

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

In the Matter of the Value of Distributed	)	Case 15-E-0751
Energy Resources	)	

Proceeding on Motion of the Commission as to	)	
the Policies, Requirements and Conditions	)	Case 15-E-0082
Implementing a Community Net Metering	)	
Program	)	

**ORANGE AND ROCKLAND UTILITIES, INC. AUTOMATION AND BILLING
REPORT**

In Ordering Clause 11 of its Phase One Order in the above-referenced proceedings, the Public Service Commission (“Commission”) required that:

Each utility shall file, within 60 days of the issuance of this Order, an automation and billing report, which shall include a timeline for automation implementation and the potential incremental implementation costs, as well as an evaluation of practicality, cost, and timeline for implementing consolidated billing within 12 months of this Order. The report shall include consideration of using vendors, third-parties, and/or a statewide system.¹

Orange and Rockland Utilities, Inc. (“O&R” or the “Company”) files this report to satisfy this requirement. The Value Stack Tariff represents a major step toward establishing a vibrant DER market in New York that encourages the development of DER in ways that help meet the State’s clean energy objectives and support electric system needs.

¹ Case 15-E-0751 *et al.*, *In the Matter of the Value of Distributed Energy Resources, et al.*, (“VDER Proceeding”), Order on Phase One Value of Distributed Energy Resources Implementation Proposals, Cost Mitigation Issues, and Related Matters (issued September 14, 2017) (“Phase One Order”), p. 55

I. Introduction and Background

In March 2017, the Commission issued its VDER Order² that “establish[ed] the Value Stack tariff implementing a new, more comprehensive DER program based on monetary crediting for net hourly injections,” and “direct[ed] development of proposals for next steps that can be taken to reduce, eliminate, or mitigate market barriers, bill impacts, and [community distributed generation (“CDG”)] project costs.”³ The VDER Order further required utilities to file implementation plans for Value Stack tariffs. As required, the Company submitted an implementation plan on May 1, 2017 that addressed, among other things, O&R’s processes for managing and tracking Value Stack bill credits.⁴

On October 16, 2017, in compliance with Ordering Clause 10 of the Phase One Order, O&R filed its Plan for Applying Credits to Customer Bills Under the Value Stack Tariff⁵ (“Credit Application Filing”), wherein the Company described that “due to the significant changes required to implement the Value Stack, fully automating the Value Stack in O&R’s billing system would not be feasible by the November 1, 2017 effective date.” To meet the billing requirements of the Value Stack tariff, O&R developed a two-phased approach. O&R will rely on a manual, interim process beginning on November 1, 2017, until the billing system can be modified to automate the implementation of the Value Stack billing and processes. As directed in the Phase One Order, this filing elaborates on (i) the modifications that O&R will make to its billing system to implement an automated billing solution for Phase One Net Energy

² VDER Proceeding, Order on Net Energy Metering Transition, Phase One of Value of Distributed Resources, and Related Matters (issued March 9, 2017) (“VDER Order”)

³ VDER Proceeding, VDER Order, pp. 5-6

⁴ VDER Proceeding, Orange and Rockland Utilities, Inc. Implementation Proposal for Value of Distributed Energy Resources Framework (filed May 1, 2017)

⁵ VDER Proceeding, Orange and Rockland Utilities, Inc. Plan for Applying Credits to Customer Bills Under the Value Stack Tariff (filed October 16, 2017)

Metering (“NEM”), including the Value Stack, (ii) the estimated timing of such modifications, and (iii) a high-level estimate of the cost of such modifications.

II. The Current Billing System

O&R contracted with Accenture, LLP (“Accenture”) to develop its current Customer Information Management System (“CIMS”). Since its installation in 1998, CIMS has provided O&R with functionality to support billing, meter reading, meter field work, customer care, Internet self-help, electric and gas emergency operations, financial reporting, and cash operations. Accenture has provided CIMS maintenance and enhancement services to O&R since the system implementation. Accenture will assist the Company in implementing the changes necessary to implement the new Value of DER compensation mechanism.

