Division 11-1

Request:

Referring to the response to Division Data Request 2-15, please provide copies of the referenced Private Letter Rulings.

Response:

The following attachments pertain to IRS Private Letter Rulings that address the appropriate amount of deferred tax to be included in rate making, especially with respect to a proration adjustment.

- Attachment DIV 11-1-1 contains Private Letter Ruling Number 201531010
- Attachment DIV 11-1-2 contains Private Letter Ruling Number 201531011
- Attachment DIV 11-1-3 contains Private Letter Ruling Number 201531012
- Attachment DIV 11-1-4 contains Private Letter Ruling Number 201532018
- Attachment DIV 11-1-5 contains Private Letter Ruling Number 201541010

	The Narra	agansett Electric Company
		d/b/a National Grid
Internal Revenue Service	Dependence of the Treesury]	RIPUC Docket No. 4770
	Washington, DC 20224	Attachment DIV 11-1-1
Number: 201531010		Page 1 of 9
Release Date: 7/31/2015	Third Party Communication: None Date of Communication: Not Appl	e licable
Index Number: 167.22-01		
	Person To Contact:	
	, ID No.	
	Telephone Number	
	Refer Reply To:	
	CC:PSI:B06	
	FLR-140120-14	
	April 14, 2015	
LEGEND:		
Taxpayer =		

Parent	=
State	=
Commission	=
Date A	=
Director	=

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Dear

This letter responds to Parent's request, made on behalf of Taxpayer, dated October 23, 2014, for a ruling on the consequences under the normalization provisions of Taxpayer's use of the Commission-approved formula rates as described below.

The representations set out in your letter follow.

Taxpayer, a single member limited liability company, is an independent transmission utility engaged in the transmission of electricity and operates a highvoltage system in State. It is subject to regulation by Commission with respect to terms and conditions of services, including the rates it may charge for its services. Taxpayer uses Commission-approved formula rates that are set annually. The formula uses a cost-of-service model. On Date A of each year, Taxpayer estimates its revenue requirement for the following calendar year, the service year, based in part on the facilities in service at that time or expected to be placed in service during that year. This estimate of Taxpayer's revenue requirement and a Commission-approved rate of return

are entered into the template for the formula to calculate the rates. The rates for that calendar year are determined under that formula approved by Commission and go into effect on January 1 of the following calendar year with no additional action by Commission.

In calculating its net annual revenue requirement for the formula, Taxpayer calculates average rate base. All elements of average rate base are calculated using the same test period, the service year. Taxpayer reduces its gross rate base by the average accumulated deferred income taxes. When Taxpayer estimates accumulated deferred income taxes for purposes of estimating it's revenue requirement for the service year, Taxpayer does not use the proration formula required for future test periods by section 1.167(I)-1(h)(6) of the Income Tax Regulations. Average rate base is computed using monthly averages for plant balances, including accumulated depreciation. For this purpose, depreciation begins when the asset is placed in service. Certain other elements of average rate base, such as land held for future use, materials and supplies, prepayments, and accumulated deferred income taxes are calculated using an average of the beginning and end of year balances. In both cases, the averages are calculated in accordance with the provisions of the Commission-approved template.

The formula rate template contains a "true-up" mechanism under which the Taxpayer compares its actual revenue requirement to its actually-billed revenues for the service year. If billed revenue is greater than the actual revenue requirement for the service year the over-collection is refunded in customer bills within two years of the service year; if billed revenue is less than the actual revenue requirement for the service year the under-collection is collected two years after the service year. For both under and over collections, a carrying charge equivalent to Commission's standard refund interest rate is imposed.

Commission at all times has required that all public utilities under its jurisdiction use normalized methods of accounting.

Taxpayer requests that we rule as follows:

- The computation of average rate base by Taxpayer with reference to 13-month average for plant and accumulated depreciation for a given service year and a simple average of the beginning- and end-of-year balances for accumulated deferred income taxes for the same service year complies with the consistency requirement of the normalization rules for accelerated depreciation under section 168(i)(9)(B) of the Internal Revenue Code.
- In the event that the Service does not agree with the Taxpayer's conclusion regarding the first issue, Taxpayer's historical use of the averaging methodology described above is nevertheless not inconsistent with the requirements of § 168(i)(9)(B) and therefore the sanctions for violation of the deferred tax

normalization requirements involving disallowance of accelerated depreciation do not apply to Taxpayer as a result of its use of the historical averaging methodology employed.

- The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the proration formula complies with the normalization requirements of § 168(i)(9).
- 4. In the event that the Service does not agree with the Taxpayer's conclusion regarding Issue 2, sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply as a result of the methodology employed.

Law and Analysis

Issues 1 and 2

Former section 167(I) of the Code generally provided that public utilities were entitled to use accelerated methods for depreciation if they used a "normalization method of accounting." A normalization method of accounting was defined in former section 167(I)(3)(G) in a manner consistent with that found in section 168(i)(9)(A). Section 1.167(1)-1(a)(1) of the Income Tax Regulations provides that the normalization requirements for public utility property pertain only to the deferral of federal income tax liability resulting from the use of an accelerated method of depreciation for computing the allowance for depreciation under section 167 and the use of straight-line depreciation for computing tax expense and depreciation expense for purposes of establishing cost of services and for reflecting operating results in regulated books of account. These regulations do not pertain to other book-tax timing differences with respect to state income taxes, F.I.C.A. taxes, construction costs, or any other taxes and items.

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting.

In order to use a normalization method of accounting, section 168(i)(9)(A) requires that a taxpayer, in computing its tax expense for establishing its cost of service for ratemaking purposes of establishing its cost of service for ratemaking purposes and reflecting operating results in its regulated books of account, to use a method of depreciation with respect to public utility property that is the same as, and a depreciation period for such property that is not shorter than, the method and period used to compute its depreciation expense for such purposes. Under section 168(i)(9)(A)(ii), if the amount allowable as a deduction under section 168 differs from the amount that-would be allowable as a deduction under section 167 using the method,

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period, first and last year convention, and salvage value used to compute regulated tax expense under section 168(i)(9)(A)(i), the taxpayer must make adjustments to a reserve to reflect the deferral of taxes resulting from such difference.

Section 168(i)(9)(B)(i) of the Code provides that one way the requirements of section 168(i)(9)(A) will not be satisfied is if the taxpayer, for ratemaking purposes, uses a procedure or adjustment which is inconsistent with such requirements. Under section 168(i)(9)(B)(ii), such inconsistent procedures and adjustments include the use of an estimate or projection of the taxpayer's tax expense, depreciation expense, or reserve for deferred taxes under section 168(i)(9)(A)(ii), unless such estimate or projection is also used, for ratemaking purposes, with respect to all three of these items and with respect to the rate base.

In order to satisfy the requirements of $\S168(i)(9)(B)$, there must be consistency in the treatment of costs for rate base, regulated depreciation expense, tax expense, and deferred tax revenue purposes. Here, rate base, depreciation expense, and accumulated deferred income taxes are all calculated in consistent fashion – all are averaged over the same period. While there are minor differences in the convention used to average all elements of rate base including depreciation expense on the one hand, and accumulated deferred income taxes on the other, for purposes of \$168(i)(9)(B), it is sufficient that both are determined by averaging and both are determined over the same period of time. Thus, the calculation of average rate base and accumulated deferred income taxes as described above complies with the consistency requirement of \$168(i)(9)(B).

Because of the conclusion reached above, Taxpayer's second issue is moot and will not be considered further.

Issue 3

Section 1.167(I)-1(h)(6) sets forth additional normalization requirements with respect to public utility property. Under § 1.167(I)-1(h)(6)(i), a taxpayer does not use a normalization method of accounting if, for ratemaking purposes, the amount of the reserve for deferred taxes excluded from the rate base, or treated as cost-free capital, exceeds the amount of the reserve for the period used in determining the taxpayer's ratemaking tax expense. Section 1.167(I)-1(h)(6)(ii) also provides the procedure for determining the amount of the reserve for deferred taxes to be excluded from rate base or to be included as no-cost capital. If, in determining depreciation for ratemaking tax expense, a period (the "test period") is used which is part historical and part future, then the amount of the reserve account for this period is the amount of any projected increase to be credited to the account during the future portion of the period. The pro rata amount of any increase during the future portion of the period is determined by multiplying the increase by a fraction, the numerator of which is the number of days remaining in the

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period at the time the increase is to accrue, and the denominator of which is the total number of days in the future portion of the period.

Section 1.167(I)-1(h)(6)(i) makes it clear that the reserve excluded from rate base must be determined by reference to the same period as is used in determining ratemaking tax expense. A taxpayer may use either historical data or projected data in calculating these two amounts, but it must be consistent. As explained in section 1.167(I)-1(a)(1), the rules provided in section 1.167(I)-1(h)(6)(i) are to insure that the same time period is used to determine the deferred tax reserve amount resulting from the use of an accelerated method of depreciation for cost of service purposes and the reserve amount that may be excluded from the rate base or included in no-cost capital in determining such cost of services.

If a taxpayer chooses to compute its ratemaking tax expense and rate base exclusion amount using projected data then it must use the formula provided in section 1.167(I)-1(h)(6)(ii) to calculate the amount of deferred taxes subject to exclusion from the rate base. This formula prorates the projected accruals to the reserve so as to account for the actual time these amounts are expected to be in the reserve. As explained in § 1.167(I)-1(a)(1), the formula in section 1.167(I)-1(h)(6)(ii) provides a method to determine the period of time during which the taxpayer will be treated as having received amounts credited or charged to the reserve account so that the disallowance of earnings with respect to such amounts through rate base exclusion or treatment as no-cost capital will take into account the factor of time for which such amounts are held by the taxpayer.

The purpose of the proration formula is the same as that of the requirement for consistent periods discussed above: to prevent the immediate flow-through of the benefits of accelerated depreciation to ratepayers. The proration formula stops flow-through by limiting the deferred tax reserve accruals that may be excluded from rate base, and thus the earnings on rate base that may be disallowed, according to the length of time these accruals are actually in the reserve account.

The effectiveness of § 1.167(I)-1(h)(6)(ii) in resolving the timing issue has been limited by its failure to define some key terms. Nowhere does this provision state what is meant by the terms "historical" and "future" in relation to the period for determining depreciation for ratemaking tax expense (the "test period"). How are these time periods to be measured? One interpretation focuses on the type or quality of the data used in the ratemaking process. According to this interpretation, the historical period is that portion of the test period for which actual data is used, while the portion of the period for which data is estimated is the future period. The second interpretation focuses on when the utility rates become effective. Under this interpretation, the historical period is that portion of the test period before rates go into effect, while the portion of the test period after the effective date of the rate order is the future period.

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The first interpretation, which focuses on the quality of the ratemaking data, is an attractive one. It proposes a simple rule, easy to follow and to enforce: any portion of the reserve for deferred taxes based on estimated data must be prorated in determining the amount to be deducted from rate base. The actual passage of time between the date ratemaking data is submitted and the date rates become effective is of no importance. But this interpretation of the regulations achieves simplicity at the expense of precision; in other words, it is overbroad. The proration of all estimated deferred tax data does serve to magnify the benefits of accelerated depreciation to the utility, but this is not the purpose of normalization. Congress was explicit: normalization "in no way diminishes whatever power the [utility regulatory] agency may have to require that the deferred taxes reserve be excluded from the base upon which the utility's permitted rate of return is calculated." H.R. Rep. No. 413, 91st Cong., 1st Sess. 133 (1969).

In contrast, the second interpretation of section 1.167(I)-1(h)(6)(ii) of the regulations is consistent with the purpose of normalization, which is to preserve for regulated utilities the benefits of accelerated depreciation as a source of cost-free capital. The availability of this capital is ensured by prohibiting flow-through. But whether or not flow-through can even be accomplished by means of rate base exclusions depends primarily on whether, at the time rates become effective, the amounts originally projected to accrue to the deferred tax reserve have actually accrued.

If rates go into effect before the end of the test period, and the rate base reduction is not prorated, the utility commission is denying a current return for accelerated depreciation benefits the utility is only projected to have. This procedure is a form of flow-through, for current rates are reduced to reflect the capital cost savings of accelerated depreciation deductions not yet claimed or accrued by the utility. Yet projected data is often necessary in determining rates, since historical data by itself is rarely an accurate indication of future utility operating results. Thus, the regulations provide that as long as the portion of the deferred tax reserve based on truly projected (future estimated) data is prorated according to the formula in section 1.167(I)-1(h)(6)(ii), a regulator may deduct this reserve from rate base in determining a utility's allowable return. In other words, a utility regulator using projected data in computing ratemaking tax expense and rate base exclusion must account for the passage of time if it is to avoid flow-through.

But if rates go into effect after the end of the test period, the opportunity to flow through the benefits of future accelerated depreciation to current ratepayers is gone, and so too is the need to apply the proration formula. In this situation, the only question that is important for the purpose of rate base exclusion is the amount in the deferred tax reserve, whether actual or estimated. Once the future period, the period over which accruals to the reserve were projected, is no longer future, the question of when the amounts in the reserve accrued is no longer relevant (at the time the new rate order takes effect, the projected increases have accrued, and the amounts to be excluded

from rate base are no longer projected but historical, even though based on estimates).

Taxpayer uses formula rates with the elements determined by estimates of the various elements being averaged as discussed above. Rates go into effect as of the beginning of the service year.¹ As such, the rates are in effect during the test year and the proration formula must be used. The addition of the true up increases the ultimate accuracy of the rates but does not convert a future test period into a historical test period as those terms are used in the normalization regulations. Therefore, Taxpayer is required to apply the proration formula in calculating accumulated deferred income taxes for purposes of calculating rate base.

Issue 4

Because the Service has ruled in Issue 3 that Taxpayer's use of formula rates with true-up adjustments with carrying charges mandates use of the proration formula applicable to future test periods for the projected revenue requirement, prospectively adhering to the Service's interpretation of § 1.167(I)-1(h)(6)(ii) may require Taxpayer to seek and obtain an order from Commission to make the necessary changes to the rate templates, not simply unilaterally adjusting the calculations (or the manner in which the templates are completed) in the next annual projections or true-up adjustments. If Taxpayer must request these changes through a filing with Commission, Taxpayer has represented that, in the event of an adverse conclusion with respect to Issue 3 by the Service, it will make a filing with Commission to amend its formula rate template within six months of receipt of this ruling letter, requesting that Commission apply a methodology in accordance with this letter using an effective date of the first month following the date of the filing made with Commission. Following Commission's order in that filing, Taxpayer will prospectively apply the methodology consistent with this letter approved by Commission. Until Commission acts on the filing, Taxpayer will continue to use the methodology described above.

If Taxpayer determines that it is not required to make a formal filing with Commission to implement the computational changes required by the letter ruling, Taxpayer would reflect the holding of the private letter ruling in its next annual projected revenue requirement filing. For example, assuming that the letter ruling is received in April 2015 indicating that the projected revenue requirement is based solely on a future period and the actual revenue requirement used for the true-up mechanism is based solely on a historical period, Taxpayer would compute its year-end accumulated deferred income tax amount for its beginning-of-year/end-of-year average of accumulated deferred income taxes based on application of the proration formula to the monthly net increases or decreases to its accumulated deferred income taxes for annual projected revenue requirement filings after receipt of the private letter ruling (i.e.,

¹ We note that, because Taxpayer is using estimated data for the test period, the test period at issue here constitutes a "future test period" under the first interpretation discussed above as well.

beginning with the filing due September 1, 2015, for the calendar-year 2016 test year and service period).

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting. However, in the legislative history to the enactment of the normalization requirements of the Investment Tax Credit, Congress has stated that it hopes that sanctions will not have to be imposed and that disallowance of the tax benefit (there, the ITC) should be imposed only after a regulatory body has required or insisted upon such treatment by a utility. See Senate Report No. 92-437, 92nd Cong., 1st Sess. 40-41 (1971), 1972-2 C.B. 559, 581.

Here, Taxpayer has used a template approved by Commission to calculate formula-based rates. Commission has, at all times, required that utilities under its jurisdiction use normalization methods of accounting. Taxpayer also intended at all times to comply with the normalization rules. However, Taxpayer concluded that the use of the true-up would allow the entirety of the rate calculation to be considered a purely historical period and thus not require the application of the proration formula described in § 1.167(I)-1(h)(6)(ii). As concluded above, this conclusion is not in accord with the normalization rules. However because both Commission and Taxpayer at all times sought to comply, because Taxpayer merely populated a Commission-approved formula template rather than Commission carefully considering the calculation and ordering its use by Taxpayer, and because Taxpayer will take the corrective actions described above, it is not currently appropriate to apply the sanction of denial of accelerated depreciation to Taxpayer.

Conclusions

- The computation of average rate base by Taxpayer with reference to 13-month average for plant and accumulated depreciation for a given service year and a simple average of the beginning- and end-of-year balances for accumulated deferred income taxes for the same service year complies with the consistency requirement of the normalization rules for accelerated depreciation under section 168(i)(9)(B) of the Internal Revenue Code.
- 2. Because of the conclusion reached in Issue 1, Issue 2 is moot.
- 3. The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the proration formula for its projected revenue requirement does not comply with the normalization requirements of § 168(i)(9). The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the provide taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving

the proration formula for its actual revenue requirement used for the true-up mechanism complies with the normalization requirements of § 168(i)(9).

4. If the Taxpayer takes the corrective actions described above, and assuming compliance by the Commission with this methodology on a prospective basis, sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply as a result of the methodology employed.

Except as specifically determined above, no opinion is expressed or implied concerning the Federal income tax consequences of the matters described above.

This ruling is directed only to the taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. In accordance with the power of attorney on file with this office, a copy of this letter is being sent to your authorized representative. We are also sending a copy of this letter ruling to the Director.

Sincerely,

Peter C. Friedman Senior Technician Reviewer, Branch 6 Office of the Associate Chief Counsel (Passthroughs & Special Industries)

	The Narragansett Electric Company
	d/b/a National Grid
	RIPUC Docket No. 4770
Internal Revenue Service	Department of the Treasury Attachment DIV 11-1-2
	Page 1 of 9
Number: 201531011 Release Date: 7/31/2015	Third Party Communication: None Date of Communication: Not Applicable
Index Number: 167.22-01	Person To Contact
	, ID No.
	Telephone Number:
	Refer Reply To: CC:PSI:B06
	PLR-140121-14
	Date: April 15, 2015
LEGEND:	
Taxpayer =	

Parent	=
State	=
Commission	=
Date A	=
Director	=

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Dear

This letter responds to Parent's request, made on behalf of Taxpayer, dated October 23, 2014, for a ruling on the consequences under the normalization provisions of Taxpayer's use of the Commission-approved formula rates as described below.

The representations set out in your letter follow.

Taxpayer, a single member limited liability company indirectly owned by parent, is an independent transmission utility engaged in the transmission of electricity and operates a high-voltage system in State. It is disregarded for federal income tax purposes. Taxpayer is subject to regulation by Commission with respect to terms and conditions of services, including the rates it may charge for its services. Taxpayer uses Commission-approved formula rates that are set annually. The formula uses a cost-of-service model. On Date A of each year, Taxpayer estimates its revenue requirement for the following calendar year, the service year, based in part on the facilities in service at

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-1-2 Page 2 of 9

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that time or expected to be placed in service during that year. This estimate of Taxpayer's revenue requirement and a Commission-approved rate of return are entered into the template for the formula to calculate the rates. The rates for that calendar year are determined under that formula approved by Commission and go into effect on January 1 of the following calendar year with no additional action by Commission.

In calculating its net annual revenue requirement for the formula, Taxpayer calculates average rate base. All elements of average rate base are calculated using the same test period, the service year. Taxpayer reduces its gross rate base by the average accumulated deferred income taxes. When Taxpayer estimates accumulated deferred income taxes for purposes of estimating it's revenue requirement for the service year, Taxpayer does not use the proration formula required for future test periods by section 1.167(I)-1(h)(6) of the Income Tax Regulations. Average rate base is computed using monthly averages for plant balances, including accumulated depreciation. For this purpose, depreciation begins when the asset is placed in service. Certain other elements of average rate base, such as land held for future use, materials and supplies, prepayments, and accumulated deferred income taxes are calculated using an average of the beginning and end of year balances. In both cases, the averages are calculated in accordance with the provisions of the Commission-approved template.

The formula rate template contains a "true-up" mechanism under which the Taxpayer compares its actual revenue requirement to its actually-billed revenues for the service year. If billed revenue is greater than the actual revenue requirement for the service year the over-collection is refunded in customer bills within two years of the service year; if billed revenue is less than the actual revenue requirement for the service year the under-collection is collected two years after the service year. For both under and over collections, a carrying charge equivalent to Commission's standard refund interest rate is imposed.

Commission at all times has required that all public utilities under its jurisdiction use normalized methods of accounting.

Taxpayer requests that we rule as follows:

- The computation of average rate base by Taxpayer with reference to 13-month average for plant and accumulated depreciation for a given service year and a simple average of the beginning- and end-of-year balances for accumulated deferred income taxes for the same service year complies with the consistency requirement of the normalization rules for accelerated depreciation under section 168(i)(9)(B) of the Internal Revenue Code.
- 2. In the event that the Service does not agree with the Taxpayer's conclusion regarding the first issue, Taxpayer's historical use of the averaging methodology described above is nevertheless not inconsistent with the requirements of §

168(i)(9)(B) and therefore the sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply to Taxpayer as a result of its use of the historical averaging methodology employed.

- The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the proration formula complies with the normalization requirements of § 168(i)(9).
- 4. In the event that the Service does not agree with the Taxpayer's conclusion regarding Issue 2, sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply as a result of the methodology employed.

Law and Analysis

Issues 1 and 2

Former section 167(I) of the Code generally provided that public utilities were entitled to use accelerated methods for depreciation if they used a "normalization method of accounting." A normalization method of accounting was defined in former section 167(I)(3)(G) in a manner consistent with that found in section 168(i)(9)(A). Section 1.167(1)-1(a)(1) of the Income Tax Regulations provides that the normalization requirements for public utility property pertain only to the deferral of federal income tax liability resulting from the use of an accelerated method of depreciation for computing the allowance for depreciation under section 167 and the use of straight-line depreciation for computing tax expense and depreciation expense for purposes of establishing cost of services and for reflecting operating results in regulated books of account. These regulations do not pertain to other book-tax timing differences with respect to state income taxes, F.I.C.A. taxes, construction costs, or any other taxes and items.

