| Quadrennial Review D  | esign Components and Options Poll - July 2018 |  |
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| Contact Information   |                                               |  |
|                       |                                               |  |
| * Contact Information |                                               |  |
| Name                  |                                               |  |
| Email Address         |                                               |  |
| Phone Number          |                                               |  |
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## Quadrennial Review Design Components and Options Poll - July 2018 Company Selection (A through E) Please select the company(s) A through E that you are eligible to respond on behalf of, for this poll. Companies beginning with an F through Z are available on the next two pages. Company (A through E) Company (A through E)

| Company (A through E) |  |  |  |  |
|-----------------------|--|--|--|--|
|                       |  |  |  |  |
| Company (A through E) |  |  |  |  |
|                       |  |  |  |  |
| Company (A through E) |  |  |  |  |
| Company (A through E) |  |  |  |  |
|                       |  |  |  |  |
| Company (A through E) |  |  |  |  |
|                       |  |  |  |  |
| Company (A through E) |  |  |  |  |
| Company (A through L) |  |  |  |  |
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### Quadrennial Review Design Components and Options Poll - July 2018

### Company Selection (F through O)

| Company Selection (F through O) |  |
|---------------------------------|--|
| Company Selection (F through O) |  |

| Company Selection (F thr | ,        |  |  |
|--------------------------|----------|--|--|
| Company Selection (F thr | ough O)  |  |  |
|                          |          |  |  |
| Company Selection (F thr | rough O) |  |  |
| Company Selection (F thr | ough O)  |  |  |
| Company Selection (F thr | ough O)  |  |  |
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### Quadrennial Review Design Components and Options Poll - July 2018

#### Company Selection (P through Z)

| ompany Selection (P through Z) |  |
|--------------------------------|--|
| ompany Selection (P through Z) |  |

| Company Selection (P throu |        |  |  |
|----------------------------|--------|--|--|
| Company Selection (P throu | ugh Z) |  |  |
| Company Selection (P throu | ugh Z) |  |  |
| Company Selection (P throu | ugh Z) |  |  |
| Company Selection (P throu | ugh Z) |  |  |
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| Questions ase respond with your preferred                                                                         | options for each design component.                                                                               |
|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
|                                                                                                                   | Resource Technology for purpose of VRR Curve options below in order of preference (1 = Most Preferred to 3 = Lea |
| Status Quo                                                                                                        |                                                                                                                  |
| Combustion Turbine (  • single unit configurat                                                                    | CT) GE Frame 7HA:<br>tion - 320 MW X 1 (320 MW)                                                                  |
| Combined Cycle (CC)                                                                                               |                                                                                                                  |
|                                                                                                                   |                                                                                                                  |
|                                                                                                                   | oort for Design Component: RTO-Wide Gross CONE                                                                   |
| Status Quo: Use average Gross CONE of the four                                                                    | port for Design Component: RTO-Wide Gross CONE                                                                   |
| Status Quo: Use average Gross CONE of the four CONE Areas Use the lowest of the Gross CONE of the four            | port for Design Component: RTO-Wide Gross CONE                                                                   |
| Status Quo: Use average                                                                                           | port for Design Component: RTO-Wide Gross CONE                                                                   |
| Status Quo: Use average Gross CONE of the four CONE Areas Use the lowest of the Gross CONE of the four CONE Areas | port for Design Component: RTO-Wide Gross CONE                                                                   |
| Status Quo: Use average Gross CONE of the four CONE Areas Use the lowest of the Gross CONE of the four CONE Areas | port for Design Component: RTO-Wide Gross CONE                                                                   |

| * 3. Indicate your level of support for Design Comp<br>the Reference Resource (Peak Hour Dispatch)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | onent: Method for calculating Net Energy Revenue for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ancillary Services Revenue Offset under Tariff, Antiforth in the PJM Manuals, that the Reference Restour distinct blocks of four hours of continuous out with the hour ending 0800 EPT through to the hour ahead LMP for the area for which the Net Cost of to, the cost to generate (including the cost for a conduring each four-hour block, where such blocks is provided that, if there are not at least two economic Resource shall be assumed not to be committed such block in the Day-Ahead Energy Market under dispatched in the Real-Time Energy Market for such such block in the Real-Time Energy Market for such such such such such such such such | If mean, for purposes of calculating the Energy and stachment DD, section 5, an assumption, as more fully set source is committed in the Day-Ahead Energy Market in tput for each block from the peak-hour period beginning ar ending 2300 EPT for any day when the average day-length New Entry is being determined is greater than, or equal complete start and shutdown cycle) for at least two hours shall be assumed to be committed independently; nic hours in any given four-hour block, then the Reference for such block; and to the extent not committed in any er the above conditions based on Day-Ahead LMPs, is such block if the Real-Time LMP is greater than or equal to as described above for the Day-Ahead Energy Market. |
| Status Quo: Economic Dispatch for 16 peak hours of each day                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Economic Dispatch for 24 hours of each day                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| * 4. Indicate your level of support for the Design Co for the Reference Resource Fuel used                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | omponent: Method for calculating Net Energy Revenues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Status Quo: Gas only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Gas and oil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| May be able to support, please elaborate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Preferred). |                                                                                                                                                                                                                                                                                                           |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | Status Quo: Determine Net EAS for the reference resource using peak-hour dispatch against hourly PJM F                                                                                                                                                                                                    |
|             | LMP and a gas price based on the average of all gas price indices assigned to PJM zones. Subtract this                                                                                                                                                                                                    |
|             | computed Net EAS from the RTO Gross CONE to determine the RTO Net CONE.                                                                                                                                                                                                                                   |
|             | For RTO Net CONE, use the lowest Net CONE of the four CONE Areas                                                                                                                                                                                                                                          |
|             | For RTO Net CONE, subtract the median of the Net EAS values determined for all PJM zones from the R1                                                                                                                                                                                                      |
|             | wide Gross CONE.                                                                                                                                                                                                                                                                                          |
| O4l l       |                                                                                                                                                                                                                                                                                                           |
| otner, piea | ase elaborate.                                                                                                                                                                                                                                                                                            |
|             |                                                                                                                                                                                                                                                                                                           |
|             |                                                                                                                                                                                                                                                                                                           |
|             |                                                                                                                                                                                                                                                                                                           |
|             | k the design component antions below in order of preference (1 - Most Preferred to 3 - Leas                                                                                                                                                                                                               |
|             |                                                                                                                                                                                                                                                                                                           |
|             |                                                                                                                                                                                                                                                                                                           |
|             | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.                                                                                                                                                             |
|             | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.                                                                                                                                                             |
|             | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values                                                                                                                                                                                                          |
|             | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.                                                                                                                                                             |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.                                                                                 |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |
| Preferred). | Status Quo: The Net CONE of a multi-zone LDA is determined as the average of the Net CONE values determined for all zones located in the LDA.  Determine the Net CONE as median Net CONE of the zones comprising the LDA.  Determine the Net CONE as the lowest Net CONE of the zones comprising the LDA. |

