# **DESCARTES**

# **Parametric Hail**

Index-based coverage for solar





Parametric Insurance contracts are based on an index, or metric.

Once the predefined index is reached, coverage is triggered, the insured is eligible for a loss payment.



Rapid and predictable claims payment



New(ish) tool for mitigating high-severity claims scenarios



Transparent and predictable claims process.



Liquidity post catastrophic event



## Parametric vs Indemnity (ISO Forms)

**Payout Mechanism** - parametric pays out a predetermined sum based on the occurrence of predefined triggers.

**Immediate Liquidity** - Near immediate payout (inside of 1-month). Cash-flow stabilization post event. Alternative to credit facilities in a high interest rate environment.

**Named Perils** - Parametric insurance provides rapid payouts and greater certainty but is limited to certain perils and requires reliable data.

Basis Risk- The delta between actual loss sustained, and the triggered loss payment.

A balanced risk transfer portfolio has both indemnity and index-based products.

### Payout structure determinants

#### **MODULES RESISTANCE**

- Front glass thickness
- Hail test certification
- Cell composition

#### Stowing Trackers

**MITIGATION PROTOCOLS** 

- Monitoring and control systems

#### **ENGINEERING ANALYSIS**

- Catastrophic risk assessments
- **Estimated Cumulative Losses** over Hold Periods

#### JINKO Solar Modules (JKM395M-72HL-T)

- 3.2 mm front glass
- IEC 61730 and UL1703 certifications

#### Nextracker Horizon + Navigator

- Stows in 2-3 min
- No grid power required
- Automated or human triggered
- 60° stow standard, 75° available

#### **VDE – Catastrophic risk** assessment

Table 1.2 Summary of Average Annual Losses over Hold Periods

Tilt (degrees)	5-year hold		
	>=50mm	>=55mm	>=60mm
0	\$2.18	\$1.55	\$0.87
50	\$0.20	\$0.19	\$0.12
52	\$0.12	\$0.12	\$0.08
60	\$0.03	\$0.03	\$0.02



The panels can resist to larger hailstones

-> HIGHER ATTACHMENT POINT



#### CALIBRATE THE PAYOUT STRUCTURE

DESCARTES 4

## **Payout structure determinants**

Hail size (In)	Payout	
0.00 <= d < 2.00	0.00%	
2.00 <= d < 2.50	5.00%	
2.50 <= d < 3.00	25.00%	
3.00 <= d < 3.50	50.00%	
3.50 <= d	100.00%	



Hail size (In)	Payout	
0.00 <= d < 2.50	0.00%	
2.50 <= d < 3.00	5.00%	
3.00 <= d < 3.50	25.00%	
3.50 <= d < 4.00	50.00%	
4.00 <= d	100.00%	

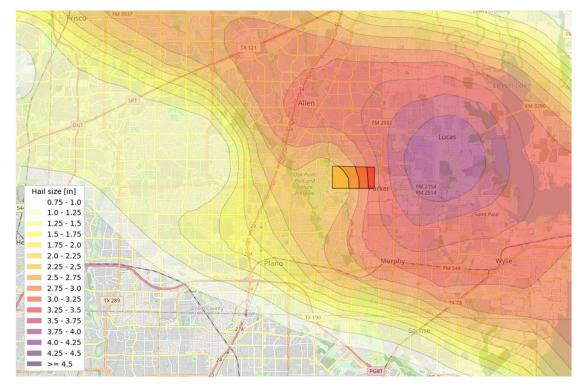
Calibration with report

Hail size (In)	Payout
0.00 <= d < 2.50	0.00%
2.50 <= d < 2.75	10.00%
2.75 <= d < 3.00	25.00%
3.00 <= d < 3.25	50.00%
3.25 <= d < 3.50	75.00%
3.50 <= d	100.00%

**EXPECTED LOSS: 2.8 M EXPECTED LOSS: 1.8M EXPECTED LOSS: 1.5 M** 

#### CONFIDENTIAL

## **Payout structure determinants**



Hail Size (in)	Area Impacted	Hail Size Payout	Payout (%)
2.25	33.35%	0.00%	0.00%
2.5	28.63%	10.00%	2.86%
2.75	23.16%	25.00%	5.79%
3	14.86%	50.00%	7.43%
	TOTAL		16.08%

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