



Oil & Gas and Pega Dynamic Case Management

Case Management Technology Can Help the Energy Sector Avoid Incidents and Increase Agility

During the past decade, media coverage of the energy sector has focused on stories about catastrophic oil spills, fires on offshore rigs and natural gas pipeline explosions—often dominating news cycles for days or even weeks at a time. The loss of human life and environmental damage to ocean waters, wildlife and our cities captures the attention of everyone. These events highlight that the *cost of failure* in the energy sector can be devastating to individuals, companies, our environment and even the global economy. Following such events, energy companies are seeking new ways to be even more proactive and prevent these incidents from occurring again, while bracing for an onslaught of new government regulations.

Many of us are unaware of the massively complex set of activities and different organizations involved in delivering the products we ultimately purchase and consume as gasoline that powers our vehicles or fuel oil and natural gas that heats our homes and offices. Upstream from the retail consumer is an extensive process that begins with exploring, producing, refining and marketing existing sources of oil or gas, as well as exploring the feasibility of untapped and emerging sources of energy. To be successful, energy companies require deep and specialized expertise, must make significant capital investments, and need to coordinate carefully with their upstream and downstream partners, all while managing risk effectively within a heavily regulated environment.

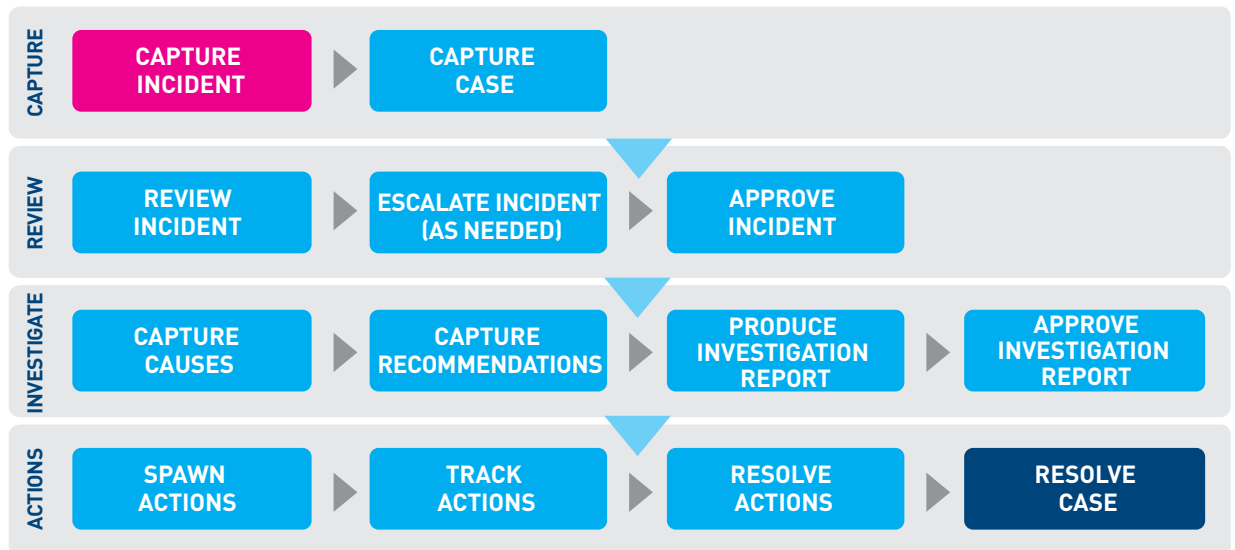
Although the catastrophic events that make news headlines are actually rare, energy companies must be constantly vigilant and respond quickly to the variety of incidents that can occur in the course of managing complex processes. Incidents include employee injuries, vehicle accidents, property damage and minor or major oil spills— all of which must be documented, reported and reviewed both internally and shared with government agencies. The art and science of managing this risk is Health, Safety and Environmental Management (HSE). Larger energy companies' HSE efforts can include resolving tens of thousands of incidents every year, often relying on slow or error-prone manual processes or disparate software to try to manage these incidents.

Technology can help automate the process of investigating and resolving incidents. Leading energy companies have already achieved significant reductions of risk and increased flexibility using Pega Dynamic Case Management to respond to new challenges and opportunities. Although company policies prevent sharing their names, we can definitely tell you a bit about how Pega has helped make those companies more successful. Pega Dynamic Case Management is a solution built on a core set of capabilities inherent in our flagship product Pega Rules Process Commander (PRPC). What Pega calls a “case” is analogous to what energy companies describe as “incidents”. PRPC also includes all of the Business Process Management (BPM) capabilities for which Pega has been recognized as the world’s leading BPM solution by industry analysts.

Using a feature in PRPC called *Direct Capture of Objectives* (DCO), energy companies can enable their business and IT teams to collaborate right within the Pega software to document, prototype, customize, test and deploy the solution. Pega’s many built-in capabilities are designed to eliminate manual coding, and all users (including developers) access the software running on Pega’s secure Private Cloud or on-premise using a web browser. This helps to ensure that you have the flexibility to adapt Pega to your unique requirements and also deploy the solution rapidly. Additionally, we offer vertical-specific Dynamic Case Management solutions which extend PRPC with industry-specific expertise so that you can leverage industry expertise from day 1 and further accelerate the deployment of your customized Pega solution.

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For the energy sector, we have a solution called Pega Incident Management for Energy (IME). IME includes pre-configured data models, screens and core processes tailored specifically to the energy sector as well as decision steps designed around specific regulatory requirements. A company's own internal requirements for driving the incident investigation to completion are easily incorporated into the solution. This graphic illustrates conceptually what IME does:



Let's walk through how Pega IME helps energy companies manage and resolve incidents. Using just a web browser on a laptop or the Pega Mobile app on a smartphone, an employee or contractor can enter a report about an incident from wherever they are located by completing a simple form. Pega then automatically routes the incident to a reviewer. The reviewer accesses the incident report using Pega's built-in *case worker portal* and decides what to do next. For some incidents, there may be an opportunity for immediate corrective action, while other incidents may require a thorough investigation or the creation of an action plan before responding. Certain roles or people can be authorized to create and assign activities needed to complete the case to others, and Pega will route those tasks to the appropriate people and track the status to completion. Customer-defined Service Level Agreements (SLAs) can be defined for each individual activity and for the entire incident. IME will perform escalation activities when deadlines have passed or certain tasks aren't completed to ensure that nothing is missed. Throughout the lifecycle of the incident, Pega documents its entire history as the incident progresses, including all of the information updated, actions taken and participants involved. This documentation provides a complete history of the incident that can be used in audits and reporting.

Team managers and senior executives can access a visual dashboard built using Pega's out-of-box *manager portal* which provides at-a-glance metrics of all incidents and the ability to drill down into specific incidents to learn more about the status of each item. The list of all open incidents can be reviewed and re-prioritized so company resources are always focused on resolving the most important issues first. This has enabled our energy customers to resolve many issues in hours rather than days. Extensive reporting capabilities also enable the team to review cases to identify trends and lessons learned, helping to improve safety and prevent similar accidents from occurring.

To learn more about how Pega can help companies operating in the energy sector reduce risk, response times and costs, check out our [whitepaper](#) on this topic. A datasheet with additional information about Pega's [Incident Management for Energy](#) solution is also available for download.

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