# GASOLINE BLENDING OPTIMIZATION

## ENERGY SECTOR CASE STUDY

TRINDENT CONSULTING
*make it happen™*


One of the largest U.S. crude refiners, concerned about the amount of quality giveaway in their gasoline blending operations, engaged Trindent to optimize the blending processes in two of their refineries.

**29%**
**REDUCTION IN VOLATILITY GIVEAWAY**

**$14,700,000**
**ANNUALIZED SAVINGS**

**61%**
**REDUCTION IN OCTANE GIVEAWAY**

### HOW WE MADE IT HAPPEN

**Operator variability reduction:**

- Standardized blending process by developing blending toolkit that automatically calculated analyzer bias, certification points, and blend targets
- Introduced weekly learning sessions to encourage sharing of best practices, documenting key takeaways to distribute to all blender operators
- Implemented weekly one-on-one performance reviews between operators, foremen, and gasoline schedulers based on new performance dashboard
- Installed pre-check procedures on analyzer equipment at start of every blend to ensure analyzers are within normal operating parameters

**Blending prediction:**

- Implemented ethanol uplift prediction capability in gasoline scheduling software based on regression analysis predictive model
- Developed ethanol uplift dashboard to monitor accuracy of predicted post-ethanol results and allow neat targets on all specifications to be adjusted
- Introduced gasoline modeling dashboard to track drift between predicted and actual gasoline blend recipes, allowing for fine tuning of component properties and more accurate predictive modeling
- Collaborated with corporate product quality team to develop dynamic neat target

**Measurement accuracy:**

- Implemented additional flushing between RVP tests to decrease sample contamination
- Modified allocation of V/L analyzers to blenders, reducing variability between grab sample results, allowing for more accurate bias calculations and improved measurement accuracy and targeting
- Improved communication and standardization across gasoline product stakeholders, improving accountability and reporting on performance metrics
- Developed analyzer accuracy dashboard to monitor variance between online and lab measurements and trigger intervention or corrective actions when thresholds were exceeded

*"Your team was instrumental in accelerating cross-functional communication and cooperation around the gasoline blending process within the refinery. Sustainability activities enabled smooth transitioning of new processes and tools to our gasoline team and changed the mindset and focus around our blending practices."*

*-General Manager*

WE'RE HERE TO MAKE IT HAPPEN™.
CONTACT US TODAY AT info@trindent.com.