

Northern Utilities, Inc.
DG 10-050

Date Request Received: 04/13/10
Record Request/Exhibit 6

Date of Response: 04/16/10
Witness: James D. Simpson

Request:

Please provide a revised version of Schedule 1A to support the Purchased Gas Demand Costs on Revised Summary Schedule, Line 3 and the Storage and Peaking Gas Demand Costs Revised Summary Schedule, Line 7.

Response:

Revised Schedule 1A, is attached. Exhibit 6 has been reserved for this document. The Summer period Purchased Gas Demand Costs, \$474,873, is shown on line 71 of Revised Schedule 1A, page 4 of 5, and the Storage and Peaking Gas Demand Costs, \$583,148, is shown on line 73 of Revised Schedule 1A, page 4 of 5.

Northern Utilities - NEW HAMPSHIRE DIVISION
 Simplified Market Based Allocator (SMBA) Calculations
 DEMAND COSTS

| NH Division Total Annual Demand Cost Allocation | | Costs |
|---|---|---------------|
| 1 | Resource | |
| 2 | Pipeline & Product Demand | \$ 2,640,510 |
| 3 | Storage | \$ 9,861,284 |
| 4 | Peaking | \$ 2,453,058 |
| 5 | Total Gross Demand Cost | \$ 14,954,853 |
| 6 | | |
| 7 | Capacity Assignment Demand Revenue Estimate | \$ 1,657,812 |
| 8 | NH Total Pipeline, Storage & Peaking Demand Cost | \$ 14,954,853 |
| 9 | Capacity Assignment as % of Total Gross Demand Cost | 11.09% |
| 10 | | |
| 11 | NH Non-Grandfathered Transportation Allocated Capacity Assignment Costs | |
| 12 | | |
| 13 | Pipeline & Product Demand | \$ 292,712 |
| 14 | Storage | \$ 1,093,167 |
| 15 | Peaking | \$ 271,932 |
| 16 | Total Capacity Assignment Credit | \$ 1,657,812 |
| 17 | | |
| 18 | NH Net Annual Demand Cost (Less Capacity Assignment) | |
| 19 | | |
| 20 | Pipeline & Product Demand | \$ 2,347,798 |
| 21 | Storage | \$ 8,768,117 |
| 22 | Peaking | \$ 2,181,126 |
| 23 | Total Net Demand Cost (Less Capacity Assignment) | \$ 13,297,041 |
| 24 | | |
| 25 | | |
| 26 | DEVELOPMENT OF BASE AND REMAINING PIPELINE DEMAND COSTS | MMBtu/day |
| 27 | Pipeline MDQ | 11,441 |
| 28 | Less 11.09% NH Transp. Capacity Assignment | (1,268) |
| 29 | Net Pipeline MDQ | 10,172 |
| 30 | | |
| 31 | Net Pipeline MDQ | 10,172 |
| 32 | Less: Firm Sales Base Use | 3,393 |
| 33 | Remaining Pipeline MDQ | 6,779 |
| 34 | | |
| 35 | | |
| 36 | Pipeline Unit Cost | Unit Cost |
| 37 | | \$230.80 |
| 38 | | |
| 39 | Pipeline & Product Demand | Costs |
| 40 | Less: Base Pipeline Use | \$ 2,347,798 |
| 41 | Remaining Pipeline Use | \$ 783,074 |
| | | \$ 1,564,724 |

Northern Utilities - NEW HAMPSHIRE DIVISION
 Simplified Market Based Allocator (SMBA) Calculations
 DEMAND COSTS

| NH Division: Total Annual Demand Cost Allocation | |
|--|---|
| 1 | Resource |
| 2 | Pipeline & Product Demand |
| 3 | Storage |
| 4 | Peaking |
| 5 | Total Gross Demand Cost |
| 6 | |
| 7 | Capacity Assignment Demand Revenue Estimate |
| 8 | NH Total Pipeline, Storage & Peaking Demand Cost |
| 9 | Capacity Assignment as % of Total Gross Demand Cost |
| 10 | |
| 11 | NH Non-Grandfathered Transportation Allocated Capacity Assignment Costs |
| 12 | |
| 13 | Pipeline & Product Demand |
| 14 | Storage |
| 15 | Peaking |
| 16 | Total Capacity Assignment Credit |
| 17 | |
| 18 | NH Net Annual Demand Cost (Less Capacity Assignment) |
| 19 | |
| 20 | Pipeline & Product Demand |
| 21 | Storage |
| 22 | Peaking |
| 23 | Total Net Demand Cost (Less Capacity Assignment) |
| 24 | |
| 25 | DEVELOPMENT OF BASE AND REMAINING PIPELINE DE |
| 26 | |
| 27 | Pipeline MDQ |
| 28 | Less: 11.09% NH Transp. Capacity Assignment |
| 29 | Net Pipeline MDQ |
| 30 | |
| 31 | Net Pipeline MDQ |
| 32 | Less: Firm Sales Base Use |
| 33 | Remaining Pipeline MDQ |
| 34 | |
| 35 | |
| 36 | Pipeline Unit Cost |
| 37 | |
| 38 | |
| 39 | Pipeline & Product Demand |
| 40 | Less: Base Pipeline Use |
| 41 | Remaining Pipeline Use |

