THE STATE OF NEW HAMPSHIRE

BEFORE THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

PREPARED TESTIMONY OF ERIC H. CHUNG

2012 RECONCILIATION OF ENERGY SERVICE AND STRANDED COSTS

Docket No. DE 13-108

1	Q.	Please state your name, business address and position.
2	A.	My name is Eric H. Chung. My business address is 1 NSTAR Way, Westwood, Massachusetts
3		02090. My position is Director of Revenue Requirements for Massachusetts and New Hampshire
4		at Northeast Utilities.
5	Q.	Have you previously testified before the Commission?
6	A.	Yes, I have testified before the Commission in previous proceedings.
7	Q.	Please describe your educational background.
8	A.	I have a Bachelor of Arts in physics with honors from Harvard University, as well as a Master's
9		of Business Administration in finance and economics from the University of Chicago, Booth
10		School of Business.
11	Q.	Please describe your professional experience.
12	A.	I was appointed to my current position at Northeast Utilities in August 2013, and I have over
13		fifteen years of related management consulting and industry experience, with most of my career
14		dedicated to the power and utilities sectors. From May 2011 to August 2013, I was a Senior
15		Manager in the Power Utilities Advisory practice at Ernst and Young LLP. From July 2009 to
16		April 2011, I worked for PacifiCorp, a vertically- integrated electric utility based in Portland,

1		Oregon serving approximately 1.7 million customers across six states in the Western U.S. At
2		PacifiCorp, my primary role was Director of Environmental Policy and Strategy, and I also held
3		leadership roles in PacifiCorp's Transmission and Corporate Finance departments. I have also
4		served as an Associate Partner in the Utilities practice at Oliver Wyman, a Senior Engagement
5		Manager in the Power practice at Strategic Decisions Group, and a Senior Programmer Analyst at
6		Goldman Sachs.
7	Q.	What are your current responsibilities?
8	A.	I am currently responsible for all regulatory activity affecting the financial requirements of
9		Northeast Utilities' operating companies located in Massachusetts and New Hampshire.
10	Q.	What is the purpose of your testimony?
11	A.	The purpose of my testimony is to provide rebuttal to the testimony provided by the Office of
12		Consumer Advocate (OCA) in Docket DE 13-108. I will address each of the following topics
13		raised by the OCA in its testimony:
14		1. Recovery of certain affiliate costs
15		2. Depreciation changes and depreciation reserve imbalance
16		3. Newington fuel oil sales
17		4. Return on generation assets not fully used and useful
18	I.	RECOVERY OF CERTAIN AFFILIATE COSTS
19	Q.	Please explain your understanding of the OCA's argument regarding the affiliate charges.
20	A.	In Mr. Eckberg's testimony, the OCA states that at the time of the merger between PSNH's
21		parent company, Northeast Utilities ("NU"), and NSTAR in April 2012, PSNH had an affiliate

1 contract with Northeast Utilities Service Company ("NUSCO") for certain affiliate services. The
2 OCA notes that PSNH had not filed with the Commission an affiliate contract between PSNH and
3 NSTAR's service company, NSTAR Electric and Gas Corporation ("NSTAR-EGC"), and that in
4 2012 PSNH stated that certain NSTAR-EGC costs were incurred by PSNH for which PSNH
5 sought recovery. According to the OCA, because PSNH had not filed an affiliate contract
6 directly between PSNH and NSTAR-EGC, any payments by PSNH for NSTAR-EGC services
7 should be disallowed under the terms of RSA 366:4.

