

Texas Windstorm Insurance Association
Willis Towers Watson Report
PML Determination & Rate Indication

Cat models- reinsurance & rate indication

	Column A	Column B	Column C
Metric	TWIA's Current Approach³	WTW Recommendation Pre-Data Quality "Original"	WTW Recommendation With Data Quality "Revised"
Model Weight (RMS/AIR)	50% / 50%	75% / 25%	75% / 25%
1-100 yr (11/30/19 data)	3,600,000,000	3,180,000,000	2,997,136,072
LAE Load	15.00%	17.20%	17.20%
1-100 yr w/ LAE (rounded)	4,200,000,000	3,740,000,000	3,515,000,000
Assumed Reinsurance Limit (2020)	2,100,000,000	1,640,000,000	1,415,000,000
Assumed Reinsurance Retention (2020)	2,100,000,000	2,100,000,000	2,100,000,000
2020 Net Reinsurance Spend \$ ⁴	102,066,436	85,227,815	76,000,000
Rate Indication - Residential		+32%	+26%
Rate Indication - Commercial		+42%	+44%

	B - A	C - B	C - A
TWIA Current Approach vs WTW Recommendation Pre-Data Quality "Original"			
	(420,000,000)	(182,863,928)	(602,863,928)
	2.20%	0.00%	2.20%
	(460,000,000)	(225,000,000)	(685,000,000)
	(460,000,000)	(225,000,000)	(685,000,000)
	(16,838,621)	(9,227,815)	(26,066,436)

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

⁷ Net of Commission, Depopulation, and Broker Discount

⁸ WTW Net Reinsurance Spend Recommendation assumes flat commission, depopulation, and broker discount

Note: As requested by TWIA Committee, Notional 1 (Seaward) results represent the consideration of additional risks which belongs within the Seaward region as defined by TDI for RMS Opening Protection/ AIR Window Protection modifiers. Notional 2 is the same as Notional 1 with the addition of Inland 1 territory having Opening Protections on all properties

Cat models- reinsurance & rate indication - NOTIONAL

	Column A	Column B	Column C
Metric	TWIA's Current Approach³	Notional 1	Notional 2
Model Weight (RMS/AIR)	50% / 50%	75% / 25%	75% / 25%
Long-term / Medium-term	Medium term	Long term	Long term
Loss Adjustment Expense	15% load	17.2% load ⁵	17.2% load ⁵
Storm Surge (flood)	10% load on AAL excluded	excluded excluded	excluded excluded
1-100 yr (11/30/19 data)	3,600,000,000	2,577,700,000	2,234,018,814
LAE Load	15.00%	17.20%	17.20%
1-100 yr w/ LAE (rounded)	4,200,000,000	3,021,000,000	2,620,000,000
Assumed Reinsurance Limit (2020)	2,100,000,000	921,000,000	520,000,000
Assumed Reinsurance Retention (2020)	2,100,000,000	2,100,000,000	2,100,000,000
2020 Net Reinsurance Spend \$ ⁴	102,066,436	58,168,198	34,428,269
Rate Indication - Residential		+20%	+11%
Rate Indication - Commercial		+31%	+20%

	B - A	C - B	C - A
TWIA Current Approach vs WTW Recommendation Pre-Data Quality "Original"			
	(1,022,300,000)	(343,681,186)	(1,365,981,186)
	2.20%	0.00%	2.20%
	(1,179,000,000)	(401,000,000)	(1,580,000,000)
	(1,179,000,000)	(401,000,000)	(1,580,000,000)
	(43,898,238)	(23,739,929)	(67,638,167)

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

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