Financier's View on Solar Uncertainty Analysis

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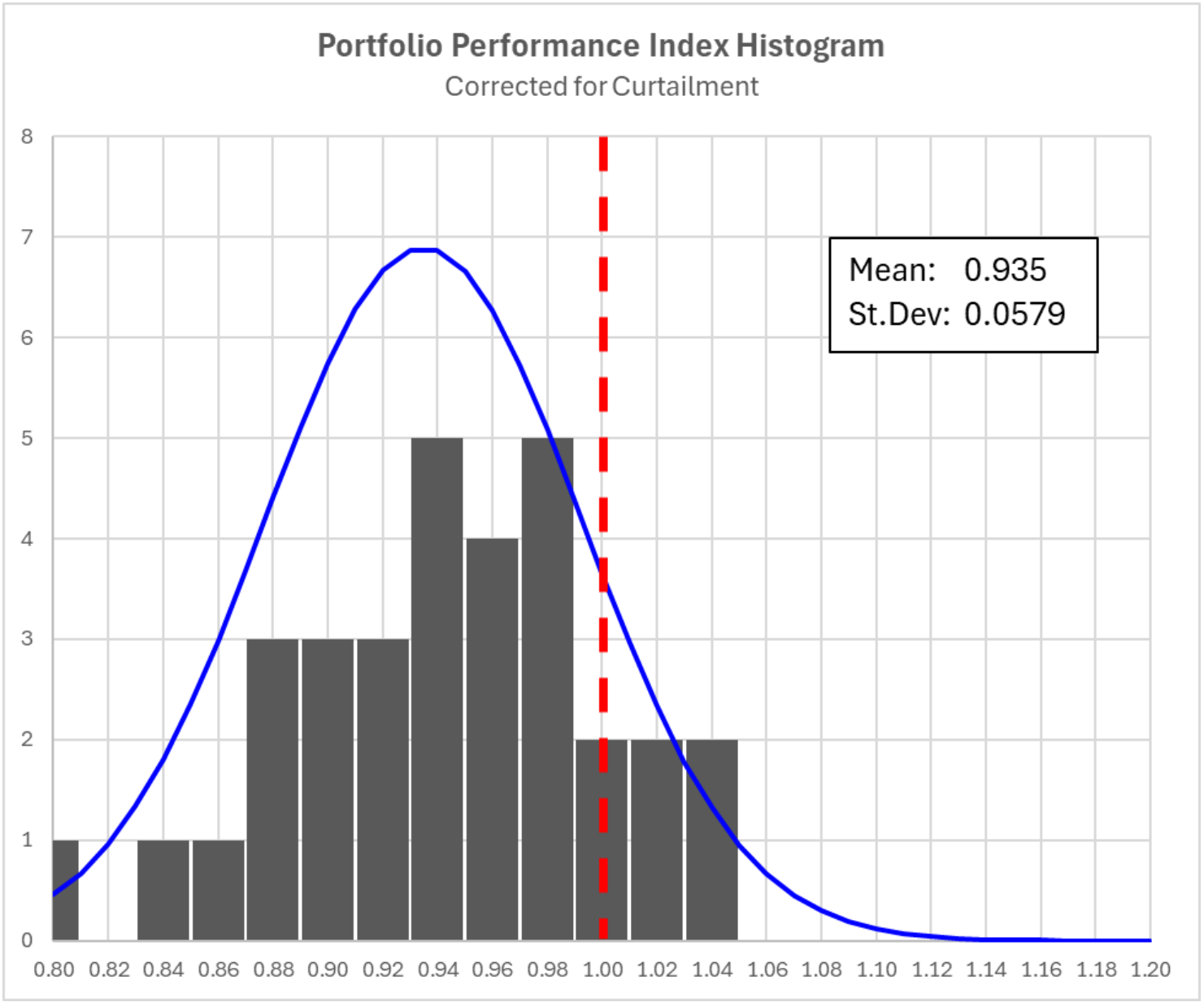
Typical Application of Uncertainties for Solar Project Financing

- **Debt**
  - Coverage ratios based on 1-year P99 (x 1.0) and P50 (x ~1.3)
  - P50 governs the debt sizing based on typical P99::P50 ratios
  - Production shortfalls often have non-linear impacts on cash for debt service