III. Changes Required to Automate the Value Stack

The Company recognizes that due to the complexities of calculating and applying the Value Stack credits, maintenance of existing grandfathered NEM rules, and the potentially large volume of participating customers – in particular for CDG – full automation is necessary. Following issuance of the VDER Order, the Company began assessing the impact of the then-proposed Value Stack tariff on the Company’s business processes and CIMS. As part of this process, the Company documented its current billing processes; developed a manual, interim process for managing Value Stack billing; performed a future state business process design; and developed detailed business requirements for both an interim Value Stack calculator and the changes required to CIMS to automate the Value Stack. As a result of this work, the Company has an understanding of the scope required to automate the Value Stack billing process including the integration of a large amount of new data types into CIMS, the integration of several secondary systems, and the management of new customer relationships. This has allowed the

Company to provide the estimated timeframe and cost included in this filing. Key changes are summarized below.

System Interfaces

O&R will use its current Interconnection Online Application Portal (“IOAP”), Clean Power Research’s PowerClerk (“PowerClerk”), to capture and manage customer election data from distributed generation customers when they either interconnect new systems or opt-in to the Value Stack. CDG Hosts also will use PowerClerk to transmit satellite information and allocation percentages to O&R. As a result, interfaces between PowerClerk and CIMS will need to be designed and built to automate the transfer of this information between them.

Similarly, other necessary values for calculating Value Stack credits (*e.g.*, a project’s coincident export during both the New York Control Area (“NYCA”) peak, O&R’s top ten system peak hours, the New York State Energy Research Development Authority’s Tier 1 Renewable Energy Credit auction prices) will need to be imported into CIMS. Additional interfaces with various other systems will be required to import such data. Automating the transfer of this data is essential for reducing the time required to calculate and apply Value Stack credits to customers’ bills and to minimize the possibility of error associated with manual data entry.

CDG and Remote Net Metering (“RNM”) Accounts and Banking of Excess Credits

The Company must develop methods for linking either the CDG or RNM Host and corresponding satellite accounts, using rules established for credit allocation per project type (*i.e.*, by percentage for CDG and in the order of satellite billing and credit carry over rules). Currently, these relationships are managed manually outside of the billing system. No mechanism exists within CIMS to identify and manage the Host and satellite account

relationship, including the allocation of credits earned on one account and distributed to a variety of others.

The ability of CDG Hosts to “bank” excess credits presents another challenge to automating the Value Stack. Tracking of banked credits and the allocation of credits outside of the Host’s regular, monthly satellite allocations requires the development of separate rules. To facilitate credit banking, the Company must establish methods within CIMS to allow for the banking and distribution of unallocated credits, subject to the rules governing both the carryover of excess CDG credits and the forfeiture of appropriate credits (*e.g.*, two-year grace period).⁶ The Company must develop and incorporate into CIMS a method to move these specific allocations from the bank and apply the monetary credit to a chosen satellite’s monthly bill. In addition, CDG Host banks will require another tracking method within CIMS so that the forfeiture rules are applied appropriately.

Metering

Perhaps the most significant challenge to automating the Value Stack in CIMS will be the integration of both import (relating to energy received by the customer) and export (relating to energy exported by the customer onto the grid) interval meter data. CIMS has been designed to accept only customer net usage. In order to charge the customer for imported energy while separately calculating the customer’s Value Stack credit for exported energy, the Company must modify CIMS to accept and bill on multiple meter data channels. This represents a significant and fundamental system design change. Accordingly, O&R’s modification of CIMS to allow for the inclusion of both import and export data may affect a large number of other processes that CIMS performs.

⁶ VDER Proceeding, VDER Order, p. 78

Billing and Accounting

CIMS system logic will need to be modified to allow the Value Stack credit to offset electric charges billed by the Company exclusive of gas or other charges (*e.g.*, deposits and on bill recovery payments). The current method that was implemented for managing excess NEM credits that exceed electric charges on the customer's monthly bill must be recreated and modified so that for Value Stack customers excess credits are carried over for only the life of the account or term under the Value Stack tariff, whichever is shorter. Since the cash out of excess Value Stack credits is not permitted, CIMS must maintain the annual cash out of excess credits for accounts that are subject to the grandfathered NEM rules.

