

Appendix F: Examples of Generation Resource Performance Assessments During DY

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Example #1: Single Party Commits Unit to RPM

Example Description:

- Party E owns 45 MW (ICAP) of Generator #6 and commits 40 MW (UCAP) of Generator #6 to RPM for entire DY through DY BRA. Party E fails to meet their RPM Commitment Compliance.
- Generator #6 fails the following Resource Performance Assessments during the DY:
 - Summer/Winter Capacity Testing
 - Peak-Hour Period Availability
- No replacement resources are specified.

UNIT PERFORMANCE DATA FOR GENERATOR #6

| UNIT DATA | | COMMENTS/FORMULA |
|--------------------------------|---------|---|
| <i>General Data:</i> | | |
| Daily ICAP MW | 45 MW | Summer Net Dependable Rating |
| Effective EFORd | .3 | Effective EFORd during DY |
| Daily UCAP MW | 31.5 MW | ICAP*(1-Effective EFORd) |
| <i>Commitment Data:</i> | | |
| Daily RPM Resource Commitments | 40 MW | Party E cleared 40 MW in DY BRA. |
| Daily FRR Capacity Plan | 0 MW | Party E is not an FRR Alternative LSE and does not commit any MWs |

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| UNIT DATA | | COMMENTS/FORMULA |
|---|--|--|
| Commitments | | to an FRR Capacity Plan. |
| Unit Average Daily ICAP Commitment Amount | $[(40 \text{ MW} * 365 \text{ days}) / (1 - 0.3) + (0 * 365 \text{ days})] / 365 \text{ days} = 57.1 \text{ MW}$ | $(\text{Sum of Daily RPM Resource Commitments for DY} / (1 - \text{Effective EFORd}) + \text{Sum of Daily FRR Capacity Plan Commitments for DY}) / 365 \text{ days}$ |
| Total Unit ICAP Commitment Amount | 45 MW | Lesser of (a) Unit Average Daily ICAP Commitment Amount or (b) Maximum Summer Net Dependable Rating during DY |
| Unit Average Daily FRR ICAP Commitment Amount | $(0 \text{ MW} * 365 \text{ days}) / 365 \text{ days} = 0 \text{ MW}$ | $\text{Sum of Daily FRR Capacity Plan Commitments for DY} / 365 \text{ days}$ |
| Unit Average Daily RPM ICAP Commitment Amount | $45 \text{ MW} - 0 \text{ MW} = 45 \text{ MW}$ | $\text{Total Unit ICAP Commitment Amount} - \text{Unit Average Daily FRR ICAP Commitment Amount}$ |
| <i>Summer/Winter Capacity Testing:</i> | | |
| Highest ICAP Rating in Summer Test | 35 MW | |
| ICAP Shortfall for Summer Testing Period | $45 \text{ MW} - 35 \text{ MW} = 10 \text{ MW}$ | <ul style="list-style-type: none"> • Total Unit ICAP Commitment Amount – Highest ICAP Rating in Summer Test • Applied daily for months of June –November of DY. |
| Highest ICAP Rating in Winter Test | 40 MW | |
| ICAP Shortfall for Winter Testing Period | $10 \text{ MW} = \text{Higher of (a) } 10 \text{ MW; or (b) } 45 \text{ MW} - 40 \text{ MW} = 5 \text{ MW.}$ | <ul style="list-style-type: none"> • Higher of (a) ICAP Shortfall for Summer Testing Period or (b) Total Unit ICAP Commitment Amount – Highest ICAP Rating in Winter Test. • Applied daily for months of December-May of DY. |
| <i>Peak-Hour Period Availability:</i> | | |
| EFORd-5 | 0.05 | |
| Target UCAP (TCAP) | $45 \text{ MW} * (1 - 0.05) = 42.8$ | $\text{Total Unit ICAP Commitment Amount} * (1 - \text{EFORd-5})$ |

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| UNIT DATA | | COMMENTS/FORMULA |
|---------------------------------------|----------------------------|--|
| | MW | |
| EFORp | 0.15 | |
| Peak Period Capacity Available (PCAP) | 45 MW * (1-0.15) = 38.3 MW | Total Unit ICAP Commitment Amount * (1- EFORp) |
| Peak-Hour Period Capacity Shortfall | 42.8 MW – 38.3= 4.5 MW | TCAP-PCAP |

PARTY E DATA FOR GENERATOR #6

| DATA | PARTY E | COMMENTS/FORMULA |
|--|-----------------------------------|---|
| Daily ICAP Owned | 45 MW | |
| Daily FRR Capacity Plan Commitments | 0 MW | Party E made no FRR Capacity Plan Commitments on Generator #6. |
| Daily Available ICAP (prior to BRA) | 45 MW | Daily ICAP Owned –Daily FRR Capacity Plan Commitments |
| ICAP Offered in DY BRA | 45 MW | |
| Sell Offer EFORd | 0.11100 | |
| UCAP Offered in DY BRA | 40 MW | ICAP Offered in DY BRA * (1-Sell Offer EFORd) |
| Daily Unoffered ICAP | 0 MW | Daily Available ICAP-ICAP Offered |
| Daily Cleared UCAP in DY BRA | 40 MW | |
| Party's Weighted Average Resource Clearing Price for such resource | \$116/MW-day | A Party's WARCP for a resource considers the resource clearing prices received and MWs cleared for such resource by the party across all RPM auctions for the DY. |
| Party's Weighted Average Resource Clearing Price in LDA | \$90/MW-day | A Party's WARCP in LDA considers the resource clearing prices received and MWs cleared by all the Party's resources in an LDA across all RPM Auctions. |
| Average Daily FRR ICAP Commitment Amount | (0 MW * 365 days)/365 days = 0 MW | Sum of Party's Daily FRR Capacity Plan Commitments/365 days |