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting.

In order to use a normalization method of accounting, section 168(i)(9)(A) requires that a taxpayer, in computing its tax expense for establishing its cost of service for ratemaking purposes of establishing its cost of service for ratemaking purposes and reflecting operating results in its regulated books of account, to use a method of depreciation with respect to public utility property that is the same as, and a depreciation period for such property that is not shorter than, the method and period used to compute its depreciation expense for such purposes. Under section 168(i)(9)(A)(ii), if the amount allowable as a deduction under section 168 differs from the

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-1-2 Page 4 of 9

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amount that-would be allowable as a deduction under section 167 using the method, period, first and last year convention, and salvage value used to compute regulated tax expense under section 168(i)(9)(A)(i), the taxpayer must make adjustments to a reserve to reflect the deferral of taxes resulting from such difference.

Section 168(i)(9)(B)(i) of the Code provides that one way the requirements of section 168(i)(9)(A) will not be satisfied is if the taxpayer, for ratemaking purposes, uses a procedure or adjustment which is inconsistent with such requirements. Under section 168(i)(9)(B)(ii), such inconsistent procedures and adjustments include the use of an estimate or projection of the taxpayer's tax expense, depreciation expense, or reserve for deferred taxes under section 168(i)(9)(A)(ii), unless such estimate or projection is also used, for ratemaking purposes, with respect to all three of these items and with respect to the rate base.

In order to satisfy the requirements of $\S168(i)(9)(B)$, there must be consistency in the treatment of costs for rate base, regulated depreciation expense, tax expense, and deferred tax revenue purposes. Here, rate base, depreciation expense, and accumulated deferred income taxes are all calculated in consistent fashion – all are averaged over the same period. While there are minor differences in the convention used to average all elements of rate base including depreciation expense on the one hand, and accumulated deferred income taxes on the other, for purposes of \$168(i)(9)(B), it is sufficient that both are determined by averaging and both are determined over the same period of time. Thus, the calculation of average rate base and accumulated deferred income taxes as described above complies with the consistency requirement of \$168(i)(9)(B).

Because of the conclusion reached above, Taxpayer's second issue is moot and will not be considered further.

Issue 3

Section 1.167(I)-1(h)(6) sets forth additional normalization requirements with respect to public utility property. Under § 1.167(I)-1(h)(6)(i), a taxpayer does not use a normalization method of accounting if, for ratemaking purposes, the amount of the reserve for deferred taxes excluded from the rate base, or treated as cost-free capital, exceeds the amount of the reserve for the period used in determining the taxpayer's ratemaking tax expense. Section 1.167(I)-1(h)(6)(ii) also provides the procedure for determining the amount of the reserve for deferred taxes to be excluded from rate base or to be included as no-cost capital. If, in determining depreciation for ratemaking tax expense, a period (the "test period") is used which is part historical and part future, then the amount of the reserve account for this period is the amount of any projected increase to be credited to the account during the future portion of the period. The pro rata amount of any increase during the future portion of the period is determined by multiplying the

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increase by a fraction, the numerator of which is the number of days remaining in the period at the time the increase is to accrue, and the denominator of which is the total number of days in the future portion of the period.

Section 1.167(I)-1(h)(6)(i) makes it clear that the reserve excluded from rate base must be determined by reference to the same period as is used in determining ratemaking tax expense. A taxpayer may use either historical data or projected data in calculating these two amounts, but it must be consistent. As explained in section 1.167(I)-1(a)(1), the rules provided in section 1.167(I)-1(h)(6)(i) are to insure that the same time period is used to determine the deferred tax reserve amount resulting from the use of an accelerated method of depreciation for cost of service purposes and the reserve amount that may be excluded from the rate base or included in no-cost capital in determining such cost of services.

If a taxpayer chooses to compute its ratemaking tax expense and rate base exclusion amount using projected data then it must use the formula provided in section 1.167(I)-1(h)(6)(ii) to calculate the amount of deferred taxes subject to exclusion from the rate base. This formula prorates the projected accruals to the reserve so as to account for the actual time these amounts are expected to be in the reserve. As explained in § 1.167(I)-1(a)(1), the formula in section 1.167(I)-1(h)(6)(ii) provides a method to determine the period of time during which the taxpayer will be treated as having received amounts credited or charged to the reserve account so that the disallowance of earnings with respect to such amounts through rate base exclusion or treatment as no-cost capital will take into account the factor of time for which such amounts are held by the taxpayer.

The purpose of the proration formula is the same as that of the requirement for consistent periods discussed above: to prevent the immediate flow-through of the benefits of accelerated depreciation to ratepayers. The proration formula stops flow-through by limiting the deferred tax reserve accruals that may be excluded from rate base, and thus the earnings on rate base that may be disallowed, according to the length of time these accruals are actually in the reserve account.

The effectiveness of § 1.167(I)-1(h)(6)(ii) in resolving the timing issue has been limited by its failure to define some key terms. Nowhere does this provision state what is meant by the terms "historical" and "future" in relation to the period for determining depreciation for ratemaking tax expense (the "test period"). How are these time periods to be measured? One interpretation focuses on the type or quality of the data used in the ratemaking process. According to this interpretation, the historical period is that portion of the test period for which actual data is used, while the portion of the period for when the utility rates become effective. Under this interpretation, the historical period is that portion of the test period before rates go into effect, while the portion of the test period after the effective date of the rate order is the future period.

The first interpretation, which focuses on the quality of the ratemaking data, is an attractive one. It proposes a simple rule, easy to follow and to enforce: any portion of the reserve for deferred taxes based on estimated data must be prorated in determining the amount to be deducted from rate base. The actual passage of time between the date ratemaking data is submitted and the date rates become effective is of no importance. But this interpretation of the regulations achieves simplicity at the expense of precision; in other words, it is overbroad. The proration of all estimated deferred tax data does serve to magnify the benefits of accelerated depreciation to the utility, but this is not the purpose of normalization. Congress was explicit: normalization "in no way diminishes whatever power the [utility regulatory] agency may have to require that the deferred taxes reserve be excluded from the base upon which the utility's permitted rate of return is calculated." H.R. Rep. No. 413, 91st Cong., 1st Sess. 133 (1969).

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In contrast, the second interpretation of section 1.167(I)-1(h)(6)(ii) of the regulations is consistent with the purpose of normalization, which is to preserve for regulated utilities the benefits of accelerated depreciation as a source of cost-free capital. The availability of this capital is ensured by prohibiting flow-through. But whether or not flow-through can even be accomplished by means of rate base exclusions depends primarily on whether, at the time rates become effective, the amounts originally projected to accrue to the deferred tax reserve have actually accrued.

If rates go into effect before the end of the test period, and the rate base reduction is not prorated, the utility commission is denying a current return for accelerated depreciation benefits the utility is only projected to have. This procedure is a form of flow-through, for current rates are reduced to reflect the capital cost savings of accelerated depreciation deductions not yet claimed or accrued by the utility. Yet projected data is often necessary in determining rates, since historical data by itself is rarely an accurate indication of future utility operating results. Thus, the regulations provide that as long as the portion of the deferred tax reserve based on truly projected (future estimated) data is prorated according to the formula in section 1.167(I)-1(h)(6)(ii), a regulator may deduct this reserve from rate base in determining a utility's allowable return. In other words, a utility regulator using projected data in computing ratemaking tax expense and rate base exclusion must account for the passage of time if it is to avoid flow-through.

But if rates go into effect after the end of the test period, the opportunity to flow through the benefits of future accelerated depreciation to current ratepayers is gone, and so too is the need to apply the proration formula. In this situation, the only question that is important for the purpose of rate base exclusion is the amount in the deferred tax reserve, whether actual or estimated. Once the future period, the period over which accruals to the reserve were projected, is no longer future, the question of when the amounts in the reserve accrued is no longer relevant (at the time the new rate order

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takes effect, the projected increases have accrued, and the amounts to be excluded from rate base are no longer projected but historical, even though based on estimates).

Taxpayer uses formula rates with the elements determined by estimates of the various elements being averaged as discussed above. Rates go into effect as of the beginning of the service year.¹ As such, the rates are in effect during the test year and the proration formula must be used. The addition of the true up increases the ultimate accuracy of the rates but does not convert a future test period into a historical test period as those terms are used in the normalization regulations. Therefore, Taxpayer is required to apply the proration formula in calculating accumulated deferred income taxes for purposes of calculating rate base.

Issue 4

Because the Service has ruled in Issue 3 that Taxpayer's use of formula rates with true-up adjustments with carrying charges mandates use of the proration formula applicable to future test periods for the projected revenue requirement, prospectively adhering to the Service's interpretation of § 1.167(I)-1(h)(6)(ii) may require Taxpayer to seek and obtain an order from Commission to make the necessary changes to the rate templates, not simply unilaterally adjusting the calculations (or the manner in which the templates are completed) in the next annual projections or true-up adjustments. If Taxpayer must request these changes through a filing with Commission. Taxpayer has represented that, in the event of an adverse conclusion with respect to Issue 3 by the Service, it will make a filing with Commission to amend its formula rate template within six months of receipt of this ruling letter, requesting that Commission apply a methodology in accordance with this letter using an effective date of the first month following the date of the filing made with Commission. Following Commission's order in that filing, Taxpayer will prospectively apply the methodology consistent with this letter approved by Commission. Until Commission acts on the filing, Taxpayer will continue to use the methodology described above.

If Taxpayer determines that it is not required to make a formal filing with Commission to implement the computational changes required by the letter ruling, Taxpayer would reflect the holding of the private letter ruling in its next annual projected revenue requirement filing. For example, assuming that the letter ruling is received in April 2015 indicating that the projected revenue requirement is based solely on a future period and the actual revenue requirement used for the true-up mechanism is based solely on a historical period, Taxpayer would compute its year-end accumulated deferred income tax amount for its beginning-of-year/end-of-year average of accumulated deferred income taxes based on application of the proration formula to the monthly net increases or decreases to its accumulated deferred income taxes for annual projected revenue requirement filings after receipt of the private letter ruling (i.e.,

¹ We note that, because Taxpayer is using estimated data for the test period, the test period at issue here constitutes a "future test period" under the first interpretation discussed above as well.

beginning with the filing due September 1, 2015, for the calendar-year 2016 test year and service period).

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting. However, in the legislative history to the enactment of the normalization requirements of the Investment Tax Credit, Congress has stated that it hopes that sanctions will not have to be imposed and that disallowance of the tax benefit (there, the ITC) should be imposed only after a regulatory body has required or insisted upon such treatment by a utility. See Senate Report No. 92-437, 92nd Cong., 1st Sess. 40-41 (1971), 1972-2 C.B. 559, 581.

Here, Taxpayer has used a template approved by Commission to calculate formula-based rates. Commission has, at all times, required that utilities under its jurisdiction use normalization methods of accounting. Taxpayer also intended at all times to comply with the normalization rules. However, Taxpayer concluded that the use of the true-up would allow the entirety of the rate calculation to be considered a purely historical period and thus not require the application of the proration formula described in § 1.167(I)-1(h)(6)(ii). As concluded above, this conclusion is not in accord with the normalization rules. However because both Commission and Taxpayer at all times sought to comply, because Taxpayer merely populated a Commission-approved formula template rather than Commission carefully considering the calculation and ordering its use by Taxpayer, and because Taxpayer will take the corrective actions described above, it is not currently appropriate to apply the sanction of denial of accelerated depreciation to Taxpayer.

Conclusions

- The computation of average rate base by Taxpayer with reference to 13-month average for plant and accumulated depreciation for a given service year and a simple average of the beginning- and end-of-year balances for accumulated deferred income taxes for the same service year complies with the consistency requirement of the normalization rules for accelerated depreciation under section 168(i)(9)(B) of the Internal Revenue Code.
- 2. Because of the conclusion reached in Issue 1, Issue 2 is moot.
- 3. The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the proration formula for its projected revenue requirement does not comply with the normalization requirements of § 168(i)(9). The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the provide taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving

the proration formula for its actual revenue requirement used for the true-up mechanism complies with the normalization requirements of § 168(i)(9).

4. If the Taxpayer takes the corrective actions described above, and assuming compliance by the Commission with this methodology on a prospective basis, sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply as a result of the methodology employed.

Except as specifically determined above, no opinion is expressed or implied concerning the Federal income tax consequences of the matters described above.

This ruling is directed only to the taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. In accordance with the power of attorney on file with this office, a copy of this letter is being sent to your authorized representative. We are also sending a copy of this letter ruling to the Director.

Sincerely,

Peter C. Friedman Senior Technician Reviewer, Branch 6 Office of the Associate Chief Counsel (Passthroughs & Special Industries)

	The Narragansett Electric Company
	d/b/a National Grid
	RIPUC Docket No. 4770
Internal Revenue Service	Department of the Treasury Attachment DIV 11-1-3
	Washington, DC 20224 Page 1 of 9
Number: 201531012 Release Date: 7/31/2015	Third Party Communication: None Date of Communication: Not Applicable
Index Number: 167.22-01	
	Person To Contact:
	, ID NO.
	Telephone Number:
	Refer Reply To:
	CC:PSI:B06
	PLR-140122-14
	Date:
	April 15, 2015
LEGEND:	
Taxpayer =	

Parent	=
State A	=
State B	=
State C	=
State D	=
Commission	=
Date A	=
Director	=

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Dear

This letter responds to Parent's request, made on behalf of Taxpayer, dated October 23, 2014, for a ruling on the consequences under the normalization provisions of Taxpayer's use of the Commission-approved formula rates as described below.

The representations set out in your letter follow.

Taxpayer, a single member limited liability company, is an independent transmission utility engaged in the transmission of electricity and operates a high-voltage system in States A, B, C, and D. It is subject to regulation by Commission with respect to terms and conditions of services, including the rates it may charge for its services. Taxpayer uses Commission-approved formula rates that are set annually.

The formula uses a cost-of-service model. On Date A of each year, Taxpayer estimates its revenue requirement for the following calendar year, the service year, based in part on the facilities in service at that time or expected to be placed in service during that year. This estimate of Taxpayer's revenue requirement and a Commission-approved rate of return are entered into the template for the formula to calculate the rates. The rates for that calendar year are determined under that formula approved by Commission and go into effect on January 1 of the following calendar year with no additional action by Commission.

In calculating its net annual revenue requirement for the formula, Taxpayer calculates average rate base. All elements of average rate base are calculated using the same test period, the service year. Taxpayer reduces its gross rate base by the average accumulated deferred income taxes. When Taxpayer estimates accumulated deferred income taxes for purposes of estimating it's revenue requirement for the service year, Taxpayer does not use the proration formula required for future test periods by section 1.167(I)-1(h)(6) of the Income Tax Regulations. Average rate base is computed using monthly averages for plant balances, including accumulated depreciation. For this purpose, depreciation begins when the asset is placed in service. Certain other elements of average rate base, such as land held for future use, materials and supplies, prepayments, and accumulated deferred income taxes are calculated using an average of the beginning and end of year balances. In both cases, the averages are calculated in accordance with the provisions of the Commission-approved template.

The formula rate template contains a "true-up" mechanism under which the Taxpayer compares its actual revenue requirement to its actually-billed revenues for the service year. If billed revenue is greater than the actual revenue requirement for the service year the over-collection is refunded in customer bills within two years of the service year; if billed revenue is less than the actual revenue requirement for the service year the under-collection is collected two years after the service year. For both under and over collections, a carrying charge equivalent to Commission's standard refund interest rate is imposed.

Commission at all times has required that all public utilities under its jurisdiction use normalized methods of accounting.

Taxpayer requests that we rule as follows:

 The computation of average rate base by Taxpayer with reference to 13-month average for plant and accumulated depreciation for a given service year and a simple average of the beginning- and end-of-year balances for accumulated deferred income taxes for the same service year complies with the consistency requirement of the normalization rules for accelerated depreciation under section 168(i)(9)(B) of the Internal Revenue Code.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-1-3 Page 3 of 9

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- 2. In the event that the Service does not agree with the Taxpayer's conclusion regarding the first issue, Taxpayer's historical use of the averaging methodology described above is nevertheless not inconsistent with the requirements of § 168(i)(9)(B) and therefore the sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply to Taxpayer as a result of its use of the historical averaging methodology employed.
- The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the proration formula complies with the normalization requirements of § 168(i)(9).
- 4. In the event that the Service does not agree with the Taxpayer's conclusion regarding Issue 2, sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply as a result of the methodology employed.

Law and Analysis

Issues 1 and 2

Former section 167(I) of the Code generally provided that public utilities were entitled to use accelerated methods for depreciation if they used a "normalization method of accounting." A normalization method of accounting was defined in former section 167(I)(3)(G) in a manner consistent with that found in section 168(i)(9)(A). Section 1.167(1)-1(a)(1) of the Income Tax Regulations provides that the normalization requirements for public utility property pertain only to the deferral of federal income tax liability resulting from the use of an accelerated method of depreciation for computing the allowance for depreciation under section 167 and the use of straight-line depreciation for computing tax expense and depreciation expense for purposes of establishing cost of services and for reflecting operating results in regulated books of account. These regulations do not pertain to other book-tax timing differences with respect to state income taxes, F.I.C.A. taxes, construction costs, or any other taxes and items.

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting.

In order to use a normalization method of accounting, section 168(i)(9)(A) requires that a taxpayer, in computing its tax expense for establishing its cost of service for ratemaking purposes of establishing its cost of service for ratemaking purposes and reflecting operating results in its regulated books of account, to use a method of depreciation with respect to public utility property that is the same as, and a

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depreciation period for such property that is not shorter than, the method and period used to compute its depreciation expense for such purposes. Under section 168(i)(9)(A)(ii), if the amount allowable as a deduction under section 168 differs from the amount that-would be allowable as a deduction under section 167 using the method, period, first and last year convention, and salvage value used to compute regulated tax expense under section 168(i)(9)(A)(i), the taxpayer must make adjustments to a reserve to reflect the deferral of taxes resulting from such difference.

Section 168(i)(9)(B)(i) of the Code provides that one way the requirements of section 168(i)(9)(A) will not be satisfied is if the taxpayer, for ratemaking purposes, uses a procedure or adjustment which is inconsistent with such requirements. Under section 168(i)(9)(B)(ii), such inconsistent procedures and adjustments include the use of an estimate or projection of the taxpayer's tax expense, depreciation expense, or reserve for deferred taxes under section 168(i)(9)(A)(ii), unless such estimate or projection is also used, for ratemaking purposes, with respect to all three of these items and with respect to the rate base.

In order to satisfy the requirements of \$168(i)(9)(B), there must be consistency in the treatment of costs for rate base, regulated depreciation expense, tax expense, and deferred tax revenue purposes. Here, rate base, depreciation expense, and accumulated deferred income taxes are all calculated in consistent fashion – all are averaged over the same period. While there are minor differences in the convention used to average all elements of rate base including depreciation expense on the one hand, and accumulated deferred income taxes on the other, for purposes of \$168(i)(9)(B), it is sufficient that both are determined by averaging and both are determined over the same period of time. Thus, the calculation of average rate base and accumulated deferred income taxes as described above complies with the consistency requirement of \$168(i)(9)(B).

Because of the conclusion reached above, Taxpayer's second issue is moot and will not be considered further.

Issue 3

Section 1.167(I)-1(h)(6) sets forth additional normalization requirements with respect to public utility property. Under § 1.167(I)-1(h)(6)(i), a taxpayer does not use a normalization method of accounting if, for ratemaking purposes, the amount of the reserve for deferred taxes excluded from the rate base, or treated as cost-free capital, exceeds the amount of the reserve for the period used in determining the taxpayer's ratemaking tax expense. Section 1.167(I)-1(h)(6)(ii) also provides the procedure for determining the amount of the reserve for deferred taxes to be excluded from rate base or to be included as no-cost capital. If, in determining depreciation for ratemaking tax expense, a period (the "test period") is used which is part historical and part future, then the amount of the reserve account for this period is the amount of the reserve at the end

of the historical portion of the period and a pro rata amount of any projected increase to be credited to the account during the future portion of the period. The pro rata amount of any increase during the future portion of the period is determined by multiplying the increase by a fraction, the numerator of which is the number of days remaining in the period at the time the increase is to accrue, and the denominator of which is the total number of days in the future portion of the period.

Section 1.167(l)-1(h)(6)(i) makes it clear that the reserve excluded from rate base must be determined by reference to the same period as is used in determining ratemaking tax expense. A taxpayer may use either historical data or projected data in calculating these two amounts, but it must be consistent. As explained in section 1.167(l)-1(a)(1), the rules provided in section 1.167(l)-1(h)(6)(i) are to insure that the same time period is used to determine the deferred tax reserve amount resulting from the use of an accelerated method of depreciation for cost of service purposes and the reserve amount that may be excluded from the rate base or included in no-cost capital in determining such cost of services.

If a taxpayer chooses to compute its ratemaking tax expense and rate base exclusion amount using projected data then it must use the formula provided in section 1.167(I)-1(h)(6)(ii) to calculate the amount of deferred taxes subject to exclusion from the rate base. This formula prorates the projected accruals to the reserve so as to account for the actual time these amounts are expected to be in the reserve. As explained in § 1.167(I)-1(a)(1), the formula in section 1.167(I)-1(h)(6)(ii) provides a method to determine the period of time during which the taxpayer will be treated as having received amounts credited or charged to the reserve account so that the disallowance of earnings with respect to such amounts through rate base exclusion or treatment as no-cost capital will take into account the factor of time for which such amounts are held by the taxpayer.

The purpose of the proration formula is the same as that of the requirement for consistent periods discussed above: to prevent the immediate flow-through of the benefits of accelerated depreciation to ratepayers. The proration formula stops flow-through by limiting the deferred tax reserve accruals that may be excluded from rate base, and thus the earnings on rate base that may be disallowed, according to the length of time these accruals are actually in the reserve account.