In addition to credit calculation, changes will be needed in order to align finance and accounting functions within CIMS. The Company will need to develop mechanisms (i) to record Value Stack credit components to the appropriate general ledger accounts, (ii) to allow for reporting of credit components in rate and revenue reporting, and (iii) to calculate and report taxes on the net of Value Stack customers' electric bill and Value Stack credit per the Company's GAP filing.⁷ Finally, the Company must revise the mechanism to include the recovery of the various components (*e.g.*, Energy Charge Adjustment and Market Supply Charge) to reflect the appropriate charge on the proper customer class' bills.

The bill printing process itself also will require detailed modification to accommodate (i) adding the Value Stack credit as a separate line item credit on the bill, (ii) presenting both export and import meter data, and displaying new bill messages, such as the CDG Host name and

⁷ VDER Proceeding, ConEd/O&R Joint Response to Public Service Commission Order Requiring Utilities to File General Accounting Procedures associated with the implementation of Phase One of VDER (filed November 13, 2017) ("ConEd/O&R GAP 958-C-VDER")

contact information. Automating the Value Stack reports required to be included as bill inserts with Value Stack customers' bills⁸ will require the development of new CIMS processes.

IV. Timeline and Cost Estimate

As a result of O&R's preliminary analysis of the VDER requirements and its work in developing the future state billing processes and detailed functional requirements to automate the Value Stack in CIMS, the Company estimates that it will be able to complete the automation process by April 30, 2019. O&R currently estimates that the cost to fully automate the Value Stack to be \$4.5 million. The Company is continuing to investigate and develop processes, functionality and design, the results of which may require revisions to the Company's current projected schedule and cost forecasts. The Company will outline its projected expenditures for VDER automation, as well as its cost recovery proposal, in its next electric base rate case filing.

The Company will leverage internal and external resources to implement the automation of the value stack billing process. Such resources primarily consist of system development resources (programmers), system architects, and technical experts, but also include project management and change management support.

V. Risks and Constraints

The Company has made significant progress in understanding the requirements of the VDER Order and Phase One Order, as part of its development of its Value Stack interim manual billing processes. Although these tools and processes will allow the Company to calculate the Value Stack credit manually in the interim, there continue to be a number of risks, clarifications and refinements that are needed to fully automate the Value Stack. While there is a risk that there may be impacts to systems and processes that presently cannot be determined, O&R will

⁸ Phase One Order, p. 55

continue to define the detailed technical requirements and specifications while working with stakeholders including the Department of Public Service Staff to make clarifications as necessary.

The Company will be able to better refine its cost and schedule estimates for the automation process after it concludes the design phase in mid-2018. At that point, the Company will possess a fuller understanding more detailed technical design of the required changes to CIMS, as well as the impacts to its other systems and processes.

Finally, the ongoing, simultaneous implementation of other changes to the billing system, such as changes to low income programs and rate pilots, may add complexity and must be actively managed.

VI. Consolidated Billing for Community Distributed Generation Projects

In Ordering Clause 11 of the Phase One Order, the Commission directed the utilities to file a report to address “an evaluation of practicality, cost, and timeline for implementing consolidated billing within 12 months of this Order. The report shall include consideration of using vendors, third-parties, and/or a statewide system.”⁹ Consolidated billing for CDG and the potential use of vendors, third-parties, and/or a statewide system for consolidated billing are being addressed by the Joint Utilities in comments filed in this proceeding.¹⁰

VII. Conclusion

O&R began preparation for changes to its processes and billing system resulting from the VDER Order in March 2017. Since that time, the Company has documented its current billing processes; developed a manual, interim process for managing Value Stack billing; performed a

⁹ VDER Proceeding, Phase One Order, p. 55

¹⁰ VDER Proceeding, Joint Utilities’ Response to Public Service Commission Order Requiring Utilities to File an Automation and Billing Report and an Evaluation of the Practicality, Cost, and Timeline for Implementing Consolidated Billing Within Twelve Months (filed November 13, 2017)

future state business process design; and developed detailed business requirements for both an interim Value Stack calculator and the automation of the Value Stack in the CIMS system.

According to its current projections, the Company plans to have completed automation of the Value Stack and CDG billing processes by April 30, 2019.

Respectfully submitted,

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