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| DATA | PARTY E | COMMENTS/FORMULA |
|--|---|--|
| Average Daily RPM ICAP Commitment Amount | $(40 \text{ MW} * 365 \text{ days} / 40 \text{ MW} * 365 \text{ days}) * 45 \text{ MW} = 45 \text{ MW}$ | Sum of Party's Daily RPM Resource Commitments/Sum of Total Daily RPM Resource Commitments for unit * Unit Average Daily RPM ICAP Commitment Amount |
| Share of Total Unit ICAP Commitment Amount | $0 \text{ MW} + 45 \text{ MW} = 45 \text{ MW}$ | Average Daily FRR ICAP Commitment Amount + Average Daily RPM ICAP Commitment Amount |
| <i>RPM Commitment Compliance:</i> | | |
| Daily RPM Resource Commitments | 40 MW | Daily Cleared UCAP in BRA |
| Daily RPM Generation Resource Position | $(45 \text{ MW} - 0 \text{ MW} - 0 \text{ MW}) * (1 - 0.3) = 31.5 \text{ MW}$ | $(\text{Daily ICAP Owned} - \text{Daily FRR Capacity Plan Commitments} - \text{Daily Unoffered ICAP}) * (1 - \text{Effective EFORD})$ |
| RPM Commitment Shortage | -8.5 MW (Shortage) | Daily RPM Generation Resource Position - Daily RPM Resource Commitments |
| Daily Capacity Resource Deficiency Charge | $(\$116 + \$23.20) / \text{MW-day} * 8.5 \text{ MW} = \$1183.20 / \text{day}$ | <ul style="list-style-type: none"> • Daily Deficiency Rate * RPM Commitment Shortage • Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted Average RCP for such resource OR (b) \$20/MW-day. |
| <i>Summer/Winter Capacity Testing</i> | | |
| ICAP Shortfall for Summer Testing Period | $10 \text{ MW} * (0 \text{ MW} + 45 \text{ MW}) / 45 \text{ MW} = 10 \text{ MW}$ | <ul style="list-style-type: none"> • Unit ICAP Shortfall for Summer Testing Period * (Party's Average Daily FRR ICAP Commitment Amount + Party's Average Daily RPM ICAP Commitment Amount) / (Total Unit ICAP Commitment Amount) • Applied June-November of DY |
| ICAP Shortfall for Winter Testing Period | $10 \text{ MW} * (0 \text{ MW} + 45 \text{ MW}) / 45 \text{ MW} = 10 \text{ MW}$ | <ul style="list-style-type: none"> • Unit ICAP Shortfall for Winter Testing Period * (Party's Average Daily FRR ICAP Commitment Amount + Party's Average Daily RPM ICAP Commitment Amount) / (Total Unit ICAP Commitment Amount) |

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| DATA | PARTY E | COMMENTS/FORMULA |
|---|---|---|
| | | Amount) <ul style="list-style-type: none"> Applied Dec-May of DY |
| Daily ICAP Shortfall during DY | 10 MW | |
| Daily ICAP Shortfall for RPM Resource Commitments | 10 MW * (45 MW/45 MW) = 10 MW | Daily ICAP Shortfall * (Party's Average Daily RPM ICAP Commitment Amount/Party's Share of Total Unit ICAP Commitment Amount) |
| Generation Resource Rating Test Failure Charge for RPM Resource Commitments during DY | $(\$116 + \$23.20)/\text{MW-day} * 10 \text{ MW} * (1 - 0.3) = \$974.40/\text{day}$ | <ul style="list-style-type: none"> Daily Deficiency Rate * Daily ICAP Shortfall * 1 - Effective EFORD Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted Average RCP for such resource OR (b) \$20/MW-day. |
| <i>Peak-Hour Period Availability:</i> | | |
| Peak-Hour Period Capacity Shortfall for RPM Resource Commitments | 4.5 MW * (45 MW/45 MW) = 4.5 MW | Unit Peak Period Capacity Shortfall * Party's Daily Average RPM ICAP Commitment Amount/Total Unit ICAP Commitment Amount |
| Net Peak Period Capacity Shortfall for RPM Capacity Plan Commitments in LDA | 0.5 MW | <ul style="list-style-type: none"> The sum of all Peak Period Capacity Shortfall for RPM Capacity Plan Commitments in an LDA in Party E's resource portfolio was 0.5 MW. Another unit or units in Party E's portfolio had excess or negative Peak Period Capacity Shortfall for RPM Resource Commitments totaling 4 MW. (4.5 MW – 4.0 MW = 0.5 MW) |
| Peak-Hour Period Availability Charge for RPM Resource Commitments | $\$90/\text{MW-day} * 0.5 \text{ MW} = \$45/\text{day}$ | <ul style="list-style-type: none"> Daily Peak-Hour Period Availability Charge Rate * Net Peak Period Capacity Shortfall in LDA Charge Rate = Party's Weighted Average Resource Clearing Price in an LDA |

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Example #1A: Replacement Resources are specified to cover failures in resource performance during DY.

Example Description:

- Party E specified 8.5 MW UCAP of Generator #8 as replacement resource from June 1, DY – May 31, DY.
- Party E specified 7.6 MW UCAP of Generator #9 as replacement resource from July 1, DY – May 31, DY.
- Avoided Capacity Resource Deficiency Charge, Generation Resource Rating Test Failure Charge, and Peak Hour Period Availability Charge.

UNIT PERFORMANCE DATA FOR GENERATOR #6

| UNIT DATA | | COMMENTS/FORMULA |
|---|--|--|
| <i>General Data:</i> | | |
| Daily ICAP MW | 45 MW | Summer Net Dependable Rating |
| Effective EFORd | .3 | Effective EFORd during DY |
| Daily UCAP MW | 31.5 MW | ICAP*(1-Effective EFORd) |
| <i>Commitment Data:</i> | | |
| Daily RPM Resource Commitments | 6/1/DY-6/30/DY: 31.5 MW 7/1/DY-5/31/DY: 23.9 MW | 40 MW of Daily RPM Resource Commitments was reduced due to specification of replacement resources. From 6/1/DY-6/30/DY: 40 MW-8.5 MW = 31.5 MW; From 7/1/DY-5/31/DY: 31.5 MW – 7.6 MW = 23.9 MW. |
| Daily FRR Capacity Plan Commitments | 0 MW | Party E is not an FRR Alternative LSE and does not commit any MWs to an FRR Capacity Plan. |
| Unit Average Daily ICAP Commitment Amount | $(((31.5 \text{ MW} * 30 \text{ days}) + (23.9 \text{ MW} * 335 \text{ days})) / (1 - 0.3)) + (0 * 365 \text{ days}) / 365 \text{ days} = 35 \text{ MW}$ | $(\text{Sum of Daily RPM Resource Commitments for DY} / (1 - \text{Effective EFORd}) + \text{Sum of Daily FRR Capacity Plan Commitments for DY}) / 365 \text{ days}$ |
| Total Unit ICAP Commitment Amount | 35 MW | Lesser of (a) Unit Average Daily ICAP Commitment Amount or (b) Maximum Summer Net Dependable Rating during DY |
| Unit Average Daily FRR | $(0 \text{ MW} * 365 \text{ days}) / 365 \text{ days}$ | $\text{Sum of Daily FRR Capacity Plan Commitments for DY} / 365 \text{ days}$ |

