

Burns & McDonnell Commissions New Black Start Generation Units at Carroll County Energy Center in Ohio

New Diesel Engines Allows Large Combined-Cycle Facility to Independently Restart and Restore Service in Event of Widespread Outage



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KANSAS CITY, Mo., May 28, 2019 /PRNewswire/ -- Burns & McDonnell has completed startup and commissioning of a new black start unit at the 700-megawatt (MW) Carroll County Energy facility. A configuration of four diesel-fueled reciprocating engines, with the ability to provide up to 15.6 MW of continuous power over a 24-hour period, enables the larger natural gas-fueled power generating facility to independently restart in the event of a widespread grid outage. With this added capability, Carroll County Energy will be one of the first power generating facilities to help restore power to the PJM transmission system.



New blackstart diesel engines at the Carroll County Energy Center in Ohio allow the 700-MW power facility to be independently restarted in the event of a widespread grid outage.

Carroll County Energy is a combined-cycle power facility that has been operating in the PJM wholesale power market since December 2017. Black start capability was retrofitted on the power facility located near Carrollton, in east-central Ohio, as a step to see that Carroll County Energy remains an important source of grid stability as many older coal-fired facilities in the area are retired.

Burns & McDonnell provided [engineer-procure-construct \(EPC\) services](#) for the black start units, which were added while Carroll County Energy was operating commercially. AZCO INC., a Burns & McDonnell subsidiary, performed the majority of the construction on the project.

"Many people in Ohio remember the 2003 blackout where power could not be restored for five days," says Andrew Degen, senior vice president, engineering and construction for Advanced Power, equity partner and operator of Carroll County Energy. "Adding black start capacity to Carroll County Energy means we can restart almost immediately in the event of a widespread outage, which is a critical step to add resilience to the PJM grid and help prevent a similar disaster in the future."

Adds Rick Halil, president of the Energy Group at Burns & McDonnell: "Burns & McDonnell has become an industry leader in adding black start capacity within a wide range of generation plant configurations. It's a prudent additional investment that requires a very complex engineering assessment to determine how much black start power is needed to get the main plant back online. In addition to sizing the diesel generators properly, we had to modify the turbine controls to enable isochronous, or island mode operation, plus modifications to the switchgear that allowed us to tie in the black start engines. We're very proud of our role in turning Carroll County Energy into an important generating resource that will add grid stability for PJM as more and more renewable energy sources come online."

For photos and support materials, please visit our [MEDIA KIT](#).

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