APPENDIX A: EXCERPTS FROM ORDER NO. 22,875

Quotations below are excerpted from Order No. 22,875 (issued 3/20/98) in Docket No. DR 96-150, which addressed various motions for rehearing or clarification relative to the policies and legal positions articulated in the Statewide Electric Utility Restructuring Plan adopted in Order No. 22,514 (issued 2/28/97). https://www.puc.nh.gov/Regulatory/Orders/1998ords/22875e.html

"The passage of RSA 374-F … has imposed upon us the new responsibility of developing and implementing policies that will encourage a competitive retail market for electricity services. The Legislature clearly instructed us to design and implement policies to achieve that particular objective when it stated the purpose of RSA 374-F this way:

> *The most compelling reason to restructure the New Hampshire electric utility industry is to reduce costs for all consumers of electricity by harnessing the power of competitive markets. RSA 374-F:1, I (emphasis added).*

Thus, although we continue to recognize the competing interests of consumers and utility shareholders, we must do so within the framework of an overall policy to promote a competitive market for retail electric services."

"…PSNH argues that RSA 374-F does not authorize the Commission to unbundle metering and billing services for any customer. We disagree. RSA 374-F:1, I states, in pertinent part, that "[i]ncreased customer choice and the development of competitive markets for wholesale and retail electricity services are key elements in a restructured industry that will require unbundling of prices and services...." and at §3, III states that "services and rates should be unbundled to provide customers clear price information on the cost components of generation, transmission, distribution, and any other ancillary charges." Additionally, §3, IV requires the Commission to "monitor companies providing transmission or distribution services and take necessary measures to ensure that no supplier has an unfair advantage in offering and pricing such services." We conclude that the Legislature authorized us to unbundling ancillary services, including metering and billing, recognizing such unbundling to be a critical step in the development of a competitive market for energy services."

"… we … affirm our authority to place conditions on future electric distribution utility franchise rights to accommodate the retail access policies of RSA 374-F. See, Plan at 28. We do not accept the argument that we can only limit the scope of services that a utility may offer after a finding of inadequate service pursuant to RSA 374:28. Fundamental to our regulation of a distribution utility is a determination of the type and quality of services provided. Such a determination will change over time with advances in technology, changes in customer needs and the development of competitive markets for energy services."

"… the Commission has been delegated incidental authority to take actions necessary to implement the policies of RSA 374-F. See, RSA 374-F:4, VIII ("The Commission is authorized to order such charges and other service provisions and to take such other actions that are necessary to implement restructuring..."). Even before the enactment of RSA 374-F, the Commission had the authority and duty to prescribe terms and conditions on franchise rights whenever it would serve the public good. RSA 374:26. That authority has a special application

to these circumstances because our delegated mandate is to promote competition not to perpetuate monopolies. As the New Hampshire Supreme Court stated:

> *..[L]egislative grants of authority to the PUC should be interpreted in a manner consistent with the State's constitutional directive favoring free enterprise. Limitations on the right of the people to "free and fair" competition"...must be construed narrowly, with all doubts resolved against the establishment or perpetuation of monopolies.*

RSA 374:26 thus should not be interpreted as creating monopolies capable of outliving their usefulness. Appeal of PSNH, 141 N.H. 13, 19 (1996) (emphasis added) (internal citation omitted). In this case, we have identified specific circumstances where electric utilities may exploit their privileged status to inhibit the development of a competitive retail electricity market. We will implement special protections to mitigate these anti-competitive practices. Should we determine these special protections are insufficient, we will impose additional pro-competitive measures."

APPENDIX B: NH EDI STANDARDS REPORT GLOSSARY OF TERMS (EXCERPTS)

Terms excerpted from: Docket No. DR 96-150, Consensus Plan for the Transmission of Electronic Data in New Hampshire's Retail Electric Market, Appendix A: Glossary of Terms, pp. 46-52. www.puc.nh.gov/electric/EDI/edirev53.pdf

Utilities are supposed to provide the following account and metered service data elements to suppliers via EDI:

- ***Distribution Company Rate Code****: The rate code assigned by the Distribution Company to identify the category of service supplied to the Customer."*
- ***Service Identifier****: Some systems offer multiple types of services to a particular account. A Competitive Supplier may wish to offer different prices for the different service types. This field will be used in conjunction with the Type of Service Indicator to identify the specific service referenced by the transaction (it typically contains a meter number or an unmetered rate depending on the type of service).*
- ***Type of Service Indicator****: Used to identify the type of service. Possible options are: C = Combined Service (multiple meters) D = Metered Service Demand & kWh E = Metered Service kWh H = Controlled Hot Water L = Lighting Service N = Non-Metered Service T = Metered Service TOU A = Apply to All Services S = Electric Space Heating U = Uncontrolled Hot Water blank or space = Apply to All Services*

Utilities are supposed to provide the following customer usage data elements to suppliers via EDI:

- *"**Peak or Total Kilowatt Hour Usage****: For non-time-of-use meters, this is the total kilowatt hour usage for the billing period. For time-of-use, it contains the total kilowatt hour use during the Distribution Company's on-peak hours."*
- *"**Off-Peak Kilowatt Hour usage****: The total kilowatt hour use during the Distribution Company's offpeak hours."*
- *"**Shoulder Kilowatt Hour Usage****: The total shoulder kilowatt hour usage."*
- *"**Peak or Highest kW demand****: For non-time-of-use meters, this will contain the actual highest demand measured in kilowatts. For time-of-use meters, it is the highest demand measured in kilowatts during the Distribution Company's on-peak hours."*
- *"**Off-Peak Demand****: The highest demand measured in kilowatts during the Distribution Company's offpeak hours."*
- *"**Shoulder kW Demand****: The shoulder demand measured in kilowatts."*
- *"**Peak kVa Demand****: The actual peak demand measured in kilovolt-amperes during the Distribution Company's on-peak hours."*
- *"**Off-Peak kVa Demand****: The highest kVa demand measured in kilovolt-amperes during the Distribution Company's off-peak hours."*
- ***"Shoulder kVa Demand****: The total shoulder demand measured in kilovolt-amperes."*

