

Application Note

How SignalFire is Helping Companies Manage their ESG Risks

So, you have a little cash that you want to invest into the stock market. You've found a company that makes a cool product or provides a great service - cha-ching! You invest with expectations of high returns. Sounds simple enough, but is it? No it's not! Right off the bat I have to say, this article is not about investment advice. I am not a certified financial planner. It is, however, an attempt to help you understand how SignalFire Wireless Telemetry is playing a critical role in the monitoring of environmental assets for companies.

As an investor myself, not only do I want a great return, I also want to invest in companies that are responsible for more than just their quarterly dividend. What does their future look like? Are they investing in their employee's development? Are they investing in R&D? Are they a good corporate citizen to the communities that they operate in? And most importantly, are they minimizing my risk of lost. The last thing I want is to learn that they just dumped a toxic chemical upstream of a municipal water plant and they could care less for the impact they are having on the environment and the community. One could attempt to gain this information from word of mouth, social media, corporate websites, or reading through the company's stock prospectus. How about their ESG value? What is ESG you ask? According to Investopedia ESG is defined as:

<https://www.investopedia.com/terms/e/environmental-social-and-governance-esg-criteria.asp>

"Environmental, social, and governance (ESG) criteria are a set of standards for a company's operations that socially conscious investors use to screen potential investments. Environmental criteria consider how a company performs as a steward of nature. Social criteria examine how it manages relationships with employees, suppliers, customers, and the communities where it operates. Governance deals with a company's leadership, executive pay, audits, internal controls, and shareholder rights."

You say, I did not know that ESG investing was a thing and honestly you wouldn't be alone, because neither did I. In an article published on Forbes.com by George Kell, The Remarkable Rise of ESG, <https://www.forbes.com/sites/georgkell/2018/07/11/the-remarkable-rise-of-esg/?sh=57571e401695>.

"Responsible investing is widely understood as the integration of environmental, social and governance (ESG) factors into investment processes and decision-making. ESG factors cover a wide spectrum of issues that traditionally are not part of financial analysis yet may have financial relevance. This might include how corporations respond to climate change, how good they are with water management, how effective their health and safety policies are in the protection against accidents, how they manage their supply chains, how they treat their workers and whether they have a corporate culture that builds trust and fosters innovation."

As companies fight for your investment dollars, many want to make sure you understand what they are doing to meet or exceed their own sustainability goals, or the goals set forth by local governments. As an example, Apple Computer has a page dedicated to their Environment, Social, and Governance commitments: <https://investor.apple.com/esg/default.aspx>.

When it comes to environmental compliance, laws vary by country. In the United States, the Environmental Protection Agency (EPA) has been enforcing Green House Gas (GHG) emission rules for over a decade. <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>. Over time these rules have been reassessed as needed based on new source requirements. For many industries Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), and Fluorinated Gas are the focus to GHG reduction.

So, what's SignalFire role in ESG? SignalFire, as a manufacturer of wireless telemetry systems, helps customers monitor the Environmental portion of ESG. Regardless of industry segment, we are sensor agnostic, in that, our wireless nodes are designed to easily be installed to monitor literally any low voltage analog signals such as 4-20mA, 1-5vDC, counter/frequency input (up to 2kHz) and discrete inputs. We also support sensors that communicate digitally via Modbus, HART, and SDI-12 protocols. This support comes through both our RF Telemetry and Cellular based products such as our RANGER – Sensor to Cloud solutions.

We make it easy for customers to comply with their own sustainability goals. Below you'll find examples of a few applications we have helped customer with. Every day, we continue to add more.

OIL & GAS INDUSTRY:

Tilt Scout helps a producer monitor their stock tanks Thief Hatch to ensure they are closed. Our unique design is built around an intrinsically safe inclinometer that can detect closed, cracked, and open status and provide notifications to a user.

Another HOT solution right now is Flare Monitoring. We monitor and report flare temperature and flame or ignitor status with our A2 wireless node using a Type K thermocouple and two discrete inputs for flame or ignitor status.



PETROCHEMICAL INDUSTRY:

Sentinel nodes provide redundant protection with tank level monitoring and overflow protection. A Pressure Scout was easily added to the network as another process variable.

The Pressure Scout is great for pressure monitoring of your tank blanketing system and pressure relief vents to provide instant notification of a release.



MINING INDUSTRY:

Ground water level and water quality – Using analog, HART, or SDI-12 via hydrostatic pressure to provide the customer overall level within the well.

Water quality sensors can provide conductivity, temperature, calculated salinity and total dissolved solids to help increase a customer's visibility.

So, these are just a few ways we are helping. While you probably will not see the SignalFire's name highlighted on any company ESG report...we're there in the background 24 hours a day, 7 days a week, 365 days a year helping customers monitoring, collecting, the much-needed data to support their ESG commitments. For us at SignalFire Wireless Telemetry we are proud to be able to help customers with such a noble mission and we would love to help you as well!



To learn more about SignalFire Wireless Telemetry, please look us up on the web at:
<https://signal-fire.com/> . To learn more about some of our additional application stories:
<https://signal-fire.com/applications/>