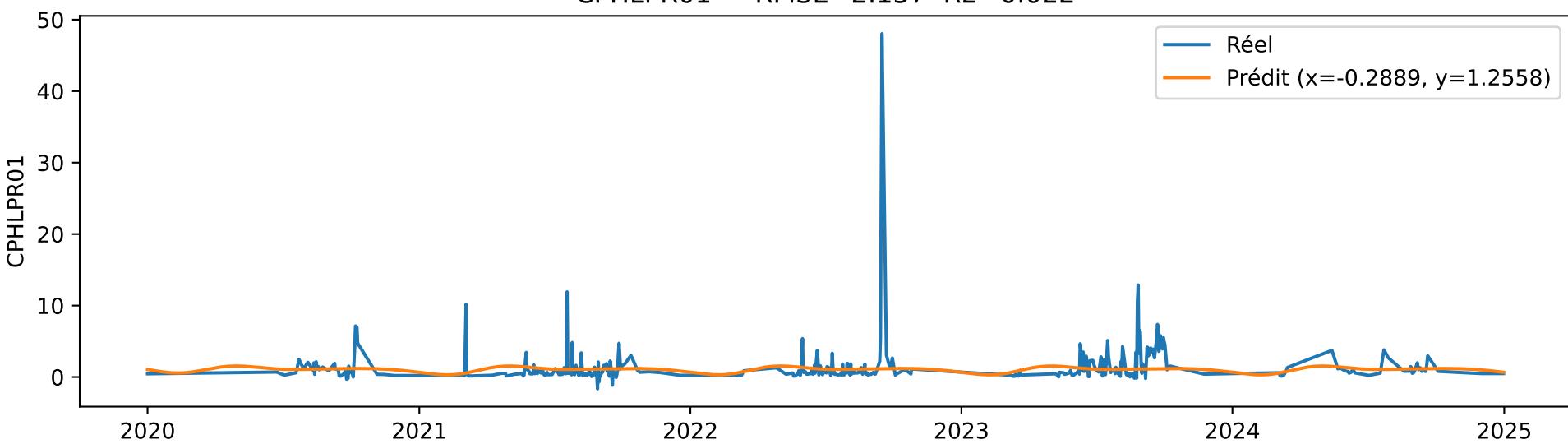
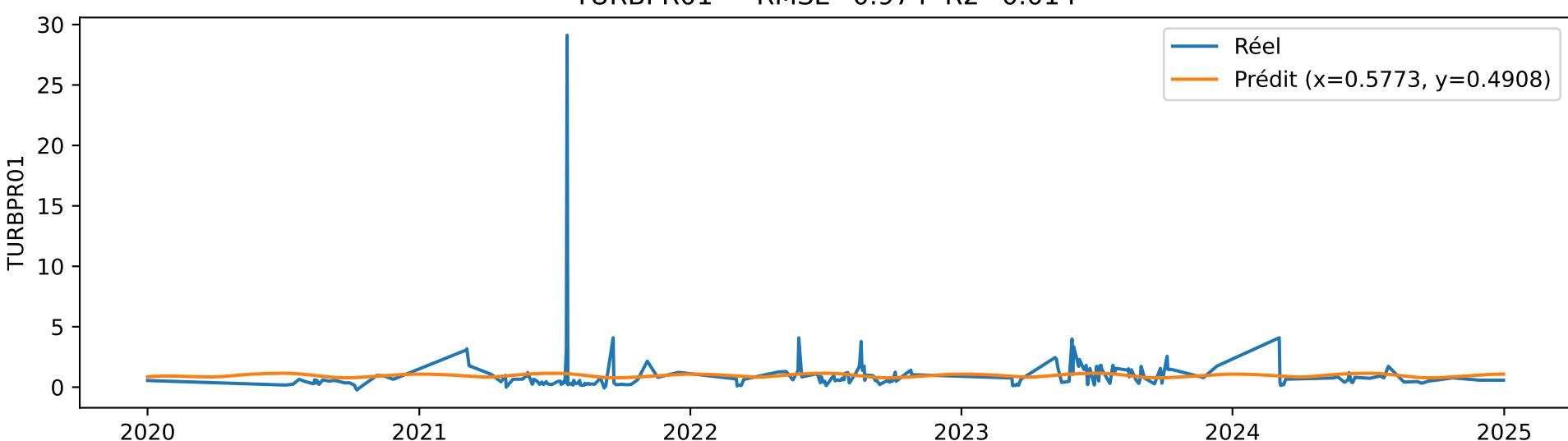


