

November 28, 2018

Michael S. Colo
Attorney for New River Light and Power
D: 252-972-7105
F: 252-972-7045
mcolo@poynerspruill.com

VIA ELECTRONIC FILING

M. Lynn Jarvis
Chief Clerk
N.C. Utilities Commission
430 North Salisbury Street
Dobbs Building
Raleigh, NC 27603-5918

RE: Docket No. E-34, Sub 46

Dear Ms. Jarvis:

Pursuant to Ordering Paragraph 8 of the Order issued by the North Carolina Utilities Commission (the "Commission") on March 29, 2018 in the captioned Docket, New River Light and Power Company ("NRLP") advises the Commission that its discussions with the Public Staff related to NRLP's utilization of its AMI metering system, including the use of the remote connection and disconnection, have concluded and hereby files the attached Report Related to Use of Advanced Metering Infrastructure System dated November 28, 29018.

Please direct any questions in connection with the above to the undersigned.

Thank you for your attention to this matter.

Sincerely yours,

/s/ Michael S. Colo
Michael S. Colo
Attorney for New River Light and Power

cc: Paul Meggett
Ed Miller
Randy Halley

Enclosure: Report

CERTIFICATE OF SERVICE

Docket No. E-34, Sub 46

I certify that a copy of Appalachian State University's, d/b/a New River Light and Power Company, Report Related to Use of Advanced Metering Infrastructure System dated November 28, 2018, has been served by electronic mail, properly addressed to the following parties of record:

Elizabeth D. Culpepper
Staff Attorney
Public Staff – North Carolina Utilities Commission
430 N. Salisbury Street, Suite 5110
4326 Mail Service Center
Elizabeth.culpepper@psncuc.nc.gov

This the 28th day of November, 2018.



Michael S. Colo
Attorney for New River Light and Power Company
Post Office Box 353
Rocky Mount, North Carolina 27802-0353
Telephone: (252) 972-7105

APPALACHIAN STATE UNIVERSITY
DBA NEW RIVER LIGHT AND POWER COMPANY
DOCKET NO. E-34, SUB 46

Report Related To Use of Advanced Metering Infrastructure System
November 28, 2018

INTRODUCTION:

On March 29, 2018, the Commission issued an Order Accepting Stipulation and Granting Increase in Rates. Ordering Paragraph 8 required New River Light and Power Company ("NRLP" or "Company") to update the Commission on the results of the discussions between NRLP and the Public Staff related to NRLP's utilization of its advanced metering infrastructure (AMI) metering system, including the use of the remote connection and disconnection, among other functionalities, within 30 days of the conclusion of those discussions.

On April 26, 2018, NRLP provided the Public Staff with a document that details the number of AMI meters by rate class that are equipped with remote connect/disconnect (RCD) capabilities, and NRLP's criteria for determining when a customer would be eligible to receive a meter that does not have RCD capabilities.

On May 16, 2018, NRLP and the Public Staff participated in a conference call to discuss NRLP's AMI system processes.

On July 17, 2018, NRLP provided the Public Staff with information further detailing its internal RCD policies.

This report describes the AMI metering policies that have been implemented by the Company.

NRLP'S AMI METERING SYSTEM AND RCD METER CRITERIA:

NRLP has installed a total of 8,245 AMI meters to each of its service bases. Of this total, 5,856 AMI meters are equipped with RCD capabilities. The table below summarizes these meters by rate class.

Rate Class	Non-RCD	RCD	Total
Residential	714	5,611	6,325
Commercial General Service	1,272	245	1,517
Commercial Demand Service	274	-	274
ASU Campus	107	-	107
Other	<u>22</u>	<u>-</u>	<u>22</u>
Total	2,389	5,856	8,245

During preparation for the AMI rollout, NRLP determined where it would place RCD meters based on service history. Only locations with a history of being disconnected or a history of customer turnover would get RCD. More specifically, NRLP's criteria for RCD meter placement was: (1) if a service has had more than one customer in the last five years, or (2) if a service was disconnected in the last five years. NRLP elected to not install RCD meters at most commercial customer locations because it is uncommon for commercial customers to be disconnected. RCD meters cannot be installed at large commercial/demand services because RCD meters, by design and manufacture, are limited to 300 amp service or below, whereas large commercial/demand service requires 400 amp service or greater. RCD meters are only installed on small, general commercial services where manual disconnect is difficult because of access issues or in cases where the businesses have required disconnect due to non-pay. RCDs are also installed where there are frequent customer changes (similar to residential services where people have moved in or out within 5 years). No RCD meters were installed for local and state government buildings.

Given that the premium for meters with RCD capability ranges from \$50 to \$80 per meter, NRLP reduced its capital costs by over \$100,000 by limiting the number of RCD meters.

Going forward, for new service requests at locations without RCD meters, NRLP will not install a RCD meter unless the customer requests a program that requires RCD capability or customer payment history justifies the need for RCD. If an NRLP employee is dispatched to disconnect service at a location with a non-RCD meter, the meter will be replaced with a RCD meter to diminish future dispatches. For customers with RCD meters that maintain continuous service for five years, NRLP will not remove the RCD meter unless NRLP needs the meter for another location to avoid purchasing additional RCD meters. By focusing on deploying RCD to locations with a history of nonpayment or service disconnections due to vacancy, NRLP will continue to improve the efficiency of its dispatching resources.