Schedule 21, LN 84 + Schedule 21, LN 87
 Schedule 21, LN 85
 Schedule 21, LN 86
 Sum (LN 2 : LN 4)

Attachment NUJ-FXW-5
 LN 5
 LN 7 / LN 8

LN 2 * LN 9
 LN 3 * LN 9
 LN 4 * LN 9
 Sum (LN 13 : LN 15)

LN 2 - LN 13
 LN 3 - LN 14
 LN 4 - LN 15
 LN 5 - LN 16

Company Analysis
 -(LN 27) * LN 9
 Sum (LN 27 : LN 28)

LN 29
 Schedule 10B, LN 48 / 10
 LN 31 - LN 32

LN 20 / LN 31

LN 20
 LN 36 * LN 32
 LN 39 - LN 40

Northern Utilities - NEW HAMPSHIRE DIVISION
 Simplified Market Based Allocator (SMBA) Calculations
 DEMAND COSTS

42 NH DIVISION MONTHLY PROPORTIONAL RESPONSIBILITY (PR ALLOCATORS)

43 (Based on NH Firm Sales Sendout for Remaining Temperature Sensitive Load)

| | All Months | Nov | Dec | Jan | Feb | Mar | Apr | Winter |
|----|-------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| 44 | Remaining Load for All Months | 1,729,994 | 3,678,766 | 5,186,456 | 5,577,732 | 4,049,109 | 2,515,786 | 22,737,843 |
| 45 | Rank | 6 | 4 | 2 | 1 | 3 | 5 | |
| 46 | % Max Month | 31.02% | 65.95% | 92.99% | 100.00% | 72.59% | 45.10% | |
| 47 | PR | 1.27% | 5.21% | 10.20% | 7.01% | 2.21% | 2.82% | |
| 48 | CumPR | 4.28% | 12.31% | 24.72% | 31.74% | 14.53% | 7.10% | 94.67% |
| 49 | | | | | | | | |
| 50 | | | | | | | | |
| 51 | | | | | | | | |
| 52 | Peak Months Only | Nov | Dec | Jan | Feb | Mar | Apr | Winter |
| 53 | Remaining Load for Peak Months Only | 1,729,994 | 3,678,766 | 5,186,456 | 5,577,732 | 4,049,109 | 2,515,786 | |
| 54 | Rank | 6 | 4 | 2 | 1 | 3 | 5 | |
| 55 | % Max Month | 31.02% | 65.95% | 92.99% | 100.00% | 72.59% | 45.10% | |
| 56 | PR | 5.17% | 5.21% | 10.20% | 7.01% | 2.21% | 2.82% | |
| 57 | CumPR | 5.17% | 13.20% | 25.61% | 32.62% | 15.41% | 7.99% | 100.00% |
| 58 | | | | | | | | |

59 DEMAND COST PR ALLOCATORS

| | Nov | Dec | Jan | Feb | Mar | Apr | Winter |
|----|---------------------------------|-------|--------|--------|--------|--------|---------|
| 60 | | | | | | | |
| 61 | Pipeline - Base | 8.33% | 8.33% | 8.33% | 8.33% | 8.33% | 50.00% |
| 62 | Pipeline - Remaining | 4.28% | 12.31% | 24.72% | 31.74% | 14.53% | 94.67% |
| 63 | Storage & Peaking | 4.28% | 12.31% | 24.72% | 31.74% | 14.53% | 94.67% |
| 64 | Capacity Release | 5.17% | 13.20% | 25.61% | 32.62% | 15.41% | 100.00% |
| 65 | Interr. Margins & Off Sys Sales | 5.17% | 13.20% | 25.61% | 32.62% | 15.41% | 100.00% |
| 66 | | | | | | | |

