forward together, this energy company is realizing dramatic improvements in performance:

- Mileage reduction of up to 1 million miles a year.
- Improved safety of up to eight fewer major accidents a year.
- Cost reduction of up to \$21 million a year.

How Tenzing Brought Value:

INSIGHT

Fact-based, data-driven strategies to achieve aggressive sourcing / supply chain / operations goals

- Adapting prior experience with and logistics to this situation.
- Applying insight to arrive at the true root cause of the problem—an inordinate and unnecessarily high number of miles driven per year, the reduction of which would solve both the safety and cost issues.

EXECUTION

Discipline, teamwork, flexible process orientation, practical know-how for measurable results

- Conducting comprehensive field interviews to gather factual data needed for action plan.
- Analyzing and implementing information from interviews, research, and past experience to develop viable strategies and tactics.
- Engaging client representatives in the process, to help ensure understanding and acceptance of final action plan.

SUSTAINABILITY

Aligning people, processes, and technology to sustain peak performance results

- Reducing mileage by up to a million miles a year.
- Experiencing 5-8 fewer accidents a year.
- Reducing logistics costs by more than \$100 million in five years.