- 8 Q. Do you agree with the OCA's contention that PSNH should not be permitted recovery?
- 9 A. No, I do not.
- 10 Q. Please explain why you believe PSNH should be permitted to recover these costs.
- The OCA is correct that PSNH did not file an affiliate agreement between PSNH and NSTAR-11 A. EGC with the Commission. I can further clarify that there was, in fact, no agreement between 12 13 PSNH and NSTAR-EGC to file. However, while there was no contract and no filing, the absence 14 of the filing or the contract does not preclude recovery of the costs of the services provided by 15 NSTAR-EGC. PSNH's contract with NUSCO permitted NUSCO to obtain services from other entities as agent on behalf of PSNH. NUSCO and NSTAR-EGC had contracts between them 16 permitting them to provide services to each company's affiliates. Through these contractual 17 arrangements, NUSCO, as agent for PSNH, acquired services that were not available from 18 19 NUSCO itself, from NSTAR-EGC. The contract between PSNH and NUSCO was filed with the 20 Commission (and docketed as Docket No. DA 12-030). Because neither NUSCO nor NSTAR-21 EGC is regulated by the Commission, the contracts between them were not required to be filed 22 with the Commission. Therefore, all appropriate filings were made and there is no cause to disallow any costs. 23

Q. Please explain the contract arrangements between PSNH and NUSCO in further detail.

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A.

In 2012, the year under review in this docket, PSNH had in place a service agreement with NUSCO that permitted NUSCO to provide certain services, such as legal, accounting, and administrative support, to PSNH. A copy of that agreement is attached to my testimony as Attachment 1. NUSCO did, in fact, provide such services to PSNH and charged PSNH for them. I note that the OCA specifically says that its concerns do not relate to any charges from NUSCO to PSNH. Section 1 of the agreement between PSNH and NUSCO states, in part: "In supplying services hereunder, Service Company may arrange for services of such executives, financial advisers, accountants, attorneys, technical advisers, engineers and other persons as are required for or pertinent to the rendition of such services." In other words, in addition to providing services directly to PSNH, NUSCO had the right and ability under the agreement to arrange for services to be provided to PSNH by entities other than NUSCO itself.

Q. Please explain the contract arrangements between NUSCO and NSTAR-EGC.

In April 2012, the time of the merger between NU and NSTAR, NUSCO and NSTAR-EGC entered into contracts with each other. These agreements, which were transitional in nature, provided, in pertinent part, that each could avail itself of the services offered by the other company on its own behalf or on behalf of its affiliates. Copies of those agreements are attached to my testimony as Attachment 2. The agreements described the services that would be provided, how they would be obtained, and how the charges for those services would be addressed. During the NU-NSTAR merger process, PSNH has, from time to time, obtained services from NSTAR-EGC when NUSCO (with whom PSNH has a direct contract) obtained those services on its behalf through NUSCO's arrangement with NSTAR-EGC and PSNH has been charged for those services consistent with its agreement with NUSCO and the agreements between NUSCO and

1 NSTAR-EGC. Subsequent to the dates of the charges in question, NSTAR-EGC has been 2 merged into NUSCO as part of the overall NU-NSTAR merger process, and NSTAR-EGC no longer exists. The employees of NSTAR-EGC are now NUSCO employees, and the services 3 4 formerly provided by NSTAR-EGC are now all provided by NUSCO. 5 Q. In light of the contractual arrangements, do you have an opinion on the OCA's argument 6 that the charges from NSTAR-EGC should not be recovered under RSA 366:4? 7 A. Yes. I believe the OCA's argument has no basis. Please explain. 8 Q. 9 A. There is nothing in the OCA's testimony that claims or even suggests that the charges for services 10 provided by NSTAR-EGC to PSNH are not accurate or reasonable. Instead, the OCA contends only that because PSNH had not filed a direct contract between it and NSTAR-EGC, the charges 11 should not be permitted. Contrary to the OCA's argument, PSNH did not have an obligation to 12 13 file a contract between it and NSTAR-EGC. RSA 366:3 says that contracts between utilities and 14 affiliates are to be filed with the Commission, and PSNH had filed its contract with NUSCO. 15 That contract allowed for NUSCO to obtain services from others on behalf of PSNH. In these circumstances, there was no need for a direct contract or arrangement between PSNH and 16 NSTAR-EGC, because PSNH had an agreement with NUSCO and NUSCO had an agreement 17

As to the recovery of the charges, RSA 366:4 provides that if a contract is not filed payments under it "may" be disallowed by the Commission, not that they "must" be disallowed. For the reasons I have already stated, there was no need for a contract, or a filing with the Commission,

with NSTAR-EGC. Therefore, there was nothing to file and no need for a direct contractual

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arrangement.