67 DEMAND COSTS ALLOCATED TO MONTHS

| | Nov | Dec | Jan | Feb | Mar | Apr | Winter |
|----|------------------------------------|------------|--------------|--------------|--------------|--------------|--------------|
| 68 | Pipeline - Base | \$ 65,256 | \$ 65,256 | \$ 65,256 | \$ 65,256 | \$ 65,256 | \$ 391,537 |
| 69 | Pipeline - Remaining | \$ 66,997 | \$ 192,647 | \$ 386,808 | \$ 496,573 | \$ 227,278 | \$ 1,481,388 |
| 70 | Total Pipeline | \$ 132,253 | \$ 257,903 | \$ 452,064 | \$ 561,829 | \$ 292,534 | \$ 1,872,925 |
| 71 | | | | | | | |
| 72 | Storage & Peaking | \$ 468,813 | \$ 1,348,060 | \$ 2,706,713 | \$ 3,474,798 | \$ 1,590,391 | \$ 777,319 |
| 73 | | | | | | | |
| 74 | | | | | | | |
| 75 | Less Credits to Demand Cost | | | | | | |
| 76 | Cap Rel Margins & Asset Mgt Credit | \$ 98,015 | \$ 250,274 | \$ 485,551 | \$ 618,560 | \$ 292,238 | \$ 1,896,076 |
| 77 | Interruptible Margins | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 78 | Re-Entry Fee Credits | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 79 | | | | | | | |
| 80 | Total Direct Demand Costs | \$ 503,051 | \$ 1,355,690 | \$ 2,673,226 | \$ 3,418,067 | \$ 1,590,688 | \$ 802,221 |
| 81 | | | | | | | |
| 82 | Indirect Demand Costs/(Credits) | | | | | | |
| 83 | Miscellaneous Overhead | | | | | | |
| 84 | Local Production & Storage | | | | | | |
| 85 | Subtotal | | | | | | |

Northern Utilities - NEW HAMPSHIRE DIVISION
 Simplified Market Based Allocator (SMBA) Calculations
 DEMAND COSTS

42 NH DIVISION MONTHLY PROPORTIONAL RESPONSIBILITY
 43 (Based on NH Firm Sales Sendout for Remaining Temperatur

| All Months | May | Jun | Jul | Aug | Sep | Oct | Total | Summer |
|-------------------------------|-----------|---------|--------|-------|--------|---------|------------|-----------|
| Remaining Load for All Months | 1,303,547 | 659,546 | 20,904 | 9,930 | 85,485 | 394,662 | 25,211,918 | 2,474,075 |
| Rank | 7 | 8 | 11 | 12 | 10 | 9 | | |
| % Max Month | 23.37% | 11.82% | 0.37% | 0.18% | 1.53% | 7.08% | | |
| PR | 1.66% | 0.59% | 0.02% | 0.01% | 0.12% | 0.62% | 31.74% | |
| CumPR | 3.01% | 1.36% | 0.03% | 0.01% | 0.15% | 0.76% | 100.00% | 5.33% |

| Peak Months Only | Total | Summer |
|-------------------------------------|------------|--------|
| Remaining Load for Peak Months Only | 22,737,843 | |
| Rank | | |
| % Max Month | | |
| PR | 32.62% | |
| CumPR | 100.00% | 0.00% |

DEMAND COST PR ALLOCATORS

| | May | Jun | Jul | Aug | Sep | Oct | Total | Summer |
|---------------------------------|-------|-------|-------|-------|-------|-------|---------|--------|
| Pipeline - Base | 8.33% | 8.33% | 8.33% | 8.33% | 8.33% | 8.33% | 100.00% | 50.00% |
| Pipeline - Remaining | 3.01% | 1.36% | 0.03% | 0.01% | 0.15% | 0.76% | 100.00% | 5.33% |
| Storage & Peaking | 3.01% | 1.36% | 0.03% | 0.01% | 0.15% | 0.76% | 100.00% | 5.33% |
| Capacity Release | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% |
| Interr. Margins & Off Sys Sales | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 100.00% | 0.00% |

