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Advanced Metering Infrastructure (AMI) Update (B)

Advanced Metering Infrastructure has quickly become one of the top initiatives for utilities around the U.S. Advanced metering infrastructure (AMI) is an integrated system of smart meters, communications networks, and data management systems that enable two-way communication between utilities and customers. These systems provide a number of important functions that were not previously possible or had to be performed manually, such as the ability to automatically and remotely measure consumer consumption, connect and disconnect services, detect meter tampering, identify and isolate outages, and monitor voltage.

AMI technology offers utilities valuable information about customer usage, including consumption behavior, effects of external variables and outages. Both the customer and the utility are able to find out how energy is used within the home. The knowledge of the customer's usage improves the customer service representatives' ability to work with a customer to understand his or her bill, which in turn increases customer confidence in the billing process. Additionally, the consumer will have the ability to monitor and change their usage, which could result in a lower energy bill. The overall results are better customer interaction, improved quality of service and shortened response times to outages.

In 2014, as AMI started to become a household name in the industry, GRU decided to rollout a small pilot program. An Invitation to Negotiate (ITN) was issued and an AMI vendor was awarded the opportunity to participate. This vendor provided an AMI solution that gave us the ability to investigate functions of smart meters, head end system software, and various types of communication protocols. This pilot program was rolled out strategically over a four-year period and the tests consisted of automated internal controls, meter to cash integrations (AMI meter data combined with billing system requirements equals billing statement), and various backhaul solutions and data analytic programs (communication efforts). This pilot proved successful and gave the utility confidence, and a good look inside what it would take to not only deploy, but also maximize the potential benefits of an AMI system. With knowledge from the pilot system, as well as multiple visits with other organizations that were using AMI, we moved forward in 2017/18 by bringing in two reputable consultants along with Gartner to conduct the business case as well as the gap analysis, assessment, and feasibility study for AMI. The business case gave us a better look at how we do business and the effects that an AMI system could have in terms of costs and benefits. With the data collection and partnerships we have produced, we feel confident to move forward with AMI as a part of our global enterprise resource planning initiative. We have initiated ITNs to deliver meter technology options, software compatibility options, and communication options along with a plan and budget to complete the AMI initiative. Based on this recent progress, GRU is back with information for both the UAB and the city commission as it pertains to the AMI project as well as recommendations for next steps.

We are working to develop a staging strategy for AMI deployment which will minimize rate impacts based on the return on investment documented through several business cases, as well as several consultants. If approval is given we look forward to returning with firm numbers from the ITNs that are currently out for proposal.

We are estimating an overall $51 million investment for the deployment of AMI as a part of the ERP

implementation. Leidos projected a simple payback of 53 months on annual savings of over $9,000,000. UtiliWorks projected an internal rate of return of 16.3 percent and a simple payback of nine years. Both projects exceed our internal hurdle rate of 10 percent.

The City Commission and UAB approve moving forward with the process of AMI as part of the ERP system.