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| UNIT DATA | | COMMENTS/FORMULA |
|--|--|---|
| ICAP Commitment Amount | = 0 MW | |
| Unit Average Daily RPM ICAP Commitment Amount | 35 MW - 0 MW = 35 MW | Total Unit ICAP Commitment Amount – Unit Average Daily FRR ICAP Commitment Amount |
| <i>Summer/Winter Capacity Testing:</i> | | |
| Highest ICAP Rating in Summer Test | 35 MW | |
| ICAP Shortfall for Summer Testing Period | 35 MW – 35 MW = 0 MW | <ul style="list-style-type: none"> • Total Unit ICAP Commitment Amount – Highest ICAP Rating in Summer Test • Applied daily for months of June –November of DY. |
| Highest ICAP Rating in Winter Test | 40 MW | |
| ICAP Shortfall for Winter Testing Period | 0 MW = Higher of (a) 0 MW; or (b) 35 MW- 40 MW = -5MW. | <ul style="list-style-type: none"> • Higher of (a) ICAP Shortfall for Summer Testing Period or (b) Total Unit ICAP Commitment Amount – Highest ICAP Rating in Winter Test. • Applied daily for months of December-May of DY. |
| <i>Peak-Hour Period Availability:</i> | | |
| EFORd-5 | 0.05 | |
| Target UCAP (TCAP) | 35 MW * (1-0.05) = 33.3 MW | Total Unit ICAP Commitment Amount*(1-EFORd-5) |
| EFORp | 0.35 | EFORp in Example 1 is lower than the EFORp in Example 1A since a calculated EFORp = 0.35 would be adjusted in Example 1 to account for the unavailability or derating of unit that incurs an RPM Capacity Resource Deficiency Charge or Generation Resource Rating Test Failure Charge. |
| Peak Period Capacity | 35 MW * (1-0.35) = 22.8 | Total Unit ICAP Commitment Amount * (1-EFORp) |

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| UNIT DATA | | COMMENTS/FORMULA |
|-------------------------------------|-----------------------------|------------------|
| Available (PCAP) | MW | |
| Peak-Hour Period Capacity Shortfall | 33.3 MW – 22.8 MW = 10.5 MW | TCAP-PCAP |

PARTY E DATA FOR GENERATOR #6

| DATA | PARTY E | COMMENTS/FORMULA |
|--|---|---|
| Daily ICAP Owned | 45 MW | |
| Daily FRR Capacity Plan Commitments | 0 MW | Party E made no FRR Capacity Plan Commitments on Generator #6. |
| Daily Available ICAP (prior to BRA) | 45 MW | Daily ICAP Owned – Daily FRR Capacity Plan Commitments |
| ICAP Offered in DY BRA | 45 MW | |
| Sell Offer EFORD | 0.11100 | |
| UCAP Offered in DY BRA | 40 MW | ICAP Offered in DY BRA * (1-Sell Offer EFORD) |
| Daily Unoffered ICAP | 0 MW | Daily Available ICAP-ICAP Offered |
| Daily Cleared UCAP in DY BRA | 40 MW | |
| Party's Weighted Average Resource Clearing Price for such resource | \$116/MW-day | A Party's WARCP for a resource considers the resource clearing prices received and MWs cleared for such resource by the party across all RPM auctions for the DY. |
| Party's Weighted Average Resource Clearing Price in LDA | \$90/MW-day | A Party's WARCP in LDA considers the resource clearing prices received and MWs cleared by all the Party's resources in an LDA across all RPM Auctions. |
| Average Daily FRR ICAP Commitment Amount | (0 MW * 365 days)/365 days = 0 MW | Sum of Party's Daily FRR Capacity Plan Commitments/365 days |
| Average Daily RPM ICAP Commitment Amount | [(31.5 MW * 30 days) + (23.9 MW * 335 days)] / [(31.5 MW * 30 days) + | Sum of Party's Daily RPM Resource Commitments/Sum of Total Daily RPM Resource Commitments for unit * Unit Average Daily RPM ICAP Commitment Amount |

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| DATA | PARTY E | COMMENTS/FORMULA |
|--|---|--|
| | (23.9 MW* 335 days)] * 35 MW = 35 MW | |
| Share of Total Unit ICAP Commitment Amount | 0 MW + 35 MW= 35 MW | Average Daily FRR ICAP Commitment Amount + Average Daily RPM ICAP Commitment Amount |
| | | |
| <i>RPM Commitment Compliance:</i> | | |
| Daily RPM Resource Commitments | 6/1/DY-6/30/DY: 31.5 MW 7/1/DY-5/31/DY: 23.9 MW | 40 MW of Daily RPM Resource Commitments was reduced due to specification of replacement resources. From 6/1/DY-6/30/DY: 40 MW-8.2 MW = 31.5 MW; From 7/1/DY-5/31/DY: 31.5 MW – 7.6 MW = 23.9 MW. |
| Daily RPM Generation Resource Position | 6/1/DY-5/31/DY: (45 MW – 0 MW- 0 MW)*(1-0.3) = 31.5 MW | (Daily ICAP Owned-Daily FRR Capacity Plan Commitments –Daily Unoffered ICAP) *(1-Effective EFORD) |
| RPM Commitment Shortage | 6/1/DY-6/30/DY: 31.5 MW- 31.5 MW = 0 MW 7/1/DY-5/31/DY: 31.5 MW- 23.9 MW = 7.6 MW (excess) | Daily RPM Generation Resource Position - Daily RPM Resource Commitments |
| Daily Capacity Resource Deficiency Charge | 6/1/DY-5/31/DY: (\$116+\$23.20)/MW-day * 0 MW = \$0/day | <ul style="list-style-type: none"> • Daily Deficiency Rate * RPM Commitment Shortage • Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted Average RCP for such resource OR (b) \$20/MW-day. |
| | | |
| <i>Summer/Winter Capacity Testing</i> | | |
| Daily ICAP Shortfall for DY | 0 MW | No shortfall in summer or winter testing. |

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| DATA | PARTY E | COMMENTS/FORMULA |
|--|---|--|
| Generation Resource Rating Test Failure Charge for RPM Resource Commitments for DY | $\$(116 + \$23.20)/\text{MW-day} * 0 \text{ MW} * (1 - 0.3) = \$0/\text{day}$ | <ul style="list-style-type: none"> Daily Deficiency Rate * Daily ICAP Shortfall * (1- Effective EFORD) Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted Average RCP for such resource OR (b) \$20/MW-day. |
| <i>Peak-Hour Period Availability:</i> | | |
| Peak Period Capacity Shortfall for RPM Resource Commitments | $10.5 \text{ MW} * (35 \text{ MW}/35 \text{ MW}) = 10.5 \text{ MW}$ | Unit Peak Period Capacity Shortfall * Party's Daily Average RPM ICAP Commitment Amount/Total Unit ICAP Commitment Amount |
| Net Peak Period Capacity Shortfall for RPM Capacity Plan Commitments in LDA | -1.0 MW (excess) | <ul style="list-style-type: none"> The sum of all Peak Period Capacity Shortfall for RPM Capacity Plan Commitments in an LDA in Party E's resource portfolio was -1.0 MW. Units in Party E's portfolio (including replacement resources #8 & #9) had excess or negative Peak Period Capacity Shortfall for RPM Resource Commitments totaling 11.5 MW. (10.5 MW – 11.5 MW = -1.0 MW) |
| Peak-Hour Period Availability Charge for RPM Resource Commitments | $\$90/\text{MW-day} * 0 \text{ MW} = \$0/\text{day}$ | <ul style="list-style-type: none"> Daily Peak-Hour Period Availability Charge Rate * Net Peak Period Capacity Shortfall in LDA Charge Rate = Party's Weighted Average Resource Clearing Price in an LDA |

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Example #2: Multiple Parties Commit Unit to RPM for different portions of DY.

