



Documentation Requirements for Minimum Offer Price Rule (MOPR) Unit and Resource Specific Exception Requests

The request for an exception to the MOPR should include the following documentation, as applicable. The CONE Template is available on the Monitoring Analytics website, [Tools](#) page.

1. General Project Information. (Refer to Section 1 of the CONE Template).
 - a. A complete written project description. Include physical description of facilities, ownership structure, financing structure and sources of owner or tax equity and debt.
 - b. Project development and construction schedule showing key milestones with completion on or before the start of the relevant Delivery Year.
 - c. Environmental permits, including the following:
 - i. Air Permit (approved permit or permit application)
 - ii. National Pollutant Discharge Elimination System (NPDES) Permit (approved permit or permit application)
 - d. Identify the PJM generation interconnection queue number(s).
2. Capital Costs. (Refer to Section 2 of the CONE Template).
 - a. Contractor and vendor quotes for the plant construction and equipment purchases and/or evidence of actual costs of recent comparable projects. Supporting documentation for this includes:
 - i. Engineering, Procurement, and Construction (EPC) award documents or the EPC request for proposal (RFP) document and the competitive bidder results.
 - ii. Detailed EPC cost estimates by an engineering firm including cost of major equipment and the equipment suppliers, scope of supply, labor costs and any scope or cost exclusions.
 - b. Supporting documentation for electric, gas and water interconnection costs and any cost contingencies.
 - i. A description of the gas and water supply plan including capital costs, permit requirements, fixed and variable costs and any supply agreements that are in place or being negotiated.
3. Fixed Operations and Maintenance (O&M) Expenses. (Refer to Sections 3 and 4 of the CONE Template).
 - a. Supporting documentation for property taxes, land leases, insurance, operations and maintenance (O&M) expenses, and other fixed O&M expenses including administrative or general costs.
 - i. Supporting documentation for property taxes may include an agreement with the local government or evidence of pricing based on negotiations in progress.

- ii. Supporting documentation for O&M expenses may include either an owner internal determination or a third party O&M contractor proposal of staffing levels and costs and fixed maintenance expenses and other costs such as a management fee, project operating manuals and training.
 - iii. Any long term maintenance agreement with a third party or equipment supplier.
 - b. Supporting documentation for escalation assumptions.
- 4. Taxes and Project Financial Structure. (Refer to Sections 5 and 6 of the CONE Template).
 - a. Financing documents for construction period and permanent financing or evidence of recent debt costs of the seller for comparable investments.
 - i. Supporting documentation may include documents from the lending institutions such as executed loan agreements or term sheets that identify the debt term, interest rate and amount and/or any customized annual principal and interest payments.
 - b. Supporting documentation for the following:
 - i. Claimed capital structure
 - ii. Rate of return on equity
 - iii. Debt cost
 - iv. Cost recovery period
 - v. Inflation rate
 - vi. Other parameters used in financial modeling
 - vii. Target equity internal rate of return (IRR) percent. Provide supporting documents from the equity participants.
 - c. Identify all investors in the project, all sources of financing and any plans to sell all or part of the project.
 - d. Explain all plans to sell all or part of the output, including term of sale, all terms of sale and buyer(s).
- 5. Depreciation and Federal Investment Tax Credits (ITC). (Refer to Sections 7 and 8 of the CONE Template).
 - a. If depreciation or ITC schedule differs from the guidelines in the CONE Template, please provide supporting documentation for the claimed depreciation and ITC schedules.
- 6. Economic Proforma Model. The CONE Template or capacity market seller's economic proforma model may be used. If using own economic proforma model, the model should be in Excel format and include the following:
 - a. All information specified in Sections 1 through 10 of the CONE Template
 - b. Financial modeling assumptions:
 - i. Nominal levelization of gross costs
 - ii. Asset life of 20 years. An asset life of greater than 20 years but no greater than 35 years may be used only if documented. See item 7.
 - iii. No residual value
 - iv. All project costs included with no sunk costs excluded