to address the charges from NSTAR-EGC to PSNH. Also, as I noted already, there is no 1 2 contention that the charges are improper or unreasonable. Therefore, there is no basis to disallow the costs. The only contention the OCA makes is that the services and charges did not come 3 4 under an agreement on file with the Commission. In that there was no need or obligation to file an agreement between PSNH and NSTAR-EGC, there is no basis to disallow the costs and the 5 6 OCA's argument should be rejected by the Commission. 7 II. DEPRECIATION CHANGES AND DEPRECIATION RESERVE IMBALANCE Did Staff and/or intervenors provide testimony regarding PSNH's update of the Average 8 Q. 9 Year of Final Retirement (AYFR) figures reflected in the 2012 ES charge? 10 A. Yes. Steve Mullen, Commission Staff, and Steven Eckberg, OCA, both discussed AYFR changes in their testimony. 11 Were any concerns identified in these testimonies specific to the updated AYFRs included in 12 Q. 13 PSNH 2012 ES rate? 14 A. Yes. The OCA raised a concern about a depreciation reserve imbalance and suggested more documentation from the Company would assist it in determining the appropriateness of the 15 methodology. The OCA also recommended that the Commission direct the Company to provide 16 17 additional details in schedules similar to those provided in PSNH's 2007 Depreciation Update. 18 Q. Were any similar concerns raised in Staff's testimony? 19 No. Staff provided a clear overview of the regulatory treatment associated with depreciation and A. 20 explained what an AYFR is and its impact from an accounting and rate perspective when an AYFR changes for a particular plant. Staff's testimony confirmed that an AYFR update was 21

1		made in PSNH's December 2011 filing for the PSNH 2012 ES rate. Staff noted previous
2		technical updates had been completed in 1986, 1997, 2007 and 2011/2012. Importantly, Staff
3		confirmed that PSNH had historically used, and in 2012 continued to use, the same depreciation
4		methodology for the generating assets, specifically a remaining-life methodology.
5	Q.	Does PSNH believe there is a resulting imbalance in the depreciation reserve associated
6		with the AYFR update?
7	A.	No. An Accumulated Depreciation Reserve reflects the cumulative depreciation expense at a
8		given point in time. To the extent the AYFR studies result in a change in useful lives, the
9		monthly depreciation changes, and the resulting buildup into Accumulated Depreciation Reserve
LO		changes.
l1	Q.	Was the AYFR update discussed during the technical session held on December 13, 2013
L2		subsequent to the filing of these testimonies?
L3	A.	Yes. After the technical session discussion, a request was made for PSNH to respond to a data
L4		request, TS-03-001, which requested more detail similar to Staff 2-1 in DE 11-215, specifically
L5		requesting documentation similar to the 2007 technical update.
L6	Q.	Did PSNH comply with that request?
L6 L7	Q. A.	Did PSNH comply with that request? Yes. On December 20, 2013, PSNH responded to this request with additional information similar
L7		Yes. On December 20, 2013, PSNH responded to this request with additional information similar
17 18		Yes. On December 20, 2013, PSNH responded to this request with additional information similar to past filings. In that the request of the OCA was for PSNH to provide additional information

Finally, does PSNH believe the AYFR update included in the 2012 proceeding is 1 Q. 2 appropriate and consistent with past Commission-approved methodologies? 3 Yes. A. 4 III. **NEWINGTON FUEL OIL SALES** 5 Q. Please explain your understanding of the OCA's argument regarding the Newington fuel oil 6 sales. 7 On page 8, line 2 of its testimony, the OCA claims that customers realized a loss of roughly \$2 A. 8 million related to the sale of fuel oil inventory for Newington station. 9 Q. Do you agree with the points outlined in OCA's testimony on this subject? 10 No, I do not. The OCA's testimony was based on a misunderstanding of when customers pay for A. fuel oil. 11 12 Q. Please explain the problems with the OCA's understanding of when customers pay for fuel 13 oil. On page 7, lines 16 - 22 of its filed testimony, the OCA explains how it derived a total cost to 14 A. customers of \$10,450,238 for the Newington fuel oil that was sold. One component of this 15 16 amount is the amount of \$7,690,191 that was paid for fuel acquired in January and February of 17 2009. This amount is not relevant to the cost paid by customers because customers do not pay for 18 fuel until it is burned. As early as 1980, the Commission noted that the actual cost of fuel is only 19 recognized when it "is actually burned for the benefit of consumers." Re PSNH Fuel Adjustment 20 Charge, 65 NHPUC 465, 469 (1980). The Commission reiterated this concept in 1988, when it

stated, "PSNH purchases and uses fuel to provide electricity. The company records the expense

