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## <u>Value Stack Cost Recovery Mechanisms</u> <u>VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)</u>

# <u>Capacity Market Value Cost Recovery - ALTERNATIVE 1</u> Rule 40.3.2.1

| Average Monthly NYISO Spot Auction Capacity Price: | \$ 0.85 | /kW |
|--|---------|-----|
|--|---------|-----|

Total of Alternative 1 VDER Projects' Net Injections at hour of NYISO Peak: 8,897 kW

Total Alternative 1 Capacity Market Value Cost to Recover: \$ 7,592.19

#### **Cost Allocation**

| Service Class (with Voltage Delivery Level) | 1CP Allocator |            |
|---|---------------|------------|
| SC1   | 40.99%        | \$3,112.04 |
| SC1C  | 0.81%         | \$61.50    |
| SC2ND                                       | 2.54%         | \$192.84   |
| SC2D  | 14.46%        | \$1,097.83 |
| SC3-Secondary                               | 13.34%        | \$1,012.80 |
| SC3-Primary                                 | 5.15%         | \$391.00   |
| SC3-Subtransmission/Transmission            | 1.65%         | \$125.27   |
| SC3A-Secondary/Primary                      | 2.98%         | \$226.25   |
| SC3A-Sub Transmission                       | 3.75%         | \$284.71   |
| SC3A-Transmission                           | 14.31%        | \$1,086.44 |
| Streetlighting                              | 0.02%         | \$1.52     |
| Total                                       | 100.00%       | \$7,592.19 |

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00000     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00000     |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3-Secondary                               | 917,829     | \$0.00        |
| SC3-Primary                                 | 361,954     | \$0.00        |
| SC3-Subtransmission/Transmission            | 142,130     | \$0.00        |
| SC3A-Secondary/Primary                      | 261,919     | \$0.00        |
| SC3A-Sub Transmission                       | 353,980     | \$0.00        |
| SC3A-Transmission                           | 1,185,916   | \$0.00        |
|   |             | <u>\$/kWh</u> |
| Streetlighting                              | 11,679,672  | \$0.00000     |

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## <u>Value Stack Cost Recovery Mechanisms</u> <u>VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)</u>

### <u>Capacity Market Value Cost Recovery - ALTERNATIVE 2</u> Rule 40.3.2.1

| Average Monthly NYISO Spot Auction Capacity Price: | \$<br>0.85 / kV | W |
|--|-----------------|---|

Total of Alternative 2 VDER Projects' Net Injections at hour of NYISO Peak: 556 kW

Total Alternative 2 Capacity Market Value Cost to Recover: \$ 474.37

#### **Cost Allocation**

| Service Class (with Voltage Delivery Level) | 1CP Allocator |          |
|---|---------------|----------|
| SC1   | 40.99%        | \$194.44 |
| SC1C  | 0.81%         | \$3.84   |
| SC2ND                                       | 2.54%         | \$12.05  |
| SC2D  | 14.46%        | \$68.59  |
| SC3-Secondary                               | 13.34%        | \$63.28  |
| SC3-Primary                                 | 5.15%         | \$24.43  |
| SC3-Subtransmission/Transmission            | 1.65%         | \$7.83   |
| SC3A-Secondary/Primary                      | 2.98%         | \$14.14  |
| SC3A-Sub Transmission                       | 3.75%         | \$17.79  |
| SC3A-Transmission                           | 14.31%        | \$67.88  |
| Streetlighting                              | 0.02%         | \$0.09   |
| Total                                       | 100.00%       | \$474.37 |

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00000     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00000     |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3-Secondary                               | 917,829     | \$0.00        |
| SC3-Primary                                 | 361,954     | \$0.00        |
| SC3-Subtransmission/Transmission            | 142,130     | \$0.00        |
| SC3A-Secondary/Primary                      | 261,919     | \$0.00        |
| SC3A-Sub Transmission                       | 353,980     | \$0.00        |
| SC3A-Transmission                           | 1,185,916   | \$0.00        |
|   |             | <u>\$/kWh</u> |
| Streetlighting                              | 11,679,672  | \$0.00000     |