The effectiveness of § 1.167(I)-1(h)(6)(ii) in resolving the timing issue has been limited by its failure to define some key terms. Nowhere does this provision state what is meant by the terms "historical" and "future" in relation to the period for determining depreciation for ratemaking tax expense (the "test period"). How are these time periods to be measured? One interpretation focuses on the type or quality of the data used in the ratemaking process. According to this interpretation, the historical period is that portion of the test period for which actual data is used, while the portion of the period for which data is estimated is the future period. The second interpretation focuses on when

the utility rates become effective. Under this interpretation, the historical period is that portion of the test period before rates go into effect, while the portion of the test period after the effective date of the rate order is the future period.

The first interpretation, which focuses on the quality of the ratemaking data, is an attractive one. It proposes a simple rule, easy to follow and to enforce: any portion of the reserve for deferred taxes based on estimated data must be prorated in determining the amount to be deducted from rate base. The actual passage of time between the date ratemaking data is submitted and the date rates become effective is of no importance. But this interpretation of the regulations achieves simplicity at the expense of precision; in other words, it is overbroad. The proration of all estimated deferred tax data does serve to magnify the benefits of accelerated depreciation to the utility, but this is not the purpose of normalization. Congress was explicit: normalization "in no way diminishes whatever power the [utility regulatory] agency may have to require that the deferred taxes reserve be excluded from the base upon which the utility's permitted rate of return is calculated." H.R. Rep. No. 413, 91st Cong., 1st Sess. 133 (1969).

In contrast, the second interpretation of section 1.167(I)-1(h)(6)(ii) of the regulations is consistent with the purpose of normalization, which is to preserve for regulated utilities the benefits of accelerated depreciation as a source of cost-free capital. The availability of this capital is ensured by prohibiting flow-through. But whether or not flow-through can even be accomplished by means of rate base exclusions depends primarily on whether, at the time rates become effective, the amounts originally projected to accrue to the deferred tax reserve have actually accrued.

If rates go into effect before the end of the test period, and the rate base reduction is not prorated, the utility commission is denying a current return for accelerated depreciation benefits the utility is only projected to have. This procedure is a form of flow-through, for current rates are reduced to reflect the capital cost savings of accelerated depreciation deductions not yet claimed or accrued by the utility. Yet projected data is often necessary in determining rates, since historical data by itself is rarely an accurate indication of future utility operating results. Thus, the regulations provide that as long as the portion of the deferred tax reserve based on truly projected (future estimated) data is prorated according to the formula in section 1.167(I)-1(h)(6)(ii), a regulator may deduct this reserve from rate base in determining a utility's allowable return. In other words, a utility regulator using projected data in computing ratemaking tax expense and rate base exclusion must account for the passage of time if it is to avoid flow-through.

But if rates go into effect after the end of the test period, the opportunity to flow through the benefits of future accelerated depreciation to current ratepayers is gone, and so too is the need to apply the proration formula. In this situation, the only question that is important for the purpose of rate base exclusion is the amount in the deferred tax

reserve, whether actual or estimated. Once the future period, the period over which accruals to the reserve were projected, is no longer future, the question of when the amounts in the reserve accrued is no longer relevant (at the time the new rate order takes effect, the projected increases have accrued, and the amounts to be excluded from rate base are no longer projected but historical, even though based on estimates).

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Taxpayer uses formula rates with the elements determined by estimates of the various elements being averaged as discussed above. Rates go into effect as of the beginning of the service year.¹ As such, the rates are in effect during the test year and the proration formula must be used. The addition of the true up increases the ultimate accuracy of the rates but does not convert a future test period into a historical test period as those terms are used in the normalization regulations. Therefore, Taxpayer is required to apply the proration formula in calculating accumulated deferred income taxes for purposes of calculating rate base.

Issue 4

Because the Service has ruled in Issue 3 that Taxpayer's use of formula rates with true-up adjustments with carrying charges mandates use of the proration formula applicable to future test periods for the projected revenue requirement, prospectively adhering to the Service's interpretation of § 1.167(I)-1(h)(6)(ii) may require Taxpayer to seek and obtain an order from Commission to make the necessary changes to the rate templates, not simply unilaterally adjusting the calculations (or the manner in which the templates are completed) in the next annual projections or true-up adjustments. If Taxpayer must request these changes through a filing with Commission, Taxpayer has represented that, in the event of an adverse conclusion with respect to Issue 3 by the Service, it will make a filing with Commission to amend its formula rate template within six months of receipt of this ruling letter, requesting that Commission apply a methodology in accordance with this letter using an effective date of the first month following the date of the filing made with Commission. Following Commission's order in that filing, Taxpayer will prospectively apply the methodology consistent with this letter approved by Commission. Until Commission acts on the filing, Taxpayer will continue to use the methodology described above.

If Taxpayer determines that it is not required to make a formal filing with Commission to implement the computational changes required by the letter ruling, Taxpayer would reflect the holding of the private letter ruling in its next annual projected revenue requirement filing. For example, assuming that the letter ruling is received in April 2015 indicating that the projected revenue requirement is based solely on a future period and the actual revenue requirement used for the true-up mechanism is based solely on a historical period, Taxpayer would compute its year-end accumulated deferred income tax amount for its beginning-of-year/end-of-year average of

¹ We note that, because Taxpayer is using estimated data for the test period, the test period at issue here constitutes a "future test period" under the first interpretation discussed above as well.

accumulated deferred income taxes based on application of the proration formula to the monthly net increases or decreases to its accumulated deferred income taxes for annual projected revenue requirement filings after receipt of the private letter ruling (i.e., beginning with the filing due September 1, 2015, for the calendar-year 2016 test year and service period).

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting. However, in the legislative history to the enactment of the normalization requirements of the Investment Tax Credit, Congress has stated that it hopes that sanctions will not have to be imposed and that disallowance of the tax benefit (there, the ITC) should be imposed only after a regulatory body has required or insisted upon such treatment by a utility. See Senate Report No. 92-437, 92nd Cong., 1st Sess. 40-41 (1971), 1972-2 C.B. 559, 581.

Here, Taxpayer has used a template approved by Commission to calculate formula-based rates. Commission has, at all times, required that utilities under its jurisdiction use normalization methods of accounting. Taxpayer also intended at all times to comply with the normalization rules. However, Taxpayer concluded that the use of the true-up would allow the entirety of the rate calculation to be considered a purely historical period and thus not require the application of the proration formula described in § 1.167(I)-1(h)(6)(ii). As concluded above, this conclusion is not in accord with the normalization rules. However because both Commission and Taxpayer at all times sought to comply, because Taxpayer merely populated a Commission-approved formula template rather than Commission carefully considering the calculation and ordering its use by Taxpayer, and because Taxpayer will take the corrective actions described above, it is not currently appropriate to apply the sanction of denial of accelerated depreciation to Taxpayer.

Conclusions

- The computation of average rate base by Taxpayer with reference to 13-month average for plant and accumulated depreciation for a given service year and a simple average of the beginning- and end-of-year balances for accumulated deferred income taxes for the same service year complies with the consistency requirement of the normalization rules for accelerated depreciation under section 168(i)(9)(B) of the Internal Revenue Code.
- 2. Because of the conclusion reached in Issue 1, Issue 2 is moot.
- 3. The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the proration formula for its projected revenue requirement does not comply with the normalization requirements of § 168(i)(9). The computation by Taxpayer of accumulated

deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the proration formula for its actual revenue requirement used for the true-up mechanism complies with the normalization requirements of § 168(i)(9).

4. If the Taxpayer takes the corrective actions described above, and assuming compliance by the Commission with this methodology on a prospective basis, sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply as a result of the methodology employed.

Except as specifically determined above, no opinion is expressed or implied concerning the Federal income tax consequences of the matters described above.

This ruling is directed only to the taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. In accordance with the power of attorney on file with this office, a copy of this letter is being sent to your authorized representative. We are also sending a copy of this letter ruling to the Director.

Sincerely,

Peter C. Friedman Senior Technician Reviewer, Branch 6 Office of the Associate Chief Counsel (Passthroughs & Special Industries)

	The Narragansett Electric Company
	d/b/a National Grid
	RIPUC Docket No. 4770
Internal Revenue Service	Department of the Treasury Attachment DIV 11-1-4
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Number: 201532018 Release Date: 8/7/2015	Third Party Communication: None
	Date of Communication: Not Applicable
Index Number: 167.22-01	Person To Contact: , ID No.
	Telephone Number:
	Refer Reply To: CC:PSI:B06 PLR-140117-14 Date:
	April 15, 2015

LEGEND:

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Dear

This letter responds to Parent's request, made on behalf of Taxpayer, dated October 23, 2014, for a ruling on the consequences under the normalization provisions of Taxpayer's use of the Commission-approved formula rates as described below.

The representations set out in your letter follow.

Taxpayer, a single member limited liability company, is an independent transmission utility engaged in the transmission of electricity and operates a highvoltage system in States A and B. It is subject to regulation by Commission with respect to terms and conditions of services, including the rates it may charge for its services. Taxpayer uses Commission-approved formula rates that are set annually. The formula uses a cost-of-service model. On Date A of each year, Taxpayer estimates its revenue requirement for the following calendar year, the service year, based in part

on the facilities in service at that time or expected to be placed in service during that year. This estimate of Taxpayer's revenue requirement and a Commission-approved rate of return are entered into the template for the formula to calculate the rates. The rates for that calendar year are determined under that formula approved by Commission and go into effect on January 1 of the following calendar year with no additional action by Commission.

In calculating its net annual revenue requirement for the formula, Taxpayer calculates average rate base. All elements of average rate base are calculated using the same test period, the service year. Taxpayer reduces its gross rate base by the average accumulated deferred income taxes. When Taxpayer estimates accumulated deferred income taxes for purposes of estimating it's revenue requirement for the service year, Taxpayer does not use the proration formula required for future test periods by section 1.167(I)-1(h)(6) of the Income Tax Regulations. Average rate base is computed using monthly averages for plant balances, including accumulated depreciation. For this purpose, depreciation begins when the asset is placed in service. Certain other elements of average rate base, such as land held for future use, materials and supplies, prepayments, and accumulated deferred income taxes are calculated using an average of the beginning and end of year balances. In both cases, the averages are calculated in accordance with the provisions of the Commission-approved template.

The formula rate template contains a "true-up" mechanism under which the Taxpayer compares its actual revenue requirement to its actually-billed revenues for the service year. If billed revenue is greater than the actual revenue requirement for the service year the over-collection is refunded in customer bills within two years of the service year; if billed revenue is less than the actual revenue requirement for the service year the under-collection is collected two years after the service year. For both under and over collections, a carrying charge equivalent to Commission's standard refund interest rate is imposed.

Commission at all times has required that all public utilities under its jurisdiction use normalized methods of accounting.

Taxpayer requests that we rule as follows:

- The computation of average rate base by Taxpayer with reference to 13-month average for plant and accumulated depreciation for a given service year and a simple average of the beginning- and end-of-year balances for accumulated deferred income taxes for the same service year complies with the consistency requirement of the normalization rules for accelerated depreciation under section 168(i)(9)(B) of the Internal Revenue Code.
- In the event that the Service does not agree with the Taxpayer's conclusion regarding the first issue, Taxpayer's historical use of the averaging methodology

described above is nevertheless not inconsistent with the requirements of § 168(i)(9)(B) and therefore the sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply to Taxpayer as a result of its use of the historical averaging methodology employed.

- The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the proration formula complies with the normalization requirements of § 168(i)(9).
- 4. In the event that the Service does not agree with the Taxpayer's conclusion regarding Issue 2, sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply as a result of the methodology employed.

Law and Analysis

Issues 1 and 2

Former section 167(I) of the Code generally provided that public utilities were entitled to use accelerated methods for depreciation if they used a "normalization method of accounting." A normalization method of accounting was defined in former section 167(I)(3)(G) in a manner consistent with that found in section 168(i)(9)(A). Section 1.167(1)-1(a)(1) of the Income Tax Regulations provides that the normalization requirements for public utility property pertain only to the deferral of federal income tax liability resulting from the use of an accelerated method of depreciation for computing the allowance for depreciation under section 167 and the use of straight-line depreciation for computing tax expense and depreciation expense for purposes of establishing cost of services and for reflecting operating results in regulated books of account. These regulations do not pertain to other book-tax timing differences with respect to state income taxes, F.I.C.A. taxes, construction costs, or any other taxes and items.

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting.

In order to use a normalization method of accounting, section 168(i)(9)(A) requires that a taxpayer, in computing its tax expense for establishing its cost of service for ratemaking purposes of establishing its cost of service for ratemaking purposes and reflecting operating results in its regulated books of account, to use a method of depreciation with respect to public utility property that is the same as, and a depreciation period for such property that is not shorter than, the method and period used to compute its depreciation expense for such purposes. Under section

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168(i)(9)(A)(ii), if the amount allowable as a deduction under section 168 differs from the amount that-would be allowable as a deduction under section 167 using the method, period, first and last year convention, and salvage value used to compute regulated tax expense under section 168(i)(9)(A)(i), the taxpayer must make adjustments to a reserve to reflect the deferral of taxes resulting from such difference.

Section 168(i)(9)(B)(i) of the Code provides that one way the requirements of section 168(i)(9)(A) will not be satisfied is if the taxpayer, for ratemaking purposes, uses a procedure or adjustment which is inconsistent with such requirements. Under section 168(i)(9)(B)(ii), such inconsistent procedures and adjustments include the use of an estimate or projection of the taxpayer's tax expense, depreciation expense, or reserve for deferred taxes under section 168(i)(9)(A)(ii), unless such estimate or projection is also used, for ratemaking purposes, with respect to all three of these items and with respect to the rate base.

In order to satisfy the requirements of \$168(i)(9)(B), there must be consistency in the treatment of costs for rate base, regulated depreciation expense, tax expense, and deferred tax revenue purposes. Here, rate base, depreciation expense, and accumulated deferred income taxes are all calculated in consistent fashion – all are averaged over the same period. While there are minor differences in the convention used to average all elements of rate base including depreciation expense on the one hand, and accumulated deferred income taxes on the other, for purposes of \$168(i)(9)(B), it is sufficient that both are determined by averaging and both are determined over the same period of time. Thus, the calculation of average rate base and accumulated deferred income taxes as described above complies with the consistency requirement of \$168(i)(9)(B).

Because of the conclusion reached above, Taxpayer's second issue is moot and will not be considered further.

Issue 3

Section 1.167(I)-1(h)(6) sets forth additional normalization requirements with respect to public utility property. Under § 1.167(I)-1(h)(6)(i), a taxpayer does not use a normalization method of accounting if, for ratemaking purposes, the amount of the reserve for deferred taxes excluded from the rate base, or treated as cost-free capital, exceeds the amount of the reserve for the period used in determining the taxpayer's ratemaking tax expense. Section 1.167(I)-1(h)(6)(ii) also provides the procedure for determining the amount of the reserve for deferred taxes to be excluded from rate base or to be included as no-cost capital. If, in determining depreciation for ratemaking tax expense, a period (the "test period") is used which is part historical and part future, then the amount of the reserve account for this period is the amount of any projected increase to be credited to the account during the future portion of the period. The pro rata amount

of any increase during the future portion of the period is determined by multiplying the increase by a fraction, the numerator of which is the number of days remaining in the period at the time the increase is to accrue, and the denominator of which is the total number of days in the future portion of the period.

Section 1.167(I)-1(h)(6)(i) makes it clear that the reserve excluded from rate base must be determined by reference to the same period as is used in determining ratemaking tax expense. A taxpayer may use either historical data or projected data in calculating these two amounts, but it must be consistent. As explained in section 1.167(I)-1(a)(1), the rules provided in section 1.167(I)-1(h)(6)(i) are to insure that the same time period is used to determine the deferred tax reserve amount resulting from the use of an accelerated method of depreciation for cost of service purposes and the reserve amount that may be excluded from the rate base or included in no-cost capital in determining such cost of services.

If a taxpayer chooses to compute its ratemaking tax expense and rate base exclusion amount using projected data then it must use the formula provided in section 1.167(I)-1(h)(6)(ii) to calculate the amount of deferred taxes subject to exclusion from the rate base. This formula prorates the projected accruals to the reserve so as to account for the actual time these amounts are expected to be in the reserve. As explained in § 1.167(I)-1(a)(1), the formula in section 1.167(I)-1(h)(6)(ii) provides a method to determine the period of time during which the taxpayer will be treated as having received amounts credited or charged to the reserve account so that the disallowance of earnings with respect to such amounts through rate base exclusion or treatment as no-cost capital will take into account the factor of time for which such amounts are held by the taxpayer.

The purpose of the proration formula is the same as that of the requirement for consistent periods discussed above: to prevent the immediate flow-through of the benefits of accelerated depreciation to ratepayers. The proration formula stops flow-through by limiting the deferred tax reserve accruals that may be excluded from rate base, and thus the earnings on rate base that may be disallowed, according to the length of time these accruals are actually in the reserve account.

The effectiveness of § 1.167(I)-1(h)(6)(ii) in resolving the timing issue has been limited by its failure to define some key terms. Nowhere does this provision state what is meant by the terms "historical" and "future" in relation to the period for determining depreciation for ratemaking tax expense (the "test period"). How are these time periods to be measured? One interpretation focuses on the type or quality of the data used in the ratemaking process. According to this interpretation, the historical period is that portion of the test period for which actual data is used, while the portion of the period for which data is estimated is the future period. The second interpretation focuses on when the utility rates become effective. Under this interpretation, the historical period is that portion of the test period before rates go into effect, while the portion of the test period

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after the effective date of the rate order is the future period.

The first interpretation, which focuses on the quality of the ratemaking data, is an attractive one. It proposes a simple rule, easy to follow and to enforce: any portion of the reserve for deferred taxes based on estimated data must be prorated in determining the amount to be deducted from rate base. The actual passage of time between the date ratemaking data is submitted and the date rates become effective is of no importance. But this interpretation of the regulations achieves simplicity at the expense of precision; in other words, it is overbroad. The proration of all estimated deferred tax data does serve to magnify the benefits of accelerated depreciation to the utility, but this is not the purpose of normalization. Congress was explicit: normalization "in no way diminishes whatever power the [utility regulatory] agency may have to require that the deferred taxes reserve be excluded from the base upon which the utility's permitted rate of return is calculated." H.R. Rep. No. 413, 91st Cong., 1st Sess. 133 (1969).

In contrast, the second interpretation of section 1.167(I)-1(h)(6)(ii) of the regulations is consistent with the purpose of normalization, which is to preserve for regulated utilities the benefits of accelerated depreciation as a source of cost-free capital. The availability of this capital is ensured by prohibiting flow-through. But whether or not flow-through can even be accomplished by means of rate base exclusions depends primarily on whether, at the time rates become effective, the amounts originally projected to accrue to the deferred tax reserve have actually accrued.

If rates go into effect before the end of the test period, and the rate base reduction is not prorated, the utility commission is denying a current return for accelerated depreciation benefits the utility is only projected to have. This procedure is a form of flow-through, for current rates are reduced to reflect the capital cost savings of accelerated depreciation deductions not yet claimed or accrued by the utility. Yet projected data is often necessary in determining rates, since historical data by itself is rarely an accurate indication of future utility operating results. Thus, the regulations provide that as long as the portion of the deferred tax reserve based on truly projected (future estimated) data is prorated according to the formula in section 1.167(I)-1(h)(6)(ii), a regulator may deduct this reserve from rate base in determining a utility's allowable return. In other words, a utility regulator using projected data in computing ratemaking tax expense and rate base exclusion must account for the passage of time if it is to avoid flow-through.

But if rates go into effect after the end of the test period, the opportunity to flow through the benefits of future accelerated depreciation to current ratepayers is gone, and so too is the need to apply the proration formula. In this situation, the only question that is important for the purpose of rate base exclusion is the amount in the deferred tax reserve, whether actual or estimated. Once the future period, the period over which accruals to the reserve were projected, is no longer future, the question of when the

amounts in the reserve accrued is no longer relevant (at the time the new rate order takes effect, the projected increases have accrued, and the amounts to be excluded from rate base are no longer projected but historical, even though based on estimates).

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Taxpayer uses formula rates with the elements determined by estimates of the various elements being averaged as discussed above. Rates go into effect as of the beginning of the service year.¹ As such, the rates are in effect during the test year and the proration formula must be used. The addition of the true up increases the ultimate accuracy of the rates but does not convert a future test period into a historical test period as those terms are used in the normalization regulations. Therefore, Taxpayer is required to apply the proration formula in calculating accumulated deferred income taxes for purposes of calculating rate base.

Issue 4

Because the Service has ruled in Issue 3 that Taxpayer's use of formula rates with true-up adjustments with carrying charges mandates use of the proration formula applicable to future test periods for the projected revenue requirement, prospectively adhering to the Service's interpretation of § 1.167(I)-1(h)(6)(ii) may require Taxpayer to seek and obtain an order from Commission to make the necessary changes to the rate templates, not simply unilaterally adjusting the calculations (or the manner in which the templates are completed) in the next annual projections or true-up adjustments. If Taxpayer must request these changes through a filing with Commission, Taxpayer has represented that, in the event of an adverse conclusion with respect to Issue 3 by the Service, it will make a filing with Commission to amend its formula rate template within six months of receipt of this ruling letter, requesting that Commission apply a methodology in accordance with this letter using an effective date of the first month following the date of the filing made with Commission. Following Commission's order in that filing, Taxpayer will prospectively apply the methodology consistent with this letter approved by Commission. Until Commission acts on the filing, Taxpayer will continue to use the methodology described above.

If Taxpayer determines that it is not required to make a formal filing with Commission to implement the computational changes required by the letter ruling, Taxpayer would reflect the holding of the private letter ruling in its next annual projected revenue requirement filing. For example, assuming that the letter ruling is received in April 2015 indicating that the projected revenue requirement is based solely on a future period and the actual revenue requirement used for the true-up mechanism is based solely on a historical period, Taxpayer would compute its year-end accumulated deferred income tax amount for its beginning-of-year/end-of-year average of accumulated deferred income taxes based on application of the proration formula to the monthly net increases or decreases to its accumulated deferred income taxes for

¹ We note that, because Taxpayer is using estimated data for the test period, the test period at issue here constitutes a "future test period" under the first interpretation discussed above as well.

annual projected revenue requirement filings after receipt of the private letter ruling (i.e., beginning with the filing due September 1, 2015, for the calendar-year 2016 test year and service period).

