



# *Cost of New Entry PY 2020/21*

Resource Adequacy Subcommittee

11 September 2019

# Purpose & Key Takeaways



## Purpose:

Present summary of updated efforts on locational Cost of New Entry (“CONE”) values

## Key Takeaways:

- FERC filing will be made this week for estimates of MISO’s CONE values for 2020/2021 Planning Year
- MISO’s estimates are up on last year’s estimates systematically across all LRZs.

# Sections

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# Introduction

- Cost of New Entry is an industry-wide term, used to indicate the current, annualised, capital cost of constructing a power plant.
  - The plant is assumed to be used infrequently.
  - The calculations made by various entities use differing assumptions and methods.
- CONE is used by MISO primarily as the maximum offer and maximum clearing price, converted to a daily value, in the Planning Resource Auctions.
- Net CONE is a related concept, wherein expected inframarginal rents from energy & ancillary services are subtracted from the CONE value.
  - Not currently in use at MISO

# Tariff Provisions

## Section 69A.8

MISO and the Independent Market Monitor (“IMM”) determine the CONE value for each LRZ, as follows:

- Consider factors, including, but not limited to: (1) physical factors (such as, the type of Generation Resource that could reasonably be constructed to provide Planning Resources, costs associated with locating the Generation Resource within the Transmission Provider Region, the estimated costs of fuel for the Generation Resource); (2) financial factors (such as, the hypothetical debt/equity ratio for the Generation Resource, the cost of capital, a reasonable return on equity, applicable taxes, interest, insurance); and (3) other costs (such as, costs related to permitting, environmental compliance, operating and maintenance expenses). In calculating the CONE, the Transmission Provider and the IMM shall not consider the anticipated net revenue from the sale of capacity, Energy or Ancillary Services. CONE values will be calculated for each LRZ.

# Inputs

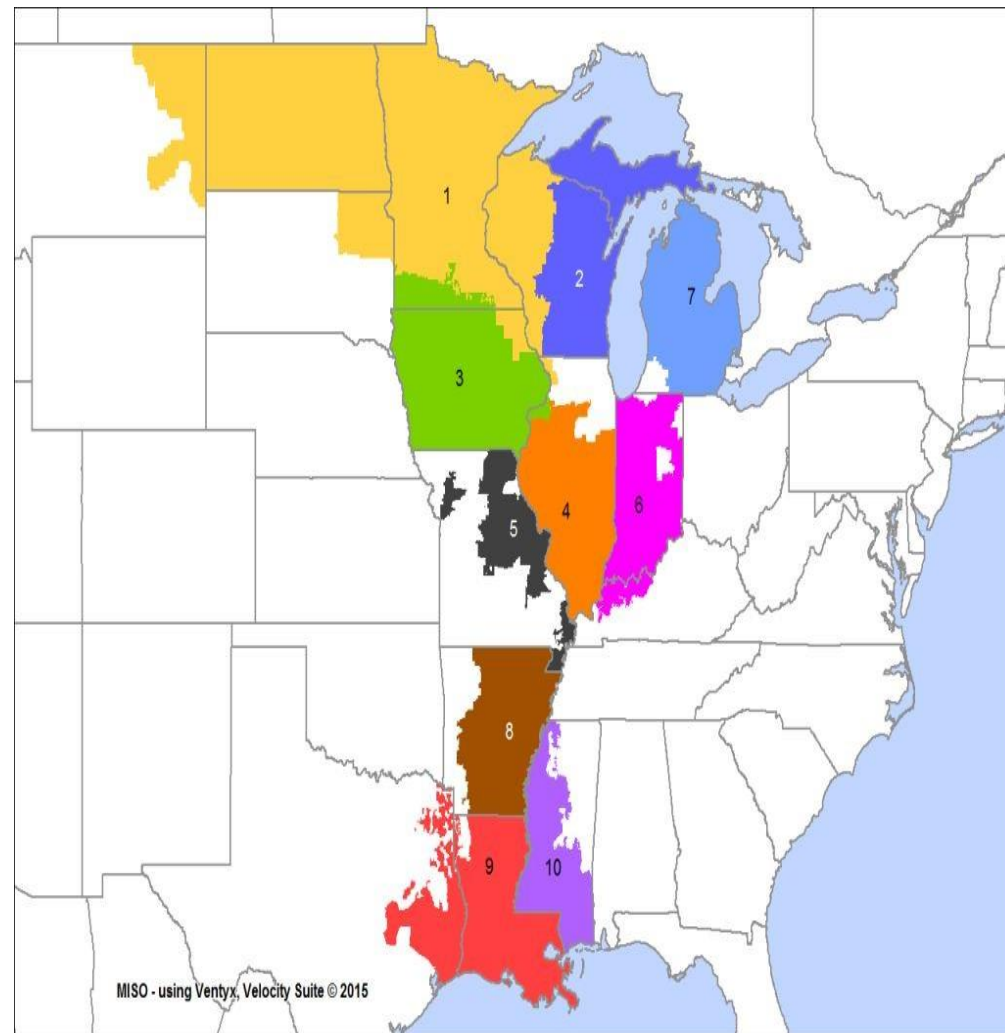
- **Primary Inputs**
  - **Economic**
    - Implicit price deflator
    - O&M escalation factor (2.37%)
  - **Financial**
    - 55/45 debt/equity ratio
    - 20-year project/finance life
    - 6.20% cost of debt
    - 13.4% after tax return on equity
    - 26.7% effective tax rate
  - **Capital Costs, by Local Resource Zone (EIA)**
    - See filing, Attachment A
  - **Operation & Maintenance Costs (EIA)**

# Methodology

- Capital costs annualised using net present value (NPV) method
- O&M costs escalated, then annualised using NPV
- Insurance & property taxes are add-on costs
  - 1.5% of the capital costs
- Results checked and normalised against IMM calculations

# Results

ZONE	PY 2020/21 CONE \$*(MW*yr) <sup>-1</sup>	PY 2019/20 CONE \$*(MW*yr) <sup>-1</sup>
LRZ 1	\$ 93,470	\$ 88,460
LRZ 2	\$ 91,860	\$ 87,170
LRZ 3	\$ 91,330	\$ 87,420
LRZ 4	\$ 92,960	\$ 88,390
LRZ 5	\$ 95,190	\$ 89,960
LRZ 6	\$ 93,030	\$ 87,780
LRZ 7	\$ 94,000	\$ 88,830
LRZ 8	\$ 89,660	\$ 84,780
LRZ 9	\$ 86,350	\$ 81,640
LRZ10	\$ 89,410	\$ 84,370





# Contact Information

- Contact Michael Robinson  
([mrobinson@misoenergy.org](mailto:mrobinson@misoenergy.org) )