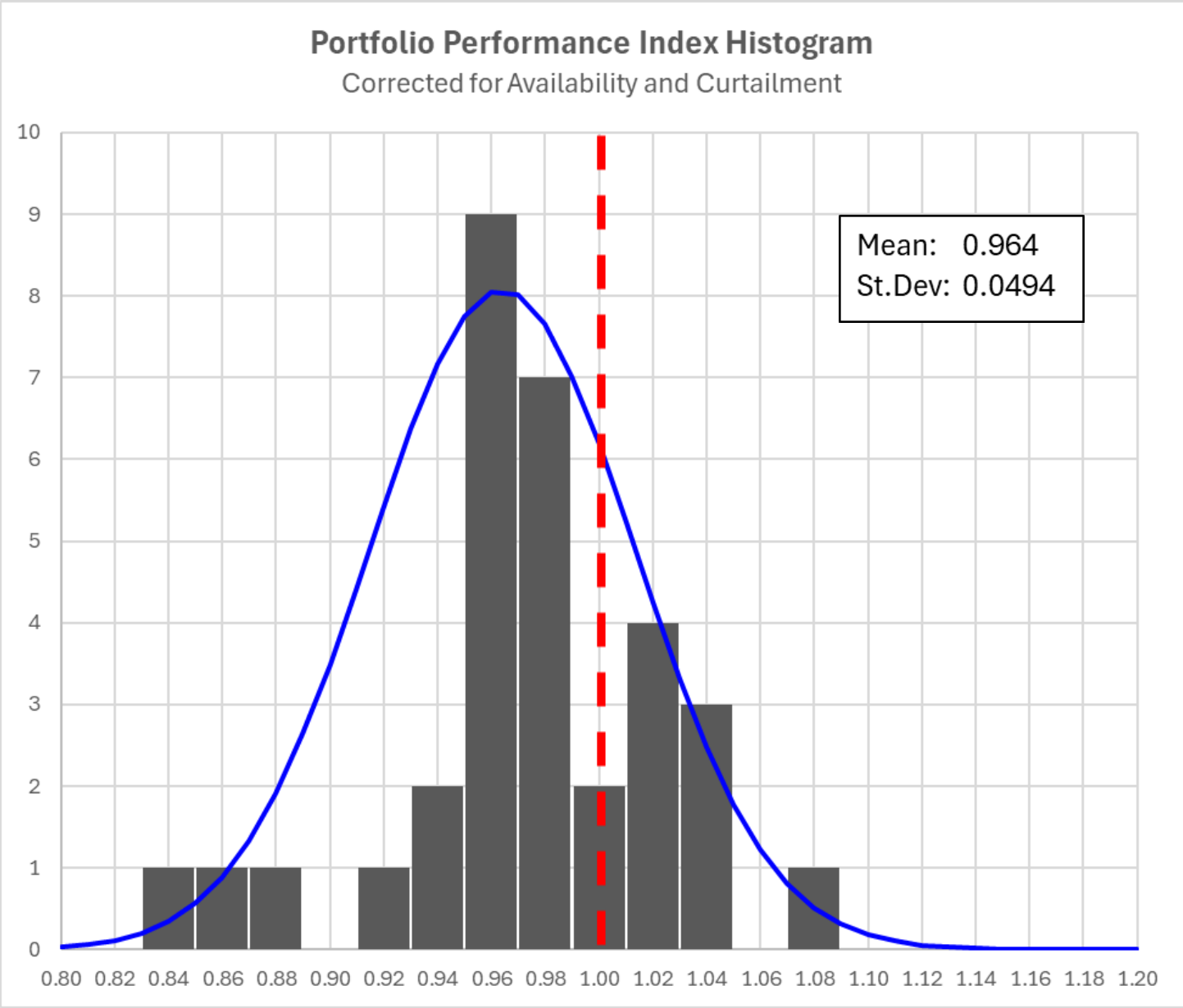
- **Tax Equity**
  - P50 drives Production Tax Credit (PTC) forecast but remains relevant for Investment Tax Credit (ITC) as well
  - 10-year P99 commonly used as structuring metric
  - "Flip extension" in downside P-cases impacts tax equity sizing, cash allocations, PayGo pricing, structural protections, etc.

