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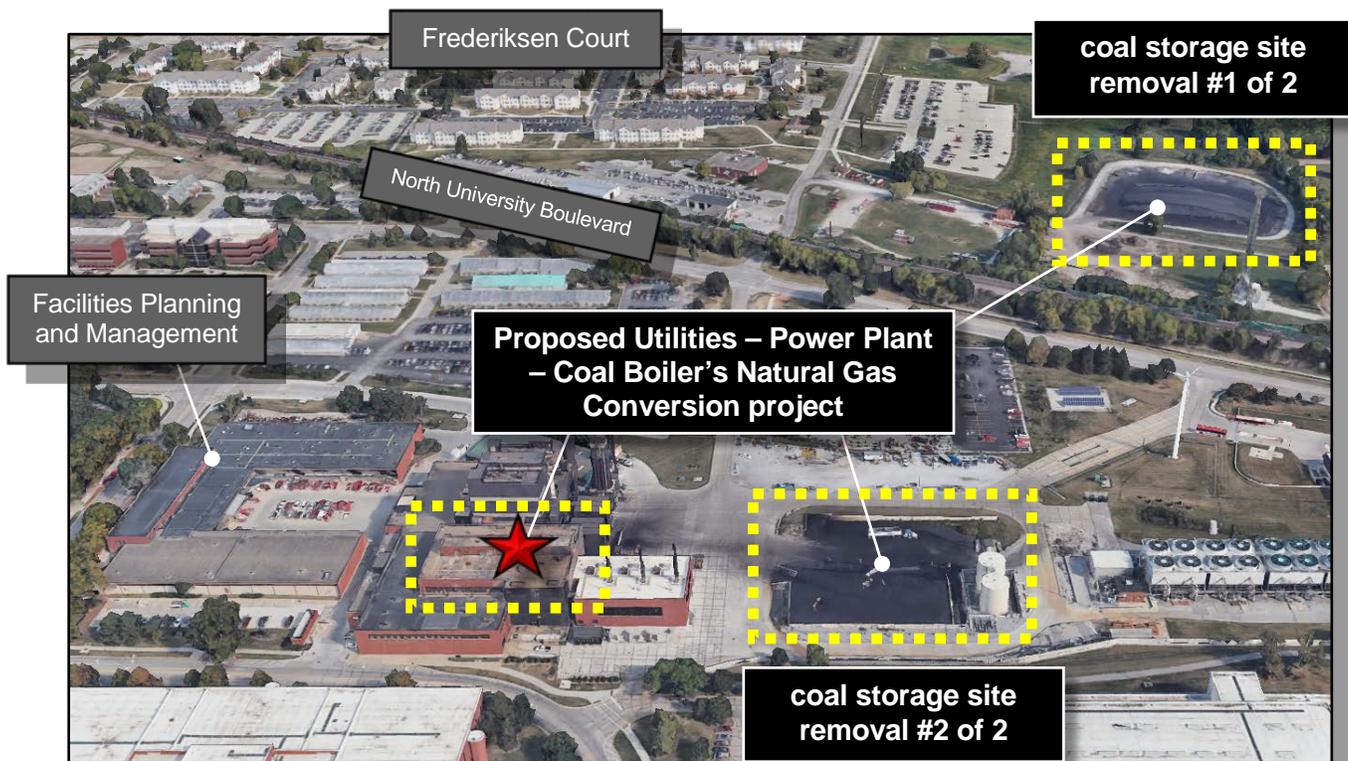
**REGISTER OF IOWA STATE UNIVERSITY  
CAPITAL IMPROVEMENT BUSINESS TRANSACTIONS**

**Executive Summary:** ISU requests Permission to Proceed with Project Planning, including the design professional selection process and the use of alternative delivery methods for the **Utilities – Power Plant – Coal Boiler’s Natural Gas Conversion** project.

This project would end the use of coal by Iowa State University by replacing the Power Plant’s two remaining coal-fired boilers with two natural gas-fired boilers. The estimated project budget of \$12 million to \$14 million would be funded by Utility Funds, but paid back to ISU in less than four years through annual utility savings of \$3.7 million derived from this project.

**Background:** The plant currently has two, 32-year-old coal-fired boilers and three, four year-old natural gas-fired boilers. Replacing the two coal-fired boilers would include removing various coal-handling systems and both of ISU’s coal storage sites. One site is immediately east of the plant, while the other is north of North University Boulevard (see site plan below).

	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning	Jun. 2020	Requested
Use of Alternative Delivery Methods	Jun. 2020	Requested



Iowa State University – northeast campus



In addition to the \$3.7 million annual utility savings, the use of natural gas instead of coal would reduce the university's greenhouse gas emissions by 35% and significantly reduce other air emissions, greatly increasing ISU's overall sustainability for generations to come.

The \$3.7 million annual utility savings is associated with the lower cost of natural gas relative to coal, and reduced operating, maintenance and repair costs attained by completely eliminating coal handling and ash disposal. This project also positions Iowa State University to pursue future sustainable, cost-effective fuel alternatives and technologies for large-scale utility production.

The university also requests permission to utilize alternative delivery methods, other than the traditional design-bid-build method. As the project develops, the university would consider various delivery systems and utilize one that provides the best value to the university and manages risks appropriately. In making this determination, the following alternative delivery method advantages would be considered:

Three advantages of Alternative Delivery Methods:

- **Saves Money:** Maximize collaboration during the design phase between design and construction professionals to improve project outcomes and minimize change orders.
- **Saves Time:** Provide an accelerated design, smoother team communications and fast-track construction approaches, which allow the university to begin beneficial use of the facility sooner than the traditional design-bid-build method.
- **Harness Expertise:** Assuring that the best design and construction professionals are selected that have the necessary specialized expertise that leads to a successful project outcome for all parties.