



Benefit Calculation for Market Efficiency Projects

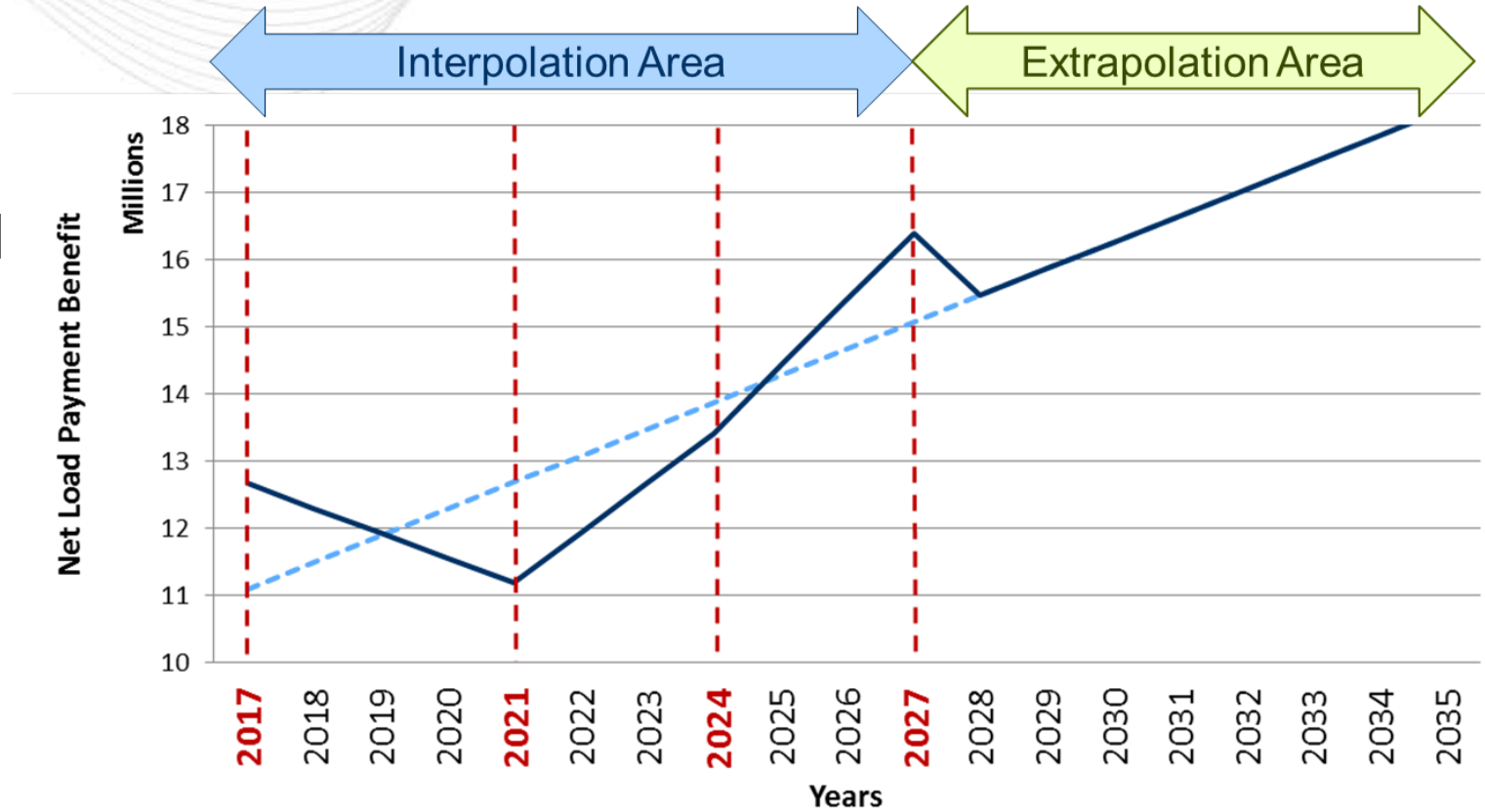
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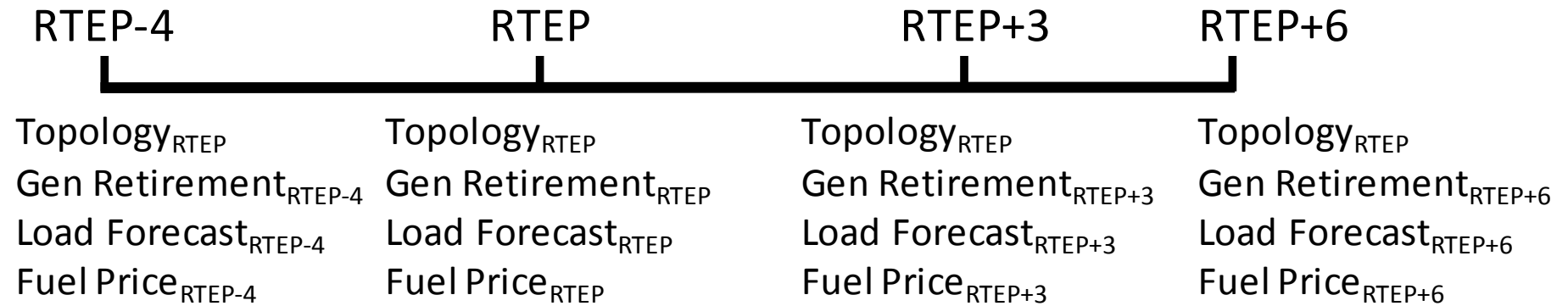
Benefits Calculation – Current Methodology