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Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting. However, in the legislative history to the enactment of the normalization requirements of the Investment Tax Credit, Congress has stated that it hopes that sanctions will not have to be imposed and that disallowance of the tax benefit (there, the ITC) should be imposed only after a regulatory body has required or insisted upon such treatment by a utility. See Senate Report No. 92-437, 92nd Cong., 1st Sess. 40-41 (1971), 1972-2 C.B. 559, 581.

Here, Taxpayer has used a template approved by Commission to calculate formula-based rates. Commission has, at all times, required that utilities under its jurisdiction use normalization methods of accounting. Taxpayer also intended at all times to comply with the normalization rules. However, Taxpayer concluded that the use of the true-up would allow the entirety of the rate calculation to be considered a purely historical period and thus not require the application of the proration formula described in § 1.167(I)-1(h)(6)(ii). As concluded above, this conclusion is not in accord with the normalization rules. However because both Commission and Taxpayer at all times sought to comply, because Taxpayer merely populated a Commission-approved formula template rather than Commission carefully considering the calculation and ordering its use by Taxpayer, and because Taxpayer will take the corrective actions described above, it is not currently appropriate to apply the sanction of denial of accelerated depreciation to Taxpayer.

Conclusions

- The computation of average rate base by Taxpayer with reference to 13-month average for plant and accumulated depreciation for a given service year and a simple average of the beginning- and end-of-year balances for accumulated deferred income taxes for the same service year complies with the consistency requirement of the normalization rules for accelerated depreciation under section 168(i)(9)(B) of the Internal Revenue Code.
- 2. Because of the conclusion reached in Issue 1, Issue 2 is moot.
- 3. The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving the proration formula for its projected revenue requirement does not comply with the normalization requirements of § 168(i)(9). The computation by Taxpayer of accumulated deferred income taxes for purposes of calculating average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving average rate base without application of the rules for future test periods under § 1.167(I)-1(h)(6) involving
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the proration formula for its actual revenue requirement used for the true-up mechanism complies with the normalization requirements of § 168(i)(9).

4. If the Taxpayer takes the corrective actions described above, and assuming compliance by the Commission with this methodology on a prospective basis, sanctions for violation of the deferred tax normalization requirements involving disallowance of accelerated depreciation do not apply as a result of the methodology employed.

Except as specifically determined above, no opinion is expressed or implied concerning the Federal income tax consequences of the matters described above.

This ruling is directed only to the taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. In accordance with the power of attorney on file with this office, a copy of this letter is being sent to your authorized representative. We are also sending a copy of this letter ruling to the Director.

Sincerely,

Peter C. Friedman Senior Technician Reviewer, Branch 6 Office of the Associate Chief Counsel (Passthroughs & Special Industries)

CC:

	The Narragansett Electric Company
	d/b/a National Grid
	RIPUC Docket No. 4770
Internal Revenue Service	Department of the Treasury Attachment DIV 11-1-5 Washington DC 20224
	Page 1 of 12
Release Date: 10/9/2015	Third Party Communication: None Date of Communication: Not Applicable
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	Person To Contact:
	, ID No.
	Telephone Number:
	Refer Reply To: CC:PSI:B06
	Γ LN-140241-14
	Date: July 06, 2015

LEGEND:

Taxpayer	=
Parent	=
State A	=
State B	=
Commission A	=
Commission B	=
Commission C	=
Operator	=
Year A	=
Case A	=
Case B	=
Case C	=
Date X	=
Director	=

Dear :

This letter responds to Parent's request, made on behalf of Taxpayer, dated January 9, 2015, for a ruling on the application of the normalization rules to certain regulatory procedures applied in State as described below.

The representations set out in your letter follow.

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Taxpayer, a wholly-owned subsidiary of Parent, is primarily engaged in the business of generating, transmitting, distributing, and selling electric power to customers in State A and State B. It is subject to regulation by Commission A, Commission B, and Commission C with respect to terms and conditions of services, including the rates it may charge for its services. All three Commissions establish Taxpayer's rates based on Taxpayer's costs, including a provision for a return on the capital employed by Taxpayer in its regulated business.

The law of State A provides a process under which a utility may recover its costs relating to projects such as new electric generation facilities as a stand-alone rate adjustment added to customers' base rates. As relevant to this ruling request, the process for setting the rates involves two components. First, a taxpayer files estimated projections of all factors, including Accumulated Deferred Federal Income Taxes (ADFIT), relevant to the costs associated with the facility that is the subject of the rate adjustment. Rate base for this purpose is calculated using an average of the thirteen projected end of month balances of the components of rate base. The rate adjustment computed using these projections goes into effect at the beginning of the test period. The test period is a twelve month period. The anticipated collections from rate payers, the actual cost incurred with respect to the generating facility and any differences between anticipated amounts and actual amounts are reconciled by a "true-up" mechanism at the end of the test year. Under this mechanism, the reconciliation amount is either charged to ratepayers (if actual revenues are below estimates) or credited to ratepayers (if actual revenues exceed estimates) as part of the rates established for the forthcoming rate year. For both under and over collections, a carrying charge is imposed.

Taxpayer owns and operates electric transmission lines in several states, including State A and State B. These lines are integrated into Operator, a regional transmission operator. The rates that Taxpayer may charge its customers for these transmission services are set using a formula approved by Commission C. The formula rates are calculated using a methodology similar to that used to calculate the rate adjustments, inasmuch as the formula rates are calculated using projected costs to establish rates during the period for which rates are being set and a true-up based on over or under recoveries that are reflected in a subsequent rate year. The rates are determined by application of the formula approved by Commission C and go into effect with no additional action by Commission C.

Taxpayer claims accelerated depreciation on its tax returns to the extent permitted by the Internal Revenue Code. Taxpayer normalizes the federal income taxes deferred as a result of its use of accelerated depreciation and thus maintains an ADFIT balance on its regulatory books. In ratemaking proceedings before Commission A to authorize rate adjustments as well as in calculation of the formula rates, rate base is reduced by the calculated ADFIT balance. In calculating its ADFIT balance for purposes of both the projection and true-up elements of the rate adjustment

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calculations, Taxpayer followed the same averaging conventions it used for the other components of rate base. However, for prior formula rate filings, Taxpayer had calculated its ADFIT balance by an average of the beginning and ending balances notwithstanding that it used a 13-month average for computation of the plant portion of rate base. In those prior cases, the averages are calculated in accordance with the provisions of the Commission-approved template and the differences in averaging conventions are required by the regulations adopted by Commission C.

Section 1.167(I)-1(h)(6) of the Income Tax Regulations requires that a proration methodology be used by Taxpayer to calculate its applicable ADFIT balance for future test periods. Prior to Year A, Taxpayer had not used the proration methodology either in estimating its projected ADFIT balance or for the calculation of ADFIT for purposes of the true-up. Members of Taxpayer's tax department became concerned about the normalization implications of not using the proration formula during Year A. In filing Case A, Case B, and Case C, Taxpayer incorporated the proration methodology into the calculation of its projected ADFIT balance. In addition, Taxpayer incorporated the proration methodology into the calculation of the true-up in Case B. The staff of Commission A did not agree that the test period used for the rate adjustment ratemaking was a future test period and therefore asserted that the proration methodology was not required. In each of these cases, Commission A approved the use of the proration methodology in the projected ADFIT balance but denied its use in the true-up. When Commission A approved the use of the proration methodology for the projected ADFIT balance, it revised a portion of the Taxpayer's cash working capital allowance to reflect the adoption of the proration methodology. The adjusted portion was intended to compensate Taxpayer for the lag in time between when expenditures are made for services by Taxpayer and when collections for those services are received by Taxpayer. Commission A concluded that the item in the cash working capital allowance was duplicative of the effect of the proration methodology and was thus unnecessary. Due to the uncertainty surrounding the application of the proration methodology and the adjustment to cash working capital, Commission A directed Taxpayer to seek this ruling from the Internal Revenue Service.

Both Commission A and Commission C at all times have required that all public utilities under their respective jurisdictions use normalized methods of accounting.

Taxpayer requests that we rule as follows:

- 1. The proration methodology requirement does not apply to stand-alone rate adjustment ratemaking and to the Commission C formula rates even if they involve future test periods.
- 2. The estimated projection component of both the stand-alone rate adjustment ratemaking and the formula rate does not employ a future test period within the meaning of § 1.167(I)-1(h)(6)(ii) and therefore Taxpayer is not required to use the proration methodology in order to comply with the normalization rules.

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- The true-up component of both the stand-alone rate adjustment ratemaking and the formula rate does not employ a future test period within the meaning of § 1.167(I)-1(h)(6)(ii) and therefore Taxpayer is not required to use the proration methodology in order to comply with the normalization rules.
- 4. In Taxpayer's stand-alone rate adjustment proceedings, an adjustment to eliminate from the Taxpayer's cash working capital allowance any provision for accelerated depreciation-related ADFIT if the proration methodology is employed does not conflict with the normalization rules.
- 5. In order to comply with the consistency requirement of the normalization rules, it is not necessary that the Taxpayer use the same averaging convention it uses in computing the other elements of rate base in computing its ADFIT balance for purposes of the formula rates.
- 6. If the Service rules adversely with respect to Rulings 1, 2, or 3, above, any failure by Taxpayer to employ the proration methodology prior to the proceedings in Cases A, B, or C or the effective date approved by Commission C for the requested modification of the formula rates was not a violation of the normalization rules requiring sanctions for such violation.
- 7. In the event that the Service rules adversely with respect to Ruling 5, above, Taxpayer's failure to comply with the consistency requirement in connection with its formula rates prior to the effective date approved by Commission C for the requested modification of the formula rates was not a violation of the normalization rules.

Law and Analysis

Issues 1 and 2

Former section 167(I) of the Code generally provided that public utilities were entitled to use accelerated methods for depreciation if they used a "normalization method of accounting." A normalization method of accounting was defined in former section 167(I)(3)(G) in a manner consistent with that found in section 168(i)(9)(A). Section 1.167(1)-1(a)(1) of the Income Tax Regulations provides that the normalization requirements for public utility property pertain only to the deferral of federal income tax liability resulting from the use of an accelerated method of depreciation for computing the allowance for depreciation under section 167 and the use of straight-line depreciation for computing tax expense and depreciation expense for purposes of establishing cost of services and for reflecting operating results in regulated books of account. These regulations do not pertain to other book-tax timing differences with respect to state income taxes, F.I.C.A. taxes, construction costs, or any other taxes and items.

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the

meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting.

In order to use a normalization method of accounting, section 168(i)(9)(A)requires that a taxpayer, in computing its tax expense for establishing its cost of service for ratemaking purposes of establishing its cost of service for ratemaking purposes and reflecting operating results in its regulated books of account, to use a method of depreciation with respect to public utility property that is the same as, and a depreciation period for such property that is not shorter than, the method and period used to compute its depreciation expense for such purposes. Under section 168(i)(9)(A)(ii), if the amount allowable as a deduction under section 168 differs from the amount that-would be allowable as a deduction under section 167 using the method, period, first and last year convention, and salvage value used to compute regulated tax expense under section 168(i)(9)(A)(i), the taxpayer must make adjustments to a reserve to reflect the deferral of taxes resulting from such difference.

Section 1.167(I)-1(h)(6) sets forth additional normalization requirements with respect to public utility property. Under § 1.167(I)-1(h)(6)(i), a taxpayer does not use a normalization method of accounting if, for ratemaking purposes, the amount of the reserve for deferred taxes excluded from the rate base, or treated as cost-free capital, exceeds the amount of the reserve for the period used in determining the taxpayer's ratemaking tax expense. Section 1.167(I)-1(h)(6)(ii) also provides the procedure for determining the amount of the reserve for deferred taxes to be excluded from rate base or to be included as no-cost capital. If, in determining depreciation for ratemaking tax expense, a period (the "test period") is used which is part historical and part future. then the amount of the reserve account for this period is the amount of the reserve at the end of the historical portion of the period and a pro rata amount of any projected increase to be credited to the account during the future portion of the period. The pro rata amount of any increase during the future portion of the period is determined by multiplying the increase by a fraction, the numerator of which is the number of days remaining in the period at the time the increase is to accrue, and the denominator of which is the total number of days in the future portion of the period.

Section 1.167(I)-1(h)(6)(i) makes it clear that the reserve excluded from rate base must be determined by reference to the same period as is used in determining ratemaking tax expense. A taxpayer may use either historical data or projected data in calculating these two amounts, but it must be consistent. As explained in section 1.167(I)-1(a)(1), the rules provided in section 1.167(I)-1(h)(6)(i) are to insure that the same time period is used to determine the deferred tax reserve amount resulting from the use of an accelerated method of depreciation for cost of service purposes and the reserve amount that may be excluded from the rate base or included in no-cost capital in determining such cost of services.

If a taxpayer chooses to compute its ratemaking tax expense and rate base

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exclusion amount using projected data then it must use the formula provided in section 1.167(I)-1(h)(6)(ii) to calculate the amount of deferred taxes subject to exclusion from the rate base. This formula prorates the projected accruals to the reserve so as to account for the actual time these amounts are expected to be in the reserve. As explained in § 1.167(I)-1(a)(1), the formula in section 1.167(I)-1(h)(6)(ii) provides a method to determine the period of time during which the taxpayer will be treated as having received amounts credited or charged to the reserve account so that the disallowance of earnings with respect to such amounts through rate base exclusion or treatment as no-cost capital will take into account the factor of time for which such amounts are held by the taxpayer.

The purpose of the proration formula is to prevent the immediate flow-through of the benefits of accelerated depreciation to ratepayers. The proration formula stops flow-through by limiting the deferred tax reserve accruals that may be excluded from rate base, and thus the earnings on rate base that may be disallowed, according to the length of time these accruals are actually in the reserve account.

The effectiveness of § 1.167(I)-1(h)(6)(ii) in resolving the timing issue has been questioned by its failure to define some key terms. Nowhere does this provision state what is meant by the terms "historical" and "future" in relation to the period for determining depreciation for ratemaking tax expense (the "test period"). One interpretation focuses on the type or quality of the data used in the ratemaking process. According to this interpretation, the historical period is that portion of the test period for which actual data is used, while the portion of the period for which data is estimated is the future period. The second interpretation focuses on when the utility rates become effective. Under this interpretation, the historical period is that portion of the test period before rates go into effect, while the portion of the test period after the effective date of the rate order is the future period.

The first interpretation, which focuses on the quality of the ratemaking data, is an attractive one. It proposes a simple rule, easy to follow and to enforce: any portion of the reserve for deferred taxes based on estimated data must be prorated in determining the amount to be deducted from rate base. The actual passage of time between the date ratemaking data is submitted and the date rates become effective is of no importance. But this interpretation of the regulations achieves simplicity at the expense of precision; in other words, it is overbroad. The proration of all estimated deferred tax data does serve to magnify the benefits of accelerated depreciation to the utility, but this is not the purpose of normalization. Congress was explicit: normalization "in no way diminishes whatever power the [utility regulatory] agency may have to require that the deferred taxes reserve be excluded from the base upon which the utility's permitted rate of return is calculated." H.R. Rep. No. 413, 91st Cong., 1st Sess. 133 (1969).

In contrast, the second interpretation of section 1.167(I)-1(h)(6)(ii) of the regulations is consistent with the purpose of normalization, which is to preserve for

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regulated utilities the benefits of accelerated depreciation as a source of cost-free capital. The availability of this capital is ensured by prohibiting flow-through. But whether or not flow-through can even be accomplished by means of rate base exclusions depends primarily on whether, at the time rates become effective, the amounts originally projected to accrue to the deferred tax reserve have actually accrued.

If rates go into effect before the end of the test period, and the rate base reduction is not prorated, the utility commission is denying a current return for accelerated depreciation benefits the utility is only projected to have. This procedure is a form of flow-through, for current rates are reduced to reflect the capital cost savings of accelerated depreciation deductions not yet claimed or accrued by the utility. Yet projected data is often necessary in determining rates, since historical data by itself is rarely an accurate indication of future utility operating results. Thus, the regulations provide that as long as the portion of the deferred tax reserve based on projected (future estimated) data is prorated according to the formula in section 1.167(I)-1(h)(6)(ii), a regulator may deduct this reserve from rate base in determining a utility's allowable return. In other words, a utility regulator using projected data in computing ratemaking tax expense and rate base exclusion must account for the passage of time if it is to avoid flow-through.

But if rates go into effect after the end of the test period, the opportunity to flow through the benefits of future accelerated depreciation to current ratepayers is gone, and so too is the need to apply the proration formula. In this situation, the only question that is important for the purpose of rate base exclusion is the amount in the deferred tax reserve, whether actual or estimated. Once the future period, the period over which accruals to the reserve were projected, is no longer future, the question of when the amounts in the reserve accrued is no longer relevant (at the time the new rate order takes effect, the projected increases have accrued, and the amounts to be excluded from rate base are no longer projected but historical, even though based on estimates).

There are two kinds of ratemaking at issue here, with identical components. For both the stand-alone rate adjustment and the formula rates, Taxpayer estimates the various components of rate base. Rates go into effect as of the beginning of the service year.¹ As such, the rates are in effect during the test year and the proration formula must be used. The addition of the true up increases the ultimate accuracy of the rates but does not convert a future test period into a historical test period as those terms are used in the normalization regulations. Therefore, Taxpayer is required to apply the proration formula in calculating accumulated deferred income taxes for purposes of calculating rate base.

Issue 3

¹ We note that, because Taxpayer is using estimated data for the test period, the test period at issue here constitutes a "future test period" under the first interpretation discussed above as well.

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As discussed above, where a taxpayer computes its ratemaking tax expense and rate base exclusion amount using projected data then must use the proration formula provided in section 1.167(I)-1(h)(6)(ii) to calculate the amount of deferred taxes subject to exclusion from the rate base. This formula prorates the projected accruals to the reserve so as to account for the actual time these amounts are expected to be in the reserve. As explained in § 1.167(I)-1(a)(1), the formula in section 1.167(I)-1(h)(6)(ii) provides a method to determine the period of time during which the taxpayer will be treated as having received amounts credited or charged to the reserve account so that the disallowance of earnings with respect to such amounts through rate base exclusion or treatment as no-cost capital will take into account the factor of time for which such amounts are held by the taxpayer.

The purpose of the proration formula is to prevent the immediate flow-through of the benefits of accelerated depreciation to ratepayers. The proration formula stops flowthrough by limiting the deferred tax reserve accruals that may be excluded from rate base, and thus the earnings on rate base that may be disallowed, according to the length of time these accruals are actually in the reserve account.

In contrast to the projections discussed above, the true-up component is determined by reference to a purely historical period and there is no need to use the proration formula to calculate the differences between Taxpayer's projected ADFIT balance and the actual ADFIT balance during the period. In calculating the true-up, proration applies to the original projection amount but the actual amount added to the ADFIT over the test year is not modified by application of the proration formula.

Issue 4

In Taxpayer's stand-alone rate adjustment proceedings, Commission A adjusted the already-approved cash working capital allowance specifically to mitigate the effect of the use of the proration methodology, finding the effects duplicative. In general, taxpayers may not adopt any accounting treatment that directly or indirectly circumvents the normalization rules. See generally, § 1.46-6(b)(2)(ii) (In determining whether, or to what extent, the investment tax credit has been used to reduce cost of service, reference shall be made to any accounting treatment that affects cost of service); Rev. Proc 88-12, 1988-1 C.B. 637, 638 (It is a violation of the normalization rules for taxpayers to adopt any accounting treatment that, directly or indirectly flows excess tax reserves to ratepayers prior to the time that the amounts in the vintage accounts reverse). Here, Commission A adjusted the cash working capital allowance specifically to mitigate the effect of the application of the proration methodology. This is inconsistent with the normalization rules. We do not hold that the normalization rules require a similar type of cash working capital adjustment in all cases; we hold only that, where, as here, it is adjusted or removed in an attempt to mitigate the effects of the

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application of the proration methodology or similar normalization rule, that adjustment or removal is not permitted under the normalization rules.

Issue 5

Former section 167(I) of the Code generally provided that public utilities were entitled to use accelerated methods for depreciation if they used a "normalization method of accounting." A normalization method of accounting was defined in former section 167(I)(3)(G) in a manner consistent with that found in section 168(i)(9)(A). Section 1.167(1)-1(a)(1) of the Income Tax Regulations provides that the normalization requirements for public utility property pertain only to the deferral of federal income tax liability resulting from the use of an accelerated method of depreciation for computing the allowance for depreciation under section 167 and the use of straight-line depreciation for computing tax expense and depreciation expense for purposes of establishing cost of services and for reflecting operating results in regulated books of account. These regulations do not pertain to other book-tax timing differences with respect to state income taxes, F.I.C.A. taxes, construction costs, or any other taxes and items.

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting.

In order to use a normalization method of accounting, section 168(i)(9)(A) requires that a taxpayer, in computing its tax expense for establishing its cost of service for ratemaking purposes of establishing its cost of service for ratemaking purposes and reflecting operating results in its regulated books of account, to use a method of depreciation with respect to public utility property that is the same as, and a depreciation period for such property that is not shorter than, the method and period used to compute its depreciation expense for such purposes. Under section 168(i)(9)(A)(ii), if the amount allowable as a deduction under section 168 differs from the amount that-would be allowable as a deduction under section 167 using the method, period, first and last year convention, and salvage value used to compute regulated tax expense under section 168(i)(9)(A)(i), the taxpayer must make adjustments to a reserve to reflect the deferral of taxes resulting from such difference.

Section 168(i)(9)(B)(i) of the Code provides that one way the requirements of section 168(i)(9)(A) will not be satisfied is if the taxpayer, for ratemaking purposes, uses a procedure or adjustment which is inconsistent with such requirements. Under section 168(i)(9)(B)(ii), such inconsistent procedures and adjustments include the use of an estimate or projection of the taxpayer's tax expense, depreciation expense, or reserve for deferred taxes under section 168(i)(9)(A)(ii), unless such estimate or projection is

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also used, for ratemaking purposes, with respect to all three of these items and with respect to the rate base.

In order to satisfy the requirements of $\S168(i)(9)(B)$, there must be consistency in the treatment of costs for rate base, regulated depreciation expense, tax expense, and deferred tax revenue purposes. Here, rate base, depreciation expense, and accumulated deferred income taxes are all calculated in consistent fashion – all are averaged over the same period. While there are minor differences in the convention used to average all elements of rate base including depreciation expense on the one hand, and ADFIT on the other, for purposes of $\S168(i)(9)(B)$, it is sufficient that both are determined by averaging and both are determined over the same period of time. Thus, the calculation of average rate base and accumulated deferred income taxes as described above complies with the consistency requirement of $\S168(i)(9)(B)$.

