

BACKBONE COMPARISON

| PRICE INDEX            | CROSS-ATTENTION | AQL ↓               | AQCR ↓             | RMSE ↓              | MAE ↓               | R <sup>2</sup> ↑   |
|------------------------|-----------------|---------------------|--------------------|---------------------|---------------------|--------------------|
| 60-MIN ID <sub>3</sub> | NONE            | 4.22 ± 0.04         | <b>0.00 ± 0.00</b> | 28.31 ± 0.07        | 10.69 ± 0.06        | 0.86 ± 0.01        |
|                        | STANDARD        | 4.20 ± 0.04         | <b>0.00 ± 0.00</b> | 28.30 ± 0.19        | 10.72 ± 0.05        | 0.87 ± 0.00        |
|                        | JUMP            | <b>4.13 ± 0.02</b>  | <b>0.00 ± 0.00</b> | <b>28.14 ± 0.09</b> | <b>10.58 ± 0.03</b> | <b>0.87 ± 0.00</b> |
| 60-MIN ID <sub>1</sub> | NONE            | 5.20 ± 0.05         | <b>0.00 ± 0.00</b> | 33.45 ± 0.32        | 13.82 ± 0.09        | 0.86 ± 0.01        |
|                        | STANDARD        | <b>5.18 ± 0.01</b>  | <b>0.00 ± 0.00</b> | 33.39 ± 0.28        | 13.56 ± 0.11        | 0.86 ± 0.01        |
|                        | JUMP            | 5.19 ± 0.03         | <b>0.00 ± 0.00</b> | <b>33.23 ± 0.11</b> | <b>13.33 ± 0.12</b> | <b>0.87 ± 0.00</b> |
| 15-MIN ID <sub>3</sub> | NONE            | 13.55 ± 1.49        | <b>0.00 ± 0.00</b> | 64.95 ± 3.24        | 33.12 ± 3.02        | 0.54 ± 0.04        |
|                        | STANDARD        | 8.92 ± 0.24         | <b>0.00 ± 0.00</b> | 56.02 ± 0.91        | 20.34 ± 0.23        | 0.64 ± 0.03        |
|                        | JUMP            | <b>7.46 ± 0.04</b>  | <b>0.00 ± 0.00</b> | <b>51.71 ± 0.96</b> | <b>18.70 ± 0.08</b> | <b>0.71 ± 0.01</b> |
| 15-MIN ID <sub>1</sub> | NONE            | 14.84 ± 0.97        | <b>0.00 ± 0.00</b> | 74.74 ± 1.22        | 34.75 ± 4.20        | 0.62 ± 0.02        |
|                        | STANDARD        | 13.98 ± 0.24        | <b>0.00 ± 0.00</b> | <b>72.19 ± 0.96</b> | 31.55 ± 0.63        | <b>0.65 ± 0.03</b> |
|                        | JUMP            | <b>12.21 ± 1.01</b> | <b>0.00 ± 0.00</b> | 72.22 ± 1.18        | <b>31.11 ± 0.11</b> | 0.65 ± 0.03        |

HEAD COMPARISON

| PRICE INDEX            | MODEL     | AQL ↓               | AQCR ↓             | RMSE ↓              | MAE ↓               | R <sup>2</sup> ↑   |
|------------------------|-----------|---------------------|--------------------|---------------------|---------------------|--------------------|
| 60-MIN ID <sub>3</sub> | STANDARD  | 4.14 ± 0.04         | 2.09 ± 2.77        | 28.16 ± 0.06        | <b>10.57 ± 0.03</b> | 0.87 ± 0.00        |
|                        | HIER. Q5  | 4.17 ± 0.04         | <b>0.00 ± 0.00</b> | 28.28 ± 0.10        | 10.57 ± 0.04        | 0.87 ± 0.00        |
|                        | HIER. Q50 | <b>4.13 ± 0.02</b>  | <b>0.00 ± 0.00</b> | <b>28.14 ± 0.09</b> | 10.58 ± 0.03        | <b>0.87 ± 0.00</b> |
| 60-MIN ID <sub>1</sub> | STANDARD  | <b>5.13 ± 0.03</b>  | 4.04 ± 2.05        | <b>32.86 ± 0.18</b> | <b>13.02 ± 0.08</b> | <b>0.88 ± 0.01</b> |
|                        | HIER. Q5  | 5.26 ± 0.07         | <b>0.00 ± 0.00</b> | 33.45 ± 0.12        | 13.84 ± 0.24        | 0.87 ± 0.00        |
|                        | HIER. Q50 | 5.19 ± 0.03         | <b>0.00 ± 0.00</b> | 33.23 ± 0.11        | 13.33 ± 0.12        | 0.87 ± 0.00        |
| 15-MIN ID <sub>3</sub> | STANDARD  | <b>7.44 ± 0.08</b>  | 4.77 ± 3.01        | <b>51.41 ± 0.67</b> | <b>18.70 ± 0.03</b> | 0.71 ± 0.01        |
|                        | HIER. Q5  | 7.85 ± 0.21         | <b>0.00 ± 0.00</b> | 51.90 ± 0.42        | 18.86 ± 0.04        | 0.70 ± 0.00        |
|                        | HIER. Q50 | 7.46 ± 0.04         | <b>0.00 ± 0.00</b> | 51.71 ± 0.96        | 18.70 ± 0.08        | <b>0.71 ± 0.01</b> |
| 15-MIN ID <sub>1</sub> | STANDARD  | <b>12.07 ± 0.99</b> | 18.13 ± 9.22       | <b>72.02 ± 1.49</b> | 31.13 ± 0.20        | <b>0.66 ± 0.02</b> |
|                        | HIER. Q5  | 15.06 ± 1.76        | <b>0.00 ± 0.00</b> | 78.11 ± 1.90        | 38.70 ± 3.35        | 0.59 ± 0.02        |
|                        | HIER. Q50 | 12.21 ± 1.01        | <b>0.00 ± 0.00</b> | 72.22 ± 1.18        | <b>31.11 ± 0.11</b> | 0.65 ± 0.03        |