As described below, utilities are supposed to calculate supply charges based on (1) a table of rate structures provided by the supplier to the utility ahead of time (which is referred to as a "rate sheet"

by NH utilities) and (2) being told by the supplier which price/rate structure is applicable to each individual customer:

- *"**Consolidated Billing Option**: A billing option whereby the distribution and generation charges are combined on one statement rendered by the Distribution Company."*
- *"**Supplier Pricing Structure Maintained by the Distribution Company**: A code for the price point that the Customer will be charged for electric service within a particular rate class. Each Competitive Supplier rate class can support a large number of price points."*
- *"**Supplier Rate Code**: The rate code assigned by the Competitive Supplier to identify the category of service supplied to the Customer. Calculation methods must be consistent with a Distribution Company's existing tariffs."*

Utilities are supposed to report back to suppliers via EDI, for customers billed via rate ready consolidated billing, the following supply bill charges that utilities billed on behalf of the supplier:

- "***Current Customer Charge**: The current Customer charges applied on the Competitive Supplier portion of the bill*."
- *"**Current Amount**: The current amount billed for the Competitive Supplier for an individual service when there are multiple services per account, or for a single account when there is a single service for the account."*
- *"**Current Peak Amount**: The current billed amount for usage recorded during the Distribution Company's on-peak hours for the Competitive Supplier portion of the bill."*
- *"**Current Off-Peak Amount**: The current billed amount for usage recorded during the Distribution Company's off-peak hours for the Competitive Supplier portion of the bill."*
- "***Current Shoulder Amount**: The current billed amount for usage recorded during the Distribution Company's shoulder hours for the Competitive Supplier portion of the bill."*
- "***Current Demand Charges**: The current billed amount for the Competitive Supplier total demand portion of the bill*."
- *"**Demand Value Used by Distribution Company for Billing**: This field is used for time-of-use accounts. It is the kW or kVa demand that was used by the Distribution Company to calculate the current demand charges. (Since there are 2 or 3 time-of-use periods, each with demand, this field tells the Competitive Supplier which demand was used for billing purposes)."*

APPENDIX C: UPDATES TO ENABLE DUAL BILLING FOR NM/TOU CUSTOMERS

There are changes needed to the EDI 810, 867 and 814 transactions to fully support dual billing for net metering and/or time of use (NM/TOU) customers. Some of the utilities have already enabled certain of these requirements, as indicated below:

1. **810 Monthly Usage / Invoice transaction:**
    a. Requirement: communication of 2- or 3-part TOU in the monthly 810 invoice/usage transaction.
        i. Currently supported by Eversource and NHEC (for 2-part TOU).
        ii. Supported in current 810 specification using the MEA 07 element.
        iii. Guide provides for valid values, including:
            22 - Actual
            51 - Total
            41 - Off Peak
            42 - On Peak
            66 - Shoulder
        iv. Example transactions:

2-part TOU:
MEA***1200.5*KH***51
MEA***800*KH***41
MEA***400.5*KH***42

3-part TOU:
MEA***1200.5*KH***51
MEA***800*KH***41
MEA***300*KH***42
MEA***100.5*KH***66

    b. Requirement: communication of net negative usage in the monthly 810 invoice/usage transaction.
        i. Currently supported by NHEC (for some NM customers using a negative rate).
        ii. Supported in current 810 specification using a negative in the MEA 03 element. [1]
        iii. Example transactions:

NM w/o TOU:
MEA***-750*KH***22

NM w/ 3-part TOU:
MEA***850.5*KH***51
MEA***800*KH***41
MEA***-100*KH***42
MEA***150.5*KH***66

2. **867 Historical Usage transaction:**
    a. Requirement: communication of 2- or 3-part TOU in the historical usage 867 transaction.
        i. Currently supported by NHEC (for 2-part TOU).
        ii. Supported in current 867 specification using the MEA 07 element.
        iii. Guide provides for valid values, including:
            22 - Actual

[1] This assumes use of the MEA 03 element as specified in the MA EBT standard, or alternatively, this could be done as specified in the NH EDI standard for 810 transactions for "any measurement requiring a sign (+ or-), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value."

51 - Total
41 - Off Peak
42 - On Peak
66 - Shoulder

iv. Example transactions:

2-part TOU:
MEA***1200.5*KH***51
MEA***800*KH***41
MEA***400.5*KH***42

3-part TOU:
MEA***1200.5*KH***51
MEA***800*KH***41
MEA***300*KH***42
MEA***100.5*KH***66

b. Requirement: communication of net negative usage in the historical usage 867 transaction.
   i. Currently supported by NHEC (for some NM customers) and Unitil.
   ii. Supported in current 867 specification using a negative in the MEA 03 element.[2]
   iii. Example transactions:

NM w/o TOU:
MEA***-750*KH***22

NM w/ 3-part TOU:
MEA***900.5*KH***51
MEA***800*KH***41
MEA***-100*KH***42
MEA***200.5*KH***66

c. Requirement: communication of distribution tariff rate, including TOU options, in the historical usage 867 transaction.
   i. Currently supported by NHEC, Eversource and Liberty.
   ii. Unitil currently only provide rate class (D, G1, G2, etc.), and not distribution tariff rate (which would identify TOU options, e.g., TOU-D, TOU-EV-D, etc.).
   iii. Supported in 867 specification using the REF NH 02 segment. (Current field allows adding the additional detail re: TOU options that Unitil is missing.)

