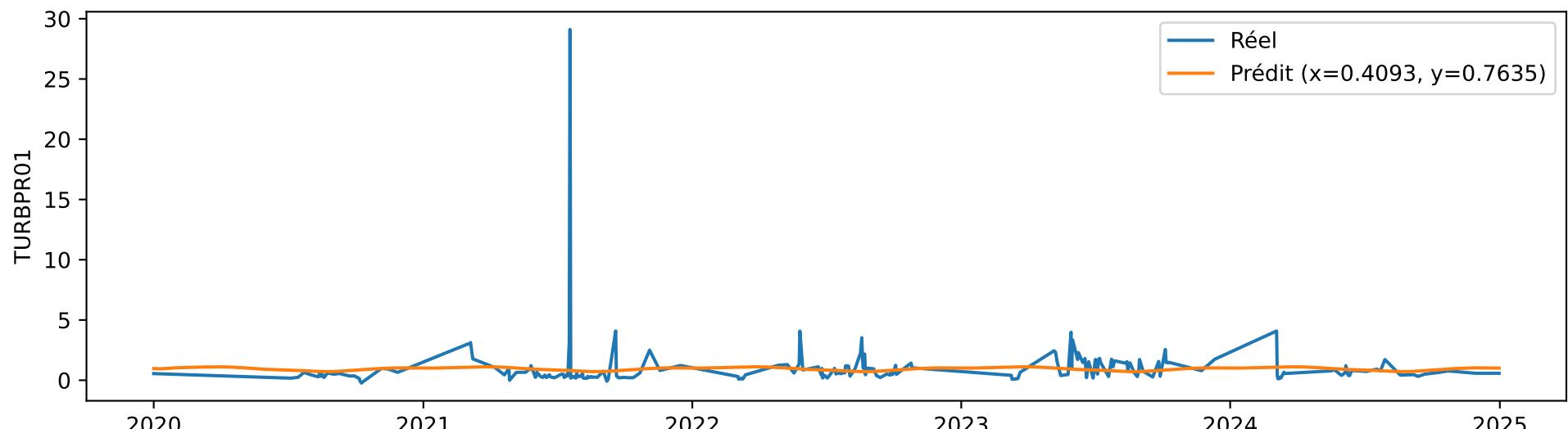
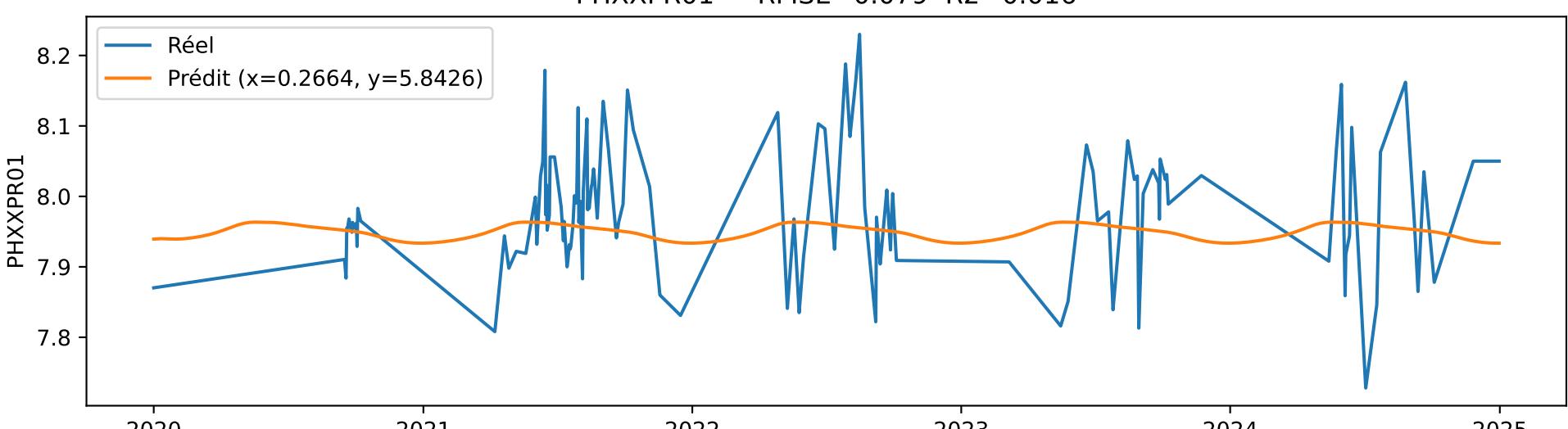