- **Practical factors**
  - More debt and tax equity yields a lower blended cost of capital
  - Complexities within tax equity models and interactions between debt and tax equity
  - Sizing parameters and commercial terms largely established prior to detailed diligence

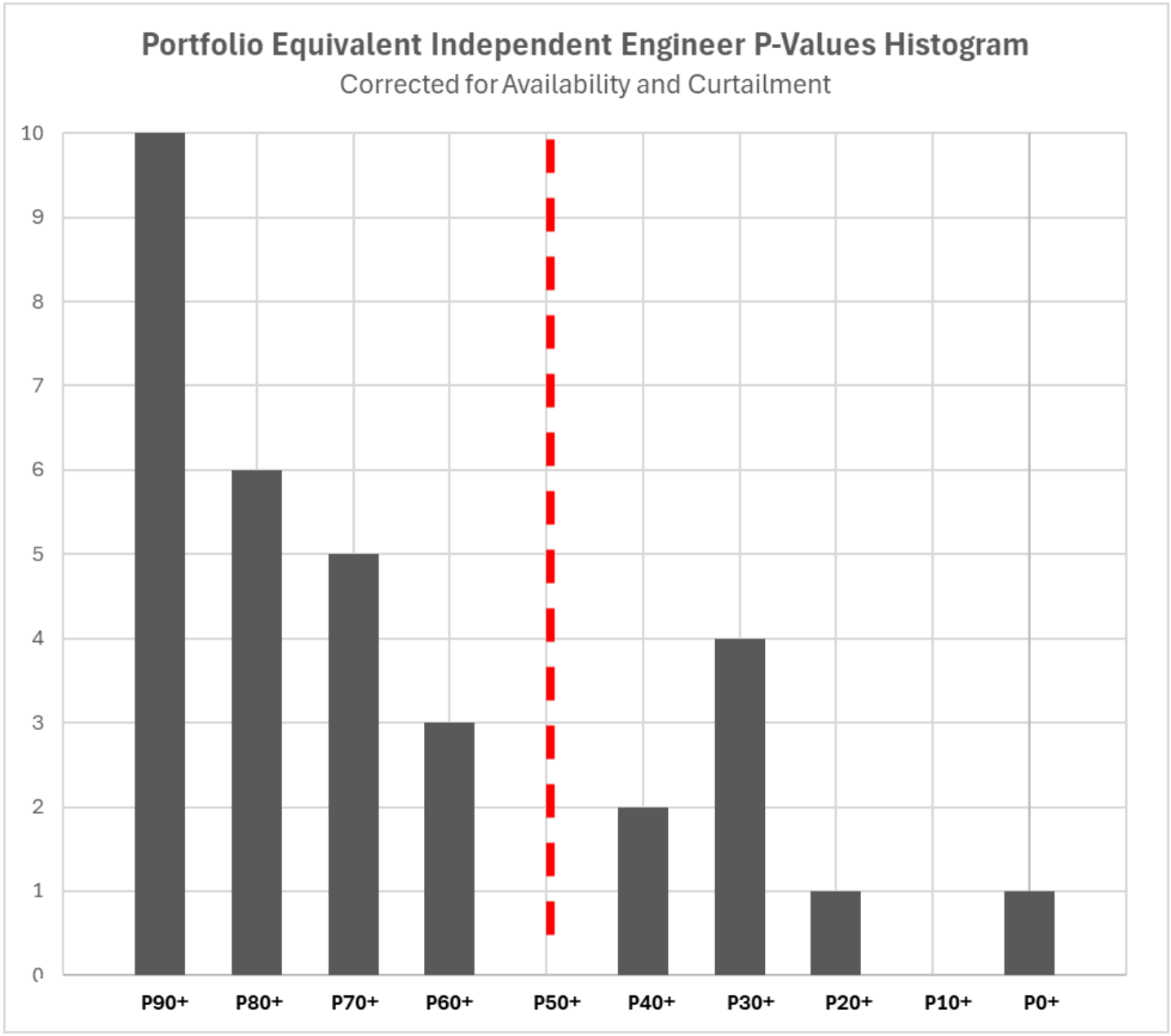
Portfolio Performance Index
32 Projects, Adjusted for Curtailment Only



Portfolio Performance Index
Adjusted for Curtailment, Normalized to 99% Availability

