



# Diesel Fuel Offloading

## SITUATION

Diesel fuel tax evasion at remote offloading facilities can cost a government millions of dollars in tax revenue. This area had an estimated 50,000 bph of incoming fuel which was not metered and which could not be accounted for. Smugglers were able to destroy the flow meters by closing the air eliminator valve and introducing air into the metering system.

## SOLUTION

A nation-wide survey was conducted to identify all port locations where fuel could be offloaded. An automatic system to meter incoming fuel that could be protected from smugglers was developed utilizing a total of 46 Micro Motion DS600 Coriolis flow meters with 9739 transmitters. Each station is fitted with a flow computer for inventory control, alarming, and telemetry. The system provides accurate metering for custody transfer of incoming diesel fuel for tax accounting and for communicating alarms that protect against unauthorized tampering with the system.

## BENEFITS

- Coriolis meters are not damaged by slugs of air, therefore, the smugglers were stopped from destroying the flow meters and obtaining non-metered fuel.
- Flow computer diagnostics detect tampering and alarms via telemetry, allowing remote sites to go unmanned.
- Coriolis meters provide bi-directional capability for loading and offloading.
- When products other than diesel are offloaded, the Coriolis meters do not have a shift in meter factor with the change in density and viscosity. Longer periods between calibration provide a cost-savings over previous flow meter technology.

## USER

An international tax authority