

# Protective Put Hedge Analysis: EOSE

Analysis Date: November 16, 2025

## Portfolio Overview

Current Price:	<b>\$13.80</b>	Expected Low:	<b>\$9.07</b>
Shares Held:	<b>400</b>	Expected High:	<b>\$18.70</b>
Budget Target:	<b>\$75</b>	Annual Volatility:	<b>109.6%</b>

## 90% Price Decline Scenario Analysis

Unhedged Portfolio P/L:	\$	<b>-4,968</b>
Hedged Portfolio P/L:	\$	<b>634</b>
Hedge Benefit:	\$	<b>5,602 (112.8% protection)</b>

# Recommended Hedge Positions

Optimal Put Options Strategy for EOSE

Strike	Premium	Contracts	DTE	Expiration	Cost	ITM Prob	Efficiency
\$10.50	\$0.06	4	5d	2025-11-21	\$24	95.5%	2119.7
\$11.50	\$0.23	2	12d	2025-11-28	\$46	74.0%	651.1
<b>TOTAL</b>	-	-	-	-	<b>\$70</b>	-	-

## Strategy Summary

Total Investment: \$70

Total Contracts: 6

Average DTE: 8 days

Average Efficiency Score: 1385.4

Portfolio Coverage: 150%

# Portfolio Risk Assessment

## Value at Risk & Position Analysis

---

Risk Metric	Value
Portfolio Value	\$5,520
Position Size	400 shares
Daily Value at Risk ( $1\sigma$ )	\$381
Expected Loss (90% drop)	\$4,968
Hedge Budget	\$75
Budget as % of Portfolio	1.36%

# Backtest of Hedge Performance on Worst Daily Drawdowns

## Historical Drawdown Backtest



Date	% Chang	Price	Unhedged	Hedged	Benefit	Protection
2025-03-06	-8.85%	\$4.53	\$-3,708	\$4	\$3,712	100.1%
2025-03-10	-14.35%	\$3.94	\$-3,944	\$122	\$4,066	103.1%
2025-05-08	-10.04%	\$6.00	\$-3,120	\$-290	\$2,830	90.7%
2025-05-29	-24.69%	\$4.51	\$-3,714	\$7	\$3,721	100.2%
2025-10-16	-15.48%	\$15.45	\$660	\$590	\$-70	0.0%
2025-11-04	-9.73%	\$14.10	\$120	\$50	\$-70	0.0%
2025-11-13	-11.96%	\$15.20	\$562	\$492	\$-70	0.0%
2025-11-14	-9.24%	\$13.80	\$0	\$-70	\$-70	0.0%