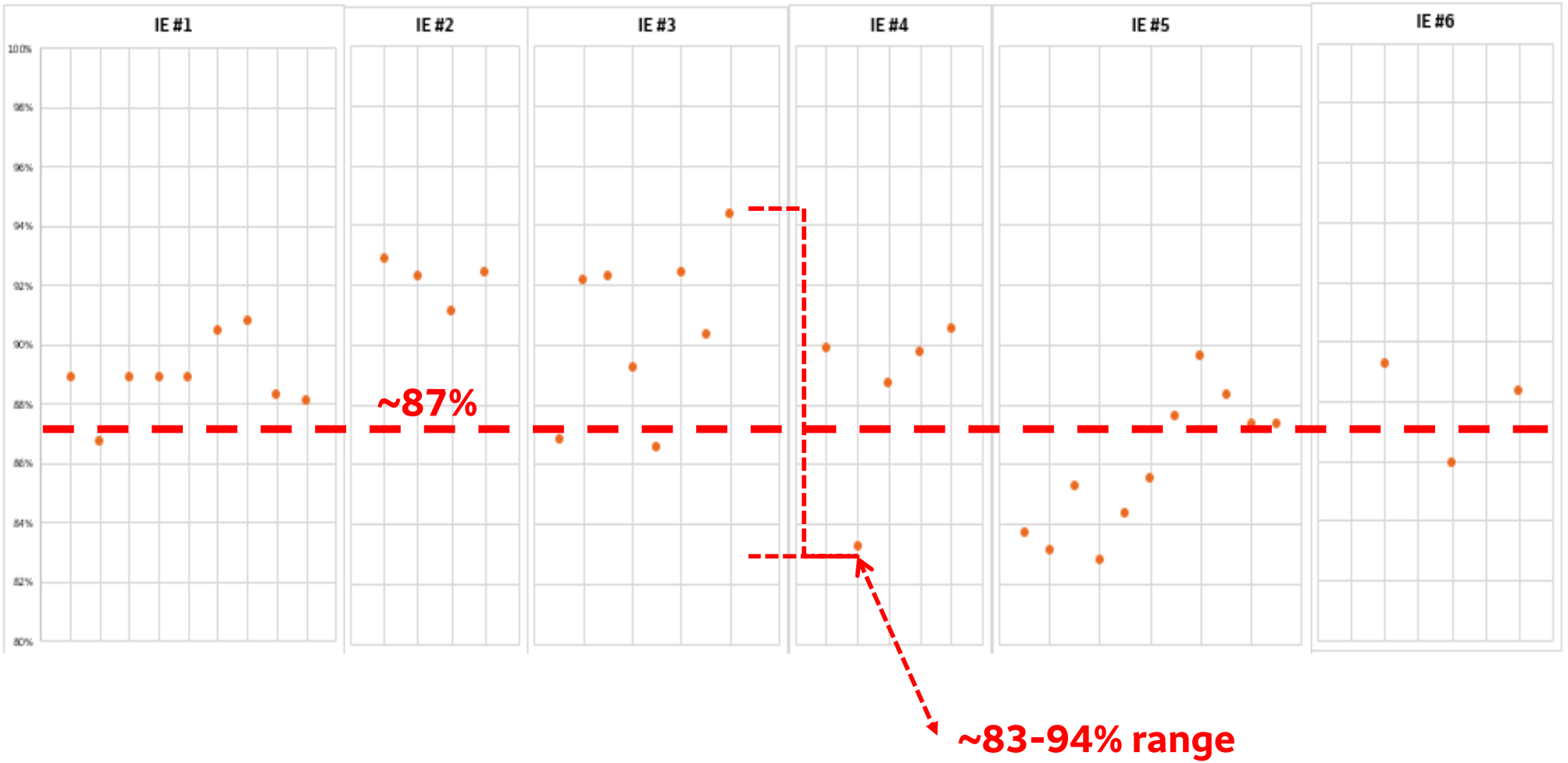


Independent Engineer Equivalent P-cases
Adjusted for Curtailment, Normalized to 99% Availability



Independent Engineer 10-year P99:P50 Ratios

Inconsistent, not comprehensive, and trending optimistic



‘All models are wrong, but some are useful...’

- Empirical data suggest uncertainty distributions tend to be too tight.
- Several uncertainty factors (availability, degradation) are commonly omitted.
- Operational data demonstrate significant P50 bias—beyond recent IE adjustments for sub-hourly clipping, complex terrain, and availability.
- Financiers require **consistent, comprehensive, and credible** uncertainty models, but these are still only **useful** for financiers if the P50 is also accurate.
- Continued need to **focus on accuracy (vs precision)** of P50 estimates.
- **Theory vs. Practice:**
  - *For structuring purposes*, downside cases need to adequately account for relevant uncertainties and P50 bias.
  - IE results in isolation are generally inadequate, leading to conservative underwriting (sensitivity cases, haircuts, parallel assessments, structural protections, etc.).
  - Industry evolution towards lower financing costs requires reliable, actionable inputs over multiple deal cycles.

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Thank you

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