Because of the conclusion reached above, Taxpayer's seventh issue is moot and will not be considered further.

Issue 6

Because the Service has ruled in Issue 1 and 2 that Taxpaver was required to use the proration formula applicable to future test periods for the projected revenue requirement, prospectively adhering to the Service's interpretation of § 1.167(I)-1(h)(6)(ii) require adjustments to conform to this ruling. Any rates that have been calculated using procedures inconsistent with this ruling ("nonconforming rates") which are or which have been in effect and which, under applicable state or federal regulatory law, can be adjusted or corrected to conform to the requirements of this ruling, must be so adjusted or corrected. Where nonconforming rates cannot be adjusted or corrected to conform to the requirements of this ruling due to the operation of state or federal regulatory law, then such correction must be made in the next regulatory filing or proceeding in which Taxpayer's rates are considered. Specifically, the current timing of Taxpayer's stand-alone rate adjustment filings with Commission A will accommodate all adjustments or corrections to any prior estimated projections or true-ups necessary to conform to the requirements of this ruling in rates having an effective date no later Date X, including Case A, Case B, and Case C. In addition, Taxpayer has already sought an order from Commission C to make the necessary changes to the rate templates, not simply unilaterally adjusting the calculations (or the manner in which the templates are completed) in the next annual projections or true-up adjustments. If Taxpayer must request these changes through a filing with Commission C, Taxpayer has represented that it will make a filing with Commission C to amend its formula rate template within six months of receipt of this ruling letter, requesting that Commission C apply a methodology in accordance with this letter using an effective date of the first month following the date of the filing made with Commission C. Following Commission C's order in that filing, Taxpayer will prospectively apply the methodology consistent with

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this letter approved by Commission C. Until Commission C acts on the filing, Taxpayer will continue to use the methodology described above.

Section 168(f)(2) of the Code provides that the depreciation deduction determined under section 168 shall not apply to any public utility property (within the meaning of section 168(i)(10)) if the taxpayer does not use a normalization method of accounting. However, in the legislative history to the enactment of the normalization requirements of the Investment Tax Credit, Congress has stated that it hopes that sanctions will not have to be imposed and that disallowance of the tax benefit (there, the ITC) should be imposed only after a regulatory body has required or insisted upon such treatment by a utility. See Senate Report No. 92-437, 92nd Cong., 1st Sess. 40-41 (1971), 1972-2 C.B. 559, 581.

Here, Taxpayer has received stand-alone rate adjustments from Commission A without application of the proration methodology as required. In addition, Taxpayer used a template approved by Commission C to calculate formula-based rates. Both Commission A and Commission C have, at all times, required that utilities under their respective jurisdictions use normalization methods of accounting. Taxpayer also intended at all times to comply with the normalization rules. As concluded above, Taxpayer was required to use the proration methodology in these ratemaking proceedings. However because Commissions A and C as well as Taxpayer at all times sought to comply, and because Taxpayer will take the corrective actions described above, it is not currently appropriate to apply the sanction of denial of accelerated depreciation to Taxpayer.

Conclusions

- 1. The proration methodology requirement applies to all future test periods.
- 2. The estimated projection component of both the stand-alone rate adjustment ratemaking and the formula rate does employ a future test period within the meaning of § 1.167(I)-1(h)(6)(ii) and therefore Taxpayer is required to use the proration methodology in order to comply with the normalization rules.
- 3. The true-up component of both the stand-alone rate adjustment ratemaking and the formula rate does not employ a future test period within the meaning of § 1.167(I)-1(h)(6)(ii) and therefore Taxpayer is not required to use the proration methodology in order to comply with the normalization rules.
- 4. In Taxpayer's stand-alone rate adjustment proceedings, an adjustment to eliminate from the Taxpayer's cash working capital allowance any provision for accelerated depreciation-related ADFIT if the proration methodology is employed does conflict with the normalization rules.
- In order to comply with the consistency requirement of the normalization rules, it is not necessary that the Taxpayer use the same averaging convention it uses in computing the other elements of rate base in computing its ADFIT balance for purposes of the formula rates.

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- 6. The Service rules adversely with respect to Rulings 1 and 2, above. Any failure by Taxpayer to employ the proration methodology prior to the proceedings in Cases A, B, or C or the effective date approved by Commission C for the requested modification of the formula rates was not a violation of the normalization rules requiring sanctions for such violation.
- 7. Because the Service rules favorably with respect to Ruling 5, above, Taxpayer's requested Ruling 7 is moot.

Except as specifically determined above, no opinion is expressed or implied concerning the Federal income tax consequences of the matters described above.

This ruling is directed only to the taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. In accordance with the power of attorney on file with this office, a copy of this letter is being sent to your authorized representative. We are also sending a copy of this letter ruling to the Director.

Sincerely,

Peter C. Friedman Senior Technician Reviewer, Branch 6 Office of the Associate Chief Counsel (Passthroughs & Special Industries)

Request:

Referring to the response to Division Data Request 2-15, please explain why the Company applies proration adjustments to increases in deferred tax balance occurring before the start of the rate year.

Response:

As stated in the Company's response to Division 2-15, proration adjustments are required for computations including forecasted fiscal year end periods. Therefore, proration adjustments are appropriate for the Rate Years only. Proration adjustments for the two months ended August 31, 2017 and for the 12 months ended August 31, 2018 will be eliminated on Schedule MAL-11-ELEC, Page 11 (Bates Page 101 of Book 9) in conjunction with the revisions for federal tax reform in a subsequent update to the cost of service.

Request:

Referring to the response to Division Data Request 2-16, please explain how it is possible that the proration adjustments on Lines 42 and 50 are negative when the adjustment to the balances of deferred taxes are themselves negative.

Response:

When the adjustment to the balances of deferred taxes is negative, the related proration adjustment should be positive. The proration adjustment will be corrected in conjunction with the revisions for federal tax reform in a subsequent update to the cost of service.

Request:

Please update the response to Division Data Request 2-18.

Response:

The Company's response to Division 2-18 provides net operating loss (NOL) detail related to accumulated deferred federal income taxes recorded by the Company for historic quarters ended December 2016 through September 2017. This request appears to be asking for the Company to update this response to include the quarter-ended December 2017. The information for December 2017 will not be available until the Company files its FERC Form 1 to the Federal Regulatory Energy Commission and to the Rhode Island Public Utilities Commission. This will occur no later than April 17, 2018.

Request:

Referring to the response to Division Data Request 2-20, please provide workpapers supporting the decrease to rate base of (\$25,243,979) and a decrease to the revenue requirement of (\$2,903,788) for the year ending August 31, 2019.

Response:

Please see Attachment DIV 11-5 for the requested information.

Narragansett Electric Distribution Rate Base - Accumulated Defered Income Taxes Corrected Tax Depreciation Calculation to Include MACRS on Test Year Embedded Plant in Service

			2 Mont	h Period	Period betwe and Ra	een Test Year ate Year	Rate Yea August	r 1 Ending 31, 2019
				with MACRS		with MACRS		with MACRS
			Originally filed	correction	Originally filed	correction	Originally filed	correction
			(a)	(b)	(c)	(d)	(e)	(f)
1	Tax Depreciation on Forecased Plant Additions		\$9,155,372	\$9,155,372	\$51,582,679	\$51,582,679	\$49,930,437	\$49,930,437
2	MACRS Tax Depreciation on Embedded Plant		\$0	\$7,626,556	\$0	\$44,251,489	\$0	\$40,495,216
3	Total Tax Depreciation	(Line 1 plus Line 2)	\$9,155,372	\$16,781,928	\$51,582,679	\$95,834,168	\$49,930,437	\$90,425,653
4	x x							
5	Book Depreciation		\$8.602.358	\$8,602,358	\$52,630,592	\$52,630,592	\$51,179,298	\$51,179,298
6	Adjusted Tax/Book timing difference	(Line 3 less Line 5)	\$553,014	\$8,179,570	(\$1,047,913)	\$43,203,577	(\$1,248,861)	\$39,246,355
7	Tax Rate		35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
8	Annual Change to Accumulated Deferred Taxes	(Line 6 * Line 7)	\$193,555	\$2,862,849	(\$366,770)	\$15,121,252	(\$437,101)	\$13,736,224
9	Net Operating Loss Utilization		\$0	\$0	\$0	\$0	\$0	\$0
10	Proration Adjustment		(\$689,322)	(\$689,322)	(\$4,950,475)	(\$4,950,475)	(\$5,135,996)	(\$5,135,996)
11	Net Annual Change	(Sum Lines 8 to 10)	(\$495,767)	\$2,173,528	(\$5,317,244)	\$10,170,777	(\$5,573,097)	\$8,600,228
12	0							
13	Monthly Change to Accumulated Deferred Taxes		(\$247,883)	\$1 086 764	(\$443 104)	\$847 565	(\$464 425)	\$716.686
14	(added to each period below)		(#217,005)	\$1,000,701	(\$115,101)	\$617,205	(\$101,125)	\$710,000
15	Balance Date		June 30, 2017	June 30, 2017	August 31 2017	August 31 2017	August 31 2018	August 31 2018
16	Balance		\$184 536 775	\$184 536 775	\$184 041 008	\$186 710 302	\$178 723 763	\$196 881 079
17	Subsequent periods and balances		\$101,000,770	<i>Q101,000,110</i>	\$101,011,000	\$100,710,502	\$170,720,700	\$170,001,077
18	September				\$183 597 904	\$187 557 867	\$178 259 339	\$197 597 765
19	October				\$183,154,800	\$188 405 432	\$177 794 914	\$198 314 451
20	November				\$182 711 697	\$189,252,997	\$177 330 489	\$199.031.136
20	December				\$182,711,097	\$190,100,561	\$176 866 064	\$199,747,822
22	January				\$181 825 489	\$190,948,126	\$176 401 640	\$200 464 508
22	February				\$181 382 386	\$191 795 691	\$175,937,215	\$201 181 193
23	March				\$180,939,282	\$192 643 256	\$175,757,215	\$201,101,175
24	April				\$180,959,282	\$193,490,820	\$175,008,365	\$202,614,565
25	May				\$180,053,075	\$194 338 385	\$174 543 941	\$202,014,000
27	June				\$179 609 971	\$195 185 950	\$174 079 516	\$203,551,251
28	Inly		\$184 288 891	\$185 623 538	\$179,166,867	\$196,033,514	\$173 615 091	\$204 764 622
29	August		\$184,041,008	\$186 710 302	\$178 723 763	\$196 881 079	\$173,150,666	\$205 481 308
30	. inguit		\$101,011,000	\$100,710,502	\$170,720,700	\$190,001,079	\$175,150,000	\$200,101,000
31	Accumulated Deferred Income Tax - Five Quarter	Average	Average(Lines 16 20 23 26 29)				\$175 937 215	\$201 181 193
32	Accumulated Defended Income Tax The Quarter	Iverage	Trenuge(Enres 10,20,25,20,25)				<i>Q175,757,215</i>	\$201,101,195
33	Rate Base						\$758 249 458	\$733.005.479
38	Tuto Dusc						0750,217,150	\$755,005,175
39	Change in Rate Base		(Line 33 Col (f) less Line 33 Col (e))				(\$25 243 979)
40	change in faite base		(21110 55 661 (1) 1655 21110 55 661 (0)	,				(\$20,210,777)
40	% Revenue Impact							
42	Operating Income Change							7 43%
43	Tax Effect							2.77%
44	Uncollectible Change							1 30%
45	Total % Revenue Impact							11.50%
46								
47	Revenue Impact							(\$2,903,788)
Line Notes								
1(a) 1(b)	Schedule MAL-11-ELEC Page 14 of 20 Line 1 C	olumn (b) Bates Page 10	of Book 9 8(c)	Schedule MAL-11-	ELEC Page 11 of 20	Line 39 Column (c)	Bates Page 101 of B	ook 9
1(c), 1(d)	Schedule MAL-11-ELEC, Page 14 of 20 Line 1 C	olumn (c) Bates Page 104	of Book 9 8(e)	Schedule MAL-11-	ELEC. Page 11 of 20	Line 47 Column (c)	Bates Page 101 of B	ook 9
1(e), 1(f)	Schedule MAL-11-ELEC, Page 14 of 20 Line 1 C	olumn (d) Bates Page 104	of Book 9 10(a), 10(b)	Schedule MAL-11-	ELEC, Page 11 of 20	Line 33 Column (c)	Bates Page 101 of B	ook 9
2	As provided by tax department	(1) 100	10(c) 10(d)	Schedule MAL-11-	FLEC Page 11 of 20	Line 41 Column (c)	Bates Page 101 of B	ook 0

As provided by tax department
 Schedule MAL-6-ELEC Page 1 of 5 Line 24 + Line 25 Column (b) Bates Page 37 of Book 9
 Schedule MAL-6-ELEC Page 1 of 5 Line 44 Column (b) Bates Page 37 of Book 9
 Schedule MAL-6-ELEC Page 2 of 5 Line 16 Column (b) Bates Page 38 of Book 9
 Schedule MAL-11-ELEC, Page 11 of 20 Line 31 Column (c) Bates Page 101 of Book 9

Schedule MAL-11-ELEC Page 11 of 20 Line 41 Column (c) Bates Page 101 of Book 9 Schedule MAL-11-ELEC, Page 11 of 20 Line 49 Column (c) Bates Page 101 of Book 9 Schedule MAL-11-ELEC, Page 1 of 20 Line 24 Column (c) Bates Page 91 of Book 9 Per Page 2 Line 24 D(c), 10(d)

10(e), 10(f)

33(e) 33(f)

The Narragansett Electric Company d/b/a National Grid Distribution Rate Base Calculation - Electric For the Test Year Ended June 30, 2017 and the Rate Year Ending August 31, 2019

Description		Test Year Ended June 30, 2017 (Per Books - 5 Quarter Average)	Adjustments	Rate Year Ending August 31, 2019
		(a)	(b)	(c)
1 2	Utility Plant In Service	\$1,503,289,331	\$98,275,011	\$1,601,564,342
3	Property Held for Future Use	\$2,496,405	\$0	\$2,496,405
4	Less: Contribution in Aid of Construction	(\$101,521)	\$104,277	\$2,756
5	Less: Accumulated Depreciation	\$656,218,763	\$32,524,842	\$688,743,605
6	-			
7	Net Plant	\$849,668,494	\$65,645,892	\$915,314,386
8				
9	Materials and Supplies	\$4,750,549	(\$1,256,873)	\$3,493,676
10	Prepayments	\$742,480	(\$742,480)	\$0
11	Loss on Reacquired Debt	\$1,934,554	(\$533,340)	\$1,401,214
12	Cash Working Capital	\$4,975,475	\$14,126,421	\$19,101,896
13	Unamortized Interest Rate Lock	\$2,439,092	(\$801,086)	\$1,638,006
14	Unamortized Debt Issuance Costs \$550M	\$1,113,997	(\$212,054)	\$901,943
15	Unamortized Debt Issuance Costs \$250M	\$945,261	(\$79,025)	\$866,236
16	Unamortized Debt Issuance Costs \$250M Apr 18	\$0	\$848,309	\$848,309
17	Subtotal	\$16,901,408	\$11,349,872	\$28,251,280
18				
19	Accumulated Deferred FIT	\$183,859,681	\$17,321,513	\$201,181,193
20	Accumulated Deferred FIT -Loss on Reacquired Debt	\$677,094	(\$186,669)	\$490,425
21	Customer Deposits	\$9,956,664	(\$1,068,096)	\$8,888,568
22	Subtotal	\$194,493,439	\$16,066,748	\$210,560,187
23				
24	Rate Base	\$672,076,463	\$60,929,016	\$733,005,479

Line Notes

1(c)	Schedule MAL-11-ELEC, Page 6, Line 34	14(c
	Bates Page 96 of Book 9	
4(c)	Schedule MAL-11-ELEC, Page 10, Line 46(a)	15(c
	Bates Page 100 of Book 9	
5(c)	Schedule MAL-11-ELEC, Page 8, Line 30	16(c
	Bates Page 98 of Book 9	
7(a) - (c)	Line 1 + Line 3 - Line 4 - Line 5	
9(c)	Schedule MAL-11-ELEC, Page 10, Line 46(b)	17(a) -
	Bates Page 100 of Book 9	19(c
11(c)	Schedule MAL-11-ELEC, Page 10, Line 46(d)	20 (0
	Bates Page 100 of Book 9	21(c
12(c)	Schedule MAL-41, Page 1 Line 23(e)	
	Bates Page 89 of Book 10	22(a) -
13(c)	Schedule MAL-11-ELEC, Page 10, Line 46(f)	24(a) -
	Bates Page 100 of Book 9	

(c) Schedule MAL-11-ELEC, Page 10, Line 46(g) Bates Page 100 of Book 9
(c) Schedule MAL-11-ELEC, Page 10, Line 46(h)

Schedule MAL-11-ELEC, Page 10, Line 46(h) Bates Page 100 of Book 9

16(c) This number should be the the \$833,470 shown on Schedule MAL-11-ELEC, Page 10, Line 46(i), and will be updated in the next Cost of Service. Bates Page 100 of Book 9

17(a) - (c) Sum of Lines 9 - 16

P(c) Attachment DIV 11-5, Page 1 Line 31(f)

20 (c) Line 11 * 35%

- (c) Schedule MAL-11-ELEC, Page 10, Line 46(e) Bates Page 100 of Book 9
- 22(a) (c) Sum of Lines 19 21
- 24(a) (c) Line 7 + Line 17 Line 22

Request:

Please update the response to Division Data Request 2-26.

Response:

The Company's response to Division 2-26 provides net operating loss (NOL) detail related to accumulated deferred federal income taxes recorded by the Company for historic quarters December 2016 through September 2017. This request appears to be asking the Company to update this response to include quarter ended December 2017. The information for December 2017 will not be available until the Company files its FERC Form 1 to the Federal Energy Regulatory Commission and to the Rhode Island Public Utilities Commission. This will occur no later than April 17, 2018.

Request:

Referring to the response to Division Data Request 2-28, please provide workpapers supporting the decrease to rate base of (\$22,356,074) and a decrease to the revenue requirement of (\$2,334,662) for the year ending August 31, 2019.

Response:

Please see Attachment DIV 11-7 for the requested information. Please note that the decrease of \$2,334,662 represents the decrease to Narragansett Gas operating income before taxes, and the total decrease to the revenue requirement should be \$2,384,292.

Narragansett Gas

Distribution Rate Base - Accumulated Defered Income Taxes Corrected Tax Depreciation Calculation to Include MACRS on Test Year Embedded Plant in Service

			2 Month	Period	Period betwee and Ra	een Test Year te Year	Rate Year August 3	1 Ending 31, 2019
				with MACRS		with MACRS		with MACRS
			Originally filed	correction	Originally filed	correction	Originally filed	correction
			(a)	(b)	(c)	(d)	(e)	(f)
1	Tax Depreciation on Forecasted Plant Additions		\$16,848,392	\$16,848,392	\$99,472,715	\$99,472,715	\$95,204,588	\$95,204,588
2	MACRS Tax Depreciation on Embedded Plant		\$0	\$6,451,048	\$0	\$38,467,635	\$0	\$37,911,627
3 4	Total Tax Depreciation	(Line 1 plus Line 2)	\$16,848,392	\$23,299,440	\$99,472,715	\$137,940,350	\$95,204,588	\$133,116,215
5	Book Depreciation		\$6,234,705	\$6,234,705	\$39.628.077	\$39.628.077	\$41.029.455	\$41.029.455
6	Adjusted Tax/Book timing difference	(Line 3 less Line 5)	\$10.613.687	\$17.064.735	\$59,844,638	\$98,312,274	\$54,175,133	\$92,086,760
7	Tax Rate		35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
8	Annual Change to Accumulated Deferred Taxes	(Line 6 times Line 7)	\$3,714,790	\$5,972,657	\$20,945,623	\$34,409,296	\$18,961,297	\$32,230,366
9	Net Operating Loss Utilization	(\$0	\$0	\$0	\$0	\$2,299,340	\$2,299,340
10	Proration Adjustment		(\$344,162)	(\$344,162)	(\$2,985,830)	(\$2,985,830)	(\$4,994,995)	(\$4,994,995)
11	Net Annual Change	(Sum Lines 8 to 10)	\$3,370,628	\$5,628,495	\$17,959,793	\$31,423,465	\$16,265,641	\$29,534,711
12								
13	Monthly Change to Accumulated Deferred Taxes		\$1,685,314	\$2,814,248	\$1,496,649	\$2,618,622	\$1,355,470	\$2,461,226
14	(added to each period below)							
15	Balance Date		June 30, 2017	June 30, 2017	August 31, 2017	August 31, 2017	August 31, 2018	August 31, 2018
16	Balance		\$122,924,988	\$122,924,988	\$126,295,616	\$128,553,483	\$144,255,409	\$159,976,948
17	Subsequent periods and balances							
18	September				\$127,792,265	\$131,172,105	\$145,610,879	\$162,438,174
19	October				\$129,288,915	\$133,790,727	\$146,966,349	\$164,899,400
20	November				\$130,785,564	\$136,409,349	\$148,321,819	\$167,360,626
21	December				\$132,282,214	\$139,027,971	\$149,677,289	\$169,821,852
22	January				\$133,778,863	\$141,646,593	\$151,032,760	\$172,283,078
23	February				\$135,275,513	\$144,265,216	\$152,388,230	\$174,744,304
24	March				\$136,772,162	\$146,883,838	\$153,743,700	\$177,205,530
25	April				\$138,268,811	\$149,502,460	\$155,099,170	\$179,666,755
26	May				\$139,765,461	\$152,121,082	\$156,454,640	\$182,127,981
27	June				\$141,262,110	\$154,739,704	\$157,810,110	\$184,589,207
28	July		\$124,610,302	\$125,739,235	\$142,758,760	\$157,358,326	\$159,165,580	\$187,050,433
29	August		\$126,295,616	\$128,553,483	\$144,255,409	\$159,976,948	\$160,521,050	\$189,511,659
30	-							
31 32	Accumulated Deferred Income Tax - Five Quarter Ave	rage	Average(Lines 16,20	,23,26,29)			\$152,388,230	\$174,744,304
33	Rate Base						\$773,427,484	\$751,071,410
34								
35	Change in Rate Base		(Line 33(f) less Line	33(e))				(\$22,356,074)
36	change in rate base		(Enice 55(1) 1655 Enice	55(0))				(022,000,071)
37	% Revenue Impact							
38	Operating Income Change							7 67%
39	Tax Change							2 77%
40	Total % Income Impact							10.44%
41	rotal /o meone impact							10.11/0
42	Operating Income Before Income Taxes Impact		(Line 35 * Line 40)					(\$2 334 662)
43	% Gross-up for Uncollectible expense		(Enterso Enterio)					2 13%
44	Uncollectible Change							(\$49,630)
45	Revenue Impact		(Line 42 + Line 44)					(\$2,384,292)
1(a), 1(b 1(c), 1(c	 Schedule MAL-11-GAS, Page 14 of 23 Line 1 Colum Schedule MAL-11-GAS, Page 14 of 23 Line 1 Colum 	n (b) Bates Page 125 of Book 9 n (c) Bates Page 125 of Book 9	8(c) S 8(e) S	chedule MAL-11-GA chedule MAL-11-GA	S, Page 12 of 23 Row 3 S, Page 12 of 23 Row 4	9 Column (c) Bates Pag 7 Column (c) Bates Pag	e 123 of Book 9 e 123 of Book 9	

