

DATA ANALYTICS

CUSTOMER STORY

# AECOM

AECOM relies on Qlik's advanced SaaS analytics to cut through coal ash market complexities and realize extraordinary efficiency.



## CUSTOMER STORY

### About AECOM

AECOM is the world's premier infrastructure firm, delivering professional services on critical projects throughout their lifecycle. When it comes to the U.S. Energy Market, AECOM provides services addressing the effective management of power generation, transmission and distribution. The result is efficient, reliable and compliant power facilities.

### The business of coal power waste

One well-known sub-topic in the U.S. Energy Market is the management of coal combustion residuals (CCRs), commonly known as coal ash. Created when power plants burn coal to produce electricity, coal ash is one of the largest types of industrial waste generated in the United States. The U.S. EPA regulates the environmentally safe disposal of coal ash.

Billions of dollars are at stake for the owners and operators of coal power plants. Consider the numbers. There are over 100 organizations operating in excess of 300 regulated sites with 700+ CCR units. The total amount of CCR material exceeds 2 billion cubic yards. Millions of public utility ratepayers have coal-generated power delivered to their homes, and although that percentage is in decline as renewables and gas usage has increased, it is still a critical element of the U.S. power generation base.

### Wrangling disparate data proves challenging

Navigating this complex and dynamic market is difficult for even the most sophisticated legal and engineering firms. Data concerning the regulatory status of each coal ash unit is not centrally recorded. Rather, each owner/operator maintains its own website with all required regulatory reports. Manually gathering, analyzing, and summarizing this discrete data is complicated and arduous, and is nearly impossible for individual organizations who would need to wrangle the thousands of documents and literally hundreds-of-thousands of pages of information by themselves.

Prior to 2019, AECOM was managing U.S. coal ash market data for customers in a series of spreadsheets, which had limited dimensionality and, for the intended applications, were challenging to quickly get results.



#### Customer Name

AECOM

#### Partner

FirmoGraphs

#### Industry

High Tech, Energy & Utilities

#### Geography

USA

#### Function

Marketing

#### Business Value Driver

Reimagined Processes

#### Challenges

- Manage regulatory and plant closure data from disparate sources
- Obtain actionable insights from thousands of regulatory documents and outdated spreadsheets

#### Solution

AECOM implemented "Ash Mart" from Qlik partner Firmographs. Powered by Qlik Sense SaaS, Ash Mart provides a consolidated view of coal power plant closures, regulatory status and coal ash market conditions. The data is used to inform AECOM customers on risk mitigation, engineering design, construction scheduling and closure options.

#### Results

- Decisions are now made in minutes vs. days, often during live meetings where attendees can interrogate the data.
- Beneficial disposal or reuse of coal ash is simplified thanks to geo-analytics
- Delivery on Qlik Cloud Services reduces IT overhead and annual costs

“Analysis that would have once taken hours or days to complete can now be done in minutes or seconds. Qlik Sense® Enterprise SaaS visualizes data at the speed of thought, enabling us to have live presentations with attendees asking questions of the data in real time.”

- Mark Rokoff, Senior Vice President, Environment Market Sector Director, Energy, AECOM

### Ash Mart brings advanced analytics to the table

Recognizing a need for business intelligence in the coal ash market, Qlik partner FirmoGraphs brought Qlik Sense® to AECOM with its “Ash Mart” solution. The Ash Mart is deployed on Qlik’s cloud platform and gives AECOM and other market participants rapid, easy access to critical data that cuts through market complexities in extraordinary ways.

Qlik provides a tremendous enabling capability to AECOM that it leverages to the benefit of its customers. Data from multiple disconnected data sources is brought together for easy analysis. Users can navigate quickly in a variety of combinations, informing stakeholders of new scenarios as they unfold. Multiple visualization formats are used for analysis, from simple tables and pie charts to more sophisticated statistical analysis. This facilitates the assessment of current market conditions, prediction of behaviors and application of best practices, and benchmarking of responses, which has been a vital service new to this market.