DEMAND COSTS ALLOCATED TO MONTHS

| | May | Jun | Jul | Aug | Sep | Oct | Total | Summer | Winter | Summer |
|------------------------------------|------------|------------|-----------|-----------|-----------|------------|---------------|--------------|---------|--------|
| Pipeline - Base | \$ 65,256 | \$ 65,256 | \$ 65,256 | \$ 65,256 | \$ 65,256 | \$ 65,256 | \$ 783,074 | \$ 391,537 | 50.00% | 50.00% |
| Pipeline - Remaining | \$ 47,058 | \$ 21,249 | \$ 512 | \$ 232 | \$ 2,324 | \$ 11,961 | \$ 1,564,724 | \$ 83,336 | 94.67% | 5.33% |
| Total Pipeline | \$ 112,314 | \$ 86,505 | \$ 65,768 | \$ 65,488 | \$ 67,580 | \$ 77,217 | \$ 2,347,798 | \$ 474,873 | 79.77% | 20.23% |
| Storage & Peaking | \$ 329,292 | \$ 148,693 | \$ 3,583 | \$ 1,624 | \$ 16,260 | \$ 83,696 | \$ 10,949,243 | \$ 583,148 | 94.67% | 5.33% |
| Less Credits to Demand Cost | | | | | | | | | | |
| Cap Rel Margins & Asset Mgt Credit | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 1,896,076 | \$ - | 100.00% | 0.00% |
| Interruptible Margins | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | | |
| Re-Entry Fee Credits | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | | |
| Total Direct Demand Costs | \$ 441,606 | \$ 235,198 | \$ 69,351 | \$ 67,113 | \$ 83,840 | \$ 160,913 | \$ 11,400,965 | \$ 1,058,022 | 90.72% | 9.28% |

Indirect Demand Costs/(Credits)

| | | | | |
|----------------------------|------------|-----------|-----------|--------|
| Miscellaneous Overhead | \$ 124,297 | \$ 31,261 | \$ 74.85% | 25.15% |
| Local Production & Storage | \$ 686,673 | \$ - | 100.00% | 0.00% |
| Subtotal | \$ 810,970 | \$ 31,261 | 96.15% | 3.85% |

Northern Utilities - NEW HAMPSHIRE DIVISION
 Simplified Market Based Allocator (SMBA) Calculations
 DEMAND COSTS

| | | |
|----|--|--|
| 42 | NH DIVISION MONTHLY PROPORTIONAL RESPONSIBILI | |
| 43 | (Based on NH Firm Sales Sendout for Remaining Temperatur | |
| 44 | | |
| 45 | All Months | Schedule 10B, LN 80 |
| 46 | Remaining Load for All Months | Rank LN 46 |
| 47 | Rank | LN 46 / MAX Month LN 46 |
| 48 | % Max Month | The difference between LN 48 for the month and LN 48 for next highest rank |
| 49 | PR | Cumulative Values, LN 49 |
| 50 | CumPR | |
| 51 | | |
| 52 | Peak Months Only | LN 46 |
| 53 | Remaining Load for Peak Months Only | Rank LN 53 |
| 54 | Rank | LN 53 / MAX Month LN 53 |
| 55 | % Max Month | The difference between LN 55 for the month and LN 55 for next highest rank |
| 56 | PR | Cumulative Values, LN 56 |
| 57 | CumPR | |
| 58 | | |
| 59 | DEMAND COST PR ALLOCATORS | |
| 60 | | |
| 61 | Pipeline - Base | 1/12 |
| 62 | Pipeline - Remaining | LN 50 |
| 63 | Storage & Peaking | LN 50 |
| 64 | Capacity Release | LN 57 |
| 65 | Interr. Margins & Off Sys Sales | LN 57 |
| 66 | | |
| 67 | DEMAND COSTS ALLOCATED TO MONTHS | |
| 68 | | |
| 69 | Pipeline - Base | LN 40 * LN 61 |
| 70 | Pipeline - Remaining | LN 41 * LN 62 |
| 71 | Total Pipeline | LN 69 + LN 70 |
| 72 | | |
| 73 | Storage & Peaking | LN 63 * (Sum LN 21 : LN 22) |
| 74 | | |
| 75 | Less Credits to Demand Cost | |
| 76 | Cap Rel Margins & Asset Mgt Credit | LN 64 * Sum (Schedule 21 LN 88, Schedule 21 LN 89) |
| 77 | Interruptible Margins | |
| 78 | Re-Entry Fee Credits | |
| 79 | | |
| 80 | Total Direct Demand Costs | LN 71 + LN 73 - (Sum LN 76 : LN 78) |
| 81 | | |
| 82 | Indirect Demand Costs/(Credits) | |
| 83 | Miscellaneous Overhead | Company Analysis |
| 84 | Local Production & Storage | Company Analysis |
| 85 | Subtotal | LN 83 + LN 84 |