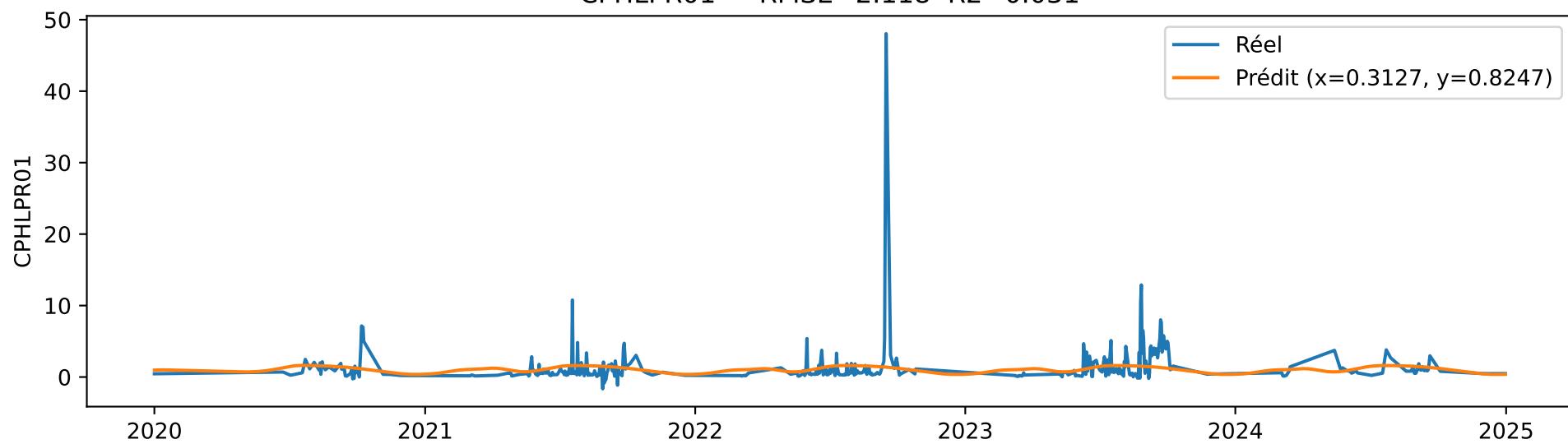
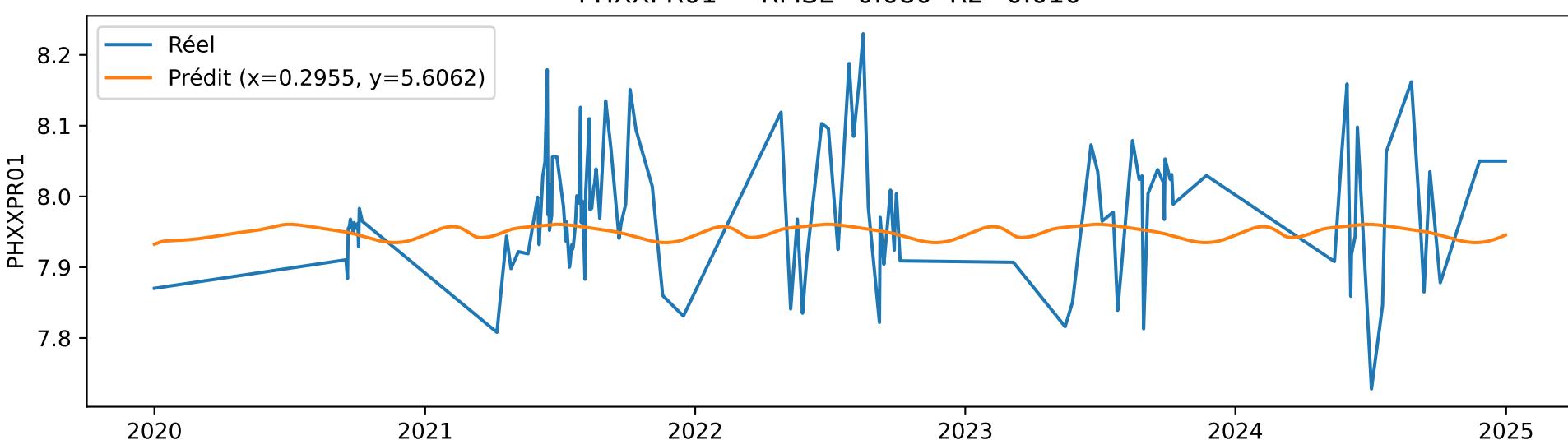