Example Description:

- Party H owns 500 MW (ICAP) of Generator #10 from 6/1/DY-12/31/DY.
- Party I owns 500 MW (ICAP) of Generator #10 from 1/1/DY-5/31/DY.
- PJM self-scheduled unit on behalf of the parties into DY BRA and clears 495 MW (UCAP) in DY BRA at Resource Clearing Price = \$60/MW-day.
- Party H has 495 MW RPM Resource Commitment from 6/1/DY-12/31/DY.
- Party I has 495 MW RPM Resource Commitment from 1/1/DY-5/31/DY.
- Generator #10 fails the following resource performance assessments during the DY:
 - Summer & Winter Capacity Testing
 - PSM Compliance
 - Peak-Hour Period Availability

UNIT DATA FOR GENERATOR #10

| UNIT DATA | | COMMENTS/FORMULA |
|-------------------------------------|---|---|
| <i>General Data:</i> | | |
| Daily ICAP MW | 500 MW | Summer Rating |
| Effective EFORd | .02 | Effective EFORd during DY |
| Daily UCAP MW | 490 MW | ICAP*(1-Effective EFORd) |
| <i>Commitment Data:</i> | | |
| Daily RPM Resource Commitments | 495 MW | |
| Daily FRR Capacity Plan Commitments | 0 MW | No portion of this unit was committed to an FRR Capacity Plan. |
| Unit Average Daily ICAP | $[(495\text{MW} * 365 \text{ days}) / (1 -$ | $(\text{Sum of Daily RPM Resource Commitments for DY} / (1 - \text{Effective$ |

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| UNIT DATA | | COMMENTS/FORMULA |
|--|---|--|
| Commitment Amount | $0.02) + (0 \text{ MW} * 365 \text{ days}) / 365 \text{ days} = 505.1 \text{ MW}$ | EFORd) + Sum of Daily FRR Capacity Plan Commitments for DY)/365 days |
| Total Unit ICAP Commitment Amount | 500 MW | Lesser of (a) Unit Average Daily ICAP Commitment Amount or (b) Maximum Summer Net Dependable Rating during DY |
| Unit Average Daily FRR ICAP Commitment Amount | $(0 \text{ MW} * 365 \text{ days}) / 365 \text{ days} = 0 \text{ MW}$ | Sum of Daily FRR Capacity Plan Commitments for DY/365 days |
| Unit Average Daily RPM ICAP Commitment Amount | $500 \text{ MW} - 0 \text{ MW} = 500 \text{ MW}$ | Total Unit ICAP Commitment Amount – Unit Average Daily FRR ICAP Commitment Amount |
| <i>Summer/Winter Capacity Testing:</i> | | |
| Highest ICAP Rating in Summer Test | 495 MW | |
| ICAP Shortfall for Summer Testing Period | $500 \text{ MW} - 495 \text{ MW} = 5 \text{ MW}$ | <ul style="list-style-type: none"> • Total Unit ICAP Commitment Amount – Highest ICAP Rating in Summer Test • Applied daily for months of June –November of DY. |
| Highest ICAP Rating in Winter Test | 500 MW | |
| ICAP Shortfall for Winter Testing Period | $5 \text{ MW} = \text{Higher of (a) } 5 \text{ MW or (b) } 0 \text{ MW.}$ | <ul style="list-style-type: none"> • Higher of (a) ICAP Shortfall for Summer Testing Period or (b) Total Unit ICAP Commitment Amount – Highest ICAP Rating in Winter Test. • Applied daily for months of December-May of DY. |
| <i>PSM Compliance:</i> | | |
| Amount of Capacity Out-of-Service on Unapproved Planned or Maintenance Outage during Peak Season | 10 MW | |
| PSM Compliance Shortfall | $500 \text{ MW} - (500 \text{ MW} - 10$ | Total Unit ICAP Commitment Amount – (Summer Net Dependable |

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| UNIT DATA | | COMMENTS/FORMULA |
|---------------------------------------|-------------------------------|---|
| | MW) = 10 MW | Rating on peak season day – Amount of Capacity Out-of-Service on unapproved planned or maintenance outage on a peak season day) |
| <i>Peak-Hour Period Availability:</i> | | |
| EFORd-5 | 0.015 | |
| Target UCAP (TCAP) | 500 MW * (1-0.015) = 492.5 MW | Total Unit ICAP Commitment Amount*(1-EFORd-5) |
| EFORp | 0.05 | |
| Peak Period Capacity Available (PCAP) | 500 MW * (1-0.05) = 475 MW | Total Unit ICAP Commitment Amount * (1-EFORp) |
| Peak-Hour Period Capacity Shortfall | 492.5 MW – 475 MW = 17.5 MW | TCAP-PCAP |

INDIVIDUAL PARTY DATA FOR GENERATOR #10

| DATA | PARTY H | PARTY I | COMMENTS/FORMULA |
|--|--|---|---|
| Daily ICAP Owned | 6/1/DY-12/31/DY: 500 MW 1/1/DY -5/31/DY: 0 MW | 6/1/DY-12/31/DY: 0 MW 1/1/DY-5/31/DY: 500 MW | |
| Daily FRR Capacity Plan Commitments | 0 MW | 0 MW | Unit was not committed to a FRR Capacity Plan. |
| Party's Weighted Resource Clearing Price for such resource | \$60/MW-day | \$60/MW-day | A Party's WARCP for a resource considers the resource clearing prices received and MWs cleared for such resource by the party across all RPM auctions for the DY. |
| Party's Weighted Resource Clearing Price in LDA | \$50/MW-day | \$60/MW-day | A Party's WARCP in LDA considers the resource clearing prices received and MWs cleared by all the |