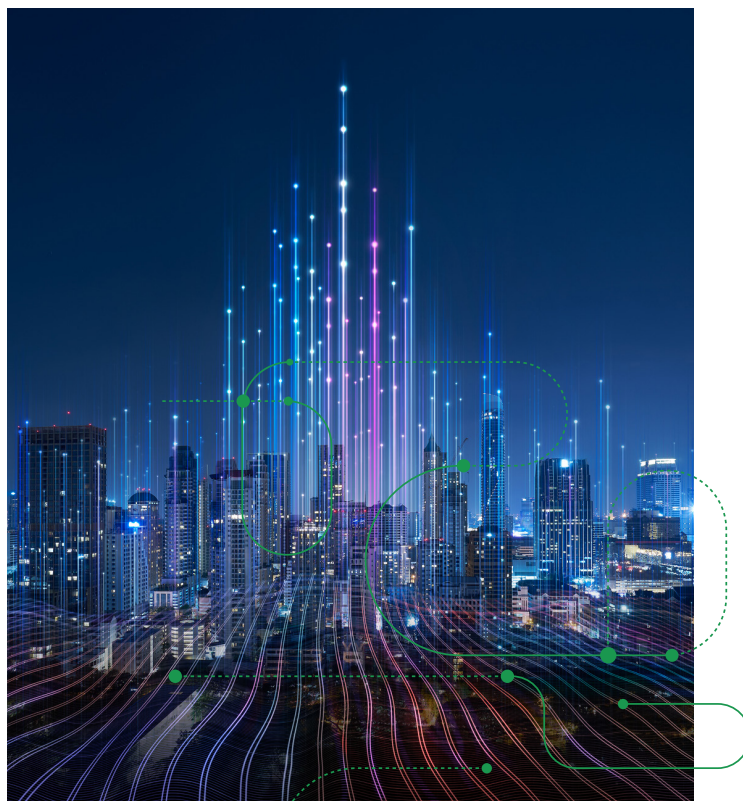
AECOM has used the Ash Mart to effectively communicate risk management options to their customers, inform discussions around engineering design, construction schedule, and closure options.

Since the data is geo-located, generating maps is easy. This is particularly useful when organizations are seeking different mechanisms for the beneficial use of coal ash materials as they are removed under closure-by-removal plans. For example, AECOM has assisted customers in identifying the most efficient transportation methods to bring coal ash to cement kilns, where the material becomes an integral and useful part of manufactured cement products.

### SaaS delivery adds value

AECOM gained additional operational and financial benefits by choosing to deploy Qlik Sense Enterprise SaaS, which is a complete software-as-a-service solution deployed on Qlik’s cloud platform. Switching to a SaaS deployment reduced FirmoGraph’s overhead time in server maintenance, resulting in lower annual costs for AECOM. User administration is much easier, and security is strengthened with multi-factor authentication. Flexible entitlement options allow a larger number of casual users to access the system with a shared pool of monthly minutes.

Less cost with equal performance is a win/win for both FirmoGraphs and their customers.



## Widespread impact

AECOM has realized many transformational benefits from the Ash Mart. These benefits are passed on to AECOM customers and the industry at-large, as AECOM and FirmoGraphs share specific market intelligence to create business understanding and observed trends. AECOM's consulting team uses their enhanced business intelligence to actively support existing customers, while finding new market opportunities to grow their business. It is a multi-billion-dollar challenge with many stakeholders, including power plant owner/operators, the communities in which they operate, ratepayers, and regulators. Just a few questions that Business Intelligence helps to answer include:

- Which sites are closing at what points in time?
- Where can excavated coal ash be beneficially and economically used?
- Where needed, what water treatment technologies are optimal for different scenarios?

Qlik Sense® increases the efficiency in matching industry challenges with business and technological solutions. This benefits everyone involved, enabling the optimization of each dollar spent towards solving this substantial challenge.

“System access and performance to the multi-tenant SaaS hosted by Qlik have been just as strong as it was with a dedicated web server. The continued performance of the system at a lower cost benefits our customers.”

- David Cox, President, FirmoGraphs



### About Qlik

Qlik's vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their most challenging problems. Qlik provides an end-to-end, real-time data integration and analytics cloud platform to close the gaps between data, insights and action. By transforming data into active intelligence, businesses can drive better decisions, improve revenue and profitability, and optimize customer relationships. Qlik does business in more than 100 countries and serves over 50,000 customers around the world.

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