



Actuarial Services – Rate Indication Summary

Texas Windstorm Insurance Association (TWIA)

Willis Towers Watson (WTW)

September 22, 2020

Summary of Rate Level Indication

Please review entire report for more information

Hurricane Projection Method	Residential Indicated Rate Level Change	Commercial Indicated Rate Level Change
Actual Experience and Models (50%/50%)	32%	42%
Actual Experience	21%	34%
Hurricane Models (25% AIR/ 75% RMS)	42%	49%
AIR Model	54%	54%
RMS Model	39%	47%

WTW Rate Indications – Notable Adjustments

- Recommend 75 / 25 weighting of RMS / AIR catastrophe models for rate filing and 1-100 yr PML determination
 - based on scientific and technical analysis of catastrophe models in Tier I Texas
 - frequency
 - severity
 - loss validation of historical events
 - selected long-term rates (rather than near-term)
- Updated reinsurance provision
 - estimated costs of purchasing less limit
 - allocated cost between residential and commercial
- Removed storm surge provision
- LAE calculation

Hurricane Model Validation - Summary

Please review entire report for more information

Cat model approach for reinsurance and rate filings

Metric	Hurricane Loss and LAE Ratio (HuLR) ¹ or Reinsurance Spend part of Fixed Expenses ²	TWIA's Current Approach ³	WTW Recommendation
Model Weight (RMS/AIR)	Both	50% / 50%	75% / 25%
Long-term / Medium-term	Both	Medium term	Long term
Loss Adjustment Expense	Both	15% load	17.2% load ⁵
Storm Surge (flood)	HuLR	10% load on AAL	excluded
	Reinsurance	excluded	excluded
1-100 yr (11/30/19 data)	Reinsurance	3,600,000,000	3,180,000,000
LAE Load		15.00%	17.20%
1-100 yr w/ LAE (rounded)		4,200,000,000	3,740,000,000
Assumed Reinsurance Limit (2020)		2,100,000,000	1,640,000,000
Assumed Reinsurance Retention (2020)		2,100,000,000	2,100,000,000
2020 Net Reinsurance Spend \$ ⁴		102,066,436	85,227,815
2020 Reinsurance Cost % for Rate Indication	Residential	18.7%	15.8%
	Commercial	18.7%	17.9%
2019 Earned Premium at Present Rates		384,669,667	384,669,667

¹ Hurricane Loss and LAE Ratio found in Indication Exhibit 5

² Reinsurance Spend as a part of Fixed Expenses found in Indication Exhibit 11

³ This figure represents the methodology TWIA is currently using and the actual limit purchased.

⁴ Current Net Spend = 107,500,000 gross spend less broker discount, depopulation policies and applicable commissions. See Indication Exhibit 11.2

⁵ Details on the calculation of the Loss Adjustment Expense for the HuLR can be found in Indication Exhibit 4.2

WTW Recommended Future Enhancements

- Capture commercial business occupancy data
- Capture secondary risk characteristics
- Capture details from inspection reports
- Geocode all policies at street level
- Explore data extraction and artificial intelligence options available in the market to quickly and efficiently assist TWIA in capturing additional claims and exposure information

Questions



Willis Towers Watson 