1(c) (c), 1(f) Schedule MAL-11-GAS, Page 14 of 23 Line 1 Column (c) back 1 age 125 of Book 9
 2 As provided by tax department
 5(a), 5(b) Schedule MAL-6-GAS Page 1 of 5 Line 22 Column (a) Bates Page 43 of Book 9

Schedule MAL-6-GAS Page 1 of 5 Line 41 Column (a) Bates Page 43 of Book 9
 Schedule MAL-6-GAS Page 2 of 5 Line 41 Column (a) Bates Page 44 of Book 9
 Schedule MAL-6-GAS Page 11 of 23 Row 31 Column (c) Bates Page 122 of Book 9

9(c) Schedule MAL-11-GAS, rage 11 of 27 Row 48 Column (c) Bates Page 122 of Book 9 10(a), 10(b) Schedule MAL-11-GAS, Page 11 of 23 Row 48 Column (c) Bates Page 122 of Book 9 10(c), 10(d) Schedule MAL-11-GAS, Page 11 of 23 Row 41 Column (c) Bates Page 122 of Book 9 10(e), 10(f) Schedule MAL-11-GAS, Page 11 of 22 Row 49 Column (c) Bates Page 122 of Book 9 33(e) Schedule MAL-11-GAS, Page 1 of 23 Line 36 Column (c) Bates Page 122 of Book 9 33(f) Page 2, Line 36

The Narragansett Electric Company d/b/a National Grid Rate Base Summary Five Quarter Average Ending June 30, 2017 through Data Year 2 Ending August 31, 2021

	Description	Five Quarter Average Ending June 30, 2017	Adjustments	Rate Year 1 Ending August 31, 2019
	-	(a)	(b)	(c)
1	Gas Plant In Service	\$1.092,141,316	\$221,952,230	\$1,314,093,545
2	Normalizing Adjustment: Smallworld GIS ¹	\$3,996,550	\$0	\$3,996,550
3	Gas Plant In Service	\$1,096,137,866	\$221 952 230	\$1 318 090 095
4		\$1,090,137,000	<i>\\\</i>	\$1,510,090,095
5	Construction Work In Progress	\$49 783 414	(\$5,570,043)	\$44 213 371
6		<i> </i>	(\$0,070,010)	¢.,210,071
7	Less: Accumulated Depreciation	\$389,907,868	\$37,465,482	\$427.373.349
8	Normalizing Adjustment: Smallworld GIS1	\$2.987.945	\$0	\$2,987,945
9	Test Year Adjusted Accumulated Depreciation	\$392,895,813	\$37,465,482	\$430,361,294
10	5 1			
11	Less: Contribution in Aid of Construction	\$38	(\$984)	(\$946)
12			, <u> </u>	
13	Net Plant	\$753,025,429	\$178,917,689	\$931,943,118
14				
15	Additions:			
16	Materials and Supplies	\$3,941,353	(\$1,261,179)	\$2,680,174
17	Prepaid Expenses, Excluding Taxes	\$393,734	(\$189,233)	\$204,501
18	Deferred Debits	\$411,653	(\$411,653)	\$0
19	Cash Working Capital	\$8,974,216	(\$1,576,879)	\$7,397,337
20	Unamortized Interest Lock expense \$550M	\$1,068,051	(\$350,778)	\$717,273
21	Unamortized Issuance Costs \$300M	\$406,500	(\$37,950)	\$368,550
22	Unamortized Issuance Costs \$250M	\$81,303	(\$54,906)	\$26,397
23	Unamortized Issuance Costs \$200M	\$274,996	(\$23,064)	\$251,932
24	Unamortized Issuance Costs \$250M	\$0	\$2,302,437	\$2,302,437
25	Unamortized Issuance Costs Mortgage Bonds	\$103,899	(\$49,670)	\$54,229
26	Total Additions	\$15,655,704	(\$1,652,875)	\$14,002,829
27				
28	Deductions:			
29	Accumulated Deferred FIT	\$111,588,901	\$63,155,403	\$174,744,304
30	Merger Hold Harmless Adjustment	\$22,255,350	(\$3,592,594)	\$18,662,756
31	Customer Deposits	\$2,342,658	(\$875,181)	\$1,467,477
32	Total Deductions	\$136,186,909	\$58,687,628	\$194,874,537
33				
34	Rate Base	\$632,494,225	\$118,577,186	\$751,071,410
35				
36	Total Rate Base			\$751,071,410

¹Gas Information System

Column Notes

(b) (c) minus (a)

- Line Notes
- 1(c) Schedule MAL-11-GAS, Page 3 of 23 Line 30 Column (b) Bates Page 114 of Book 9
- 5(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (a) Bates Page 119 of Book 9
- 11(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (b) Bates Page 119 of Book 9
- 16(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (c) Bates Page 119 of Book 9
- 17(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (d) Bates Page 119 of Book 9
- 18(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (e) Bates Page 119 of Book 9
- 19(c) Cash Working Capital Page 1 of 25 Line 15 Column CWC Dollars Bates Page 110 of Book 10
- 20(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (g) Bates Page 119 of Book 9

- 21(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (h) Bates Page 119 of Book 9
- 22(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (i) Bates Page 119 of Book 9
- 23(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (j) Bates Page 119 of Book 9
- 24(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (k) Bates Page 119 of Book 9
- 25(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (l) Bates Page 119 of Book 9
- 29(c) Attachment DIV 11-7 Page 1 of 2 Line 31 Column (f)
- 30(c) Schedule MAL-11-GAS, Page 9 of 23 Line 24 Column (c) Bates Page 120 of Book 9
- 31(c) Schedule MAL-11-GAS, Page 8 of 23 Line 47 Column (f) Bates Page 120 of Book 9

Request:

Referring to the response to Division Data Request 2-31, please reconcile the number of electric employees as of June 2017, the number of electric employees shown on Page 6 of Attachment DIV 2-29.

Response:

Please see Attachment DIV 11-8 for a reconciliation of the number of electric employees as of June 2017 between Division 2-29 and Division 2-31.

NECO Rate Case 2017 Response to Division 11-8 Electric

	Steady State count	HR count			
	DIV 2-29	DIV 2-31	Difference		
Union	261	380	(119)		
Reconciling items:					
Segment reclassification		(89)			
FTEs who left the Company before 6/30/17		(5)			
Temporary Employees		(3)			
Inactive Employees		(22)			
Sub-total	261	261	0		
Mgt	43	43	0		
Total	304	304	0		

Request:

Referring to the response to Division Data Request 2-34, please reconcile the number of gas employees as of June 2017, the number of gas employees shown on Page 8 of Attachment DIV 2-32.

Response:

Please see Attachment DIV 11-9 for a reconciliation of the number of gas employees as of June 2017 between the Company's responses to Division 2-32 and Division 2-34.

NECO Rate Case 2017 Response to Division 11-9 Gas

	Steady State count	HR count				
	DIV 2-32	DIV 2-34	Difference			
Union	413	330	83			
Reconciling items:						
Segment reclassification		89				
FTEs who left the Company before 6/30/17		(2)				
Temporary Employees		(1)				
Inactive Employees		(3)				
Sub-total	413	413	0			
Mgt	17	15	2			
Reconciling items:						
Removed two employees serving the electric business from the gas segment, did not add to the electric segment		2				
Sub-total	17	17	0			
Total	430	430	0			

Request:

Referring to the response to Division Data Request 2-40, please quantify the terminations of older arrears (resulting from the conversion to the CSS billing system) that were accumulated at a time when gas-supply costs were much higher.

Response:

Although it is not possible to compartmentalize the portion of terminations related to specific arrears, the following two attachments illustrate the termination history along with the pattern of winter gas supply costs.

Attachment DIV 11-10-1 represents the history of the annual Gas Cost Recovery (GCR) rates approved for the winter season effective November 1 by using the Residential Heating GCR rates as an example.

Attachment DIV 11-10-2 illustrates the rolling 12-month termination of gas accounts for a select period between March 2010 and March 2014. The point that would coincide with the 12-months ending June 2013 is emboldened (8,229). Please note that this timeframe would have been affected by Hurricane Sandy at the end of October 2012, when the Company had to suspend many collection activities, including field activity for the month of November 2012.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-10-1 Page 1 of 1



The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-10-2 Page 1 of 1



Request:

Please provide the response to Division Data Request 2-46 in Excel or other native file format.

Response:

Please see Attachment DIV 11-11-1 for the requested information.

At the PUC's request, for ease of reference, the Company is providing a copy of its response to Division 2-46 as Attachment DIV 11-11-2.

Narragansett Electric Company and Narragansett Gas Company d/b/a National Grid Service Company Rents Existing Service Company Capital Software allocated to Operating Companies as Rent Expense For the Rate Year beginning 09/01/2018 and ending 08/31/2019

			Program				Bill	Inception	Forecasted	Total	In Service
Line	Investment Name	Project Description	Description	INVP #	Work Order	NECO	Pool	to Date \$	to Complete	Spend	Date
		National Grid's U.S. Contact Center handles approximately 65,000 calls per day. The U.S. Customer Contact									
		Centers and Service Delivery Center (SDC) are currently operating on core technologies that are no longer									
		supported by their respective vendor and National Grid has third party vendors in place to manage the day to day									
		support. This project will facilitate the replacement and consolidation of these critical systems to support the									
		reliability of key communication channels between National Grid, our customers, and our employees. Core systems									
		to be replaced include: Automatic									
	INVP 3932 Call Center Customer Contact	Call Distribution system (ACD); Interactive Voice Response (IVR); Computer Telephony Integration (CTI); Call									
	Center/SDC Technology Upgrade Implement	Center Workforce Management (WFM); and Call Recording/Quality Monitoring.					~ ~ ~				
1	Solution		FY18 Plan	3932	90000179806	YES	C175	\$718,036	\$27,006,964	\$27,725,000	09/02/18
		Every year, there are a number of IS projects that are initiated as a direct result of, or are driven by the need to									
		comply with regulations, laws, tariffs, orders, agreements or other matters promulgated by Federal, State, or Local									
		governmental agencies. National Grid has forecasted in its three-year investment plans the need to budget									
2	Demulatory Mandatas EV10	approximately \$20M per year across all regulatory jurisdictions for is projects resulting from future regulatory	01 11 1			VEC	C020		\$10,140,000	610 140 000	02/21/10
2	Regulatory Mandales - F 1 19	mandates.	Other Mandates			YES	G020		\$19,140,000	\$19,140,000	03/31/19
		Ine existing computing hardware and software supporting the New Fork and New England CNT Energy									
		and software. A capacity limitation of the current configuration is limiting the custom's ability to respond to									
		and software. A capacity miniation of the current configuration is mining the System's ability to respond to arowing demands, including in the distributed generation area. Running the EMS systems on this hardware and									
		software leaves National Grid at risk of losing visibility of the grid and potentially control of remotely operated									
	INVP 4914 US CNI-EMS Lifecycle Hardware	devices and equipment. A failure could cause both reputational and financial impacts to National Grid from both									
3	and Software Upgrade	our regulators and governmental agencies	FY18 Plan	4914		YES	U186		\$14 897 000	\$14 897 000	08/01/19
5	and bortmare opgrade	The End User Device Refresh-Windows 7 project will transition the remaining users from XP to the current				120	0100		\$11,077,000	\$11,057,000	00/01/17
		standard operating system of Windows 7. Currently, there are approximately 6000 users that rely on XP due to									
		legacy applications. XP is no longer in support and Microsoft has stopped producing security patches, thus posing									
		reliability and security risks to the company. This project will remediate the legacy applications to work on									
4	INVP 4307 US Win 7 Refresh Ph 3	Windows 7 and upgrade the users laptops to Windows 7	Tech. Modernization	4307	90000175959	YES	G020	\$13,133,973	\$483,484	\$13,617,457	12/31/17
		This program will replace out of support platforms to mitigate existing risks to our customer self-serve billing,									
		payments and other communications portals, and set the foundation for the processes and technology changes									
		needed to drive step improvements to the customer experience. Operational efficiencies will be realized through the									
		migration of customers to self-service channels, and through re-engineering of processes and transactions. The									
	INVP 4750 Customer Experience	program will focus on re-engineering the customer's digital interactions to create a universal and seamless customer									
5	Transformation Tech Program	experience through multiple service options: Web, Mobile, Text, Email, and future emerging channels.	Growth Play Book	4750	90000187233	YES	C175		\$10,496,000	\$10,496,000	08/31/19
		Enterprise Network Security (ENS) project is part of the overall programme of Cyber Security improvements to									
		enhance National Grid's (and its energy networks),ability to detect security threats and determine the nature of									
		incidents as, or potentially before, they occur, allowing improvement in response to detected threats and the									
6	INVP 3614D1 Ent Network Security	production of internal intelligence.	Cyber Security	3614D1	90000141765	YES	G020	\$8,849,386	\$1,433,885	\$10,283,271	01/31/18
		As the primary Work Management and Scheduling tools for the legacy National Grid service territories, 'STORMS'									
		and iscneduler are critical applications in support of both Electric and Gas Operations. The applications have									
		become increasingly unstable, experiencing multiple outages over the past several years. The vendor is no longer in									
		a position to support the applications without upgrades that will bring the applications onto current technology. The									
		project will upgrade the work management system (STORWIS) to the fatest version of technology including: server									
		to the letest version of the technology. The investment will also replace the good middleware components with new									
		comported components. As part of the project, the work management scheduling tool (ISchedular) will be replaced									
7	INVP 4398 Storms/ISched Ungrade	with the vendor's latest scheduling tool and integrated with the STORMS product	FV18 Plan	4398	90000179024	VES	G160	\$4 878 263	\$4 625 000	\$9 503 263	04/23/18
,	atter isso biomistisched opprace	which is the state of the most selection of the most and the state of	1 1 10 1 1011	4370	20000172024	110	3100	ψ 4 ,070,203	φ 4,02 3,000	φ2,303,203	0-1/23/10
		This Policy-driven investment will procure networking assets needed to replace out of warranty equipment and									
		support infrastructure in the Energy Management System and Outage Management System (EMS/OMS) Data									
	INVP 4570 US CNI Tech Services-Network	Centers, Communications rooms, Operations Centers, and Support areas across the National Grid service territory									
8	Equipment Lifecycle Replacements	in New York and New England that are no longer supported by the hardware and software vendors.	FY18 Plan	4570	90000182161	YES	G186		\$9,169,203	\$9,169,203	08/01/19
, , , , , , , , , , , , , , , , , , ,	,	This project replaces the existing FERC module with the FERC on SAP HANA solution. The new HANA solution							,,	,,=	
		allows for FERC data to be created in parallel with all other data leading to a faster closing process and real time									
9	\$005242 M112 Systemic Improvement	reporting capabilities	EV18 Plan	1	90000156074	VES	G020	\$8 354 545	\$0	\$8 354 545	07/10/17

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-11-1 Page 2 of 4

T in a	Investment Nome	Deviced Development	Program	INIVD #	Work Orden	NECO	Bill	Inception	Forecasted	Total	In Service Data
Line	Investment Name	FOJECT DESCRIPTION	Description	INVP#	work Order	NECO	1 001	to Date \$	to Complete	Spenu	Date
		This project will establish fabreau and Anteys Software solutions in a cloud environment to enable sense vice reporting and data visualization capabilities for the organization. The proposed solution will provide the opportunity for improved decision-making by providing capabilities to enhance data access to very large data sets, analytics, data visualization and export to other analytical software capabilities. Over time, it will also establish the foundation to replace software tools for reporting that are no longer supported by the original vendor and produce essential reports for oversight of the operation. The project will provide the base infrastructure required to run the services, including:									
		 procurement of software installation of Tableau and Alteryx in a Cloud Environment packaging of software for deployment to desktops 									
		and user training									
10	INVP 4464 Data Visualization		FY18 Plan	4464	90000181341	YES	G020	\$6,062,970	\$2,005,119	\$8,068,089	09/30/17
	INVP 4408 Doc Mgmt Systems Replacement	The Document Management Systems used to store, retrieve, and update electric, gas and power plant engineering drawings and documents at National Grid are beyond their useful lifespan and are creating an unacceptable level of risk to the company. Inability to retrieve electric, gas and power plant information and mapping could lead to non- compliance with legal obligations for document storage, and programs including "Dig-Safe", leading to risk of accidental system damage. The applications have not been upgraded since their deployment and are now unsupportable due to their aging computing technology and software. The downstate TeamCenter application has started to collapse, as some components of the system have shut down and will no longer function properly. The Documentum desktop versions 5.3 and 6.0 are no longer supported by the vendor and are not compatible with Windows 7 operating system. TeamCenter is also not compatible with Windows 7. As a result, some business units have not been also to upgrade to the Windows 7 portaing system. Some areas are using the web version of Documentum which is cumbersome, slow, and creating system. Some areas are using the web version of Documentum which is cumbersome, slow, and creating	5/40 N	4469	00000101717	VEG	6140	62 000 U.C.	60 000 100	\$4.040 ST4	0000010
11	Delivery	inefficiencies. Continued use of the XP operating system presents a significant cyber security risk.	FY18 Plan	4408	90000181343	YES	G149	\$3,022,116	\$3,027,139	\$6,049,256	06/22/18
		This policy-driven project will implement 750 mobile devices previously purchased as part of INVP 4671 – Mobile device refresh FY17 project. In addition, the project will purchase 200 new mobile devices and mounting accessories to continue the effort of eliminating old devices from the field. Mobile devices are mainly ruggedized computers – Panasonic Toughbooks and iTronix devices used in the field to access work management applications. A majority of mobile devices used in the field are more than 5 years old and these devices impact day to day productivity. These old devices break down frequently and can't be easily repaired due to unavailability of parts and accessories (in some cases manufacturers have stopped supporting the devices). The replacement of old mobile devices with latest tough books will allow field technicians to have the reliable equipment and data required to perform their work in a safe and efficient manner.									
12	INVP 4395 US Mobile Device Refresh		FY18 Plan	4395	90000184599	YES	G020	\$105,733	\$4,387,211	\$4,492,944	03/31/18
		This investment is required to enhance National Grid's Cyber Security resilience to help maintain safe and reliable operations of the US CNI gas and electricity networks associated with cyber assets This project is a part of the Cyber Security improvement program that is focused on improvement of the wider network security architecture, designed to mitigate the identified network security risks. This investment will complete the Development and Implementation phase and deliver Security Information and Event Management capabilities to US CNI environments that will enhance the detection, investigation and remediation of Cyber Security threats impacting US CNI environments. It will also deliver additional network security capabilities to 'Protect' US CNI environments from various security risks and help to 'Identify' and 'Detect' any potential threats in the current environments. This investment enhances existing cyber security systems by providing the capability for holistic analysis of the National Grid US CNI networks and infrastructure for the US Cyber Security Operations Center and associated									
13	INVP 3614B7 CNI Network Security	teams, supporting direction of resources to tackle the most pertinent areas of risk.	Cyber Security	3614B7	90000141753	YES	G020	\$2,734,702	\$1,433,885	\$4,168,587	03/31/18

