

## Stage 2 – Structural Recalibration Brief

### Shock Diagnosis

Out-of-time dataset exhibits higher volatility and amplified peak variability. Regulatory escalation increases peak underforecast penalty from ■4 to ■6.

### Impact Quantification

| Metric                  | Value     |
|-------------------------|-----------|
| Total Penalty           | 49,575.29 |
| Peak Penalty            | 13,091.67 |
| Off-Peak Penalty        | 36,483.63 |
| Bias (%)                | 0.10      |
| 95th Percentile Abs Dev | 19.59     |
| Best Peak Multiplier    | 1.005     |
| Recalibrated Penalty    | 48,517.32 |

### Trade-Off Recognition

Increased buffering reduces catastrophic peak underforecast exposure but increases overforecast bias. Risk prioritization favors peak stability.

### Stage 3 Direction

Introduce peak-specific quantile forecasting (~0.75), volatility-adaptive buffers, and rolling recalibration to manage structural shifts.