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| DATA | PARTY H | PARTY I | COMMENTS/FORMULA |
|--|---|---|--|
| | | | Party's resources in an LDA across all RPM Auctions. |
| Average Daily FRR ICAP Commitment Amount | $(0 \text{ MW} * 365 \text{ days}) / 365 \text{ days} = 0 \text{ MW}$ | $(0 \text{ MW} * 365 \text{ days}) / 365 \text{ days} = 0 \text{ MW}$ | Sum of Party's Daily FRR Capacity Plan Commitments/365 days |
| Average Daily RPM ICAP Commitment Amount | $(495 \text{ MW} * 214 \text{ days} / 495 \text{ MW} * 365 \text{ days}) * 500 \text{ MW} = 293.2 \text{ MW}$ | $(495 \text{ MW} * 151 \text{ days} / 495 \text{ MW} * 365 \text{ days}) * 500 \text{ MW} = 206.8 \text{ MW}$ | Sum of Party's Daily RPM Resource Commitments/Sum of Total Daily RPM Resource Commitments for unit * Unit Average Daily RPM ICAP Commitment Amount |
| Share of Total Unit ICAP Commitment Amount | $0 \text{ MW} + 293.2 \text{ MW} = 293.2 \text{ MW}$ | $0 \text{ MW} + 206.8 \text{ MW} = 206.8 \text{ MW}$ | Average Daily FRR ICAP Commitment Amount + Average Daily RPM ICAP Commitment Amount |
| <i>RPM Commitment Compliance</i> | | | |
| Daily RPM Resource Commitments | 6/1/DY-12/31/DY: 495 MW 1/1/DY-5/31/DY: 0 MW | 6/1/DY-12/31/DY: 0 MW 1/1/DY-5/31/DY: 495 MW | Daily Cleared UCAP in BRA |
| Daily RPM Generation Resource Position | 6/1/DY-12/31/DY: $(500 \text{ MW} - 0 \text{ MW} - 0 \text{ MW}) * (1 - 0.02) = 490 \text{ MW}$ 1/1/DY-5/31/DY: $(0 \text{ MW} - 0 \text{ MW} - 0 \text{ MW}) * (1 - 0.02) = 0 \text{ MW}$ | 6/1/DY-12/31/DY: $(0 \text{ MW} - 0 \text{ MW} - 0 \text{ MW}) * (1 - 0.02) = 0 \text{ MW}$ 1/1/DY-5/31/DY: $(500 \text{ MW} - 0 \text{ MW} - 0 \text{ MW}) * (1 - 0.02) = 490 \text{ MW}$ | (Daily ICAP Owned-Daily FRR Capacity Plan Commitments - Daily Unoffered ICAP) *(1-Effective EFORD) |
| RPM Commitment Shortage | 6/1/DY-12/31/DY: 490 MW- 495 MW = -5 MW (shortage) | 6/1/DY-12/31/DY: 0 MW - 0 MW = 0 MW | Daily RPM Generation Resource Position - Daily RPM Resource Commitments |

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| DATA | PARTY H | PARTY I | COMMENTS/FORMULA |
|---|---|--|--|
| | 1/1/DY-5/31/DY: 0 MW – 0 MW = 0 MW | 1/1/DY-5/31/DY: 490 MW- 495 MW = -5 MW (shortage) | |
| Daily Capacity Resource Deficiency Charge | 6/1/DY-12/31/DY: (\$60 +\$20)/MW-day * 5 MW = \$400/day 1/1/DY-5/31/DY: (\$60 +\$20)/MW-day * 0 MW = \$0/day | 6/1/DY-12/31/DY: (\$60+\$20)/MW-day * 0 MW = \$0/day 1/1/DY-5/31/DY: (\$60 +\$20)/MW-day * 5 MW = \$400/day | <ul style="list-style-type: none"> Daily Deficiency Rate * RPM Commitment Shortage Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted Average RCP for such resource OR (b) \$20/MW-day. |
| Summer/Winter Capacity Testing | | | |
| ICAP Shortfall for Summer Testing Period | 5 MW * (0 MW + 293.2 MW)/500 MW = 2.9 MW | 5 MW * (0 MW + 206.8 MW)/500 MW = 2.1 MW | <ul style="list-style-type: none"> Unit ICAP Shortfall for Summer Testing Period * (Party's Average Daily FRR ICAP Commitment Amount + Party's Average Daily RPM ICAP Commitment Amount)/(Total Unit ICAP Commitment Amount) Applied June-November of DY |
| ICAP Shortfall for Winter Testing Period | 5 MW * (0 MW + 293.2 MW)/500 MW = 2.9 MW | 5 MW * (0 MW + 206.8 MW)/500 MW = 2.1 MW | <ul style="list-style-type: none"> Unit ICAP Shortfall for Winter Testing Period * (Party's Average Daily FRR ICAP Commitment Amount + Party's Average Daily RPM ICAP Commitment Amount)/(Total Unit ICAP Commitment Amount) Applied Dec-May of DY |
| Daily ICAP Shortfall | 6/1/DY-5/31/DY: 2.9 MW | 6/1/DY-5/31/DY: 2.1 MW | |

Appendix F: Examples of Generation Resource Performance Assessments During DY

| DATA | PARTY H | PARTY I | COMMENTS/FORMULA |
|---|---|---|---|
| Daily ICAP Shortfall for RPM Resource Commitments | 6/1/DY-5/31/DY: 2.9 MW * (293.2 MW/293.2 MW) = 2.9 MW | 6/1/DY-5/31/DY: 2.1 MW * (206.8 MW/206.8 MW) = 2.1 MW | Daily ICAP Shortfall * (Party's Average Daily RPM ICAP Commitment Amount/Party's Share of Total Unit ICAP Commitment Amount) |
| Generation Resource Rating Test Failure Charge for RPM Resource Commitments during DY | (\$60 + \$20)/MW-day * 2.9 MW * (1-0.02) = \$227.36/day | (\$60 + \$20)/MW-day * 2.1 MW * (1-0.02) = \$164.64/day | <ul style="list-style-type: none"> • Daily Deficiency Rate * Daily ICAP Shortfall * (1-Effective EFORD) • Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted Average RCP for such resource OR (b) \$20/MW-day. |
| <i>PSM Compliance</i> | | | |
| PSM Compliance Shortfall | 10 MW * (0 MW + 293.2 MW)/500 MW = 5.9 MW | 10 MW * (0 MW + 206.8 MW)/500 MW = 4.1 MW | Unit PSM Compliance Shortfall * (Party's Average Daily FRR ICAP Commitment + Party's Average Daily RPM ICAP Commitment Amount)/Total Unit ICAP Commitment Amount |
| Daily PSM Compliance Shortfall | 5.9 MW | 4.1 MW | Assessed each day during peak season that the unit is on unapproved planned or maintenance outage. |
| Daily PSM Shortfall for RPM Resource Commitments | 5.9 MW * (293.2 MW/293.2 MW) = 5.9 MW | 4.1 MW * (206.8 MW/206.8 MW) = 4.1 MW | Daily PSM Shortfall * (Party's Average Daily RPM ICAP Commitment Amount/Party's Share of Total Unit ICAP Commitment Amount) |
| PSM Compliance Charge for RPM Resource Commitments | (\$60 + \$20)/MW-day * 5.9 MW * (1-0.02) = \$462.56/day | (\$60 + \$20)/MW-day * 4.1 MW * (1-0.02) = \$321.44/day | <ul style="list-style-type: none"> • Daily Deficiency Rate * Daily PSM Shortfall * (1-Effective EFORD) • Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted Average RCP for such resource OR (b) \$20/MW-day. |
| <i>Peak-Hour Period</i> | | | |