NRLP is currently developing a prepay program that is intended to be available to all residential customers. Customers who choose to participate in this program will be required to have an RCD meter.

REMOTE CONNECTION AND DISCONNECTION POLICIES:

NRLP's Customer Information System (CIS) contains functionality to assign service orders and non-pays to the AMI system. This functionality is used with all service orders except when connecting a new service resulting from new construction. A meter tech would be dispatched to install a meter at the new service. The decision to install an RCD meter would be the same as previously

described for new services. If a customer is taking over an existing service, the RCD meter allows us to route the service order to the AMI system. An energy reading is recorded, and the meter is disconnected, or connected, if necessary. For normal service orders, this process runs hourly from 9:00 a.m. to 4:00 p.m., Monday through Friday. When this process runs, the CIS sends the appropriate command and related account information to the AMI system, and the requested action is completed. This could be a reading request alone or a reading request paired with a request to connect or disconnect service.

After the request is sent to the AMI system, an attempt is made to process the request by the system. If there is an issue, such as lack of connectivity, and the request cannot be processed, the AMI system will notify the CIS and a Customer Service Representative (CSR) will be notified. The CSR will then attempt to complete the action through the AMI system. If this attempt also fails, the process will be completed manually.

If a meter does not have RCD capabilities or if a service order has failed as described above, a meter tech will be sent out to complete the service order and ensure the meter is in working order.

Afterhours connections are extremely rare and would follow the same process as reconnecting an afterhours cut-off for non-pay. If the meter is an RCD, a meter tech or CSR will remotely reconnect the meter via the AMI system. If the meter is not an RCD, a meter technician or lineman would be dispatched to the service for a manual reconnection.

In the case of an afterhours reconnect for a non-pay situation, the crewman on call will inform the customer of requirements to have service reconnected. Once the customer agrees, the crewman will attempt to reconnect the meter via the AMI system, if the attempt fails, the crewman will visit the site and manually reconnect the service using a laptop and optic cable.

Accounts that are subject to disconnection for non-payment are notified by door hanger two days prior to cut off. On the cutoff day, another door hanger will be delivered early in the morning, and, once the meter tech has delivered the notices, a CSR assigns the cut-off work orders to the CIS for disconnect activity. This initiates the process and the CIS sends disconnect requests to the AMI system. The AMI system attempts to disconnect and informs the CIS of success/failure. (Three attempts are made if the first attempt fails.) During this process the account status is "pending cut-off." Once disconnects are complete, the AMI system notifies the CIS that the meters are cut off, and the work orders are automatically closed. The system then assigns the account status as "cutoff" and the accounts remain in this state until payments are made to the account. CSRs currently monitor the process to ensure that the system operates as expected since this is a relatively new process.

The CIS is configured to charge reconnect fees, additional deposits and apply those amounts in addition to the cut-off amount. Customer must pay this total balance in order to fall below the cut-off threshold. The CIS sees all payments the same; there is no distinction as to whether a payment is paid online, over the phone, or in person. Any payment that brings the balance below the cut-off threshold will result in the command to reconnect the meter. Once payment is made to bring the account balance below the cut-off threshold, the CIS will send a command to the AMI system to reconnect the meter which assigns an account status "cutoff, pending reconnect." Again, three attempts will be made, and the AMI system will return a success/failure. Once the meter has been reconnected, the account status changes to "reconnected." This process is all automated. CSRs do not have to monitor progress; they only need to deal with exceptions.

NRLP does not believe that the presence of an RCD meter will affect the customer's level of service. Having a small geographical region to cover means that NRLP is able to respond quickly to the customers who do not have RCD meters. By strategically selecting which customers received this functionality NRLP was able to keep costs down while still providing the same level of service. It is also important to understand that all other functions of the AMI metering are available to every customer and to NRLP.

NRLP AMI SYSTEM FUNCTIONALITIES

NRLP currently offers integration between the AMI system customer portal and its existing Customer Billing Portal. This functionality allows customers to use a single sign-on to access both their billing and payment history and to seamlessly navigate to detailed usage information available in the AMI portal. This information includes, monthly, daily, and hourly data graphs, bill estimator, and comparison of customer's usage to similar services. The AMI system also allows NRLP CSRs to assist customers with high bill complaints and outage information. CSRs can access a copy of the AMI customer portal and discuss usage with the customer to explain billing questions. NRLP is currently in the process of extending this functionality to NRLP's mobile app, NRLP Connect. When outages occur, the AMI portal provides notifications to NRLP staff, alerting Staff of outage information. Outages are also displayed on a map of the NRLP service territory within the AMI Utility portal, allowing NRLP staff to quickly communicate outage information to customers and assist line crews in determining possible causes of the outage.

In the future, NRLP plans to offer pre-paid service to its residential customers. NRLP staff have had preliminary discussions with NCUC Staff as an initial step in designing this new program.