



# Carbon Ore Resources Database (CORD)



The Carbon Ore Resources Database (CORD) & Platform are designed to optimize carbon ore resources with consumer needs and identify key carbon ore properties to end products.

## ACQUIRE

- Authoritative sources
- Microanalytical to basin scale
- Spatial, non-spatial, structured & unstructured formats

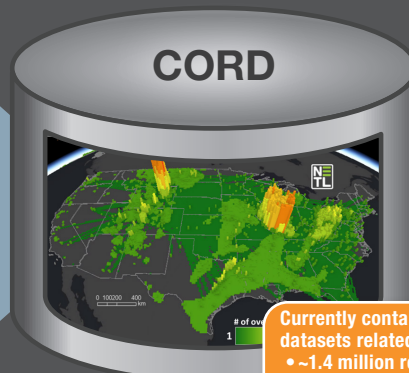
## STORE



## INTEGRATE



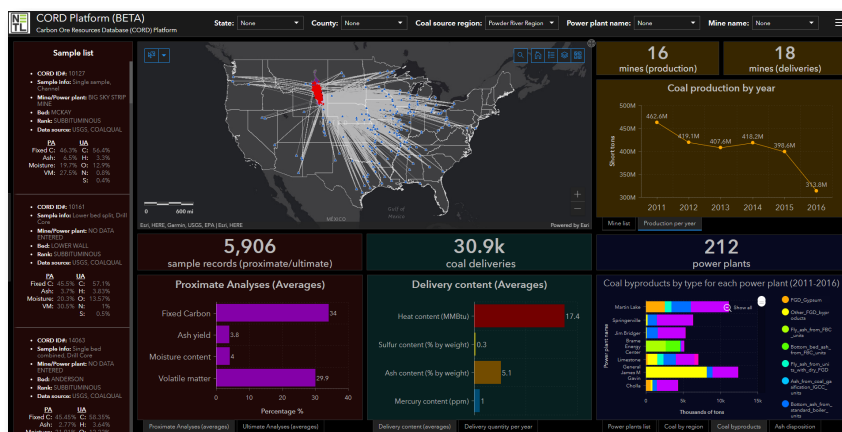
## CORD



Currently contains 399 datasets related to:  
• ~1.4 million records  
• 18 authoritative sources

## AN INTEGRATED DATA PLATFORM

- Collection of data resources from federal, state, university, and other entities
- Datasets updated to interface w/modern databases/computer codes
- Provides wide range of data on coal properties, geology/geochemistry, & supply chain/logistical issues
- The CORD platform is a virtual, interactive web application that allows users to query, visualize, and analyze integrated datasets



## What features and attributes does CORD contain?

Coal and Ash Samples	Geology	Mines	Coal Deliveries	Power Plants
<ul style="list-style-type: none"> <li>• Proximate/ultimate analyses</li> <li>• Oxides and trace elements (Rare Earth Elements, Critical Minerals)</li> <li>• Macerals</li> <li>• Rank</li> <li>• Others</li> </ul>	<ul style="list-style-type: none"> <li>• Coal bed geometries</li> <li>• Fields/basins/boundaries</li> </ul>	<ul style="list-style-type: none"> <li>• Production</li> <li>• Deliveries from mine</li> <li>• Coal region</li> <li>• Location/operator information</li> </ul>	<ul style="list-style-type: none"> <li>• Quantity coal delivered</li> <li>• Coal region</li> <li>• Bulk ash/sulfur/mercury content</li> </ul>	<ul style="list-style-type: none"> <li>• Consumption</li> <li>• Quantity delivered from mine/region</li> <li>• Byproduct quantity</li> <li>• Ash disposition</li> </ul>

## R&D ACTIVITIES

NETL is working to fill in key data gaps, transform data from challenging sources and improve CORD to meet the needs of industries and researchers associated with carbon ores and waste streams.

## NEXT STEPS

- ✓ Integrate new data and information as it becomes available
- ✓ Improve CORD quality through data gap mitigation
- ✓ Increase awareness of CORD through stakeholder engagement

## RESULTS AND ACCOMPLISHMENTS

- CORD - The database and platform can be accessed via EDX



Energy Data eXchange

**THE VIRTUAL RESOURCES OF FOSSIL ENERGY**

EDX is the Department of Energy (DOE)/Fossil Energy's (FE) virtual data collaboration and curation platform for data-driven technology development. Developed and maintained by the National Energy Technology Laboratory (NETL), EDX both publishes and curates research products to enable technology transfer while supporting secure, private, multi-institutional collaboration for ongoing research projects.

**Why Energy Data eXchange?**

- To acquire and preserve energy data products, data, and tools
- To enable researchers from multiple organizations to share, build, and collaborate
- To disseminate data, information, and results from DOE's FE research portfolios
- To share and publish online submissions and data products

EDX SUPPORTS THE ENTIRE DATA LIFE CYCLE



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**ENERGY**



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