- Annual benefits based on PROMOD simulations
- Four simulation years between the current year and 10 years out
 - RTEP-4, RTEP, RTEP+3, RTEP+6
- Interpolated between the simulation years
- Extrapolated beyond 10 years out



- NPV of annual benefits is calculated for the first 15 years of project life.
- NPV of benefits is compared to the NPV of the project's revenue requirement for the same 15-year period.
- If the ratio of the NPV of benefits to the NPV of costs exceeds 1.25, then the upgrade shall be recommended for inclusion in the PJM Regional Transmission Expansion Plan (RTEP).

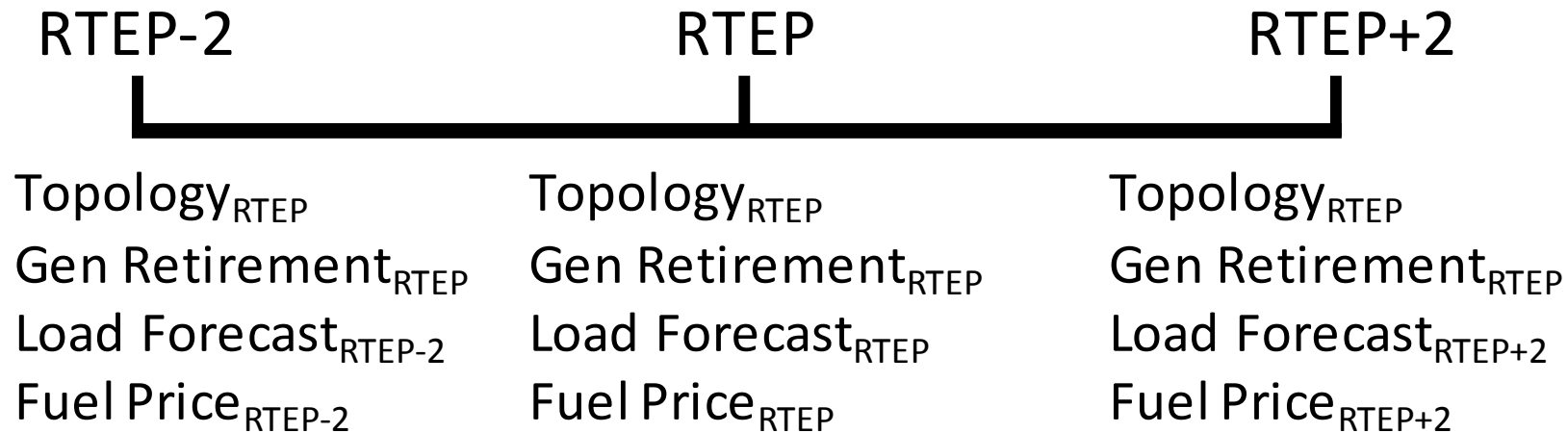
- Uncertainty in benefits calculation due to unknown future market conditions
- Inconsistency between transmission topology and generation retirement assumptions



- Capacity benefit calculation overestimates the benefits by extrapolating the benefits for up to 15 years.

- Calculate benefits based on 3 years of simulation:
 - RTEP-2
 - RTEP
 - RTEP+2
- Use RTEP+4 year for trend adjustment.
- Run sensitivities for a more robust estimate.

- Use consistent assumptions to reflect the impact of important trends on project benefit.



- Simulate RPM year and RTEP year (RPM+2), and interpolate the year in between.
- Calculate B/C ratio based on 3 years of benefits and upgrade's revenue requirement for the same 3-year period.