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### <u>Value Stack Cost Recovery Mechanisms</u> <u>VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)</u>

### <u>Capacity Market Value Cost Recovery - ALTERNATIVE 3</u> Rule 40.3.2.1

| Average Monthly NYISO Spot Auction Capacity Price:                          | \$ 0.85 | /kW |
|---|---------|-----|
| Total of Alternative 3 VDER Projects' Net Injections at hour of NYISO Peak: | -       | kW  |
| <b>Total Alternative 3 Capacity Market Value Cost to Recover:</b>           | \$ -    | ]   |

#### **Cost Allocation**

| Service Class (with Voltage Delivery Level) | 1CP Allocator |        |
|---|---------------|--------|
| SC1   | 40.99%        | \$0.00 |
| SC1C  | 0.81%         | \$0.00 |
| SC2ND                                       | 2.54%         | \$0.00 |
| SC2D  | 14.46%        | \$0.00 |
| SC3-Secondary                               | 13.34%        | \$0.00 |
| SC3-Primary                                 | 5.15%         | \$0.00 |
| SC3-Subtransmission/Transmission            | 1.65%         | \$0.00 |
| SC3A-Secondary/Primary                      | 2.98%         | \$0.00 |
| SC3A-Sub Transmission                       | 3.75%         | \$0.00 |
| SC3A-Transmission                           | 14.31%        | \$0.00 |
| Streetlighting                              | 0.02%         | \$0.00 |
| Total                                       | 100.00%       | \$0.00 |

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00000     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00000     |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3-Secondary                               | 917,829     | \$0.00        |
| SC3-Primary                                 | 361,954     | \$0.00        |
| SC3-Subtransmission/Transmission            | 142,130     | \$0.00        |
| SC3A-Secondary/Primary                      | 261,919     | \$0.00        |
| SC3A-Sub Transmission                       | 353,980     | \$0.00        |
| SC3A-Transmission                           | 1,185,916   | \$0.00        |
|   |             | <u>\$/kWh</u> |
| Streetlighting                              | 11,679,672  | \$0.00000     |

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# <u>Value Stack Cost Recovery Mechanisms</u> VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

## Capacity Out of Market Value Cost Recovery Rule 40.3.2.2

VDER Value Stack Capacity Market Value (Rule 40.3.2.1): \$8,066.56

Total VDER Value Stack Capacity Component Paid to Projects: \$ 1,693.80

Total Capacity Out of Market Value Cost to Recover: \$ (6,372.76)

#### **Cost Allocation**

| Service Class (with Voltage Delivery Level) | Allocator |             |
|---|-----------|-------------|
| SC1   | 58.05%    | -\$3,699.63 |
| SC1C  | 0.05%     | -\$3.32     |
| SC2ND                                       | 5.60%     | -\$357.15   |
| SC2D  | 4.90%     | -\$311.95   |
| SC3   | 28.08%    | -\$1,789.47 |
| SC3A  | 0.00%     | \$0.00      |
| Streetlighting                              | 3.31%     | -\$211.23   |
| Total                                       | 100.00%   | -\$6,372,76 |

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00000     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | -\$0.00001    |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3   | 1,421,913   | \$0.00        |
| SC3A  | 1,801,815   | \$0.00        |
|   |             | <u>\$/kWh</u> |
| Streetlighting                              | 11,679,672  | -\$0.00002    |

Received: 05/26/2020

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# <u>Value Stack Cost Recovery Mechanisms</u> VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

#### Environmental Market Value Cost Recovery Rule 40.3.2.3

NYSERDA Tier 1 REC rate in effect for the recovery month: \$\ 0.02209 \]/kWh

Total of VDER Projects' Net Injections during recovery month: 5,576,882 kWh

Total Environmental Market Value Cost to Recover: \$\ 123,193.32

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# Value Stack Cost Recovery Mechanisms VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