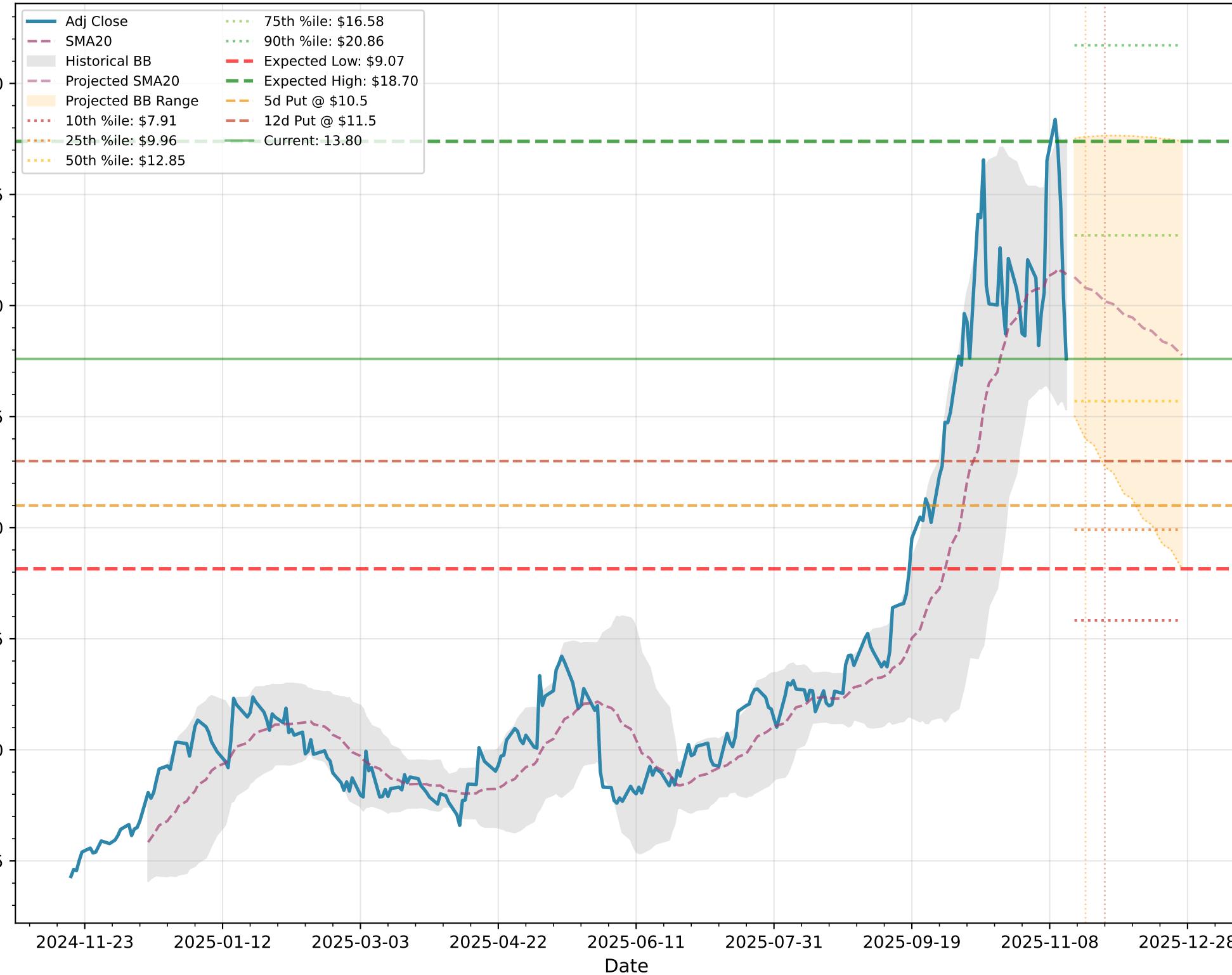
# Downside Scenario Analysis

## Hedge Performance Across Multiple Price Declines

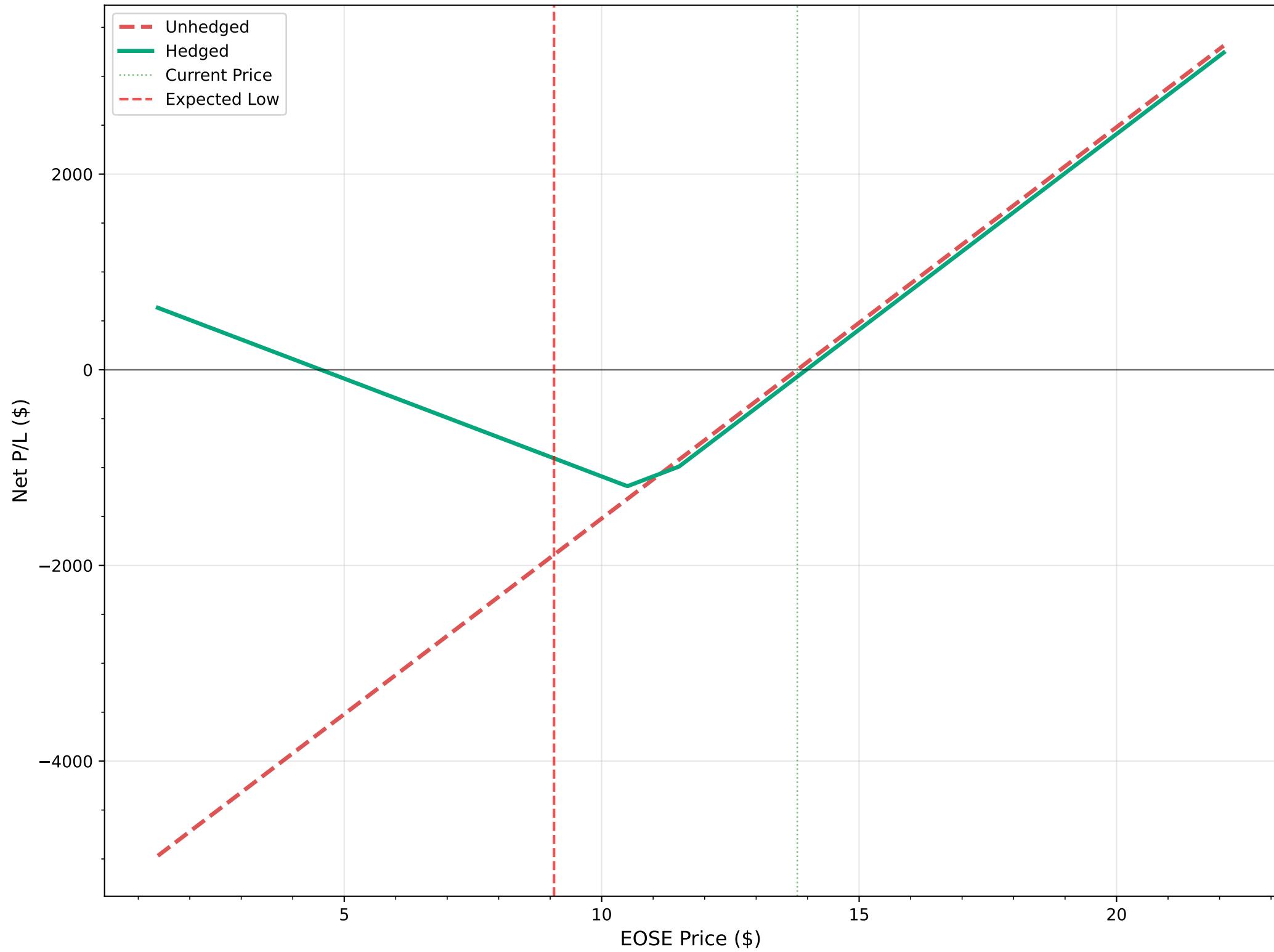
---

Scenario	Price	Unhedged P/L	Hedged P/L	Benefit	Protection
10% Decline	\$12.42	\$-552	\$-622	\$-70	-12.7%
25% Decline	\$10.35	\$-1,380	\$-1,160	\$220	15.9%
50% Decline	\$6.90	\$-2,760	\$-470	\$2,290	83.0%
75% Decline	\$3.45	\$-4,140	\$220	\$4,360	105.3%
90% Decline	\$1.38	\$-4,968	\$634	\$5,602	112.8%