3. 814 Account Administration transaction:

a. Requirement: communication of customer distribution tariff rate changes, via an 814 change request (to enable CPAs/CEPS to be notified when a customer changes to a TOU rate, which may require switching the customer to dual billing service).
   i. Currently supported by Eversource and NHEC (pending confirmation). Liberty supports via a load profile (REFLO) change (pending confirmation).
   ii. Supported in current 814 specification using a change type of REFNH.

b. Requirement: communication of NM enrollment and un-enrollment, via an 814 change request (to enable CPAs/CEPS to be notified when a customer switches net

[2] This assumes use of the MEA 03 element as specified in the MA EBT standard, or alternatively, this could be done as specified in the NH EDI standard for 867 transactions for "any measurement requiring a sign (+ or-), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value."

energy metering, which may warrant additional materials to be sent to the customer, a change to/from dual billing, and other actions to be taken by the CPA/CEPS):

   i. Currently appears to only be supported by Liberty, and NHEC supports via rate changes, since their NM types are all specific rates.
   ii. Supported in current 814 specification using a change type of REFKY.

c. Requirement: communication of type of NM customer via 814 enrollment and account administration transactions, including the type of net metering (1.0 vs 2.0 and preferably Group Host)
   i. Currently only NHEC identifies type of net metering (in the utility distribution tariff rate).
   ii. MA EDI specification allows for communication of Net Metering via REF KY, but only provides for one value of "NETMETER". Eversource, Unitil and Liberty are already providing this per the MA EDI Standard and should distinguish the specific type of net metering in the REF 02 field — which could be specified as, for example, "NETMETERHOST", "NETMETER1", "NETMETER2", and in future, "NETMETER3", etc.
d. Requirement: communication of type of distributed energy technology and capacity via 814 enrollment and account administration transactions, allowing for multiple assets per account (e.g., a customer with a PV system, battery, etc.), including any changes thereafter.
   i. Can be implemented by adding additional data elements to REF KY, or adding multiple REF codes, to the MA EDI Standard.

APPENDIX D: UPDATES TO ENABLE RATE-READY CONSOLIDATED BILLING

FOR NM/TOU CUSTOMERS

In addition to the changes to 810, 867, and 814 transactions described in Appendix C above, in order to support rate ready consolidated billing for TOU/NM 2.0+ customers, the utilities additionally need to enable CPAs/CEPS to submit rate sheets that would support up to 6 price components per rate, corresponding to the supply rate periods of the customer's distribution tariff rate — which could be a single volumetric rate, or a 2-part or 3-part TOU rate — and allowing for an export rate to be specified in addition to the customer's supply rate for the applicable period. Enablement of demand charges would require additional fields and should be considered as well, and are reflected on the template rate sheet provided in Appendix E.

For example, a CPA/CEPs would need to provide 2 price components for a customer on a 2-part TOU rate (on-peak and off-peak supply rates), and a CPA/CEPS would need to provide 6 price components for a NM customer on a 3-part TOU rate (on-peak, off-peak, and shoulder peak supply rates, plus export rates for each of those same 3 periods). These requirements are detailed in Section 1 "Rate Sheet Requirements" below.

Section 2 "Current Rate Ready Support" below provides an overview regarding how each utility currently accepts rates submitted by CPAs/CEPS for rate ready consolidated billing.

1. **Rate Sheet Requirements:**
    a. Requirement: communication of 2- or 3-part rates for consumption and excess generation (NM monetary credits).
        i. For single volumetric rates provide support for rate sheets with rates for:
            1. Consumption
            2. Excess Generation (NM Monetary Credits)
        ii. For 2 part time of use (applicable for Eversource and NHEC) provide support of rate sheets with rates for:
            1. On Peak Consumption
            2. Off Peak Consumption
            3. On Peak Excess Generation (NM Monetary Credits)
            4. Off Peak Excess Generation (NM Monetary Credits)
        iii. For 3 part time of use (applicable for Unitil and Liberty) provide for support of rate sheets with rates for:
            1. On Peak Consumption
            2. Off Peak Consumption
            3. Shoulder Peak Consumption
            4. On Peak Excess Generation (NM Monetary Credits)
            5. Off Peak Excess Generation (NM Monetary Credits)
            6. Shoulder Peak Excess Generation (NM Monetary Credits)
2. **Current Rate Ready Support:**
    a. Eversource
        i. For customers billed through Eversource's Large Power Billing (LPB) System – rate sheets allow for On Peak / Off Peak Consumption prices, but Eversource has indicated that only one price can be provided covering both periods.

1. LPB Sample:

Supplier's Name	Calpine Community Energy, LLC
DUNS # (Supplier ID)	118910564
DUNS # 4	

Supplier Rate Code Alpha - Numeric 3 Digits	Supplier Code Alpha - Numeric 7 Digits	Sequence #	$ / kWh	On / Off Peak
		01		On-Peak Energy Charge
		02		Off-Peak Energy Charge
		01		On-Peak Energy Charge
		02		Off-Peak Energy Charge
		01		On-Peak Energy Charge
		02		Off-Peak Energy Charge
		01		On-Peak Energy Charge
		02		Off-Peak Energy Charge
		01		On-Peak Energy Charge
		02		Off-Peak Energy Charge

ii. For customers billed through Eversource's C2 System – rate sheets are not supported and only a single price code can be sent in the EDI 814.

b. Unitil

i. No rates sheets are supported, and only a single price can be sent in the EDI 814.

c. Liberty

i. Rate sheets are supported for all customers, but the rate sheet only allows for a single price for all consumption.