Appendix F: Examples of Generation Resource Performance Assessments During DY

| DATA | PARTY H | PARTY I | COMMENTS/FORMULA |
|---|--|---|---|
| <i>Availability:</i> | | | |
| Peak Period Capacity Shortfall for RPM Resource Commitments | 17.5 MW * (293.2 MW/500 MW) = 10.3 MW | 17.5MW * (206.8 MW/500 MW) = 7.2 MW | Unit Peak Period Capacity Shortfall * Party's Daily Average RPM ICAP Commitment Amount/Total Unit ICAP Commitment Amount |
| Net Peak Period Capacity Shortfall for RPM Capacity Plan Commitments in LDA | 5 MW | 7.2 MW | <ul style="list-style-type: none"> • The sum of all Peak Period Capacity Shortfall for RPM Capacity Plan Commitments in an LDA in Party H's resource portfolio was 5 MW. Another unit or units in Party H's portfolio had excess or negative Peak Period Capacity Shortfall for RPM Resource Commitments totaling 5.3 MW. (10.3 MW - 5.3 MW = 5 MW) • Party I has no other units in their resource portfolio. |
| Peak-Hour Period Availability Charge for RPM Resource Commitments | \$50.00/MW-day * 5 MW = \$250.00/day | \$60.00/MW-day * 7.2 MW = \$432/day | <ul style="list-style-type: none"> • Daily Peak-Hour Period Availability Charge Rate * Net Peak Period Capacity Shortfall in LDA • Charge Rate = Party's Weighted Average Resource Clearing Price in an LDA |

Appendix F: Examples of Generation Resource Performance Assessments During DY

Example #3: Multiple Parties Commit Unit to RPM & FRR Capacity Plan

Example Description:

- Party F owns 60 MW (ICAP) of Generator #7 and Party G owns 40 MW (ICAP) of Generator #7.
- Party F commits 10 MW (ICAP) to FRR Capacity Plan and 49 MW (UCAP) to RPM. Party F fails to meet their RPM Commitment Compliance.
- Party G commits 37.6 MW (UCAP) of Generator #7 to RPM. Party G meets RPM Commitment Compliance.
- Generator #7 fails the following Resource Performance Assessments during the DY:
 - Summer & Winter Capacity Testing
 - PSM Compliance
 - Peak-Hour Period Availability

UNIT PERFORMANCE DATA FOR GENERATOR #7

| UNIT DATA | | COMMENTS/FORMULA |
|---|--|---|
| General Data: | | |
| Daily ICAP MW | 100 MW | Summer Rating |
| Effective EFORd | .04 | Effective EFORd during DY |
| Daily UCAP MW | 96 MW | ICAP*(1-Effective EFORd) |
| Commitment Data: | | |
| Daily RPM Resource Commitments | 49 MW + 37.6 MW = 86.6 MW | • Sum of Parties Daily RPM Resource Commitments |
| Daily FRR Capacity Plan Commitments | 10 MW + 0 MW = 10 MW | • Sum of Parties Daily FRR Capacity Plan Commitments |
| Unit Average Daily ICAP Commitment Amount | $[(86.6 \text{ MW} * 365 \text{ days}) / (1 - 0.04) + (10 \text{ MW} * 365 \text{ days})] / 365 \text{ days} = 100.2 \text{ MW}$ | (Sum of Daily RPM Resource Commitments for DY / (1 - Effective EFORd) + Sum of Daily FRR Capacity Plan Commitments for DY) / 365 days |
| Total Unit ICAP Commitment Amount | 100 MW | Lesser of (a) Unit Average Daily ICAP Commitment Amount or (b) Maximum Summer Net Dependable Rating during DY |

Appendix F: Examples of Generation Resource Performance Assessments During DY

| UNIT DATA | | COMMENTS/FORMULA |
|---|---|--|
| Unit Average Daily FRR ICAP Commitment Amount | $(10 \text{ MW} * 365 \text{ days})/365 \text{ days} = 10 \text{ MW}$ | Sum of Daily FRR Capacity Plan Commitments for DY/365 days |
| Unit Average Daily RPM ICAP Commitment Amount | $100 \text{ MW} - 10 \text{ MW} = 90 \text{ MW}$ | Total Unit ICAP Commitment Amount – Unit Average Daily FRR ICAP Commitment Amount |
| <i>Summer/Winter Capacity Testing:</i> | | |
| Highest ICAP Rating in Summer Test | 85 MW | |
| ICAP Shortfall for Summer Testing Period | $100 \text{ MW} - 85 \text{ MW} = 15 \text{ MW}$ | <ul style="list-style-type: none"> • Total Unit ICAP Commitment Amount – Highest ICAP Rating in Summer Test • Applied daily for months of June –November of DY. |
| Highest ICAP Rating in Winter Test | 90 MW | |
| ICAP Shortfall for Winter Testing Period | 15 MW = Higher of (a) 15 MW or (b) $100 \text{ MW} - 90 \text{ MW} = 10 \text{ MW}$. | <ul style="list-style-type: none"> • Higher of (a) ICAP Shortfall for Summer Testing Period or (b) Total Unit ICAP Commitment Amount – Highest ICAP Rating in Winter Test. • Applied daily for months of December-May of DY. |
| <i>PSM Compliance:</i> | | |
| Amount of Capacity Out-of-Service on Unapproved Plan or Maintenance Outage during Peak Season | 20 MW | |
| PSM Compliance Shortfall | $100 \text{ MW} - (100 \text{ MW} - 20 \text{ MW}) = 20 \text{ MW}$ | Total Unit ICAP Commitment Amount – (Summer Net Dependable Rating on peak season day – Amount of Capacity Out-of-Service on unapproved planned or maintenance outage on peak season day) |
| <i>Peak-Hour Period</i> | | |

Appendix F: Examples of Generation Resource Performance Assessments During DY

| UNIT DATA | | COMMENTS/FORMULA |
|---------------------------------------|---------------------------|---|
| <i>Availability:</i> | | |
| EFORd-5 | 0.10 | |
| Target UCAP (TCAP) | 100 MW * (1-0.10) = 90 MW | Total Unit ICAP Commitment Amount*(1-EFORd-5) |
| EFORp | 0.20 | |
| Peak Period Capacity Available (PCAP) | 100 MW * (1-0.20) = 80 MW | Total Unit ICAP Commitment Amount * (1-EFORp) |
| Peak-Hour Period Capacity Shortfall | 90 MW – 80 MW = 10 MW | TCAP-PCAP |