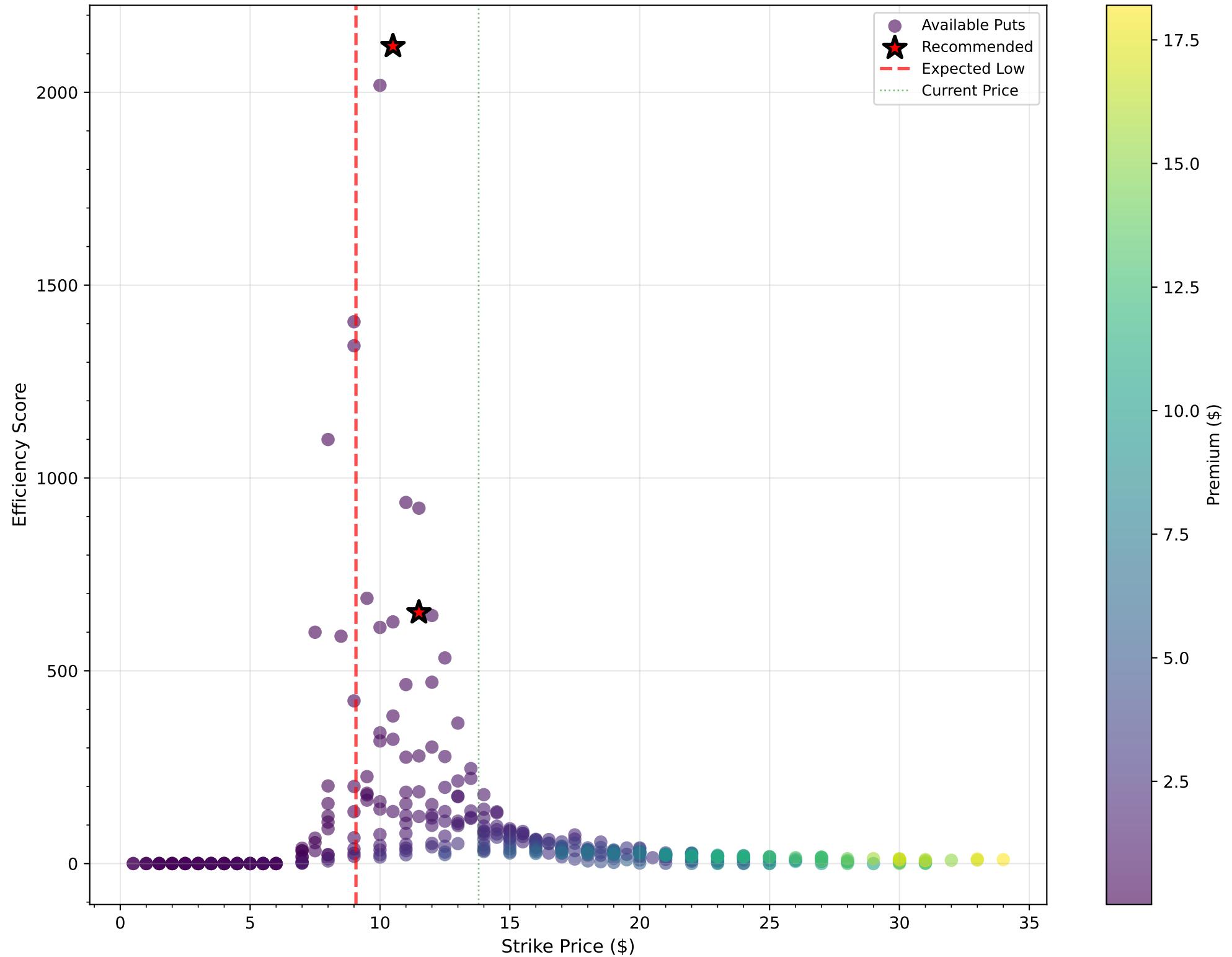
**Figure 1: EOSE Price History with Forward Projections & Put Strikes**