- v. Use first year projected net energy and ancillary services (E&AS) revenues (which may include revenues from the sale of renewable energy credits for purposes other than meeting state-mandated standards or state-sponsored programs)
 - vi. Weighted average cost of capital based on the actual cost of capital for the entity proposing to build the Capacity Resource, with all components specified
 - vii. After tax cash flow model which determines gross CONE revenue requirement in \$ per MW-day to achieve target internal rate of return (IRR) at the end of the asset life. Refer to the ProformaModel tab of the CONE Template.
 - 1. Account for tax depreciation only, federal and state corporate income tax, debt interest and principal payments, and any investment tax credits (in lieu of production tax credits)
 - 2. Use an equity placement date on the start of the first capacity or earlier
 - 3. Use a middle of capacity year convention for annual capacity revenue and all annual fixed expenses
7. Asset Life. Documentation to support an asset life greater than 20 years but no greater than 35 years includes:
- a. The asset life term (financial life not physical life) for such resource as used in the Capacity Market Seller's financial accounting (e.g. independently audited financial statements)
 - b. Project financing documents for the resource, including the term or duration of the financing.
 - c. To the extent the seller has not executed project financing for the resource:
 - i. Evidence of actual financing costs or financing assumptions of recent comparable projects
 - ii. Information about the expected time period for the full repayment of equity and debt investments
 - iii. Opinions of third party experts regarding the reasonableness of the financing assumptions related to the duration of financing and risk used for the project itself or in comparable projects
 - iv. Evidence presented in federal filings, such as its FERC Form No. 1 or SEC Form 10-K, to demonstrate an asset financial life other than 20 years for similar projects
 - d. Additional fixed O&M expenses and capital expenditures for component replacement required for the requested asset life.
8. Net Revenues. (Refer to Section 9 of the CONE Template.)
- a. Identify all revenue sources (exclusive of any State Subsidies) or revenue guaranteed which may include any long-term power supply contracts; bilateral agreements; tolling agreements; or tariffs on file with state or federal regulatory agencies. Provide supporting documentation.
 - i. Projected net energy and ancillary services revenues
 - ii. Bilateral revenues and costs
 - iii. Reactive capability revenues. Please provide the applicable FERC docket number.

- iv. Production tax credits (in lieu of investment tax credits)
 - v. Revenues from the sale of renewable energy credits (RECs) for purposes other than meeting state mandated standards or state sponsored programs. Please provide the associated contract(s). The documentation must show that the buyer is not permitted to use the RECs to satisfy state renewable portfolio standards.
- b. Projected net energy and ancillary services (E&AS) revenues. MMU calculated projected net E&AS revenues or capacity market seller's own projected net E&AS may be used. If using own projected net E&AS, a well defined forward looking dispatch model must be used, designed to generally follow the rules and processes of PJM's energy and ancillary services markets. Such models must use publicly available forward prices for electricity and fuel in the PJM Region and include prices at the generator bus. Any modifications made to the forward electricity and fuel prices must similarly use publicly available data and be clearly documented. Alternative forward prices for fuel may be used if accompanied by contractual evidence showing the applicability of the alternative fuel price. Where forward fuel markets are not available, publicly available estimates of future fuel prices may be used. Supporting documentation for this includes the following:
- i. Documented estimates of future energy and fuel prices at the generator bus
 - ii. Variable operation and maintenance (VOM) expenses, consistent with PJM Manual 15
 - iii. Energy demand
 - iv. Emissions allowance prices
 - v. Expected environmental or energy policies that affect the seller's forecast of electricity prices in the relevant region
 - vi. Short run marginal costs such as variable water and sewer, lubricants and chemical expenses for water treatment and environmental control systems
 - vii. Plant performance and capability information including:
 - 1. Plant net heat rate and net capacity from 10 °F to 100 °F in 10 degree increments
 - 2. Start-up times and costs including fuel consumed, power consumed and produced, and emissions produced
 - 3. Forced outage rate
 - 4. Planned outage schedules
 - 5. Maintenance cycles
 - 6. Fuel costs, maintenance adders and operating costs, consistent with Operating Agreement, Schedule 2
 - 7. Expected capacity factor and output profile provided by a third party
 - 8. Ancillary service capabilities
- c. Power Purchase Agreement (PPA) based net revenues. Please provide the PPA which should demonstrate that the agreement is an arm's length transaction. If REC revenues are included, the documentation must show that the buyer is not permitted to use the RECs to satisfy state renewable portfolio standards.
9. Officer Certification. A certification, signed by an officer of the Capacity Market Seller and consistent with PJM Open Access Transmission Tariff (OATT) must be provided.

- a. Certain New Generation Capacity Resources that are not Capacity Resources with State Subsidy
 - i. OATT Attachment DD § 5.14(h)(5)(ii): The request shall include a certification, signed by an officer of the Capacity Market Seller, that the claimed costs accurately reflect, in all material respects, the seller's reasonably expected costs of new entry and that the request satisfies all standards for an exception hereunder.
 - b. New Entry Capacity Resources with State Subsidy
 - i. OATT Attachment DD § 5.14(h-1)(3)(B): In addition to the certification, signed by an officer of the Capacity Market Seller, the request must include a certification that the claimed costs accurately reflect, in all material respects, the seller's reasonably expected costs of new entry and that the request satisfies all standards for a resource-specific exception hereunder.
 - ii. OATT Attachment DD § 5.14(h-1)(3)(E): The Capacity Market Seller must submit a sworn, notarized certification of a duly authorized officer, certifying that the officer has personal knowledge of the resource-specific exception request and that to the best of his/her knowledge and belief: (1) the information supplied to the Market Monitoring Unit and the Office of Interconnection to support its request for an exception is true and correct; (2) the Capacity Market Seller has disclosed all material facts relevant to the request for the exception; and (3) the request satisfies the criteria for the exception.
10. In addition to the identified supporting documentation, the Capacity Market Seller shall provide any additional information requested by the MMU to evaluate the proposed sell offer.