1. Sample:

Liberty™

Supplier Name and Service Provider ID

NH Electric Rate Sheet

Company Code	Division	Service Provider	Rate Code	Rate Sub Class	Pricing Category	Price Type	Currency	Unit of Measure	Valid From	Block From	Price Amount	Deletion Indicator
3071	10	167-C752	ABC	1234500	1	0	USD	KWH	20221104		0.24999	
3071	10	167-C753	2RC	0089631	1	0	USD	KWH	20221111		0.3	
3071	10	167-C754			1	0	USD	KWH				
3071	10	167-C755			1	0	USD	KWH				
3071	10	167-C756			1	0	USD	KWH				
3071	10				1	0	USD	KWH				
3071	10				1	0	USD	KWH				
3071	10				1	0	USD	KWH				

d. NHEC

i. Rate sheets are supported for all customers, but the rate sheet only allows for a single price for all consumption.

1. Sample:

New Hampshire Electric Co-op

Consolidated Billing

Supplier Rate Sheet

	Supplier Rate ID	Supplier Rate Description	Rate Factor	New Rate	Rate Change	kWh Quantity	Calculated Bill Amount
	5 characters alphanumeric	25 characters alphanumeric	5 digit decimal	Select one		500	500 * Rate Factor
Sample	*XYZ10*	*XYZ Residential*	*$0.08976*	☑	☐	*500*	*$44.88*
1			$	☐	☐	500	$
2			$	☐	☐	500	$
3			$	☐	☐	500	$
4			$	☐	☐	500	$
5			$	☐	☐	500	$
6			$	☐	☐	500	$

Enabling Monthly Bill Proration for Rate-Ready Consolidated Billing

Provide ability for CEPS and CPAs to provide rate sheets with changes on an effective date, and proration of those rate changes, similar to utility rate changes.

1. Liberty Utilities already prorates CPA/CEPS rates by calendar month.
    a. Liberty's rate sheet currently provides a "Valid From" date and when an existing Rate Code and Subclass is provided, the CEPS or CPA charges will be prorated over as of that "valid from" date.
2. Eversource LPB rate sheet does not allow for an effective date or permit proration, and C2 accounts do not allow for a rate sheet.
3. Unitil does not support rate sheets, or allow for submitting a rate change on any date other than a read cycle date.
4. NHEC rate sheet does not allow for an effective date of a rate change.
    a. NHEC does allow for submission of a rate sheet requesting a specific effective date, but the new value is used for all usage as of that date and rate changes are not prorated as of that effective date.

APPENDIX E: UPDATED TEMPLATE RATE SHEET FOR RATE READY CONSOLIDATED BILLING

Shown below is a template rate sheet provided in the NH EDI Standards testing documentation:[1]

EBT Test Conditions
Test Condition Descriptions

RATE KEY	Rate	Price Structure	KWH Price	KW Price	Off Peak KWH Price	Off Peak KW Price	Peak KVA Price	Off Peak KVA Price	Shoulder KWH Price	Shoulder KW Price	Shoulder KVA Price
G002000001	G00	2000001	$0.020000	$1.000000							
R011000001	R01	1000001	$0.028000								
R011000002	R01	1000002	$0.030000								
R021000002	R02	1000002	$0.022000								
TOU4000001	TOU	4000001	$0.350000	$2.500000	$0.018000	$0.750000					
U993000001	U99	3000001	$0.015000								

Tax Rate	Late Payment Charge Rate
5.00%	1.50%

The updated template proposed below maintains the same number of TOU price fields, but adds a "Valid From" column to enable proration of usage within the billing month (as proposed in Appendix D, section "enabling monthly bill proration for rate-ready consolidated billing customers" on the previous page):

					$/kWh			$/kW			$/kVA		
Supplier Name	Rate Code	Rate	Product ID	Valid From	Total or Peak	Offpeak	Shoulder	Total or Peak	Offpeak	Shoulder	Total or Peak	Offpeak	Shoulder

[1] *See* EDI Working Group Report, "EBT Test Conditions", at p. 7.

APPENDIX F: UPDATES TO LOAD ESTIMATION AND SETTLEMENT

For interval metered customers,[1] their individual usage data in each hour should be multiplied by the applicable distribution loss factor, before being summed with other actual and estimated customer usage to compute supplier load for submission to ISO-NE. Initial settlements and resettlements should incorporate all available validated interval data available, without exception.

Proposed methodologies to more accurately allocate net excess generation and onsite usage for NM customers, as well as usage by TOU period, on an hourly basis to customers' suppliers varies depending upon meter type, as follows:

- For interval metered NM customers, including those on TOU rate schedules, net excess generation in each interval should be accounted for directly, as a negative figure, in the customer's hourly interval usage data. Positive or negative usage in each hour should then be multiplied by the applicable distribution loss factor, before being summed with other actual and estimated customer usage to compute supplier load for submission to ISO-NE.
- For customers on TOU rate schedules with non-interval meters that only record usage by TOU period, customer usage factors[2] could be computed by TOU period. Average usage by TOU period for each applicable rate class can be computed by applying the class average load shape to total usage, to estimate hourly usage for the rate class, which should be summed by TOU period, and divided by the number of customers in the rate class. Each TOU customer's actual usage by TOU period can then be divided by the class average usage by TOU period to produce usage factors by TOU period, which would then be used to scale the class average profile when estimating the customer's hourly load. Usage in each hour would then be multiplied by the applicable distribution loss factor, before being summed with other actual and estimated customer usage to compute supplier load for submission to ISO-NE.
- For NM customers with non-interval meters that only record net usage over the course of their billing cycle (monthly usage), ISO-NE's estimate of hourly behind-the-meter solar production in the NH load zone[3] for the each trading day could be used to create an average solar production profile per KW-ac of photovoltaics installed (by dividing ISO-NE's solar production profile by the estimated total installed KW-ac in the NH load zone), which would then be scaled based on the NM customer's photovoltaic system size to produce an estimate of hourly onsite generation for the customer. The customer's hourly generation profile should be netted out from their otherwise-applicable class average usage profile such that total hourly usage (positive or negative) equals the customer's actual net usage over the course of their billing cycle. Alternatively, dynamic NM class load profiles could

