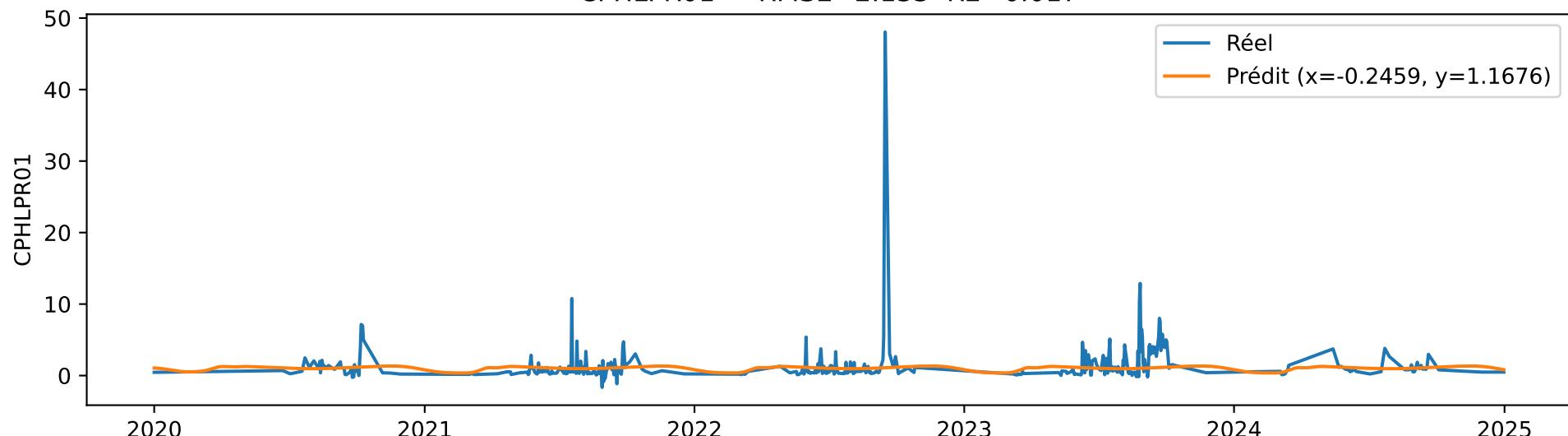
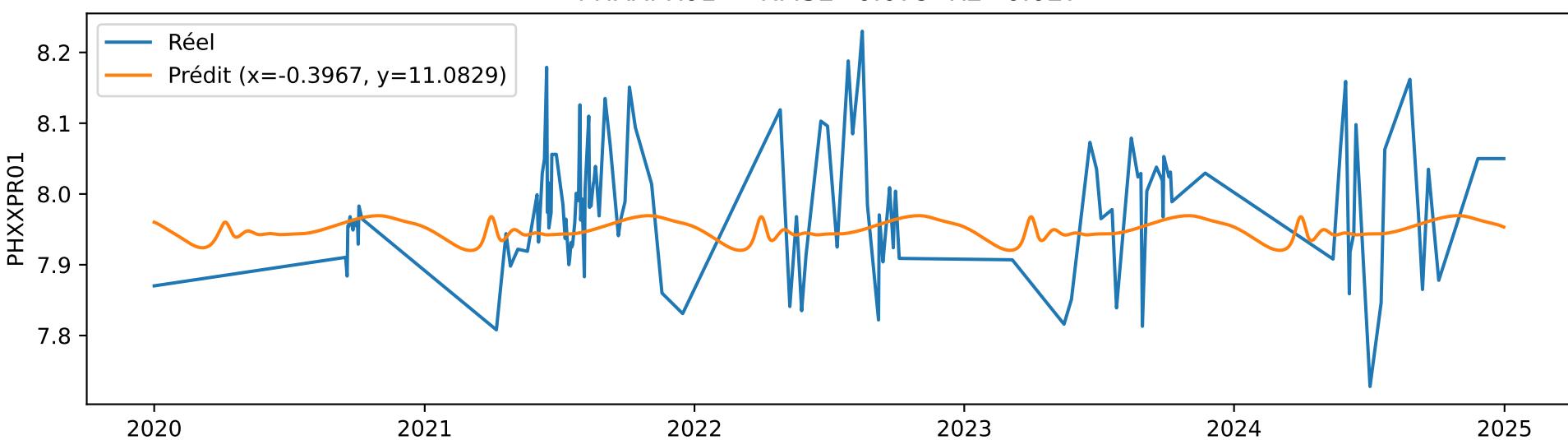


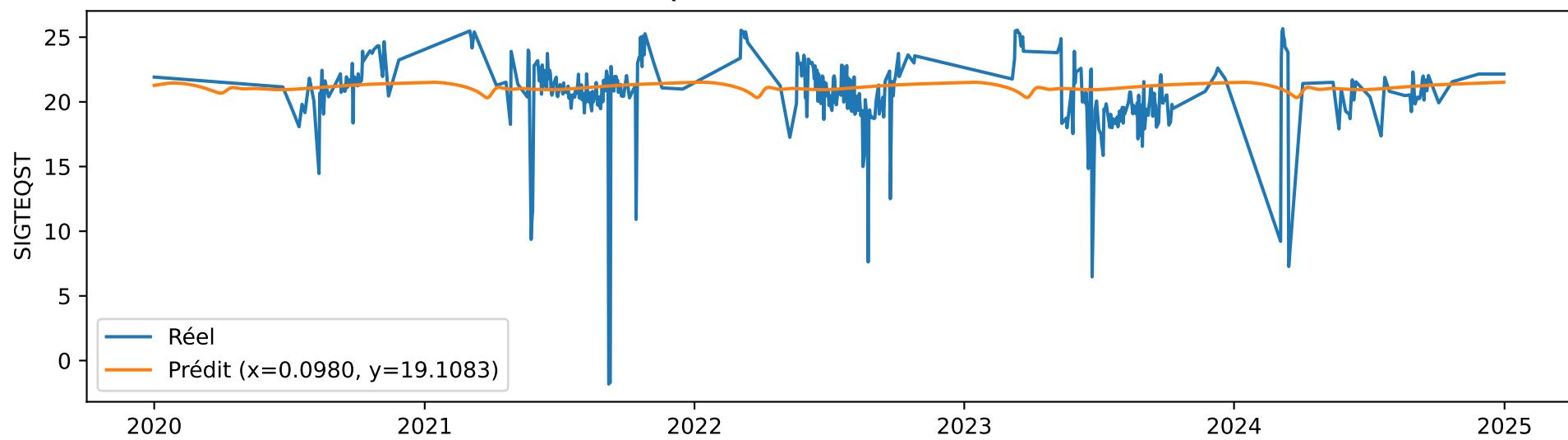
CPHLPR01 — RMSE=2.133 R2=0.017



PHXXPR01 — RMSE=0.079 R2=0.027



SIGTEQST — RMSE=2.652 R2=0.009



## 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=2.1334, R2=0.0168 ( $x=-0.245865$ ,  $y=1.167615$ ,  $R2_{opt}=0.016806$ )
- PHXXPR01: RMSE=0.0789, R2=0.0267 ( $x=-0.396727$ ,  $y=11.082872$ ,  $R2_{opt}=0.026663$ )
- SIGTEQST: RMSE=2.6522, R2=0.0087 ( $x=0.097991$ ,  $y=19.108266$ ,  $R2_{opt}=0.008741$ )