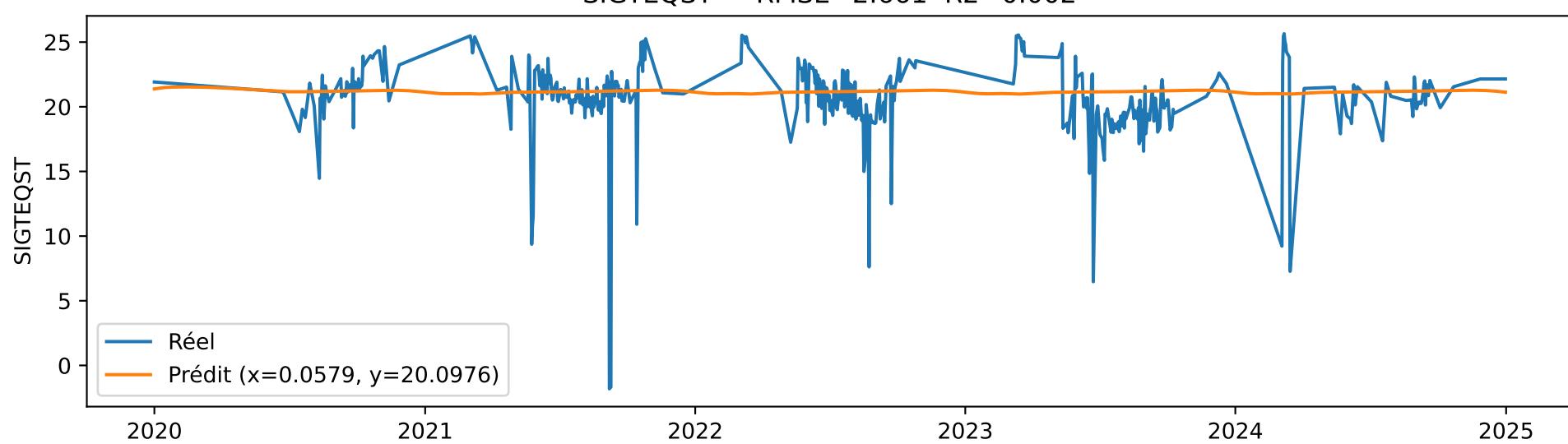
CPHLPR01 — RMSE=2.118 R2=0.031



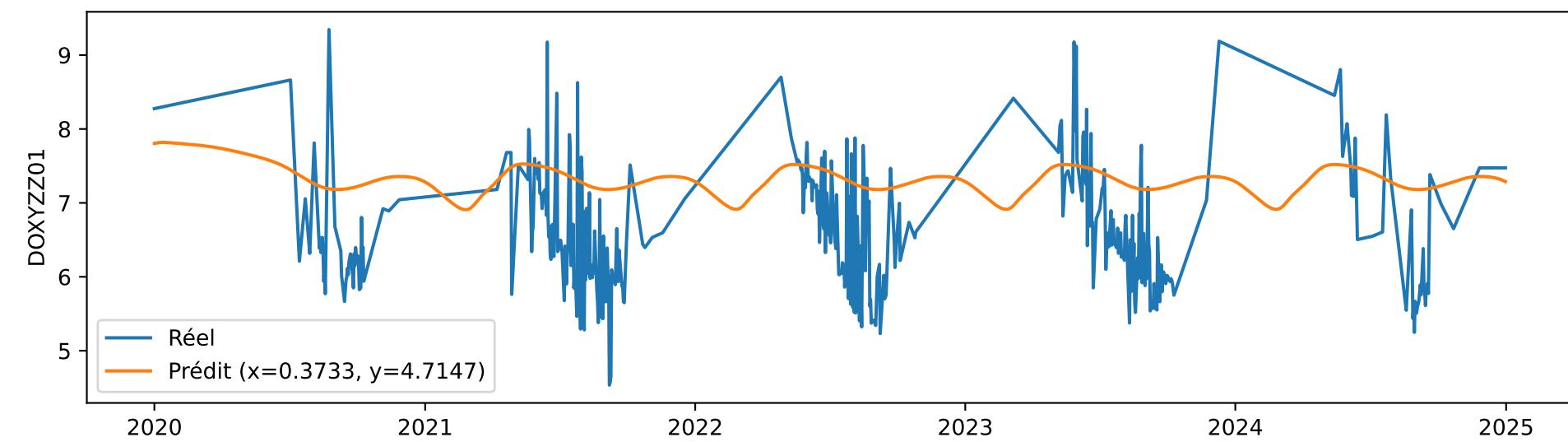
PHXXPR01 — RMSE=0.080 R2=0.010



SIGTEQST — RMSE=2.661 R2=0.002



DOXYZZ01 — RMSE=0.924 R2=0.043



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=2.1175, R2=0.0314 ($x=0.312683$, $y=0.824750$, $R2_{opt}=0.031430$)
- PHXXPR01: RMSE=0.0795, R2=0.0104 ($x=0.295483$, $y=5.606237$, $R2_{opt}=0.010359$)
- SIGTEQST: RMSE=2.6612, R2=0.0020 ($x=0.057913$, $y=20.097561$, $R2_{opt}=0.002033$)
- DOXYZZ01: RMSE=0.9235, R2=0.0433 ($x=0.373306$, $y=4.714661$, $R2_{opt}=0.043310$)