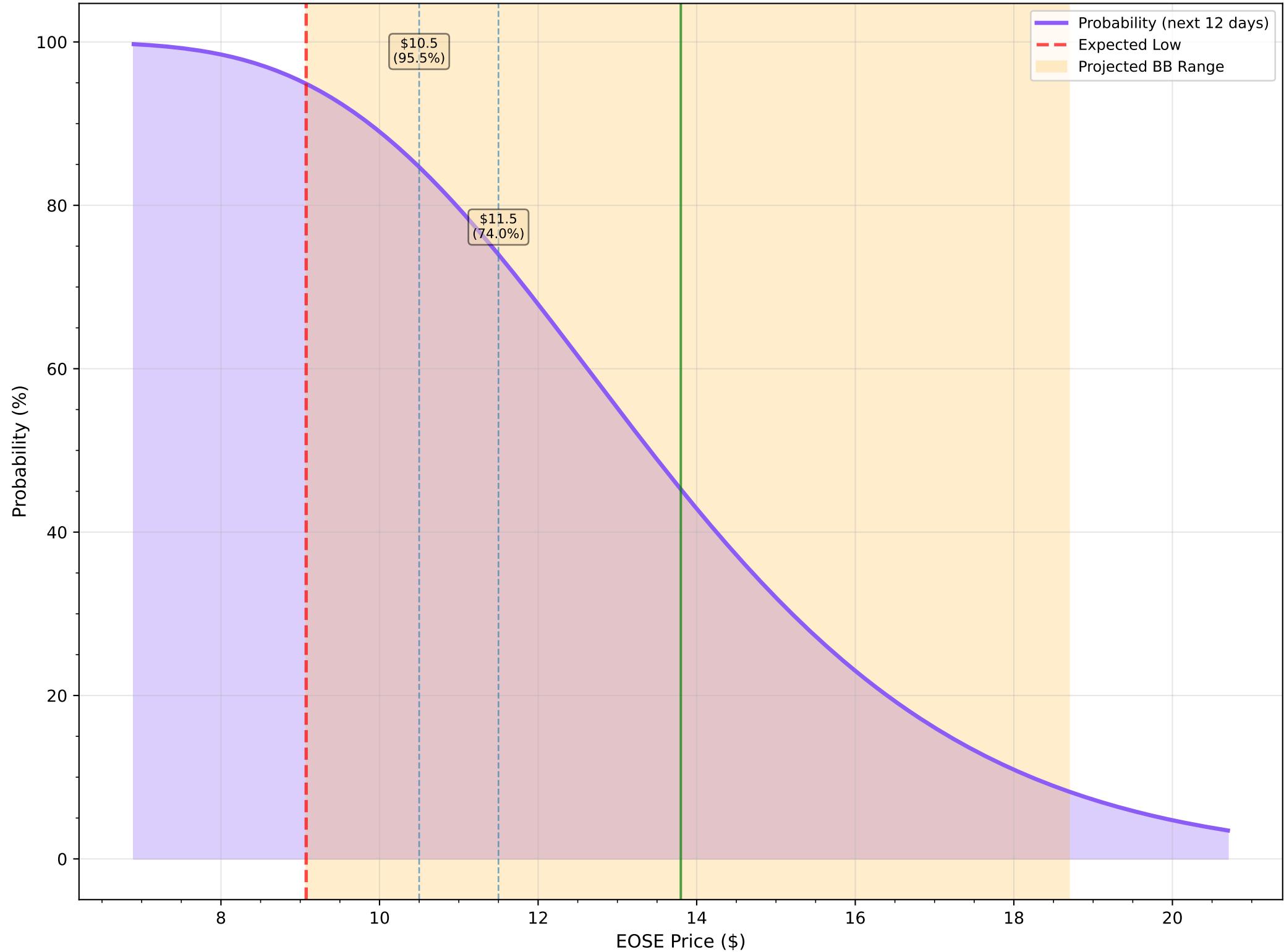
**Figure 2: P/L Comparison: Hedged vs Unhedged**



### Figure 4: Put Options Efficiency Analysis



**Figure 5: Probability Distribution & Put Strike Analysis**



# Hedge Positions: Detailed Analysis

Position-by-Position Breakdown & Performance Metrics

## Position Details

Pos	Strike	Expiration	DTE	Contracts
P1	\$10.50	11/21/25	5d	4
P2	\$11.50	11/28/25	12d	2
<b>TOT</b>	-	-	-	<b>6</b>

## Financial Metrics

Pos	Premium	Cost	ITM%	Value@90%	ROI%
P1	\$0.06	\$24	95.5	\$3,624	15100.0
P2	\$0.23	\$46	74.0	\$1,978	4300.0
<b>TOT</b>	-	<b>\$70</b>	-	<b>\$5,602</b>	<b>8002.9</b>

## Portfolio Summary Statistics

Total Premium:

**\$70**

Hedge Benefit (90% drop):

**\$5,602**

Protection Level:

**112.8%**

Annual Volatility: 109.6% | Analysis based on 365-day historical data