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when this fuel is burned — not when the fuel costs are actually paid." Re PSNH, 73 NHPUC 1 2 263, 266 (1988). 3 Q. What are the costs to customers for fuel inventory? 4 A. The only cost to customers for fuel in inventory is the return the Company earns on this asset. 5 Q. Did the total amount credited to customers for the fuel oil sale exceed the return the 6 Company earned on the fuel oil while it was in inventory? 7 Yes it did. The Company provided a calculation of return earned by the Company on the last #6 A. oil purchases made by the Company in its response to a data request. That response showed that 8 9 the return earned by the Company on those purchases was \$2,760,047. The credit to customers of 10 \$8.4 million (the difference between the proceeds of the sale less the cost of the fuel) that was included in the ES calculation for these fuel oil sales far exceeded this amount of return earned by 11 12 the Company. 13 IV. RETURN ON GENERATION ASSETS NOT FULLY USED AND USEFUL Please explain your understanding of the OCA's argument on this subject. 14 Q. The OCA is proposing a fractional disallowance of PSNH's revenue requirement for its 2012 15 A. 16 Default Energy Service (ES) rate, based on an assessment of whether or not PSNH's generation 17 assets are "fully used and useful". Do you agree with the points outlined in OCA's testimony on this subject? 18 Q. 19 A. No, I do not agree with OCA's testimony regarding the "used and useful" fractional disallowance, for the following two reasons: 20

1		A: PSNH has demonstrated that it is entitled to a reasonable return on rate base that includes its
2		generating assets.
3		B: The OCA's proposal is flawed and should not be adopted.
4	<i>A:</i>	PSNH has demonstrated that it is entitled to a reasonable return on rate base that includes its
5		generating assets
6	Q.	What is your basic understanding of PSNH's statutory requirement with respect to setting
7		its Default Energy Service (ES) rate?
8		Very briefly, PSNH sets rates for Default ES customers according to RSA 369-B:3, IV(b)(1)(a),
9		RSA 378:27 and RSA 378:28 based upon "PSNH's actual, prudent, and reasonable costs" for
LO		"plant, equipment, or capital improvement" investments that are "found by the Commission to be
l1		prudent, used, and useful." This Commission has held that "the net value of used and useful
L2		property is the minimum rather than the maximum legal basis for yielding a reasonable return."
13		Re PSNH, 63 NHPUC 127, 148 (1978).
L4	Q.	Is there any evidence to suggest that PSNH's generating assets are not "used and useful", as
L5		that term is used in RSA 378:28?
16	A.	None whatsoever. The entirety of the OCA's argument is contained in two sentences in its
L7		testimony where it states: "The evidence provided by PSNH demonstrates that it did not use its
18		own fossil fuel generation assets to provide service to customers to the full extent that these assets
L9		were built and intended to provide such service. The entirety of these generation assets, then, do
20		not meet the requirements of RSA 378:27 and RSA 378:28, which limit the recovery of a return
21		on investment to assets that are 'used and useful' in the service to customers." (Eckberg
))		Testimony at page 9, lines 4-9.) In other words, the OCA's argument is not that PSNH's

