UP IRP 5.8.2017 Notes and Recommendations

Three sets of comments provided to the UP IRP workgroup on scenarios and sensitivities.

UMERC

Most participants in agreement with the two scenarios presented:

Business As Usual

 Base, No Tilden Load, Empire 100 MW Load Returns, Natural Gas prices up 50%, Natural Gas Prices down \$1

Higher UP Locational Marginal Prices (LMP)/Energy Prices go up 50%

- o Base, Natural Gas prices up 50%, Natural Gas Prices down \$1
- Most participants in agreement of a simplified IRP for the two rate regulated UP utilities.
- Requested Base, Low and High Fuel price forecasts.
 - o EIA Annual Energy Outlook 2017
 - o Table 3: Energy Prices
- Questions raised on what are the base energy prices and if the 50% increase would be enough for the 15 year IRP, and maybe use instead 100% or 200% increase.
- Discussion of Michigan Phase 2 Transmission Study and most participants agreed that transmission concept projects should be included to the extent that the transmission projects are moving through MISO's Economic Planning User Group (EPUG), Regional Transmission Overlay Study (RTOS) or Transmission Expansion Planning (MTEP), otherwise too speculative.
- Generation concept projects should be included.
- Proposals not to study EWR/DG/EE/DER/Other technologies/Decreased load since the magnitude of load is so small, however maybe be included after discussion with other workgroups.
- Carbon/Environmental policy issues, Jim Weeks will find out the retirement date of the Marquette Shiras coal plant. Presque Isle plans to retire 2020 and will discuss with environmental workgroup.

Union of Concerned Scientists

- Interested in the UP specific EE potential studies
- Interested in UP specific DR/other technology
- Agreed that there are too many variables in the Spreadsheet matrix
- Work on the names of the Scenarios and Sensitivities
- Concern with the modeling of the transmission options

UP IRP 5.8.2017 Notes and Recommendations

ITC

- Added scenarios and sensitivities to the Spreadsheet matrix that may be too much for the UP or smaller LP utilities, resulting answers are very similar or not necessary for the UP load profile and generation or transmission needs.
- However their spreadsheet could be used by the other workgroups in developing their sensitivities and scenarios

Recommendations

- Two scenarios as listed above but increase the natural gas price from 50% to 100% of base.
- Include transmission to the extent concept projects are moving through ATC's 10 year plan or MISO's MTEP.
- Include basic sensitivities from the other workgroups as determined for the smaller utilities filing requirements including the two UP rate regulated utilities.