INDIVIDUAL PARTY DATA FOR GENERATOR #7

| DATA | PARTY F | PARTY G | COMMENTS/FORMULA |
|--|--------------|--------------|---|
| Daily ICAP Owned | 60 MW | 40 MW | Party F sold 40 MWs of Gen#7 to Party G in US bilateral for entire DY. |
| Daily FRR Capacity Plan Commitments | 10 MW | 0 MW | Only Party F made commitment of Gen#7 to FRR Capacity Plan. |
| Daily Available ICAP (prior to BRA) | 50 MW | 40 MW | Daily ICAP Owned –Daily FRR Capacity Plan Comments |
| ICAP Offered in DY BRA | 50 MW | 40 MW | |
| Sell Offer EFORd | 0.02 | 0.06 | |
| Daily Unoffered ICAP | 0 MW | 0 MW | Daily Available ICAP-ICAP Offered |
| Daily Cleared UCAP in DY BRA | 49 MW | 37.6 MW | |
| Party's Weighted Resource Clearing Price for such resource | \$100/MW-day | \$100/MW-day | A Party's WARCP for a resource considers the resource clearing prices received and MWs cleared for such resource by the party across all RPM auctions for the DY. |
| Party's Weighted Resource Clearing Price in LDA | \$80/MW-day | \$100/MW-day | A Party's WARCP in LDA considers the resource clearing prices received and MWs cleared by all the |

Appendix F: Examples of Generation Resource Performance Assessments During DY

| DATA | PARTY F | PARTY G | COMMENTS/FORMULA |
|--|---|---|--|
| | | | Party's resources in an LDA across all RPM Auctions. |
| Weighted Average of Resource Clearing Prices across all RPM Auctions for LDA encompassing the zone of FRR Entity | \$90/MW-day | NA | The weighted average of resource clearing prices across all RPM Auctions for the LDA encompassing the zone of FRR Entity, weighted by quantities cleared in RPM Auctions. |
| Average Daily FRR ICAP Commitment Amount | $(10 \text{ MW} * 365 \text{ days}) / 365 \text{ days} = 10 \text{ MW}$ | $(0 \text{ MW} * 365 \text{ days}) / 365 \text{ days} = 0 \text{ MW}$ | Sum of Party's Daily FRR Capacity Plan Commitments/365 days |
| Average Daily RPM ICAP Commitment Amount | $(49 \text{ MW} * 365 \text{ days} / 86.6 \text{ MW} * 365 \text{ days}) * 90 \text{ MW} = 50.9 \text{ MW}$ | $(37.6 \text{ MW} * 365 \text{ days} / 86.6 \text{ MW} * 365 \text{ days}) * 90 \text{ MW} = 39.1 \text{ MW}$ | Sum of Party's Daily RPM Resource Commitments/Sum of Total Daily RPM Resource Commitments for unit * Unit Average Daily RPM ICAP Commitment Amount |
| Share of Total Unit ICAP Commitment Amount | $10 \text{ MW} + 50.9 \text{ MW} = 60.9 \text{ MW}$ | $0 \text{ MW} + 39.1 \text{ MW} = 39.1 \text{ MW}$ | Average Daily FRR ICAP Commitment Amount + Average Daily RPM ICAP Commitment Amount |
| | | | |
| <i>RPM Commitment Compliance</i> | | | |
| Daily RPM Resource Commitments | 49 MW | 37.6 MW | Daily Cleared UCAP in BRA |
| Daily RPM Generation Resource Position | $(60 \text{ MW} - 10 \text{ MW} - 0 \text{ MW}) * (1 - 0.04) = 48 \text{ MW}$ | $(40 \text{ MW} - 0 \text{ MW} - 0 \text{ MW}) * (1 - 0.04) = 38.4 \text{ MW}$ | (Daily ICAP Owned - Daily FRR Capacity Plan Commitments - Daily Unoffered ICAP) * (1 - Effective EFORD) |
| RPM Commitment Shortage | -1 MW (Shortage) | 0.8 MW (Excess) | Daily RPM Generation Resource Position - Daily RPM Resource Commitments |
| Daily Capacity Resource Deficiency Charge | $(\$100 + \$20) / \text{MW-day} * 1 \text{ MW} = \$120/\text{day}$ | Not Applicable | <ul style="list-style-type: none"> • Daily Deficiency Rate * RPM Commitment Shortage • Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted Average RCP for such resource OR (b) \$20/MW- |

Appendix F: Examples of Generation Resource Performance Assessments During DY

| DATA | PARTY F | PARTY G | COMMENTS/FORMULA |
|---|--|--|--|
| | | | day. |
| | | | |
| Summer/Winter Capacity Testing | | | |
| ICAP Shortfall for Summer Testing Period | 15 MW * (10 MW + 50.9 MW)/100 MW = 9.1 MW | 15 MW * (0 MW + 39.1 MW)/100 MW = 5.9 MW | <ul style="list-style-type: none"> Unit ICAP Shortfall for Summer Testing Period * (Party's Average Daily FRR ICAP Commitment Amount + Party's Average Daily RPM ICAP Commitment Amount)/(Total Unit ICAP Commitment Amount) Applied June-November of DY |
| ICAP Shortfall for Winter Testing Period | 15 MW * (10 MW + 50.9 MW)/100 MW = 9.1 MW | 15 MW * (0 MW + 39.1 MW)/100 MW = 5.9 MW | <ul style="list-style-type: none"> Unit ICAP Shortfall for Winter Testing Period * (Party's Average Daily FRR ICAP Commitment Amount + Party's Average Daily RPM ICAP Commitment Amount)/(Total Unit ICAP Commitment Amount) Applied Dec-May of DY |
| Daily ICAP Shortfall for DY | 9.1 MW | 5.9 MW | |
| Daily ICAP Shortfall for FRR Capacity Plan Commitments | 9.1 MW * (10 MW/60.9 MW) = 1.5 MW | 5.9 MW * (0 MW/39.1 MW) = 0 MW | Daily ICAP Shortfall * (Party's Average Daily FRR ICAP Commitment Amount/Party's Share of Total Unit ICAP Commitment Amount) |
| Daily ICAP Shortfall for RPM Resource Commitments | 9.1 MW * (50.9 MW/60.9 MW) = 7.6 MW | 5.9 MW * (39.1 MW/39.1 MW) = 5.9 MW | Daily ICAP Shortfall * (Party's Average Daily RPM ICAP Commitment Amount/Party's Share of Total Unit ICAP Commitment Amount) |
| Generation Resource Rating Test Failure Charge for FRR Capacity Plan Commitments for DY | (1.2*\$90/MW-day) * 1.5 MW * (1-0.04) = \$155.52/day | Not Applicable | <ul style="list-style-type: none"> Daily Deficiency Rate * Daily ICAP Shortfall * 1-Effective EFORD Daily Deficiency Rate = 1.2 * weighted average resource clearing prices across all RPM auctions for the LDA encompassing the zone of FRR Entity. |

