



# Design Criteria

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## **Key Work Activity 1 includes the following step:**

“define a set of design criteria intended to ensure that reserve markets and deployment in PJM function in a manner that meets performance expectations, by providing the necessary compensation and/or penalties to incent performance through a competitive market.”

- PJM is sharing an initial set of design criteria during this first meeting to help further frame the problem statement and opportunities to reform the reserve market.
- These design criteria will be revisited at the culmination of the education for the immediate-need key work activities and again after education on the longer-term key work activities to solicit stakeholder input and additions.

## Price Formation Principles

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|---|--|
| <ul style="list-style-type: none"> <li>• Reserve and energy prices reflect system conditions and appropriately value scarcity.</li> </ul> | <ul style="list-style-type: none"> <li>• Resources assigned reserves will provide them when deployed.</li> </ul> |
| <ul style="list-style-type: none"> <li>• ORDCs reflect the reliability value of reserves.</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Market power is mitigated.</li> </ul>                                   |
| <ul style="list-style-type: none"> <li>• The actual reserve capability on the system is accurately measured.</li> </ul>                   | <ul style="list-style-type: none"> <li>• Social welfare is maximized.*</li> </ul>                                |

## Additional Principles included in AD21-10

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|--|--|
| <ul style="list-style-type: none"> <li>• Proper locational market signals that guide optimal investments.</li> </ul> | <ul style="list-style-type: none"> <li>• Rules that encourage robust participation and create efficient market results.</li> </ul> |
| <ul style="list-style-type: none"> <li>• Solutions that are nimble with evolution.</li> </ul>                        | <ul style="list-style-type: none"> <li>• Simplicity in market design where possible.</li> </ul>                                    |
| <ul style="list-style-type: none"> <li>• Market rules that are non-discriminatory.</li> </ul>                        | <ul style="list-style-type: none"> <li>• Transparency.</li> </ul>  |

\*NOTE\*: Maximizing social welfare is the objective function of the market clearing algorithms. The goal of this objective function is to optimally allocate resources for energy and reserves such that the final allocation simultaneously maximizes the benefit to consumers and the revenues to suppliers. This is done by maximizing the difference between the consumer's willingness to pay for a product and the bid production cost of cleared supply.

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