[1] In this Appendix, "interval metered" refers to meters that record usage at hourly or sub-hourly intervals.
[2] Usage factors are a percentage reflecting a given customer's usage relative to the average usage for their rate class over a period of time.
[3] ISONE currently publishes and makes available via API actual system load with estimated output from behind-the-meter solar resources, including Settlement Only Resources, every 5 minutes ("Actual Including Estimated Behind-the-Meter Solar"), and has informed CPCNH that they intend to begin publishing this data by load zone (including for the NH load zone) as part of an existing effort to enhance short-term load forecasting.

be created by averaging interval-metered NM customers throughout the state[4] and applied to scale net monthly usage for individual NM customers to hourly usage for load settlements. Then, under either methodology, usage in each hour would be multiplied by the applicable distribution loss factor, before being summed with other actual and estimated customer usage to compute supplier load for submission to ISO-NE.

For all estimation methodologies described above, the distribution loss factor ("DLF") applied to intervals of excess generation (negative usage) for NM customers could also be adjusted to account for the fact that some nominal amount of electricity exported from behind the NM customer's meter will be lost while transiting the distribution grid prior to being consumed by adjacent customers. However, consideration of how to appropriately adjust the DLFs in each utility territory should also take into account the fact that, while the utilities currently apply static, average DLFs to adjust customer load for estimated losses regardless of time of day, actual distribution losses fluctuate dynamically throughout the day and are positively correlated with load on the distribution grid. Because of this, actual losses will be generally higher during the day than at night, and since solar photovoltaics only generate during the day, any excess generation will offset adjacent customer usage during periods when actual losses are higher than what is assumed in the average DLFs. As such, as a percentage of current DLFs, the above-average losses that excess generation is offsetting during the daytime periods (as a percentage of current DLFs) could be larger, perhaps significantly so, than the amount of excess generation lost while offsetting the most electrically proximate loads of adjacent customers (as a percentage of current DLFs).

Lastly, supplier loads submitted to ISO-NE must be either positive or zero in any given period and cannot be negative. Consequently, as a final step in the settlement process, in the unlikely event that any supplier's total load in any settlement interval is negative, it should be zeroed out and the negative usage amount should be re-allocated as unaccounted for energy (UFE) applied to all profiled load estimates in the applicable service territory (as all negative usage amounts are currently allocated by the NH utilities). This will ensure compliance with ISO-NE requirements.

[4] The AMI data NHEC collects for all their NM customers, supplemented over time with the increasing number of interval metered NM customers in Liberty and Unitil territories, could be used to create dynamic average NM customer profiles for settlements across all utility service territories (until such time as interval meters are universally deployed).

APPENDIX G: PROPOSED SUPPLEMENTAL ORDER OF NOTICE

STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

DE 23-063

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE d/b/a EVERSOURCE ENERGY, LIBERTY UTILITIES (GRANITE STATE ELECTRIC) CORP. d/b/a LIBERTY, AND UNITIL ENERGY SYSTEMS, INC.

Petition for Waiver of Certain Provisions of the Puc 2200 Rules and Request to Recover Costs of Implementing the Puc 2200 Rules

SUPPLEMENTAL ORDER OF NOTICE

In its Procedural Order issued on May 15, 2024, the New Hampshire Public Utilities Commission ("Commission") invited Eversource, Liberty, and Unitil Energy Systems, Inc. (collectively, "Joint Utilities") along with the Community Power Coalition of New Hampshire ("CPCNH") and Conservation Law Foundation (collectively, "Intervenors") to submit proposed Supplemental Orders of Notice with respect to the scope of issues that the Commission should consider in the remainder of this proceeding. This Supplemental Order of Notice includes a summary of the relevant procedural background and a recitation of additional issues which the Commission intends to address as proceedings continue in this docket. The initial filing and subsequent docket filings, other than any information for which confidential treatment is requested of or granted by the Commission, are available on the Commission's website at www.puc.nh.gov/regulatory/Docketbk/2023/23-063.html.

I. BACKGROUND

At its heart, this supplemental order concerns what alternative billing methods and related requirements may be sufficient for the Joint Utilities to ensure they convey

customer usage data such that Community Power Aggregations (CPAs), and consequentially Competitive Electric Power Suppliers (CEPS), may offer innovative rates to their customers in compliance with the statutory expectations of RSA 375-F and RSA 53-E and the Commission's rules and in the most cost-effective manner.

On October 12, 2022, the Puc 2200 rules became effective. Under Puc 2205.16(d)(1), the Joint Utilities must implement "bill ready" consolidated billing.[1] On June 14, 2023, the Joint Utilities submitted a petition to the Commission (i) requesting temporary waivers to provision of bill ready consolidated billing services pursuant to Puc 2205.16(d)(1); (ii) presenting a proposal to implement bill ready consolidated billing services, and to update EDI standards and systems, including for the purposes of supporting CPAs to serve net metering customers; (iii) requesting, on an expedited basis, that the Commission clarify whether the Regulated Utilities were obligated to provide net metering customer net excess generation data to CPAs; and (iv) conditionally requesting, in the event that the Commission confirmed that utility provision of net metering customer net excess generation data to CPAs was required, a temporary waiver for Eversource regarding provision of such data.