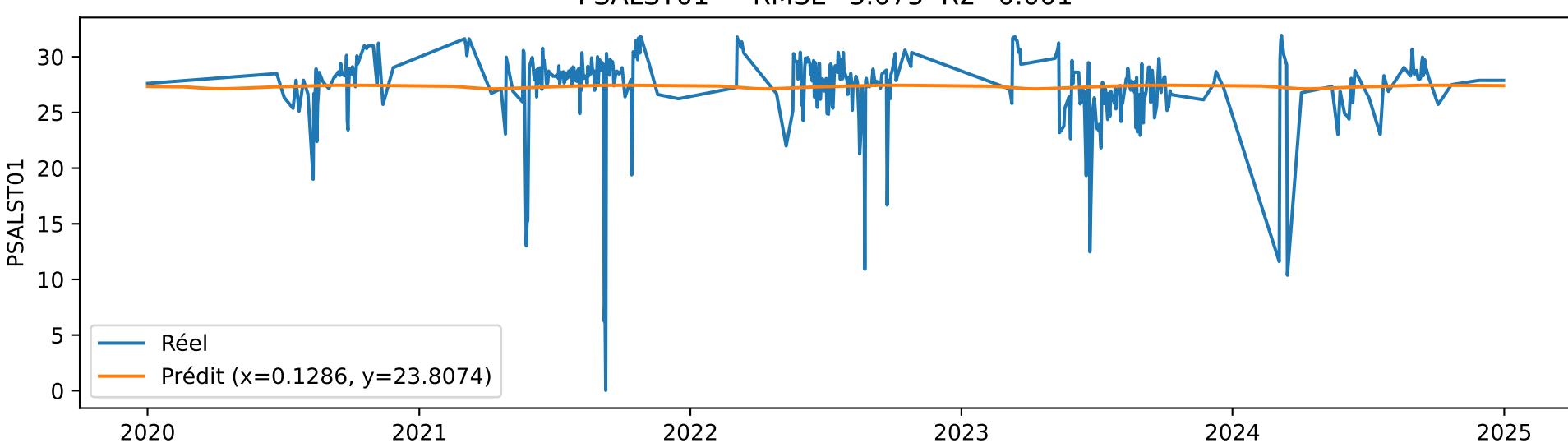
CPHLPR01 — RMSE=2.137 R2=0.022



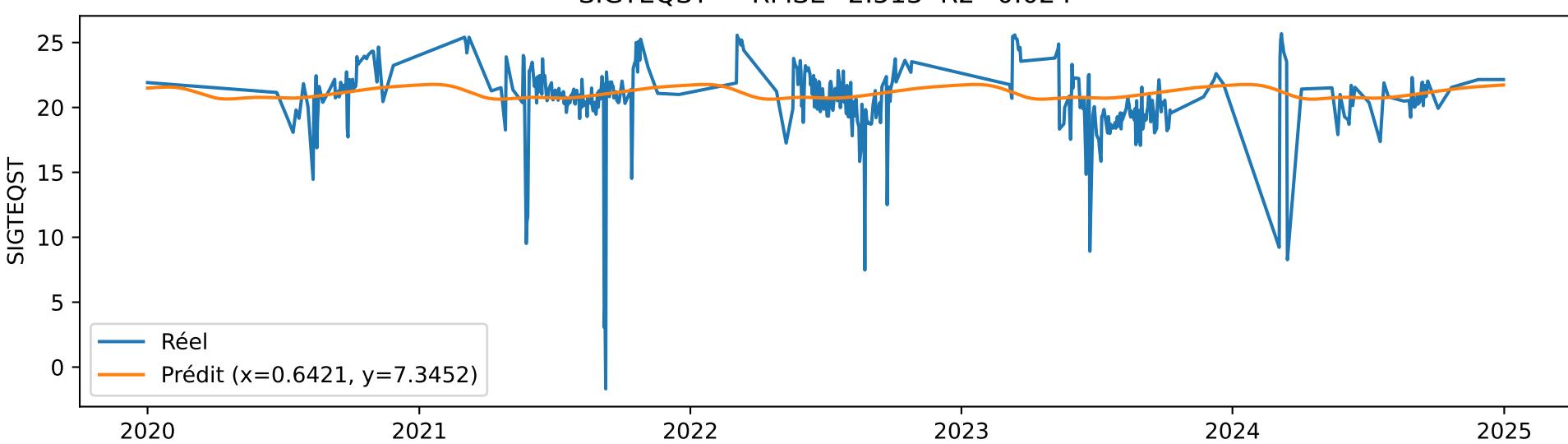
TURBPR01 — RMSE=0.974 R2=0.014



PSALST01 — RMSE=3.075 R2=0.001



SIGTEQST — RMSE=2.513 R2=0.024



Résultats LSTM multivarié (après OLS)

Période entraînement : 2000-03-01 -> 2019-12-31

Période test : 2020-01-01 -> 2024-12-31

Metrics par variable (après transformation optimale) :

- CPHLPR01: RMSE=2.1373, R2=0.0221 ($x=-0.288870$, $y=1.255763$, $R2_{opt}=0.022059$)
- TURBPR01: RMSE=0.9740, R2=0.0136 ($x=0.577260$, $y=0.490816$, $R2_{opt}=0.013644$)
- PSALST01: RMSE=3.0753, R2=0.0011 ($x=0.128569$, $y=23.807376$, $R2_{opt}=0.001147$)
- SIGTEQST: RMSE=2.5130, R2=0.0241 ($x=0.642139$, $y=7.345217$, $R2_{opt}=0.024107$)