generating units were not used and useful, only that they were not used to the extent the OCA 1 2 believes appropriate. There is nothing in the law supporting such a position. 3 Q. What is wrong with the OCA's claim that PSNH has not met its statutory requirement? 4 The OCA introduces the concept it terms "fully used and useful" in an attempt to create an A. 5 arbitrary distinction between units that are and are not "fully" used and useful. This is a phantom 6 distinction. The expression "fully used and useful" does not appear in RSA 378:27 or RSA 7 378:28, and there is no reason for the Commission to accept or apply it here. Further, the OCA has admitted both that "a generating asset that is available for service but not 8 9 actually running could be considered as used and useful" and that "a generating asset that is in 10 operation but running at a reduced load could be considered used and useful." It has also admitted that "The OCA did not intend to convey that a generating asset must demonstrate a capacity 11 factor of 100% in order to be considered used and useful." Please see Attachments 3 and 4. 12 13 Given these admissions, PSNH's plants as is are, in fact, "used and useful". 14 Q. Is it your testimony, then, that the OCA is misinterpreting RSA 378:27 and RSA 378:28? Yes. The OCA appears to be supporting a misreading of RSA 378:27 and 378:28 as creating 15 A. some distinction between "fully" and "not fully" used assets. "Used and useful" does not have a 16 17 statutory distinction whereby one may attempt to assign a spectrum of used-and-usefulness. Further, in that a generating unit is not a divisible piece of property, any assessment of its used-18 19 and-usefulness should be conducted on a whole unit basis and not a fractional one. In other 20 words, the asset is either "used and useful," or it isn't. The OCA's concept of "fully used and 21 useful" versus "used and useful" is one without any basis or support. It is puzzling to me that the

2 to support any argument related to the actual text in those statutes. 3 Q. Does the OCA's application of "used and useful" in this context have any merit? 4 No, it is my position that the OCA's suggestion has no merit whatsoever. In theory, a used-and-A. 5 useful determination could potentially be made at the time a generating plant comes online, with 6 such a determination made based on an estimation of expected peak plus a reserve margin. 7 However, once a generating plant is found to be prudent and is included in rate base, any 8 hindsight review based on dispatch results conducted in order to reduce its value for ratemaking purposes would constitute "retroactive ratemaking", violate the established utility compact that 9 balances the needs of the utility and its customers, and ultimately not reflect sound public policy. 10 Furthermore, I feel it is important for the Commission to understand that constant revisiting of the 11 "used and useful" test in the rate-setting process of a regulated utility sets a dangerous precedent, 12 in that it promotes asymmetry in the sharing of risk between the utility and its customers. This 13 14 Commission has noted: 15 The seminal decision on the used and useful standard in New Hampshire is the 16 New Hampshire Supreme Court's decision in Appeal of Conservation Law Foundation, 127 NH 606 (1986). In that decision the Court made the following 17 distinction between prudence and used and useful: 18 19 While prudence judges an investment or expenditure in the light of what due care required at the time an investment or 20 21 expenditure was planned and made, usefulness judges its value at the time its reflection in rate base is under consideration. 22 23 Re PSNH, 83 NHPUC 40 (1998). Hence this Commission has recognized that the "used and useful" standard is applied to a prudently-incurred investment "at the time its reflection in rate 24 25 base is under consideration" - not on a continuing basis. A continuing application of the "used and useful" test as the OCA suggests would lead to an increase in PSNH's financial risk 26

OCA is citing RSA 378:27 and 378:28 as the basis for suggesting this disallowance, yet has failed

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exposure, which would subsequently yield an increase in PSNH's cost of capital and ultimately 1 2 higher rates for PSNH's customers (this mechanism is discussed further in subpart B below). 3 Such increased risk exposure would also impair PSNH's ability to make long-term planning 4 investments, as the specter of a fractional disallowance of a prudent investment bears the disincentive to make that investment. In short, the OCA's proposal is ultimately detrimental to 5 6 not only PSNH, but New Hampshire's electric customers. 7 Moreover, this Commission has further defined the used and useful standard. In Re New England Telephone and Telegraph Company d/b/a Bell Atlantic, 83 NHPUC 316, 321 (1998) the 8 9 Commission held that the more reasonable interpretation of the used and useful standard is that 10 "used" refers to that which is customarily employed for the purpose, or, "intended for and capable 11 of use" for the purpose. PSNH's generating assets are all not only "'intended for and capable of use' for the purpose" of providing energy, capacity, and ancillary services to customers – they are 12 providing energy, capacity and ancillary service to customers. 13 14 **B**: The OCA's proposal is flawed and should not be adopted What is your understanding of the OCA's proposal? 15 Q. The OCA is proposing a fractional disallowance of PSNH's rate base and, by extension, a portion 16 A. 17 of its revenue requirement. Under the OCA's proposal, the fraction is determined by comparing the average capacity factor for each of PSNH's plants during 2009-2012 to an historical average 18 19 capacity factor based on the years 1993-2001.