Additionally, the Joint Utilities averred that it would cost approximately $8.9 million to upgrade their billing systems to provide the level of customization required to implement bill ready billing.[2] Citing these costs, the Joint Utilities also petitioned the Commission for a permanent waiver of Puc 2205.16(d)(1) if the Commission finds

[1] "Bill ready" billing refers to a process by which distribution utilities send usage data to CPAs and CEPs, which then use their own computer systems to calculate supply-based charges and provide those calculations back to the distribution utility to present on the customer's bill.

[2] In the Commission's Commencement of Adjudicative Proceeding and Notice of Prehearing Conference, it noted the Joint Utilities estimated the respective costs (in dollars) and expected time to implement system updates to offer bill ready billing to be: $4.7 million and 15 months for Eversource; $3.1 million and 8 months for Liberty, and approximately $1.0 million dollars plus annual maintenance costs of $63,600 and 18-24 months for Unitil.

that compliance with the rule would not be in the public interest under Puc 201.05. Finally, the Joint Utilities asked the Commission for authorization to recover costs related to any work necessary to implement bill ready billing and all other incremental costs of implementing the Puc 2200 rules through a reconciling rate mechanism.

At the pre-hearing conference held on August 17, 2023, CPCNH as part of an offer of settlement asserted that the Joint Utilities' $8.9 million proposal to implement bill ready consolidated billing was premature, and that provision of net metering and time-of-use (TOU) customer billing determinants from utilities to suppliers, coupled with reforms to wholesale load estimation and settlement processes to more accurately allocate net metering and time-of-use load impacts to suppliers, would (1) be necessary to enable competitive choice for net metering and time-of-use customers regardless of billing method, including for bill ready consolidated billing, (2) would have the advantage of enabling suppliers to serve net metering and time-of-use customers via dual billing,[3] and (3) should be prioritized for implementation on that basis as a more immediate and much less costly alternative to achieving the goal of Puc 2205.16(d)(1). CPCNH also requested that the Commission require the Joint Utilities to continue to identify net metering and time-of-use customers on Puc 2204.03 and Puc 2205.05(b) reports so that CPAs could elect dual-billing service for the customers in advance of enrollment, as required pursuant to Puc 2205.16(a)(1). After the pre-hearing conference, the parties held a technical session where preliminary issues were discussed, and a procedural schedule was agreed upon.

[3] "Dual billing" or separate billing refers to a process in which the CPA or CEPS calculates the charges and credits for each of its customers based on billing determinants provided by the utility and sends a bill, separate from that sent by the distributional utility, to the customer for supply charges.

On September 29, 2023, the Commission issued a pre-hearing order that granted the Joint Utilities a temporary waiver of Puc 2205.16(d)(1) for the pendency of this docket, cited to CPCNH's aforementioned proposal, noted that prioritizing CPCNH's proposal would have the benefit of "addressing other barriers to bill ready billing first, such as access to data", observed that "potential alternatives that could meet the intent of the rule appear to exist," and ruled that "these alternatives should be explored and vetted in the instant proceeding before the Joint Utilities set out on a time consuming and costly path to compliance with Puc 2205.16(d)(1)."

Thereafter, on March 22, 2024, the Joint Utilities filed a Motion for a Prehearing Conference and Supplemental Order of Notice requesting that the Commission issue a supplemental order of notice (1) clarifying that the proper scope of the docket is the consideration of the Joint Utilities' bill ready billing proposal, or (2) in the alternative, if the Commission declines the Joint Utilities' first request, issue a supplemental order of notice that lists the consideration of dual billing as a possible alternative to the Joint Utilities' bill ready billing proposal as an issue in the docket, with sufficient time for potential affected parties to intervene. On March 28, 2024, the Intervenors filed their own Motion for a Supplemental Order of Notice, wherein they asserted that the Joint Utilities could offer dual billing as a cost-effective and expedient alternative to bill ready billing — meaning the Joint Utilities could still provide necessary customer usage data required for CPAs to serve time-of-use ("TOU") and net metering ("NM") customers while the Joint Utilities upgraded their systems.

The Joint Utilities objected to such an assertion, arguing that (1) no record in the proceeding supports dual billing as an adequate substitute for bill ready billing, (2) that dual billing functionality would require "multi-million dollar changes" to the Joint Utilities' systems, and (3) that the dual billing system would likely cost more than the

bill ready proposal.[4] In response, CPCNH noted that its dual billing proposal was meant to provide a solution for New Hampshire electric customers as quickly as possible. Further, CPCNH noted that regardless of billing method, load settlements for suppliers must reflect both TOU usage by time period and customer NM exports, and that the Joint Utilities must provide suppliers with TOU and NM customer billing determinants — i.e., usage by available time period for TOU customers and negative usage for NM customers.[5] Most recently, the Joint Utilities objected to Intervenors' response, suggesting that dual billing is not an alternative to bill ready billing but "is a different kind of billing altogether" requiring a great deal of resources, the benefits of which would serve only CPCNH.[6]

On May 2, 2024, the Commission held a pre-hearing conference at which the Parties presented additional arguments on their Motions. Following the pre-hearing conference, the Commission issued an order on May 15, 2024, in which it instructed the Parties to brief the Commission on several issues raised in the Motions and to submit proposed Supplemental Orders of Notice.

II. ISSUES PRESENTED

Based on the Parties' motions, responses, objections, arguments from the May 2, 2024 pre-hearing conference, and the Parties' subsequent briefs, the Commission has determined the following additional issues are within the scope of this proceeding.

