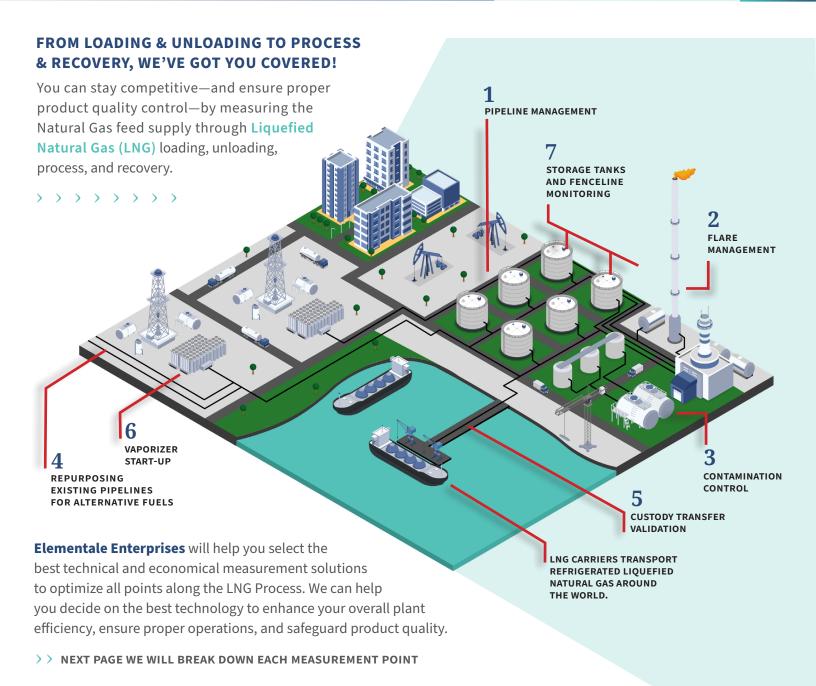


# LNG MEASUREMENT POINTS





#### PIPELINE MANAGEMENT

# Ensure Proper Specs, Control Purity, & Protect Against Corrosion

Economically measure the fuel content in pipelines to ensure proper specification for both import and/or export markets. Whether you need GC technology, EUVF, Spectroscopy, density measurement or other advanced technologies, **Elementale Enterprises** can help select the best and most advanced technologies to meet applications both technically and commercially. Proper pipeline management is the best product management, allowing for purity control and staying competitive.



### FLARE MANAGEMENT

## **Saving Money While Staying Compliant**

**Elementale Enterprises** can help you best manage your flaring cycles by measuring the total BTU, Sulfur and H2 content of the waste gas and only flare what is needed—while using the minimum amount of fuel to do so. By implementing a proper measurement and control system for the waste stream, Elementale can help save thousands of dollars while staying environmentally friendly and in compliance.



#### CONTAMINATION CONTROL

## Safety Driven Reliable Infrastructure & Process Operations

Corrosion from naturally occurring weathering and from exposure to chemicals can inhibit your equipment from running correctly and cause a significant safety hazard. **Elementale Enterprises** offers biodegradable treatment solutions that penetrate into the substrate providing a strong protection against the formation or spread of rust for a sustainable infrastructure years beyond the typical life of metal.



# REPURPOSING EXISTING PIPELINES FOR ALTERNATIVE FUELS

## **Changing Media Safely and Maintaining Product Integrity**

Repurposing oil and gas pipelines to transport CO2 and/or H2 fuel blends will require some major changes. To change media effectively and safely, one must consider pipeline pressures and Joule-Thomson effects, as well as possible embrittlement of pipes. Pipe integrity must be carefully managed for long-term life/preservation, the measurement and control of fuel blending properties, and proper flow of alternative fuels safely and consistently. **Elementale Enterprises** can assist with maintaining both pipeline and product integrity safely.



### **CUSTODY TRANSFER VALIDATION**

#### **Measurements in the Natural Gas Value Chain**

Custody transfer is one of the most important applications for measurement and occurs several points along the way. Energy is determined by volume, flow, density, and the gross calorific value of the LNG during operations, compressor stations, transactions, and transfer of fuel from production platform to the final destination point (a refinery or delivery to local grids for residential or commercial usage).

The need for flow metering skids, metering control cabinets, sampling and analyzer systems, and all supervisory and validation software is critical to ensure the energy intensity, as well as safe handling of the gas. **Elementale Enterprises** can assist in measurement at all of these points in the natural gas value chain.



## VAPORIZER START-UP

#### **High Level of Safety Protection**

Proper liquefaction startup operations are critical in maintaining safety. Should a leak occur, it could create a catastrophic event. For this level of safety protection, LNG operations use systems such as gas, liquid, and fire detection to rapidly identify any breach in containment, along with remote and automatic shut-off systems to minimize leaks and spills in the case of failures. **Elementale Enterprises** can help measure and manage these situations with on-line gas detection systems, providing alarms for quick shut-down along with cloud-based data management for personnel to remotely access the data in real-time, continuous, or as needed.



# STORAGE TANKS AND FENCELINE MONITORING

#### **Avoid Leaks While Maintaining ESG Baseline**

For LNG terminals, measurement of potential leakage will help maintain product for sale, establish baseline and continuity for emissions credits, and keep plant and personnel safe. Leak detection can be monitored at loading/unloading pipelines, storage tanks, tank base and barge monitoring (for complete emptying, cleaning, maintenance and/or service.) and spill channels.

Various measurement points come on one analyzer and enable process measurements to be grouped together for ease of data management both in the control room and in the field on tablets. The modular system design and cloud-based access are vital to all points (leak detection, pipeline product identification, contamination control, barge unloading, fuel blending, or emergency waste management).

# LET'S CONNECT TO SEE HOW OUR SOLUTIONS WILL:

- **⊘** enhance plant efficiency
- ensure proper operations
- **⊘** safeguard product quality

...WHILE KEEPING YOU COMPETITIVE!

QUESTIONS? Reach out to us today!