### Environmental Out of Market Value Cost Recovery Rule 40.3.2.4

VDER Value Stack Environmental Market Value (Rule 40.3.2.3): \$ 123,193.32

Total VDER Value Stack Environmental Component Paid to Projects: \$ 140,806.80

Total Environmental Out of Market Value Cost to Recover: \$ 17,613.48

#### **Cost Allocation**

| Service Class (with Voltage Delivery Level) | Allocator |             |
|---|-----------|-------------|
| SC1   | 56.64%    | \$9,976.36  |
| SC1C  | 0.06%     | \$10.80     |
| SC2ND                                       | 5.93%     | \$1,043.83  |
| SC2D  | 4.97%     | \$875.74    |
| SC3   | 28.44%    | \$5,008.96  |
| SC3A  | 0.00%     | \$0.00      |
| Streetlighting                              | 3.96%     | \$697.79    |
| Total                                       | 100.00%   | \$17.613.48 |

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00001     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00002     |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3   | 1,421,913   | \$0.00        |
| SC3A  | 1,801,815   | \$0.00        |
|   |             | <u>\$/kWh</u> |
| Streetlighting                              | 11,679,672  | \$0.00006     |

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## <u>Value Stack Cost Recovery Mechanisms</u> <u>VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)</u>

### DRV Cost Recovery Rule 40.3.2.5

Total VDER Value Stack DRV Component Paid to **Secondary/Primary** Projects: \$ 3,454.58

#### **Secondary/Primary Cost Allocation**

| Service Class (with Voltage Delivery Level) | NCP Allocator |            |
|---|---------------|------------|
| SC1   | 56.65%        | \$1,957.02 |
| SC1C  | 1.18%         | \$40.76    |
| SC2ND                                       | 3.30%         | \$114.00   |
| SC2D  | 18.62%        | \$643.24   |
| SC3-Secondary                               | 18.51%        | \$639.44   |
| SC3-Primary                                 | 0.00%         | \$0.00     |
| SC3-Subtransmission/Transmission            | 0.00%         | \$0.00     |
| SC3A-Secondary/Primary                      | 0.74%         | \$25.56    |
| SC3A-Sub Transmission                       | 0.00%         | \$0.00     |
| SC3A-Transmission                           | 0.00%         | \$0.00     |
| Streetlighting                              | 1.00%         | \$34.55    |
| Total                                       | 100.00%       | \$3,454.58 |

#### Secondary/Primary Rate Design by Forecast

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00000     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00000     |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3-Secondary                               | 917,829     | \$0.00        |
| SC3-Primary                                 | 361,954     | \$0.00        |
| SC3-Subtransmission/Transmission            | 142,130     | \$0.00        |
| SC3A-Secondary/Primary                      | 261,919     | \$0.00        |
| SC3A-Sub Transmission                       | 353,980     | \$0.00        |
| SC3A-Transmission                           | 1,185,916   | \$0.00        |
|   |             | <u>\$/kWh</u> |
| Streetlighting                              | 11,679,672  | \$0.00000     |

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# <u>Value Stack Cost Recovery Mechanisms</u> VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

## **DRV Cost Recovery Rule 40.3.2.5**

Total VDER Value Stack DRV Component Paid to **Subtransmission/Transmission** Projects: \$ -