1. Whether fully enabling suppliers to serve net metered and time-of-use customers on a dual billing basis achieves the purpose of Puc 2205.16(d(1), and supports an indefinite waiver for provision of bill ready consolidated billing thereunder, for expedited implementation by the Joint Utilities on that basis, and the related

[4] *See* Joint Utility Objection to CPCNH and CLF Motion, p. 4.

[5] *See* Intervenors Response to Joint Utilities Objection, p. 2

[6] Joint Utility Objection to [Intervenors'] Response Letter, p. 3

extension of and/or provision of temporary waivers for the Joint Utilities regarding provision of net metering excess generation data to CPAs pursuant to Puc 2205.13(a)(7).

Intervenors assert that dual billing is an adequate alternative to the bill ready billing program required by Puc 2205.16(d)(1) and that fully enabling dual billing for net metering and time-of-use customers, accompanied by updates to load estimation and settlement processes to more accurately allocate net metered and time-of-use customer usage to their suppliers, is sufficient to support a waiver under the rules. Such a waiver must be in the public interest, meaning that (1) compliance with the rule would be onerous or inapplicable or (2) that an alternative method will satisfy the purpose of the rule. *See* Puc 201.05(a), (b)(1)-(2).

The Commission will review whether to grant a waiver of Puc 2205.16(d)(1) to the Joint Utilities and determine whether fully enabling dual billing for net metering and time-of-use customers satisfies the purpose of the bill ready consolidated billing rule under Puc 2205.16(d)(1) at this time. To that end, the Commission will consider changes to the Joint Utilities' Electronic Data Interchange ("EDI") systems and business processes, including customer information, billing, interconnection, and meter data systems. Such systems store TOU and NM customer account information, net metered excess generation system data, metered usage, and billing determinants, to be shared with the suppliers to enable competitive supply service on a dual billing basis.[7]

Relevant to the implementation of a dual billing alternative is the provision and scope of waivers the Commission would provide to the respective utilities. The Commission will consider the granting of a temporary waiver of the NH EDI Standards

[7] Puc 2204.03(a) and Puc 2205.05(b) require the Joint Utilities to provide information about electric customers within the CPA service area to facilitate the CPA's enrollment of customers.

regarding provision of time-of-use and net metering billing determinants, and additional requirements related to full enablement of dual billing as applicable to each utility. The Commission will then consider an extension of Eversource's waiver, and the granting of a similar waiver to Liberty, regarding the provision of individual CPA customer net metered excess generation usage data pursuant to Puc 2205.13(a)(7) until each utility commences provision of net metering billing determinants to suppliers via EDI.

2. How updates and/or changes to wholesale load estimation and settlement processes to more accurately allocate NM and TOU customer usage on an hourly basis should be implemented and what an appropriate line loss adjustment factor should be.

Utilities' load estimation and settlement processes determine the extent to which TOU customers' usage and NM customers' generation is allocated to their supplier for wholesale market settlements. RSA 362-A:9, II and Puc 2205.15(b) require that CPA and CEPS customers' generation output "shall be accounted for as a reduction to the customer-generators' electricity supplier's wholesale load obligation for energy supply as a load serving entity, net of any applicable line loss adjustments, as approved by the commission." Given that requirement, the Commission will determine how wholesale load estimation and settlement processes should be updated to to more accurately allocate NM and TOU customers' energy usage to their suppliers, inclusive of an appropriate line loss adjustment factor to apply to net metered generation exported to the distribution grid.

The Commission will conduct a review of current utility administered load estimation methodologies and settlement processes and evaluate whether it is in the public interest for an independent third-party provider to be responsible for estimating hourly loads and capacity load obligations for suppliers across all four utility service

territories, for submission to ISO-NE for wholesale market settlements, along with Individual Peak Load Contribution (ICAP) tags, as an alternative to continuing to rely upon utilities to perform these functions, and determine conforming changes to utility tariffs governing load settlements.

3. Whether Joint Utilities may recover costs associated with implementing EDI and billing system changes to enable dual billing and/or rate ready consolidated billing for net metered and time-of-use customers from ratepayers.

The Joint Utilities may incur costs to implement modifications to their respective EDI and billing systems to enable provision of excess generation data and time-of-use usage data, and other elements to enable dual billing for NM/TOU customers. The Commission will consider whether and how the Joint Utilities should be able to recover these costs from ratepayers[8].

4. How consolidated billing services should be subsequently developed to more broadly enable innovation in the competitive retail electric market and lower costs for residential and small business customers.

Consolidated billing services enable charges for suppliers and utilities to be presented to the customer on a single bill. This achieves administrative efficiency and provides convenience for customers. Virtually all residential and small commercial customers on competitive supply receive a consolidated bill. It is therefore critical to design consolidated billing systems to accept dynamic rate structures, products and services with different pricing structures, and the application of credits in addition to charges for computing bill charges, for individual accounts and meters. This substantially determines the extent to which suppliers can offer new retail services to small customers at minimal cost.

[8] Intervenors allege that non-compliance with the N.H. EDI Standards results in the inability of CPAs and CEPS to reliably provide customers with TOU rates or NM excess generation credits on a dual billing basis where the Joint Utilities operate and, accordingly, violates the Joint Utilities' distribution tariffs and supplier service agreements

The rate ready consolidated billing systems administered by Eversource, Unitil, Liberty, and the NHEC only support provision of a volumetric energy rate for competitive supply customers at this time. Utility billing services for default service customers support time-varying rates, demand charges, and crediting for net metered generation. The Commission will evaluate how to achieve parity of billing services enabled for default services and competitive supply customers, on an expedited basis, and will ensure that consolidated billing services are implemented so that dynamic rates, net metering, distributed generation, and other innovations in customer service are promoted in a competitive environment pursuant to the restructuring policy principles set forth in RSA 374-F:3.