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-11-1 Page 3 of 4

Line	Investment Name	Project Description	Program Description	INVP #	Work Order	NECO	Bill Pool	Inception to Date \$	Forecasted to Complete	Total Spend	In Service Date
		Distributed Generation (DG) customer integration into the National Grid electric network is a fast growing area of National Grid's business that is regulated and mandated across all National Grid electric service territories. Each state has its own interconnection tariff, which outlines the process, forms, cost, timelines, penalties, and tracking and reporting requirements for administering the end-to-end DG interconnection process. In New York, the New York Public Service Commission requires that all electric distribution companies create and manage an online portal for Distributed Generation (DG) application submissions ("NY State Standardized Interconnection Requirements and Application Process for New Distributed Generators 2 MW or Less Connected in Parallel with Utility Distribution Systems," Section I. D). The Massachusetts Department of Public Utilities has implemented a penalty-based enforcement mechanism with penalties up to \$1.5 million/year, which requires verifiable tracking of application process time dependencies for DG applications. This project will deliver on providing the self-service portal and system of rocord for DG in New York. The project will also provide a base workflow engine that can be further enhanced to provide functionality necessary for DG in New Eneland. new electric connection on all National Grid									
14	INVP 4411AB Distributed Generation Portal	electric service territories, and new gas connections in all National Grid gas service territories.	Mandate	4411A+F	90000179919	YES	C198	\$2,521,972	\$1,606,514	\$4,128,486	11/30/17
		Active Directory (AD) is a key service that supports core authentication for all National Grid computers and servers logging onto the corporate network in both the United States (US) and United Kingdom (UK). Therefore, AD provides access to all Information Systems (IS). The scope of this initiative is to implement a refreshed global AD infrastructure and support services. The new AD environment will unify all global applications that use the AD service. It is critical that National Grid cannersue that the AD service is reliable and supports core authentication requirements to all current and proposed applications.									
15	INVP 4489 Active Directory Improvements	the AD serve is reliable and supports one autointeation requirements to an euronic and proposed appreations.	Tech. Modernization	4489	90000188606	YES	G020		\$3,555,000	\$3,555,000	12/31/18
16	DIVD 4401 ICE Deplement	This investment is required to replace the current instant messaging, collaboration, and email (ICE) services with a set of similar, or enhanced, services provided by Office 365. The current ICE platform cannot support the business drawn due to Emitting in the present function bits of the current large data and the set of the se		4401	00000104501	VEG	6020	¢405 524	\$2,052,100	¢2 447 722	10/21/10
10	INVE 4491 ICE Replacement	This investment will expand the use of the Tableau, reporting platform across more use cases and business areas.	Tech. Modernization	4491	90000184381	IES	G020	\$495,554	\$2,932,188	\$3,447,722	12/31/18
17	INVP 4606 Data Visualisation Expansion	Tableau provides data visualizations and analytics that aid management in the development of strategic and operational Plans.	Tech. Modernization	4606	90000188602	YES	G020		\$3,435,000	\$3,435,000	06/30/19
18	INVP 4469 Informatica Upgrade/Microstrategy Replacement Program	This is a policy-driven project to perform a Feasibility and Analysis (F&A) study of National Grid's Informatica / MicroStrategy / Oracle Business Intelligence (BJ) environment. The goal is to identify the most efficient and effective way to evolve to a BI, Analytics and Reporting platform that will support current and future business needs. At the conclusion of this Feasibility and Analysis exercise a detailed road map comprised of prioritized initiatives addressing the new solution implementation, decommissioning and archiving of legacy environment will be delivered to National Grid.	FY18 Plan	4469		NO	G239		\$3,381,162	\$3,381,162	05/01/18
		The Dusiness Inneutrice Degree will deliver a corige projects that includer. Big Date Analytics, Decessor, and									
19	INVP 4708 Business Innovation Projects 2	Moving automation regiant win correct a series projects una inclusion in grant and the series and Workflow automation with Robotics, CSS system upgrade pilot, and Mobile device capability enhancements. Additionally, application rationalization will be covered under the scope of this investment.	Tech. Modernization	4708		YES	G020		\$3,368,613	\$3,368,613	03/31/19
20	INVP 4728 Business Innovation Projects 3	The Business Innovation Program will deliver a series projects that include: Big Data Analytics, Process, and Workflow automation with Robotics, CSS system upgrade pilot, and Mobile device capability enhancements. Additionally, application rationalization will be covered under the scope of this investment.	Tech Modernization	4728		VES	6020		\$3 368 613	\$3 368 613	03/31/19
20			reen moderningation	1720		120	0020		\$5,500,015	\$3,500,015	00/01/17
21	INVP 4707 Business Innovation Projects 1	The business innovation regram will deliver a series projects that include: Big Data Analytics, Process, and Workflow automation with Robotics, CSS system upgrade pilot, and Mobile device capability enhancements. Additionally, application rationalization will be covered under the scope of this investment. This is annual capital replacement program for Physical Security. Physical Security is responsible for protecting	Tech. Modernization	4707		YES	G020		\$3,368,613	\$3,368,613	03/31/18
22	All Companies Physical Security Replacements - FY18	National Grid's personnel and assets, and incorporates a security system as part of the overall security plan. To fulfill this responsibility, it is necessary to ensure that all security related equipment and assets in New England are in good condition. This project replaces assets that are at or near end of life and/or assets that are no longer under vendor warranty.	Physical Security	N/A	90000180292	YES	G020	\$1,701,013	\$1,515,640	\$3,216,653	03/31/18
		The server and workstation hardware for the Energy Management System (EMS) replacement project was purchased in 2010. The hardware is now near peak operating capacity and may constrain the capacity of the associated databases in EMS. The application vendor ASEA Brown Boveri (ABB), is recommending a hardware refresh for the EMS environments in order to increase the capacity of the databases to accommodate future growth.									
23	INVP 4568 US CNI-EMS Lifecycle Hardware and Software Upgrade	This Policy-driven investment will procure the equipment needed for the project stages for the hardware and software refresh of the current ABB EMS. This project will migrate legacy interfaces to new supported middleware services that support file transfers (SAP PI	FY18 Plan	4568	90000183145	YES	U186	\$3,144,063	\$0	\$3,144,063	08/01/19
24	INVP 4706 1327 Interfaces - 523 FTS, 340 RDX, 245 MOSI, 253 JCAPS, 44 PM4D, 7 VB	and Oracle Fusion), The current technology is unsupported and is at risk since security patches are no and longer being provided.	Tech. Modernization	4706		YES	G020		\$3.083.333	\$3.083.333	06/30/19

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			Program				Bill	Inception	Forecasted	Total	In Service
 Line	Investment Name	Project Description	Description	INVP #	Work Order	NECO	Pool	to Date \$	to Complete	Spend	Date
		This policy-driven project will execute a Feasibility and Analysis (F&A) study to determine the overall costs,									
	INVP 4479 US Control-Gas Electronic Bulletin	technical approach and select the most appropriate tool for replacing existing out of support Gas Electronic Bulletin									
25	Board (EBB) Upgrade	Board (EBB) system that facilitates automated process of gas transportation confirmations.	Mandates	4479		YES	G210		\$3,000,000	\$3,000,000	05/01/18

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-11-2 Page 1 of 6 The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Responses to Division's Second Set of Data Requests Issued December 21, 2017

Division 2-46

Request:

Referring to Workpaper MAL-6a, Lines 293-410, for each project with a total spend over \$3 million, please provide the following:

- a. A brief description of the project
- b. The presently expected in-service date of the project
- c. The presently expected total spend for the project
- d. The work order for the project
- e. Any cost-benefit analysis that was prepared for the project

Response:

For parts a.-d., please refer to Attachment DIV 2-46. The projects that are missing work orders have not gone through sanctioning and have yet to spend capital dollars.

For part e., there is no cost benefit analysis available for these projects. That analysis is completed for Net Present Value projects only, and none of the selections above are categorized as such.
THE NARRAGANSETT ELECTRIC COMPANY dyba INATIONAL GRID RIPUC Docket 4770 Attachment DIV 2-46 Page 1 of 5

Narragansett Electric and Narrangansett Gas Service Company Rents Existing Service Company Capital Software allocated to Operating Companies as Rent Expense For the Rate Year beginnug 09/01/2018 and ending 08/31/2019

						•
In Service Date	09/02/18	03/31/19	61/10/80	12/31/17	08/31/19	01/31/18
Total Spend	\$27.725.000	\$19,140,000	\$14,897,000	\$13,617,457	\$10,496,000	176 286 018
Forecasted to Complete	\$27,006,964	\$19,140,000	\$14,897,000	\$483,484	\$10,496,000	\$1 433 885
Inception to Date \$	\$718,036			\$13,133,973		\$8 849 386
Bill Pool	C175	G020	U186	G020	C175	G020
Work Order	90862100006			65652100006	90000187233	90000141765
# dANI	3932		4914	4307	4750	3614D1
Program Description	FY18 Plan	Other Mandates	FY18 Plan	Tech. Modernization	Growth Play Book	Cvher Security
Protect Description	National Grid's U.S. Contact Center handles approximately 65,000 calls per day. The U.S. Customer Contact Centers and Service and Service the support of the contact Centers and Service support by their respective vendor and National Grid has third party vendors in place to manage the day to day support. This project will facilitate the replacement and consolidation of these critical systems to support the reliability of key communication channels between National Grid, our customers, and our employees. Core systems to be replaced include: Automatic Call Distribution system (ACD): Interactive Voice Response (IVR), computer Telephony Integration (CTI), call Center Workforce Management (WFM); and Call Recording/Outly Monitoring.	Every year, there are a number of IS projects that are initiated as a direct result of, or are driven by the need to comply with regulations, laws, tariffs, orders, agreements or other matters promulgated by Federal, State, or Local governmental agreecies. National Grid has forecasted in its three-year investment plans the need to budget approximately \$200 per year across all regulatory jurisdictions for IS projects resulting from future regulatory maddes.	The existing computing hardware and software supporting the New York and New England CNI Energy Management System (RMS) is near end-of-life and at risk of running unsupported versions of operating systems and software. A capacity limitation of the current configuration is limiting the system's ability to respond to growing demands, including in the distributed generation area. Running the EMS systems on this hardware and software leaves National Grid at risk of losing visibility of the grid and potentially control of remotely operated devices and equipment. A failure could cause both reputational and financial impacts to National Grid from both our regulators and byterminating agencies.	The End User Device Refresh-Windows 7 project will transition the remaining users from XP to the current standard operating system of Windows 7. Currently, there are approximately 6000 users that rely on XP due to legacy applications. YP is no longer in support and Microsoft has stopped producing security parates, thus possing reliability and security risks to the company. This project will remediate the legacy applications to work on Windows 7 and upgrade the users haptops to Windows 7.	This program will replace out of support platforms to mitgate existing risks to our customer self-serve billing, payments and other communications portals, and set the foundation for the processes and technology changes needed to drive step improvements to the customer experience. Operational efficiencies will be realized through the migration of customers to self-service channels, and through the environments to self-service channels, and through the environment of transactions. The program will focus on re-engineering the customer set of up the environment of service channels, and through the environment of	Enterprise Network Security (ENS) project is part of the overall programme of Cyber Security improvements to enhance National Grid's (and its energy networks), ability to detect security threats and determine the nature of incidents as, or potentially before, they occur, allowing improvement in response to detected threats and the production of theoremal incidence.
Investment Name	INVP 3932 Call Center Customer 6 Upgrade Implement Solution 10	Regulatory Mandates - FY19	I I I I INVP 4914 US CN1-EMS I Lifecycle Hardware and Software Ubgrade	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	IIVP 4750 Customer Experience	I S INVP 3614D1 Ent Network Scorneiro
Line	-	6	m	4	Ω.	ve ve

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-11-2

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										Page 2 of
Line	Investment Name	Project Description	Program Description	# dani	Work Order	Bill Pool	Inception to Date \$	Forecasted to Complete	Total Spend	In Service Date
-	INVP 4398 Storms/ISched	As the primary Work Management and Scheduling tools for the legacy National Grid service territories. 'STORMS' and 'IScheduler' are critical applications in support of both Electric and Gas Operations. The applications have become increasingly unstable, experiencing multiple outages over the past several years. The vendor is no longer in a position to support the applications without upgrades that will bring the applications onto current technology. The project will upgrade the work management system (STORMS) to the latest version of technology including: server hardware, system orgonare and database software, along with bringing both standard and custom application code to the latest version of the technology. The investment will also replace the aged middleware components with new, supported components. As part of the project, the work management scheduling tool (Scheduler) will be replaced with the project, the work management scheduling tool and integrated with the strondor's latest scheduling tool and integrated with the STORMS product.	FY18 FA18	4398	90000179024	 0160	\$4,878,263	\$4,625,000	\$9,503,263	04/23/18
×	INVP 4570 US CNI Tech Services-Network Equipment Lifecycle Replacements	This Policy-driven investment will procure networking assets needed to replace out of warrany equipment and support infrastructure in the Energy Management System and Outage Management System (EMS/OMS) Data Centers, Communications rooms, Operations Centers, and Support areas across the National Grid service territory in New York and New England that are no longer supported by the hardware and software ventors.	FY18 Plan	4570	9000182161	G186		\$9,169,203	\$9,169,203	08/01/19
6	S005242 M112 Systemic Improvement	This project replaces the existing FERC module with the FERC on SAP HANA solution. The new HANA solution allows for FERC data to be created in parallel with all other data hedding to a faster closing process and real time reporting capabilities.	FY18 Plan		90000156074	G020	\$8,354,545	\$0	\$8,354,545	07/10/17
10	INVP 4464 Data Visualization	This project will establish Tableau and Altreyx software solutions in a cloud environment to enable self-service reporting and data visualization capabilities for the organization. The proposed solution will provide the opportunity for improved decision making by providing capabilities to enhance data access to very large data sets, analytics, data isualization and export to other analytical software capabilities. Over time, it will also establish the foundation to replace software tools for reporting that are no longer supported by the original vendor and produce essential reports for oversight of the operation. The project will provide the base infrastructure required to run the services, induding: - procurement of software - installation of Tableau and Alteryx in a Cloud Environment - packaging of software e- duding for offware for deployment to desktops - end user training	FY18 Plan	4464	90000181341	G020	\$6.062.970	\$2,005,119	\$8,068,089	71/05/60
=	INVP 4408 Doc Mgmt Systems Replacement Deirvery	The Document Management Systems used to store, retriève, and update electric, gas and bwer plant engineering drawings and documents at National Grid are beyond their useful lifespan and are creating an unacceptable level of risk to the company. Inability to retrieve electric, gas and power plant information and mapping could lead to non- compliance with legal obligations for document storage, and programs including "Dig- Safe", leading to its of accidental system damage. The applications have not been upgraded size their deployment and are now unsupportable due to their aging computing technology and software. The downstate TeamCenter application has started to collapse, as some components of the system have shut down and will no longer function properly. The Documentum desktop versions 5.3 and 6.0 are no longer function properly. The Documentum desktop versions 5.3 and 6.0 are no longer function properly. The Documentum desktop versions 5.3 and 6.0 are no longer function properly. The Documentum desktop versions 5.3 and 6.0 are no longer function properly. The Documentum desktop versions 5.3 and 6.0 are no longer function properly. The Documentum desktop versions 7. As a result, some business units have not been able to upgrade to the Windows 7 environment and are still working on the Windows XP operating system. Some area are austing the web version of Documentum which is cumbersome, slow, and creating inefficiencies. Continued use of the ZP operating system presents a significant cyber security risk.	FV18 Plan	4408	90000181343	G149	\$3.022.116	65 1/20/£\$	\$6,049,256	06/22/18

THE NARRAGANSETT ELECTRIC COMPANY dvb/a NATTONAL GRID RIPUC Docket 4770 Attachment D1V 2-46 Page 2 of 5 04/23/18 08/01/19 The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-11-2 Page 3 of 6

£	-			
Page 3 c	In Service Date	03/31/18	81/15/0	11/30/17
	Total Spend	\$4,492,944	\$4.168,587	\$4,128,486
	Forecasted to Complete	\$4,387,211	\$1,433,885 \$1,433,885	\$1,606,514
	Inception to Date \$	\$105.733 \$105.733	\$2.734,702 \$2.734,702	\$2,521,972
	Bill Pool	G020	G020	C198
	Work Order	90000184599	90000141753	61662100006
	# dANI	4395	361487	4411A+B
	Program Description	FYI8 Plan	Cyber Security	Mandate
	Project Description	This policy-driven project will implement 750 mobile devices previously purchased as purt of INVP 4671 – Mobile devices thresh FY17 project. In addition, the project will purchase 200 new mobile devices and mounting accessories to continue the effort of eliminating old devices from the field. Mobile devices are mainly nuggedized computers – Panasonic Toughbooks and Tronix devices used in the field to access work management applications. A majority of mobile devices used in the field are more than 5 years old and these devices impact day to day productivity. These old devices break down frequently and can't be easily repaired due to unavailability of parts and accessories (in some cases manufacturers have stopped supporting the devices). The replacement of old mobile devices with latest rough books will allow field technicians to have the reliable equipment and data required to perform their work in a safe and the context production that required to be form their work in a safe and have the reliable equipment and data required to perform their work in a safe and the fiction man.	This investment is required to enhance National Grid's Cyber Security resilience to help minitain sate and reliable operations of the US CNI gas and electricity networks associated with cyber assets. This project is a part of the Cyber Security improvement program that is focused on improvement of the wider network security architecture, designed to mitigate the identified network security tarks. This investment will complete the Davelopment and Implementation phase and deliver Security Information and Event Management expedition of Cyber Security Information and Event Management expeditation of Cyber Security threats impacting US CNI environments. It will also deriver additional network security scathering to Peneter' any potential threats in the eurrent environments. This investment enhances existing cyber security systems by providing the capability for holds andysis of the Management of the US CNI environments. This investment enhances existing cyber security systems by providing the capability for holds andysis of the Manado I of US CNI networks and infrastruer for the US bolds candysis of the Manado I of CNI networks and infrastruer for the US bolds candysis of the Manado I of the SI Networks and infrastruer for the US bolds caudysis of the Manado I of the SI on the works of risk.	Distributed Generation (DG) customer integration into the National Grid electric network is a fast growing area of National Grid's business that is regulated and mandated across all National Grid electric service territories. Each state has its own interconnection tariff, which outlines the process. Itomus, penalties, and tracking and reporting requirements for admission treduce and DG interconnection process. In New York, the New York Public Service Commission requires that all electric distribution companies create and manage an online portal for Distributed Generation (DG) application submissions (YV) Stats Sandardized Interconnection Requirements and Application Process for New Distributed Generation 2. Dy The Massachusetts Department of Public Service for New Distributed Generations and Application process time dependencies for New Distributed Generations and Application process time dependencies for New Distributed Generations and Application process time dependencies for New Distributed Generations and Application process time dependencies for New Distributed Generations and the provide the structure of Public Utilities has implemented a penalty-based enforcement mechanism with penalties up to 15.5 million/year, which requires that all deliver on providing the self-service portal and system of the OP Stations and the state of the AP Station State of the AP State of State of the AP State of the AP State of Stat
	Investment Name	INVP 4395 US Mobile Device Refresh	NVP 3614B7 CNI Network Security	INVP 44.1 AB Distributed Generation Portal
	Line	12 12	13	14

THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID RIPUC Docket 4770 Attachment DIV 2-46 Page 3 of 2 THE NARRAGANSETT ELECTRIC COMPANY dvb.a YAATIONAL GRID RIPUC Docket 4770 Attachment DIV 2-46 Page 4 of 5

Line	Investment Name	Project Description	Program Description	# dvn	Work Order	Bill Pool	Inception to Date \$	Forecasted to Complete	Total Spend	In Service Date
15	INVP 4489 Active Directory Improvements	Active Directory (AD) is a key service that supports core authentication for all National Grid computers and servers logging onto the corporate network in both the United States (US) and United Kingdom (UK). Therefore, AD provides access to all Information Systems (IS). The scope of this initiative is to implement a refreshed global AD infrastructure and support services. The new AD environment will unity all global applications that use the AD service. It is critical that National Grid can ensure that the AD service is reliable and supports core authentication requirements to all current and proposed applications.	Tech. Modernization	4489	90000188606	G020		\$3.555,000	\$3,555,000	12/31/18
16	INVP 4491 ICE Replacement	This investment is required to replace the current instant messaging. collaboration, and email (ICE) services with a set of similar, or enhanced, services provided by Office 365. The current functionm cannot support the business demand due to limitations in the current functionality and the inability of the current service to be upgraded.	Tech. Modernization	4491	90000184581	G020	\$495,534	\$2,952,188	\$3,447,722	12/31/18
17	INVP 4606 Data Visualisation Expansion	This investment will expand the use of the Tableau, reporting platform across more use cases and business areas. Tableau provides data visualizations and analytics that aid management in the development of strategic and operational Plans.	Tech. Modernization	4606	90000188602	G020		\$3,435,000	\$3,435,000	06/30/19
18	INVP 4469 Informatica UpgradeMicrostrategy Replacement Program	This is a policy-driven project to perform a Feasibility and Analysis (F&A) study of National Grid's Informatica / MicroStrategy / Oracle Business Intelligence (BJ) environment. The goal is to identify the most efficient and effective way to evolve to a BI, Analytics and Keporting platform that will support current and future business needs At the conclusion of this Feasibility and Analysis exercise a detailed road map comprised of prioritized initiatives addressing the new solution implementation, decommissioning and archiving of legacy environment will be delivered to National decommissioning and archiving of legacy environment will be delivered to National decommissioning and archiving of legacy environment will be delivered to National	FY18 Plan	4469		G239		\$3.381,162	\$3,381,162	05/01/18
19	INVP 4708 Business Innovation Projects 2	The Business Innovation Program will deliver a series projects that include: Big Data Analytics, Process, and Workflow automation with Robotics, CSS system upgrade pilot, and Mobile device capability enhancements. Additionally, application rationalization with be covered under the scope of this investment.	Tech. Modernization	4708		G020		\$3,368,613	\$3,368,613	03/31/19
20	INVP 4728 Business Innovation Projects 3	The Business Innovation Program will deliver a series projects that include: Big Data Analytics, Process, and Workflow automation with Robotics, CSS system upgrade pilot, and Mobile device capability enhancements. Additionally, application rationalization with be covered under the scope of this investment.	Tech. Modernization	4728		G020		\$3,368,613	\$3,368,613	03/31/19
21	INVP 4707 Business Innovation Projects 1	The Business Innovation Program will deliver a series projects that include: Big Data Analytics, Process, and Workflow automation with Robotics, CSS system upgrade pilot, and Mobile device capability enhancements. Additionally, application rationalization with be covered under the scope of this investment.	Tech. Modernization	4707		G020		\$3,368,613	\$3,368,613	03/31/18
22	All Companies Physical Security Replacements - FY18	This is annual capital replacement program for Physical Security is responsible for protecting National Grid's personnel and assets, and incorporates a security system as part of the overall security plan. To hulfill this responsibility, it is necessary to ensure that all security related equipment and assets in New England are in good condition. This project replaces assets that are at or near end of life and/or assets that are no longer under vendor warranty.	Physical Security	N/A	9000180292	G020	\$1,701,013	\$1,515,640	\$3,216,653	03/31/18
23	INVP 4568 US CNI-EMS Lifecycle Hardware and Software Upgrade	The server and workstation hardware for the Energy Management System (EMS) replacement project was purchased in 2010. The hardware is now near peak operating capacity and may constrain the capacity of the associated databases in EMS. The application rendor ASEA Brown Boven (ABB), is recommending a hardware refresh for the EMS environments in order to increase the capacity of the databases to accommodate future growth. This Policy-driven investment will procure the equipment needed for the project stages for the hardware refresh of the current ABB EMS.	FY18 Plan	4568	90000183145	U186	\$3,144,063	\$0	\$3,144,063	08/01/19

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Division 11-12

Request:

Referring to the response to Division Data Request 2-46, for each project for which there is no Work Order reference, please provide documentation supporting the forecasted Total Spend on the project.