#### **Subtransmission/Transmission Cost Allocation**

| Service Class (with Voltage Delivery Level) | 1CP Allocator |        |
|---|---------------|--------|
| SC1   | 40.99%        | \$0.00 |
| SC1C  | 0.81%         | \$0.00 |
| SC2ND                                       | 2.54%         | \$0.00 |
| SC2D  | 14.46%        | \$0.00 |
| SC3-Secondary                               | 13.34%        | \$0.00 |
| SC3-Primary                                 | 5.15%         | \$0.00 |
| SC3-Subtransmission/Transmission            | 1.65%         | \$0.00 |
| SC3A-Secondary/Primary                      | 2.98%         | \$0.00 |
| SC3A-Sub Transmission                       | 3.75%         | \$0.00 |
| SC3A-Transmission                           | 14.31%        | \$0.00 |
| Streetlighting                              | 0.02%         | \$0.00 |
| Total                                       | 100.00%       | \$0.00 |

#### **Subtransmission/Transmission Rate Design by Forecast**

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00000     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00000     |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3-Secondary                               | 917,829     | \$0.00        |
| SC3-Primary                                 | 361,954     | \$0.00        |
| SC3-Subtransmission/Transmission            | 142,130     | \$0.00        |
| SC3A-Secondary/Primary                      | 261,919     | \$0.00        |
| SC3A-Sub Transmission                       | 353,980     | \$0.00        |
| SC3A-Transmission                           | 1,185,916   | \$0.00        |
|   |             | <u>\$/kWh</u> |
| Streetlighting                              | 11,679,672  | \$0.00000     |

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## <u>Value Stack Cost Recovery Mechanisms</u> <u>VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)</u>

# **LSRV Cost Recovery Rule 40.3.2.6**

| Total VDER Value Stack LSRV Component Paid to <b>Secondary/Primary</b> Projects: \$ | 17.15 |
|---|-------|
|---|-------|

#### **Secondary/Primary Cost Allocation**

| Service Class (with Voltage Delivery Level) | NCP Allocator |         |
|---|---------------|---------|
| SC1   | 56.65%        | \$9.72  |
| SC1C  | 1.18%         | \$0.20  |
| SC2ND                                       | 3.30%         | \$0.57  |
| SC2D  | 18.62%        | \$3.19  |
| SC3-Secondary                               | 18.51%        | \$3.17  |
| SC3-Primary                                 | 0.00%         | \$0.00  |
| SC3-Subtransmission/Transmission            | 0.00%         | \$0.00  |
| SC3A-Secondary/Primary                      | 0.74%         | \$0.13  |
| SC3A-Sub Transmission                       | 0.00%         | \$0.00  |
| SC3A-Transmission                           | 0.00%         | \$0.00  |
| Streetlighting                              | 1.00%         | \$0.17  |
| Total                                       | 100.00%       | \$17.15 |

#### Secondary/Primary Rate Design by Forecast

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00000     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00000     |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3-Secondary                               | 917,829     | \$0.00        |
| SC3-Primary                                 | 361,954     | \$0.00        |
| SC3-Subtransmission/Transmission            | 142,130     | \$0.00        |
| SC3A-Secondary/Primary                      | 261,919     | \$0.00        |
| SC3A-Sub Transmission                       | 353,980     | \$0.00        |
| SC3A-Transmission                           | 1,185,916   | \$0.00        |
|   |             | <u>\$/kWh</u> |
| Streetlighting                              | 11,679,672  | \$0.00000     |

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## Value Stack Cost Recovery Mechanisms VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

### LSRV Cost Recovery Rule 40.3.2.6

Total VDER Value Stack LSRV Component Paid to **Subtransmission/Transmission** Projects: \$ -

#### **Subtransmission/Transmission Cost Allocation**

| Service Class (with Voltage Delivery Level) | 1CP Allocator |        |
|---|---------------|--------|
| SC1   | 40.99%        | \$0.00 |
| SC1C  | 0.81%         | \$0.00 |
| SC2ND                                       | 2.54%         | \$0.00 |
| SC2D  | 14.46%        | \$0.00 |
| SC3-Secondary                               | 13.34%        | \$0.00 |
| SC3-Primary                                 | 5.15%         | \$0.00 |
| SC3-Subtransmission/Transmission            | 1.65%         | \$0.00 |
| SC3A-Secondary/Primary                      | 2.98%         | \$0.00 |
| SC3A-Sub Transmission                       | 3.75%         | \$0.00 |
| SC3A-Transmission                           | 14.31%        | \$0.00 |
| Streetlighting                              | 0.02%         | \$0.00 |
| Total                                       | 100.00%       | \$0.00 |

