

DESCRIPTION OF INTERIM CAPITAL PROJECTS FOR CONSIDERATION

April 2, 2015

CLEMSON UNIVERSITY

PROJECT NAME: Electrical Distribution System Upgrades and Replacement
REQUESTED ACTION: Establish Project
REQUESTED ACTION AMOUNT: \$75,000,000
INITIAL CHE APPROVAL DATE: N/A

<u>Source of Funds</u>	<u>Phase I (Pre-Design)</u>	<u>Phase II (Construction)</u>	<u>Total Proposed Budget</u>
Maintenance and Stewardship Funds*	\$1,125,000	\$73,875,000	\$75,000,000
<i>Total</i>	<i>\$1,125,000</i>	<i>\$73,825,000</i>	<i>\$75,000,000</i>

*Additional funding sources (ICPF et al) will be determined following completion of Phase I(Pre-design).

DESCRIPTION:

The University requests approval to establish a project to upgrade the main campus electrical distribution system that was predominately constructed in the late 1950's through mid-1960. The work will include replacing aging electrical distribution automation capability to all switches to reduce outage durations and developing a central operations location to monitor and control and Distribution Automation System. It will also include converting remaining exposed overhead electrical facilities to underground, adding metering and controls to equipment in campus buildings with aging utility transformers and main gear, and making other modifications to the campus electrical system. The project will be a multi-year project to replace vulnerable sections of the aging electrical infrastructure in areas that have a higher probability of failure impacting major academic, research and student life activities.

This project was to be constructed in two phases and was included in the institution's FY 2014-15 CPIP years three and four. However, the institution has determined that the work should be consolidated and is moving forward with a single project.

According to institutional representatives, the House Ways and Means Committee has adopted a proviso to encourage Duke Energy to enter into negotiations with Clemson to address the feasibility of the development of this project. However, it remains critically important that this project be established for Phase 1 at this time so that Clemson can move forward with the planning.

E&G MAINTENANCE NEEDS:

The project will alleviate a portion of the \$41,352,156 in existing E&G infrastructure maintenance needs associated with electrical utility services over the next twenty years.

ANNUAL OPERATING COSTS/SAVINGS:

The project is not expected to generate additional operating costs at this time. Auxiliaries (Athletics, dorms, food service, etc. will be charged a portion of the costs associated with the system upgrades.)

RECOMMENDATION:

Staff recommends approval of this project as proposed.