Response:

<u>Regulatory Mandates FY19</u> – Please see the Company's response to Division 3-36 for the supporting forecast documentation and rationale upon which the total spend was based.

<u>INVP 4914 US CNI-EMS Lifecycle Hardware and Software Upgrade</u> – The work order for INVP 4914 has recently been established, and is 90000190192. For the supporting documentation, please see Pages 1-14 in Attachment DIV 9-5-4 provided with the Company's response to Division 9-5.

<u>INVP 4469 Informatica Upgrade/Microstrategy Replacement Program</u> – These applications are not used in Rhode Island, and, therefore, there is no allocation of costs to Rhode Island customers for these applications.

<u>INVP 4707 Business Innovation Projects 1</u>, <u>INVP 4708 Business Innovation Projects 2</u>, and <u>INVP 4728 Business Innovation Projects 3</u> - Please see the Company's response to Division 3-43 for the documentation supporting the forecasted total spend on these projects.

INVP 4706 1327 Interfaces - 523 FTS, 340 RDX, 245 MQSI, 253 JCAPS, 44 PM4D, 7 VB - Please see Attachment DIV 11-12-1 for an estimate of total project spending.

I<u>NVP 4479 US Control-Gas Electronic Bulletin Board (EBB) Upgrade</u> - Please see Attachment DIV 11-12-2 for an estimate of total project spending and the associated Investment Request Summary.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 11-12-1 Page 1 of 1

<u>Project</u>	Cost Components		FY19 CAPEX	FY20 CAPEX	FY21 CAPEX	FY22 CAPEX	
1327 Interface	Hardware		500,000				
	Labor - Internal		400,000	400,000			
	Systems Integration		900,000	900,000			
		Total	1,800,000	1,300,000			
		=					=
			<u>FY19 OPEX</u>	FY20 OPEX	<u>FY21 OPEX</u>	<u>FY22 OPEX</u>	
	OpEx Charges		110,000	110,000			
							_
		Total	110,000	110,000			_
		—					-
		TOTEX	1,910,000	1,410,000			3,320,000

INVP 4479 US Control-Gas Electronic Bulletin Board (EBB) Upgrade Forecast Estimate

Cost Component Estimate	
Software	\$ 400,000.00
Hardware and Infrastructure	\$ 646,000.00
Labor	\$ 2,245,600.00
System Integration	\$ 944,000.00
Other	\$ 50,000
Total	\$ 4,285,600.00

Capex / OPEX Assu	umpti	on		
Cost Breakdown			Factors	
Capex	\$	2,999,920		70%
Opex	\$	1,285,680		30%
Total	\$	4,285,600		100%

Project Cost by Ph	ase Estimate		
	Capex	Opex	Total
Startup	\$0.00	\$105,600.00	\$105,600.00
R&D	\$749,980.00	\$987,228.00	\$1,737,208.00
D&I	\$2,249,940.00	\$180,532.00	\$2,430,472.00
Closure	\$0.00	\$12,320.00	\$12,320.00
Total	\$2,999,920.00	\$1,285,680.00	\$4,285,600.00

Estimate Assumptions

Assumes the decommissioning of EBB, TSA, and TSA RI.

Assumes some functionality in legacy systems would move to this new system

There will need to be some interface work

Assuming an on-premise solution

Assuming an RFP will be completed.

Assuming Decommisioning EBB at the end of the project.

Assuming scope includes Upstate NY, MA, and RI. Not Downstate NY.

Assuming the rollout will be done by region.

There are interfaces involved (CSS, CRIS, GEMS, etc)

nationalarid		Inve	stment Reques	t Summary - IS US	FISCAL YEAR 20	18
INV ID:	4479 Pr	oject Name: US Contr	rol-Gas Electronic Bu	Illetin Board (EBB) Uparade		
Program:		,				
Sponsor:	John Spink		Title: VF	, Control Center Operations		
Relationship	Aman Aneja		Title. Di	rector, IS BRM		
Manager: Prog Delivery	Michelle McNaug	ht	Title, Di	rector, IS PDM		
Manager: Paper Author:	Mike Gerolamo		Title: Le	ad Consultant, IS BRM		
IC Roadman Catogony	Schedule/Dispate	ch Work Management Re	enorting Duciness A	root Control Contro	rtfolios Other	
In-Flight Project?	Invest	Categori	.v. Policy Driven	Primary Policy Driver: Reliab	lity B	aion. US
	Classification:	cutegory		Finnary Folicy Driver.		gion.
Growth Playbook Pro	oject? La Shapir	ng Our Future Project?	L Energy Efficiency P	Project?		
that will be housed i	n a National Grid da	tacenter.	cess the project addresse	s	-	
The legacy system re environments, and c	esides on outdated h hanging regulatory	hardware, and the EBB so demands.	oftware designed interna	lly 16 years ago is limited in function	to support the continually	evolving gas trading
Project Scope: Expla Analysis of interfacir R&D and D&I Impler	in what is in scope a ng applications and p nentation of a vende	nd what is not in scope fo processes. or solution (including but	or the project t not limited to data mig	ration, user and system testing, traini	ng, and Service Transition a	activitites).
Project Dependencie	s: Identify any core	program or project deper	ndencies, please include	INVP numbers if known		
INVP 3737-US CNI G INVP 4480-Gas Syste	MS-SCADA Upgrade em Operating Procec	dure (SOP) Upgrade				
Basic Project Assum	otions: d for Downstate NY i d in Downstate for N D during review of G	nor LI gas territories. In t Nominations, and Schedul TIS system capabilities at	these areas. GTIS would	be used. (MG Notes-23 Aug 2016-To gement System (BMS) could also be r	m Amerige confirms likely etired along with current le	that EBB gacy EBB, TSA and
would/could be used TSA RI. This is all TBI			ling. Also, Broker Manag t time of this project san	ctioning.)		Contract DTD
would/could be used TSA RI. This is all TBI MG 10/21/2016-The for EBB is \$121k and	ere is a chance that F wally. Project will in	TB costs will be altered a nplement a vendor soluti	ling. Also, Broker Manaı t time of this project san at time of full (D&I) sanc ion hosted internally wit	ctioning.) tion, as project may eliminate need fi hin Grid's data center(s). This will no	or certain legacy system lice t be a SaaS solution.	enses. Current RTB
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(\$M) F	rior Years	FY 2018	FY 2019	FY 2020	FY.	2021	FY 2022	FT 2025	FY 2024	FY 202	5	
CapEx		2.455	0.545	0.000	0	0.000	0.000	0.000	0.000	0.	.000	3.000
OpEx		1.093	0.193									1.286
Impact on RTB			0.779	0.779	9	0.779	0.779	0.779	0.779	0.	.779	5.453
Indicativo Br	night Casta b	v Dolivon	Dhaca									
(\$M)	Start-	-un	/ FildSe	R & D			D&I		Closure			Total
CapEx	Start	up	,	0.750			2.250		ciosure			3.000
OpEx		0.106		0.987			0.181		0	.012		1.286
(SM)	FY 2018	FY 2019	FY 2020	FY	2021	FY 2(122 FY	2023	FY 2024	FY 2025		Total
Type I - CapEx	112010		112020		2021			2023		112020		0.00
Type I - OpEx												0.000
Revenue												0.00
Generation												0.000
Investment F	rioritization											
Investment F Benefits	rioritization		Impact	Weight	Score	Cost			L	mpact	Weight	Score
Investment F Benefits OpEx Annual Saving	Prioritization		Impact	<i>Weight</i> 10.3%	Score 0	Cost OpEx Co	ost		ĥ	mpact 1.286	Weight -24.4%	Score -2.196
Investment F Benefits OpEx Annual Saving CapEx Annual Savin	rioritization 15		Impact	<i>Weight</i> 10.3% 5.1%	Score 0 0	Cost OpEx Co CapEx C	ost		,	mpact 1.286 3.000	Weight -24.4% -11.2%	Score -2.196 -1
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Investment F Benefits OpEx Annual Saving CapEx Annual Savin Revenue Generation Financial Control Soft Financial Benej	rioritization Is gs n (annual) Tits		<i>Impact</i> Medium Medium	Weight 10.3% 5.1% 6.2% 3.8%	Score 0 0 0 0.186 0.114	Cost OpEx Co CapEx C RTB Eff Union/U Dependo	ost Cost Labor Relations Iencies		l 18 does	<i>mpact</i> 1.286 3.000 11.767 % not apply Low	Weight -24.4% -11.2% 5 -22.5% -9.8% -10.6%	Score -2.196 -1 -2.025 0 -0.106
Investment F Benefits OpEx Annual Saving CapEx Annual Savin Revenue Generation Financial Control Soft Financial Benej Regulatory Impact	Prioritization Is gs n (annual) its		<i>Impact</i> Medium Medium Low	Weight 10.3% 5.1% 6.2% 3.8% 11.2%	Score 0 0 0.186 0.114 0.112	Cost OpEx Co CapEx C RTB Eff Union/J Depend Elapse	ost Cost Labor Relations Iencies Time Duration		I. 18 does	mpact 1.286 3.000 11.767 % not apply Low High	Weight -24.4% -11.2% -22.5% -9.8% -10.6% -6.6%	Score -2.196 -1 -2.025 0 -0.106 -0.594
Investment F Benefits OpEx Annual Saving CapEx Annual Savin Revenue Generation Financial Control Soft Financial Benej Regulatory Impact Process & Personal	rioritization 15 95 11 (annual) iits Safety		<i>Impact</i> Medium Medium Low does not apply	Weight 10.3% 5.1% 6.2% 3.8% 11.2% 19.4%	Score 0 0 0.186 0.114 0.112 0	Cost OpEx Co CapEx C RTB Eff Union/U Depend Elapse Change	ost Cost Labor Relations Iencies Time Duration Management Ej	ffort	1 18 does	mpact 1.286 3.000 41.767 % not apply Low High High	Weight -24.4% -11.2% -22.5% -9.8% -10.6% -6.6% -14.9%	Score -2.196 -1 -2.025 0 -0.106 -0.594 -1.341
Investment F Benefits OpEx Annual Saving CapEx Annual Savin Revenue Generation Financial Control Soft Financial Benej Regulatory Impact Process & Personal Reliability	rioritization s gs n (annual) ïits Safety		Impact Medium Medium Low does not apply Medium	Weight 10.3% 5.1% 6.2% 6.2% 3.8% 11.2% 19.4% 10.9%	Score 0 0 0.186 0.114 0.112 0 0.327	Cost OpEx Co CapEx C RTB Eff Union/I Depend Elapse Change	ost Cost Labor Relations lencies Time Duration Management Ej	ffort	1 18 does	mpact 1.286 3.000 k1.767 % not apply Low High High	Weight -24.4% -11.2% 5 -22.5% -9.8% -10.6% -6.6% -14.9%	Score -2.196 -1 -2.025 0 -0.106 -0.594 -1.341
Investment F Benefits OpEx Annual Saving CapEx Annual Saving CapEx Annual Savin Revenue Generation Financial Control Soft Financial Benej Regulatory Impact Process & Personal Reliability Customer & Commu	Prioritization Is gs h (annual) its Safety unity Responsiven	ess	Impact Medium Medium Low does not apply Medium High	Weight 10.3% 5.1% 6.2% 3.8% 11.2% 19.4% 10.9% 5.3%	Score 0 0 0.186 0.114 0.112 0 0.327 0.477	Cost OpEx Ci CapEx C RTB Eff Union/i Depend Elapse Change	ost Cost Labor Relations Iencies Time Duration Management Ej	ffort	1 18 does	mpact 1.286 3.000 t1.767 % not apply Low High High	Weight -24.4% -11.2% -22.5% -9.8% -10.6% -6.6% -14.9%	Score -2.196 -1 -2.025 0 -0.106 -0.594 -1.341
Investment F Benefits OpEx Annual Saving CapEx Annual Savin Revenue Generation Financial Control Soft Financial Benej Regulatory Impact Process & Personal Reliability Customer & Commu Employee Satisfacti	rioritization Is gs n (annual) its Safety unity Responsiven on	ess	Impact Medium Medium Low does not apply Medium High High	Weight 10.3% 5.1% 6.2% 3.8% 11.2% 19.4% 10.9% 5.3% 4.6%	Score 0 0 0.186 0.114 0.112 0 0.327 0.477 0.414	Cost OpEx Co CapEx C RTB Eff Union/H Depend Elapse Change	ost Cost Labor Relations Iencies Time Duration Management Ej	tfort	l 18 does	mpact 1.286 3.000 11.767 % not apply Low High High	Weight -24.4% -11.2% -22.5% -9.8% -10.6% -6.6% -14.9%	Score -2.196 -1 -2.025 0 -0.106 -0.594 -1.341
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Investment F Benefits OpEx Annual Saving CapEx Annual Saving CapEx Annual Savin Revenue Generation Financial Control Soft Financial Benej Regulatory Impact Process & Personal Reliability Customer & Commu Employee Satisfacti Mitigates a Corpore Jurisdictional Engag	rioritization s gs n (annual) its Safety unity Responsiven on ute Risk / Risk of n mement	ess tot Doing plexity Risk Si	Impact Medium Medium Low does not apply Medium High High High Bene	Weight 10.3% 5.1% 6.2% 3.8% 11.2% 19.4% 10.9% 5.3% 4.6% 8.9% 8.2% fit Score:	Score 0 0 0.186 0.114 0.112 0 0.327 0.414 0.267 1 2.64	Cost OpEx Co CapEx C RTB Eff Union/I Depend Elapse Change	ost Cost Labor Relations lencies Time Duration Management E; e: -4.635	ffort	1 18 does	mpact 1.286 3.000 k1.767 % High High High	Weight -24.4% -11.2% -22.5% -9.8% -10.6% -10.6% -14.9%	Score -2.196 -1 -2.025 0 -0.106 -0.594 -1.341
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https://teams.nationalgrid.com/sites/USIS/directory/PPM/Lists/FY18%20IRS%20Test/Ite... 1/18/2018

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment BIV 11-12-2 Page 4 of 5

FY18 - Investment Request Summaries - IRSs - US Control-

	Projec Projec Delive Busine Extern Deper Innova TOTAL	t Cost 2 3 6 t Duration 1 2 2 ry Complexity 2 2 4 ess Process Impact 2 2 4 al Impact 2 3 6 idencies 1 1 1 stion 1 1 1						
Key Risks Description:	Provide detail on project risl	ks & mitigation strategy:						
IS Project Depe	endencies if you don't see a p	project in the drop-down please of	ontact the Planning & Performance t	eam. Be	nefiting Opera	ting Compa	nies: Check all t	hat apply:
IS Projects: 4479 - US	Control-Gas Electronic Bull	etin Board (EBB) Upgrade	2		elect All Companies	Clear All Co	mpanies	
1. Has a Parallel	dependency on IS Pr	oject; INVP4480-US Contr	rol-Gas SOP Upgrade	Gen	elect All Gas	Select All El	ectric 🗆 S	elect All
2. Has a Parallel	dependency on IS Pr	oject; 3737 - US CNI GMS	SCADA Upgrade and Consoli	idation 🗆 N	National Grid USA Pa	rent		
3. Has a	dependency on IS Pr	oject;		Пк	eySpan Energy Deve eySpan Services Inc.	lopment Corpo	ration	
4. Has a	dependency on IS Pr	oject;			eySpan Energy Corp			
5. Has a	dependency on IS Pr	oject;		⊻ ĸ ⊻ ĸ	CeySpan Energy Deliv CeySpan Energy Deliv	very New York very Long Island		
6. Has a	dependency on IS Pr	oiect:		□ к	eySpan Generation CeySpan Glenwood F	LLC (PSA) nergy Center		
	acpenaency on 15 m	0,000			eySpan Port Jefferso	on Energy Cente	r	
Business Initia	tive Dependencies				leyspan Energy Trad Nagara Mohawk Pov	ing SVC LLC ver Corp- Electri	c Distribution	
IS Projects: 4479 - U	S Control-Gas Electronic Bul	letin Board (EBB) Upgrad	le		liagara Mohawk Pov liagara Mohawk Pov	ver Corp - Gas ver Corp - Transi	mission	
1. Has a	dependency on Biz I	nitiative,			Massachusetts Electr	ic Company		
2. Has a	dependency on Biz I	nitiative,			Vassachusetts Electri Vantucket Electric Co	in company - Tra Impany	ansmission	
2 Has a	dependency on Biz l	nitiative,		I B I C	Boston Gas Company Colonial Gas Compan	y		
5. 1105 U	dependency on Biz I	nitiative,			Narragansett Gas Cor	npany		
4. Has a					Varragansett Electric	Company - Trar	smission	
Project Relatio	nships Project Pelationship				New England Power (New England Hydro - New England Electric	Company - Trans Trans Corp Trans Corp	smission	
Minor Works	Project Neidtlonsinp.				NG LNG LP Regulated	l Entity		
Related Projects:								
Enabling IS Cap	pabilities check all that a	pply						
Enterprise Con	tent Management (ECM)		Enterpri	se Mobility				
Comprehensive	e Integration Services (CIS)		Reportin	g and Analytics				
Next Gen Work	kplace		L Network	13				
Key Milestone	Dates: Select the 1st, 15	th or last day of the mon	th					
Begin Start-up	Begin Requirements & Deign	<i>Begin</i> Development & Implementation	Begin User Acceptance Testing	Go Live	Project	Completion	Project C	losure
April, 2017	September, 2017	January, 2018	March, 2018	May, 2018	June,	2018	September,	2018
Business Resou	urce Estimates: # of Fu	ll Time Equivalents						
Start-up	Reauirements & Deian	Develon & Implement	Rusiness Resources IIAT	Co Livo Road	liness	Post Go Liv	e Sunnort	

Resourcing Strategy: Project will be resourced for delivery by Gas Control, in conjunction with IS PDM, SA, and DR&S resources. Verizon is expected as a network resource. Other partner vendors including CSC, IBM and Wipro are expected to be utilized in some capacity. Procurement will be needed to negotiate with chosen vendor and partner resources.					
Attached Supporting Documents Risk Scores_MDS and Gas Control projects.xlsx INVP 4479 EBB Upgrade FY18 Estimate.zip National Grid LDC.Management Proposal vizion					
INVP 4479 EBB - On Prem Upgro	rde FY18 Estimate.zip				
Role	Name	Title	Date		
Business Project Sponsor	John Spink	VP, Control Center Operations			
Business Relationship Manager	Aman Aneja	IS Business Relationship Manager			
IS Program Delivery Manager	Michelle McNaught	IS Program Delivery Manager			
			nationalgrid		

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Division 11-13

Request:

Referring to the response to Division Data Request 2-46, with regard to the projects on Lines 1, 7, 11, 16, and 24, please explain the extent to which the projects entail the replacement of systems that were installed in association with the IS Transformation and U.S. Foundation Program initiatives described in Docket No. 4323 (Book 3, Bates Stamp 42 - 48).

Response:

Please see the table below for background on the five projects referenced in the request. Of the five projects, the Instant Messaging, Collaboration, and Email (ICE) Replacement and, to a small extent, the 1327 Interfaces project, are the only two projects that replace/refresh the technology implemented in 2012 under IS Transformation and the U.S. Foundation Program (USFP).

To put this into context, IS Transformation encompassed the implementation of a new operating model, which involved the purchase of services from several technology partners. As part of this effort, a number of applications and client services, such as e-mail, were migrated from National Grid data centers onto new infrastructure at vendor-hosted data centers. The application migrations were for a specific subset of applications (rather than all), and some applications could not be moved to the newer infrastructure because they required the older infrastructure to run. Thus, the older infrastructure needed to remain until the application was replaced. Regarding USFP, this initiative involved the replacement of a subset of applications, commonly referred to as back office applications because they are used to manage National Grid's Financial, Human Resources, and Supply Chain systems.

Line	Project	Explanation
1	INVP 3932 Call Center Customer	The Call Center applications and systems were
	Contact Center/SDC Technology	not part of the scope of the IS Transformation
	Upgrade Implement Solution	or USFP programs.
7	INVP 4398 Storms/ISched Upgrade	The Storms application was migrated onto a
		virtualized server at the DXC (formerly CSC)
		data center as part of IS Transformation.
		However, the application needed to continue to
		run on the old system software and
		components since it was not compatible with
		the newer DXC infrastructure. This project
		will upgrade the application, which in turn,
		will allow for the replacement of the aged
		infrastructure. Also, the Storms application
		functionality was not part of the scope of

		USFP.
11	INVP 4408 Doc Mgmt Systems Replacement Delivery	This project is similar to the project on Line 7 above, whereby the two current document management systems Team Center and Documentum, will not run on the newer DXC infrastructure. Team Center remains on the old infrastructure in National Grid's Hicksville New York data center. Documentum was moved to a virtualized server in the DXC data center but is still running on an unsupported operating system and system software. Additionally, both systems will only run on a Window XP desktop; thus the systems could not be migrated to the Windows 7 laptops/desktops that were delivered as part of IS Transformation. This project will replace the aged systems with a new solution that provides the added capability required and replaces the outdated infrastructure components. Also, the two systems being raplaced were not part of the USEP scores
16	INVP 4491 ICE Replacement	This project will migrate all Instant Messaging, Collaboration, and Email (ICE) services, which were awarded to IBM as part of IS Transformation, to Microsoft's Office 365 Cloud service. Once the migration is complete, the IBM contract will be terminated. IBM currently provides ICE services utilizing dedicated hardware and Microsoft software, specifically Exchange 2010, SharePoint 2010, and Lync 2010. National Grid has been utilizing the service for the last seven years; however, the service can no longer deliver the capability required, and Microsoft support for products used by National Grid is ending in 2019. Thus, National Grid undertook this investment to transition to the next generation of ICE services which will also result in a reduction to run the business costs. Also, there is no relation to USFP.
24	INVP 4706 1327 Interfaces - 523 FTS,	The current middleware platform was not in

Prepared by or under the supervision of: John Gilbert, Daniel DeMauro, and Mukund Ravipaty

340 RDX, 245 MQSI, 253 JCAPS, 44	place at the time of the SAP program; thus the
PM4D, 7 VB	interfaces would have been developed on an
	older platform. They are a few SAP interfaces,
	included in the 1327, that are being refreshed
	as part of this project. However, the majority
	of interfaces being upgraded has no relation to
	work performed under the USFP and
	Transformation programs.