#### **Subtransmission/Transmission Rate Design by Forecast**

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00000     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00000     |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3-Secondary                               | 917,829     | \$0.00        |
| SC3-Primary                                 | 361,954     | \$0.00        |
| SC3-Subtransmission/Transmission            | 142,130     | \$0.00        |
| SC3A-Secondary/Primary                      | 261,919     | \$0.00        |
| SC3A-Sub Transmission                       | 353,980     | \$0.00        |
| SC3A-Transmission                           | 1,185,916   | \$0.00        |
|   |             | <u>\$/kWh</u> |
| Streetlighting                              | 11,679,672  | \$0.00000     |

Received: 05/26/2020

P.S.C. 220 ELECTRICITY NIAGARA MOHAWK POWER CORPORATION INITIAL EFFECTIVE DATE: MAY 29, 2020 STATEMENT TYPE: VDER-CR WORKPAPERS FOR STATEMENT NO. 32 PAGE 11 OF 12

# <u>Value Stack Cost Recovery Mechanisms</u> <u>VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)</u>

### MTC Cost Recovery Rule 40.3.2.7

Total VDER Value Stack MTC Component Paid to Projects: \$ 29,246.53

### **Cost Allocation**

| Service Class (with Voltage Delivery Level) | Allocator |             |
|---|-----------|-------------|
| SC1   | 93.05%    | \$27,214.89 |
| SC1C  | 0.00%     | \$0.00      |
| SC2ND                                       | 6.95%     | \$2,031.64  |
| Total                                       | 100.00%   | \$29,246,53 |

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00003     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00004     |

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## <u>Value Stack Cost Recovery Mechanisms</u> <u>VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)</u>

# Community Credit Cost Recovery Rule 40.3.2.7

Total VDER Value Stack Community Credit Component Paid to Projects: \$ 74,448.42

#### **Cost Allocation**

| Service Class (with Voltage Delivery Level) | Allocator |             |
|---|-----------|-------------|
| SC1   | 68.29%    | \$50,840.48 |
| SC1C  | 0.00%     | \$0.00      |
| SC2ND                                       | 1.59%     | \$1,180.90  |
| SC2D  | 1.68%     | \$1,253.31  |
| SC3-Secondary                               | 14.54%    | \$10,823.02 |
| SC3-Primary                                 | 13.90%    | \$10,350.71 |
| SC3-Subtransmission/Transmission            | 0.00%     | \$0.00      |
| SC3A-Secondary/Primary                      | 0.00%     | \$0.00      |
| SC3A-Sub Transmission                       | 0.00%     | \$0.00      |
| SC3A-Transmission                           | 0.00%     | \$0.00      |
| Total                                       | 100.00%   | \$74,448,42 |

| Service Class (with Voltage Delivery Level) | Forecast    | <u>\$/kWh</u> |
|---|-------------|---------------|
| SC1   | 834,508,174 | \$0.00006     |
| SC1C  | 22,304,588  | \$0.00000     |
| SC2ND                                       | 53,907,303  | \$0.00002     |
|   |             | <u>\$/kW</u>  |
| SC2D  | 1,172,737   | \$0.00        |
| SC3-Secondary                               | 917,829     | \$0.01        |
| SC3-Primary                                 | 361,954     | \$0.03        |
| SC3-Subtransmission/Transmission            | 142,130     | \$0.00        |
| SC3A-Secondary/Primary                      | 261,919     | \$0.00        |
| SC3A-Sub Transmission                       | 353,980     | \$0.00        |
| SC3A-Transmission                           | 1,185,916   | \$0.00        |