|                                | Status Quo: Average (mean) of annual Net E&AS revenues of prior 3 calendar years                                                                                  |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                | Sum of monthly median values of monthly E&AS revenues of prior 3 calendar years                                                                                   |
|                                | Mean of annual Net E&AS, with possible test for an extreme value, triggering an alternative approach for t<br>month using a median.                               |
| Other, ple                     | ase elaborate.                                                                                                                                                    |
|                                |                                                                                                                                                                   |
|                                |                                                                                                                                                                   |
| _                              | Component: Net E&AS Revenue Offset Methodology - Gas Pricing Hubs<br>nk the design component options below in order of preference (1 = Most Preferred to 3 = Leas |
| Preferred                      | ).                                                                                                                                                                |
|                                |                                                                                                                                                                   |
| Please re                      | fer to revised matrix posted with 7/27 MIC special session materials.                                                                                             |
| Please re                      | fer to revised matrix posted with 7/27 MIC special session materials.  Status Quo                                                                                 |
| Please re                      | Status Quo                                                                                                                                                        |
| Please rei                     |                                                                                                                                                                   |
| Please rei                     | Status Quo                                                                                                                                                        |
|                                | Status Quo  Solution Option A  Solution Option B                                                                                                                  |
|                                | Status Quo Solution Option A                                                                                                                                      |
|                                | Status Quo  Solution Option A  Solution Option B                                                                                                                  |
|                                | Status Quo  Solution Option A  Solution Option B                                                                                                                  |
| Other, ple                     | Status Quo  Solution Option A  Solution Option B  ase elaborate.                                                                                                  |
| Other, ple                     | Status Quo  Solution Option A  Solution Option B                                                                                                                  |
| Other, ple  9. Can yo  Yes     | Status Quo  Solution Option A  Solution Option B  ase elaborate.                                                                                                  |
| Other, ple  9. Can yo  Yes  No | Solution Option A  Solution Option B  ase elaborate.  u support Design Component: Net E&AS Revenue Offset Methodology - Cost adder of 10%?                        |
| Other, ple  9. Can yo  Yes     | Solution Option A  Solution Option B  ase elaborate.  u support Design Component: Net E&AS Revenue Offset Methodology - Cost adder of 10%?                        |

| Status Quo: Point a) quantity = IRM - 0.2%, price = greater (CONE or 1.5*Net CONE) Point b) quantity = IRM + 2.9%, price = 0.75*Net CONE Point c) quantity = IRM + 8.8%, price = 0                                                                    |                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| 1% left shift of the VRR Curve: Point a) quantity = IRM - 1.2%, price = greater (CONE or 1.5*Net CONE) Point b) quantity = IRM + 1.9%, price = 0.75*Net CONE Point c) quantity = IRM + 7.8%, price = 0 Need May be able to support, please elaborate. |                                            |
| 11. Indicate your level of support fo                                                                                                                                                                                                                 | or Design Component: Debt to Equity Ratio  |
| Status Quo:<br>60/40                                                                                                                                                                                                                                  | for Design Component: Debt to Equity Ratio |
| Status Quo:                                                                                                                                                                                                                                           | for Design Component: Debt to Equity Ratio |
| Status Quo:<br>60/40<br>Solution<br>Option A -                                                                                                                                                                                                        | for Design Component: Debt to Equity Ratio |
| Status Quo: 60/40 Solution Option A - 65/35 Solution Option B -                                                                                                                                                                                       |                                            |
| Status Quo: 60/40 Solution Option A - 65/35 Solution Option B - 50/50                                                                                                                                                                                 |                                            |
| Status Quo: 60/40 Solution Option A - 65/35 Solution Option B - 50/50                                                                                                                                                                                 |                                            |
| Status Quo: 60/40 Solution Option A - 65/35 Solution Option B - 50/50                                                                                                                                                                                 |                                            |

| Quadrennial Review Design Components and Options Poll - July 2018 |                                 |  |  |  |
|-------------------------------------------------------------------|---------------------------------|--|--|--|
| Additional Comments                                               |                                 |  |  |  |
|                                                                   |                                 |  |  |  |
| Please provide any additional comments that may not have been c   | overed by the survey questions. |  |  |  |
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# Quadrennial Review Design Components and Options Poll - July 2018 **Closing Instructions** If you wish to respond differently for additional companies, please access the same survey link using a different IP address. For instance, if you first completed this poll using your laptop, please use your phone, iPad, or desktop to complete it again. Note: you are able to edit your responses until the poll closes using the same access link.