1 Q. Please describe the concerns you have with the OCA's proposal.

A.

In addition to basing the entire proposal on a faulty premise, as described in subpart A above, the OCA has not considered numerous issues relating to it (as the OCA has made clear in its responses to discovery). For example, in response to a question about the reason it thought capacity factor was an appropriate measure of used-and-usefulness, the OCA stated only that it did not investigate others. *See* Attachment 5. As a further example, the OCA stated that it chose 1993-2001 as a baseline because it represented historic levels of usage of PSNH's plants, but offered no justification for why those years were appropriately representative for a comparison. *See* Attachment 6. Basing a disallowance of millions of dollars on a concept that has been inadequately developed is not sound policy.

Furthermore, the OCA's proposal reflects a lack of understanding of how to assess the value of a power plant portfolio. No credible assessment of the value of any power plant, regulated or unregulated, could be based simply on a measurement of output or a proxy for output such as capacity factor, as plants that can ramp up and down like most of PSNH's fleet hold intrinsic financial and operational value in the form of flexibility. In addition, plants that run on different fuels can operate under different conditions, and the use of capacity factors does not account for that difference.

Moreover, the OCA's proposal has internal logic inconsistencies. One such issue is that it is inconsistent and arbitrary to allow recovery of operations and maintenance expense, property taxes, etc., but not return on and recovery of capital. Any cash expenditure is either prudent or it is not, and it reflects inconsistent thinking to suggest that cash expenditures that are expensed can be recovered in revenue requirements, while potentially a portion of those that are capitalized are not recoverable. Furthermore, because PSNH's generating plants are in operation and required to

be available for default service, one cannot validly argue that expenditures PSNH makes to
 maintain reliability are not reasonable and prudent.

Finally, it appears the OCA has not considered fully the consequences of adopting its proposal on the customers it is supposed to represent and protect. If its proposal is adopted, it would be the case that prudently incurred costs could be disallowed at any time in the future, while the ability of the utility to recover its costs will shift over time as markets change. Despite these added risks, the utility would not be permitted to profit from advantageous decisions. Given this increase in risk of disallowance without any offsetting benefits, PSNH's bond rating would likely decline, meaning that the cost to PSNH to obtain capital and finance its operations will rise and that PSNH will be less able to borrow money at competitive rates². Thus, any short-term gains that customers may potentially see through a reduction in rates would likely be offset by the long-term costs to the Company to finance its operations. It is doubtful that the OCA intends to make the long-term costs to customers higher.

Q. Based on the issues noted above, what is your conclusion?

A. It is my position that the OCA's proposal simply cannot and should not be adopted. Given the incomplete thinking in the OCA's proposal, I would strongly recommend that the OCA has not provided a proposal that takes into account numerous substantial issues relating to power plant planning and operations and utility ratemaking. Furthermore, I am not aware of any legal precedent that supports applying a "used and useful" test in the setting of PSNH's ES rate in order to revisit the amount of prudent investment the Commission has previously allowed, nor

¹ See, for example, the OCA response to data request PSNH 1-24, Attachment 7, where the OCA states that although PSNH's Schiller 5 unit has a present capacity factor higher than its historical one, PSNH may not reap the benefit of that improved position. It may only recover its costs.

² Said differently, PSNH's approved rate of return is based on its weighted cost of capital, which includes both debt and equity components, a portion of the recovery of interest on debt would be disallowed, likely increasing the cost of debt going forward.

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- 1 has the OCA supplied an example where such a test is being effectively applied to the rate-setting
- of a similarly-regulated utility. Based on these problems and the lack of any evidence or
- 3 examples to show that such a proposal would reflect sound policy, I would recommend that the
- 4 Commission not accept the OCA's proposal.
- 5 Q. Does this conclude your testimony?
- 6 A. Yes, it does.