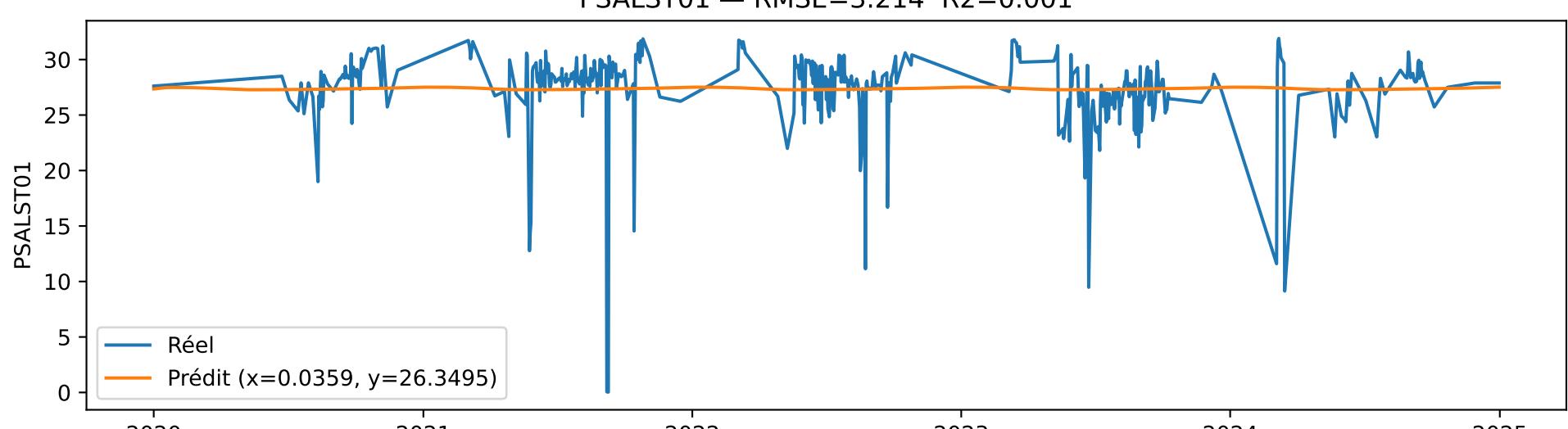
TURBPR01 — RMSE=0.983 R2=0.015



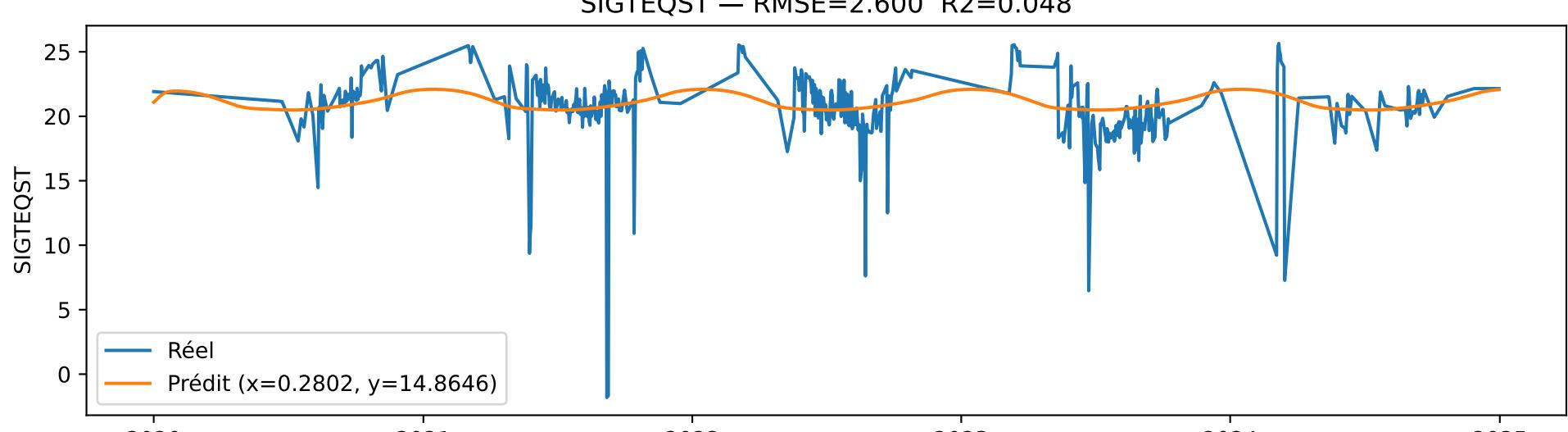
PHXXPR01 — RMSE=0.079 R2=0.016



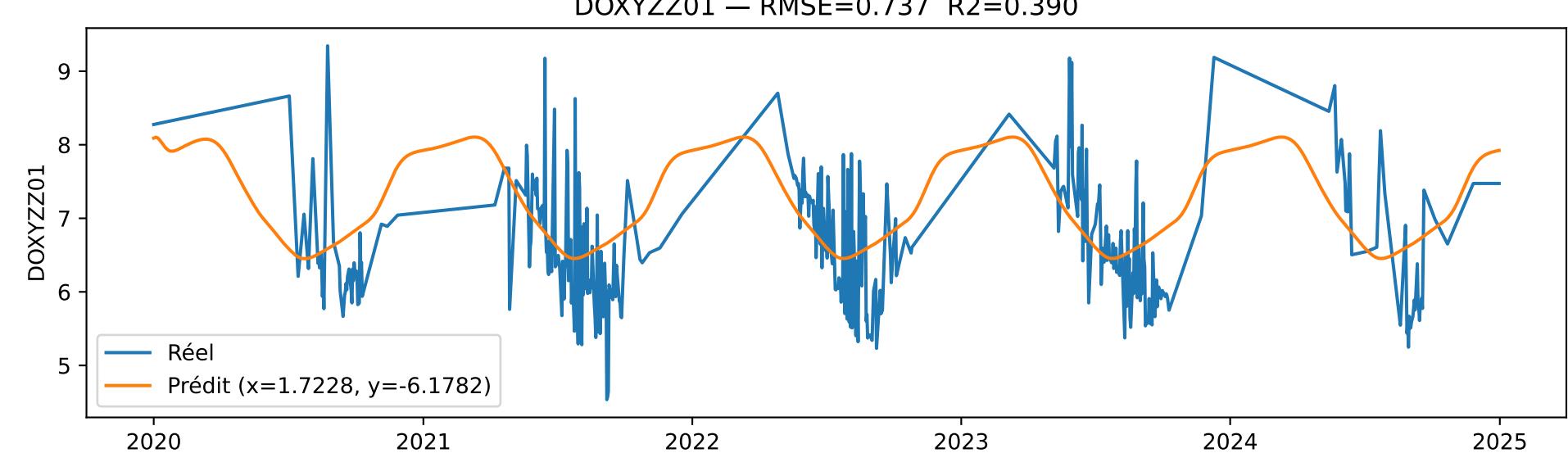
PSALST01 — RMSE=3.214 R2=0.001



SIGTEQST — RMSE=2.600 R2=0.048



DOXYZZ01 — RMSE=0.737 R2=0.390



## 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) :

- TURBPR01: RMSE=0.9830, R2=0.0152 ( $x=0.409322$ ,  $y=0.763480$ ,  $R2_{opt}=0.015160$ )
- PHXXPR01: RMSE=0.0793, R2=0.0161 ( $x=0.266415$ ,  $y=5.842610$ ,  $R2_{opt}=0.016101$ )
- PSALST01: RMSE=3.2142, R2=0.0006 ( $x=0.035940$ ,  $y=26.349541$ ,  $R2_{opt}=0.000610$ )
- SIGTEQST: RMSE=2.5998, R2=0.0475 ( $x=0.280204$ ,  $y=14.864641$ ,  $R2_{opt}=0.047543$ )
- DOXYZZ01: RMSE=0.7373, R2=0.3903 ( $x=1.722795$ ,  $y=-6.178241$ ,  $R2_{opt}=0.390305$ )