CASE STUDY









The Electric Reliability Council of Texas (ERCOT) manages the flow of electric power to more than 25 million Texas customers — representing about 90 percent of the state's electric load. As the independent system operator for the region, ERCOT schedules power on an electric grid that connects more than 46,500 miles of transmission lines and 600+ generation units. It also performs financial settlement for the competitive wholesale bulk-power market and administers retail switching for 7 million premises in competitive choice areas. ERCOT does not own any electric assets but coordinates with its members that include

SERVICES DELIVERED:

- Metadata Modeling
- Program Design and Implementation
- System Implementation and Configuration
- Taxonomy Development

consumers, cooperatives, generators, power marketers, retail electric providers, investorowned electric utilities, transmission and distribution providers and municipally owned electric utilities.

ISSUE

Conflicting terminology use negated traditional approaches to information management, leading to conflicting and inconsistently applied classification guidelines

INFORMATION DRIVES ERCOT'S OPERATIONS

Throughout its processes, information is rapidly exchanged between ERCOT, market participants, regulators, and the public.

Safe and reliable operations depend on accurate, timely information, so it is critical for ERCOT to use specific and well-defined language in its interactions. However, to enable effective, competitive, and non-discriminatory wholesale and retail markets, information sharing between market participants is strictly regulated by federal and state law. To remain compliant, ERCOT's interactions stay narrowly focused, and communications are limited to only the information that is necessary for successful electricity



delivery operations. Consequently, ERCOT is challenged by conflicting and restricted terminology use that frustrates traditional solutions to its traditional records and information management program – duplicated content maintained in separate repositories with inconsistently applied classification and retention guidelines.

For instance, if multiple departments use the same term – for example "load" – to describe different things in different contexts, that term's use is often conflicting. When content that uses a term remains limited to specific parties, the way much of ERCOT's communications do, then everyone knows which context the term "load" is intended. But when managing content across the entire organization, there are too many things tagged with the same word and now it is unclear what each use meant. We had two ways to solve this problem at ERCOT:

- Define more specific terminology, so it is clear what is meant instead of leaving it up to a user's personal frame of reference.
- Identify additional terms that can be applied in addition to "load" – for example, generation, transmission, distribution – and then used in combination to provide context about which "load" is intended.

SOLUTIONS

- A taxonomy that standardizes terminology (metadata) across enterprise systems
- ✓ A governance framework to ensure that the can taxonomy grow with the organization as it evolves
- ✓ Identification of gaps that could be addressed by a comprehensive information governance program

Prior to engaging Access Sciences, ERCOT established the Enterprise Content Align Program (ECAP) with the express purpose of reliably getting the right content to the right people. ECAP was developed to define a consistent set of information management principles, processes, and systems to increase effective communication within ERCOT, as well as with market participants, regulators, and the public. As the foundation for ECAP, ERCOT engaged Access Sciences to perform a critical first step – to define what terminology should be used when and by whom – an Enterprise Taxonomy.

ENTERPRISE TAXONOMY ENABLES ORGANIZATIONAL CLARITY

As a first step in developing an effective and usable taxonomy, our team conducted goal alignment sessions that created a shared vision for information management across the organization. We discussed past projects, current initiatives, and ongoing needs to align expectations across multiple departments. Access Sciences has adapted software development's Agile methodology for use in taxonomy design. Using this technique, our



team iteratively conducted data gathering sessions to uncover the plain language used by each department (we contend that it is important to learn what language is shared, what language is specialized, and what language has been re-purposed away from its original meaning). Each of these data gathering sessions added valuable context for our understanding of the language used at ERCOT, as well as providing an opportunity for each department to participate in the crafting of the taxonomy. Metadata tagging is only effective when metadata values are beneficial and feel natural to use. Therefore, to design a useful taxonomy, we gathered, refined, and validated our understanding of ERCOT's language with the people that use it every day.

BENEFITS

- ☑ Information can be sourced based on primary taxonomy guidelines
- Taxonomy training for new hires enhances organizational effectiveness

FRAMEWORK SUPPORTS ON-GOING GOVERNANCE

In addition to the taxonomy itself, our team designed a governance framework to ensure the taxonomy grew with the organization as it evolved, system implementation plans for managing content, and a communication and training plan to support effective adoption. We created committees that included representation from each of the departments, and developed specific taxonomy management processes based

on ERCOT's available governance structures and change management culture. Our team identified system enhancements and improvements that would use the new taxonomy to populate individual metadata models needed for separate systems, as required by law. We then used the taxonomy as part of a pilot implementation of a new enterprise content management system.

In the process of developing the taxonomy, our team identified gaps that could be addressed by a comprehensive information governance program. Our recommendation provided a way to realize even more value from the taxonomy – a foundational and necessary component of content management – by developing additional components to work together for effective information governance.