To that end, four consolidated billing service options will be evaluated: (1) the proposal to expand utility rate-ready consolidated billing submitted by CPCNH and Conservation Law Foundation in this proceeding; (2) the Joint Utility proposal to implement bill ready consolidated billing pursuant to Puc 2205.16(d)(1) submitted in this proceeding; (3) supplier consolidated billing;[9] and (4) statewide consolidated billing, which would be administered by an independent third-party.[10]

The Commission will also consider the granting of a temporary waiver of the NH EDI Standards regarding acceptance of time-of-use energy and demand rates and credits, as applicable to each utility's rate ready consolidated billing service, for the duration of this phase of the proceeding.

Based upon the foregoing, it is hereby:

[9] Supplier Consolidated Billing refers to when suppliers receive non-supply charges from utilities, issue a consolidated bill to customers, collect payments, and transmit amounts owed to utilities.

[10] Statewide Consolidated Billing refers to when a third party receives charges from utilities and suppliers, issues a consolidated bill to customers, collects payments, and transmits amounts owed to utilities and supplier.

ORDERED, that the Joint Utilities work with the EDI-EBT Working Group and the Department of Energy to implement changes to EDI systems to provide suppliers with current and historical excess generation data by net metered customer generators and time-of-use data by usage period by for time-of-use rate customers, and to otherwise fully enable suppliers to serve net metered and time-of-use customers on a dual billing basis, to the extent not already enabled through utility EDI systems.

FURTHER ORDERED, that the Joint Utilities continue to identify net metered and time-of-use customers on Puc 2204.03 and Puc 2205.05(b) reports to enable CPAs to avoid inadvertently enrolling such customers until dual billing for net metered and time-of-use customers is fully enabled, and to subsequently enable CPAs to elect dual-billing service for such customers in advance of enrollment, as required pursuant to Puc 2205.16(a)(1).

FURTHER ORDERED, pursuant to Puc 2205.13(a)(7), that each of the Joint Utilities provide CPAs access to hourly interval data used for load settlement, free of charge and without requiring authorization from each individual customer, for all interval metered accounts served by CPAs at the same latency employed for load estimation and settlement processes.

FURTHER ORDERED, that the New Hampshire Electric Co-op, as a deregulated rural electric cooperative, is made a mandatory party to the next phase of this proceeding pursuant to RSA 374-F:4, XII, to the extent it pertains to customer choice, open access tariffs, and default service.

FURTHER ORDERED, that the Commission will hold a prehearing conference, pursuant to N.H. Admin. R., Puc 203.15, at its offices located at 21 S. Fruit St., Suite 10, Concord, New Hampshire, on ADMIN INSERT DATE, at 9:00 a.m., at which each

party should be prepared to address any of the issues set forth in N.H. Admin. R., Puc 203.15.

FURTHER ORDERED, that any entity or individual may petition to intervene and seek to be admitted as a party for the remainder of this proceeding. Each party has the right to have an attorney represent the party at the party's own expense; and it is

FURTHER ORDERED, that, consistent with N.H. Admin. R., Puc 203.17 and Puc 203.02, any entity or individual seeking to intervene in the proceeding shall file with the Commission a petition to intervene with copies sent to the Joint Utilities and any other parties on the service list, on or before ADMIN INSERT DATE. The petition shall state the facts demonstrating how the petitioner's rights, duties, privileges, immunities, or other substantial interests may be affected by the proceeding, consistent with N.H. Admin. R., Puc 203.17; and it is

FURTHER ORDERED, that any party objecting to a petition to intervene make said objection on or before ADMIN INSERT DATE; and it is

FURTHER ORDERED, that following the prehearing conference the parties shall file a proposed procedural schedule, that includes dates for the submission of direct and rebuttal testimony, to adjudicate the issues outlined in this supplemental order of notice, and it is

FURTHER ORDERED, that parties shall file any proposed exhibits, written testimony, motions, or other documents intended to become part of the record in this proceeding with the Commission. Pursuant to the secretarial letter issued on March 17, 2020, which is posted on the Commission's website at https:/www.puc.nh.gov/ Regulatory/Secretarial%20Letters/20200317-SecLtr-Temp- Changes-in-Filing-Requirements.pdf, all Commission rules requiring the filing of paper copies are

suspended until further notice. Parties may elect to submit any filing in electronic form unless otherwise ordered by the Commission. Filings will be considered filed as of the time the electronic copy is received by the Commission; and it is

FURTHER ORDERED, that routine procedural inquiries may be made by contacting the Commission's Clerk's Office at (603) 271-2431 or ClerksOffice@puc.nh.gov. All requests to the Commission should be made in a written pleading filed with the Commission. Unless otherwise authorized by law, *ex parte* communications are prohibited; and it is

FURTHER ORDERED, that pursuant to N.H. Admin. R., Puc 203.12, the Joint Utilities shall notify all entities and individuals by publishing a copy of this order of notice on its website no later than two business days after the date of issue, such publication to be documented by affidavit filed with the Commission on or before ADMIN INSERT DATE. In addition, the Clerk shall publish this order of notice on the Commission's website no later than two business days after the date of issue; and it is

FURTHER ORDERED, that any hearings in this matter shall be conducted in accordance with the hearing guidelines issued in this docket.

So ordered, this ADMIN INSERT DATE.

Daniel C. Goldner	Pradip K. Chattopadhyay	Carleton B. Simpson
Chairman	Commissioner	Commissioner

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