Appendix F: Examples of Generation Resource Performance Assessments During DY

| DATA | PARTY F | PARTY G | COMMENTS/FORMULA |
|--|--|--|---|
| Generation Resource Rating Test Failure Charge for RPM Resource Commitments for DY | $(\$100 + \$20)/\text{MW-day} * 7.6 \text{ MW} * (1 - 0.04) = \$875.52/\text{day}$ | $(\$100 + \$20)/\text{MW-day} * 5.9 \text{ MW} * (1 - 0.04) = \$679.68/\text{day}$ | <ul style="list-style-type: none"> Daily Deficiency Rate * Daily ICAP Shortfall * 1-Effective EFORD Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted Average RCP for such resource OR (b) \$20/MW-day. |
| PSM Compliance: | | | |
| PSM Compliance Shortfall | $20 \text{ MW} * (10 \text{ MW} + 50.9 \text{ MW})/100 \text{ MW} = 12.2 \text{ MW}$ | $20 \text{ MW} * (0 \text{ MW} + 39.1 \text{ MW})/100 \text{ MW} = 7.8 \text{ MW}$ | Unit PSM Compliance Shortfall * (Party's Average Daily FRR ICAP Commitment + Party's Average Daily RPM ICAP Commitment Amount)/Total Unit ICAP Commitment Amount |
| Daily PSM Compliance Shortfall | 12.2 MW | 7.8 MW | Assessed each day during peak season the unit is on unapproved planned or maintenance outage. |
| Daily PSM Shortfall for FRR Capacity Plan Commitments | $12.2 \text{ MW} * (10 \text{ MW}/60.9 \text{ MW}) = 2.0 \text{ MW}$ | $7.8 \text{ MW} * (0 \text{ MW}/39.1 \text{ MW}) = 0 \text{ MW}$ | Daily PSM Shortfall * (Party's Average Daily FRR ICAP Commitment Amount/Party's Share of Total Unit ICAP Commitment Amount) |
| Daily PSM Shortfall for RPM Resource Commitments | $12.2 \text{ MW} * (50.9 \text{ MW}/60.9 \text{ MW}) = 10.2 \text{ MW}$ | $7.8 \text{ MW} * (39.1 \text{ MW}/39.1 \text{ MW}) = 7.8 \text{ MW}$ | Daily PSM Shortfall * (Party's Average Daily RPM ICAP Commitment Amount/Party's Share of Total Unit ICAP Commitment Amount) |
| PSM Compliance Charge for FRR Capacity Plan Commitments | $(1.2 * \$90/\text{MW-day} * 2 \text{ MW} * (1 - 0.04)) = \$207.36/\text{day}$ | Not Applicable | <ul style="list-style-type: none"> Daily Deficiency Rate * Daily PSM Shortfall * 1-Effective EFORD Daily Deficiency Rate = 1.2 * weighted average resource clearing prices across all RPM auctions for the LDA encompassing the zone of FRR Entity |
| PSM Compliance Charge for RPM Resource Commitments | $(\$100 + \$20)/\text{MW-day} * 10.2 \text{ MW} * (1 - 0.04) = \$1175.04/\text{day}$ | $(\$100 + \$20)/\text{MW-day} * 7.8 \text{ MW} * (1 - 0.04) = \$898.56/\text{day}$ | <ul style="list-style-type: none"> Daily Deficiency Rate * Daily PSM Shortfall * 1-Effective EFORD Daily Deficiency Rate = Party's WARCP for such resource + higher of (a) .2 * Party's Weighted |

Appendix F: Examples of Generation Resource Performance Assessments During DY

| DATA | PARTY F | PARTY G | COMMENTS/FORMULA |
|---|-----------------------------------|-----------------------------------|---|
| | | | Average RCP for such resource OR (b) \$20/MW-day. |
| <i>Peak-Hour Period Availability:</i> | | | |
| Peak Period Capacity Shortfall for FRR Capacity Plan Commitments | 10 MW * (10 MW/100 MW) = 1 MW | 10 MW * (0 MW/100 MW) = 0 MW | Unit Peak Period Capacity Shortfall * Party's Daily Average FRR ICAP Commitment Amount/Total Unit ICAP Commitment Amount |
| Net Peak Period Capacity Shortfall for FRR Capacity Plan Commitments in LDA | 0.2 MW | 0 MW | <ul style="list-style-type: none"> The sum of all Peak Period Capacity Shortfall for FRR Capacity Plan Commitments in an LDA in Party F's resource portfolio was 0.2 MW. Another unit or units in Party F's portfolio had excess or negative Peak Period Capacity Shortfall for FRR Capacity Plan Commitments totaling 0.8 MW. (1 MW – 0.8 MW = 0.2 MW) Party G has no other units in their resource portfolio. |
| Peak-Hour Period Availability Charge for FRR Capacity Plan Commitments | \$90/MW-day * 0.2 MW = \$18/day | Not Applicable | <ul style="list-style-type: none"> Daily Peak-Hour Period Availability Charge Rate * Net Peak Period Capacity Shortfall in LDA Charge Rate = weighted average of resource clearing prices across all RPM Auctions for the LDA encompassing the zone of the FRR Entity. |
| Peak Period Capacity Shortfall for RPM Resource Commitments | 10 MW * (50.9 MW/100 MW) = 5.1 MW | 10 MW * (39.1 MW/100 MW) = 3.9 MW | Unit Peak Period Capacity Shortfall * Party's Daily Average RPM ICAP Commitment Amount/Total Unit ICAP Commitment Amount |
| Net Peak Period Capacity Shortfall for RPM Capacity Plan Commitments in LDA | 2 MW | 3.9 MW | <ul style="list-style-type: none"> The sum of all Peak Period Capacity Shortfall for RPM Capacity Plan Commitments in an LDA in Party F's resource portfolio was 2 MW. Another unit or units in Party F's portfolio had excess or negative Peak Period Capacity Shortfall for RPM Resource |

Appendix F: Examples of Generation Resource Performance Assessments During DY

| DATA | PARTY F | PARTY G | COMMENTS/FORMULA |
|---|-----------------------------------|--------------------------------------|---|
| | | | Commitments in LDA totaling 3.1 MW. (5.1 MW - 3.1 MW = 2 MW) <ul style="list-style-type: none"> • Party G has no other units in their resource portfolio. |
| Peak-Hour Period Availability Charge for RPM Resource Commitments | \$80/MW-day * 2 MW = \$160.00/day | \$100.00/MW-day * 3.9 MW = \$390/day | <ul style="list-style-type: none"> • Daily Peak-Hour Period Availability Charge Rate * Net Peak Period Capacity Shortfall in LDA • Charge Rate = Party's Weighted Average Resource Clearing Price in an LDA |