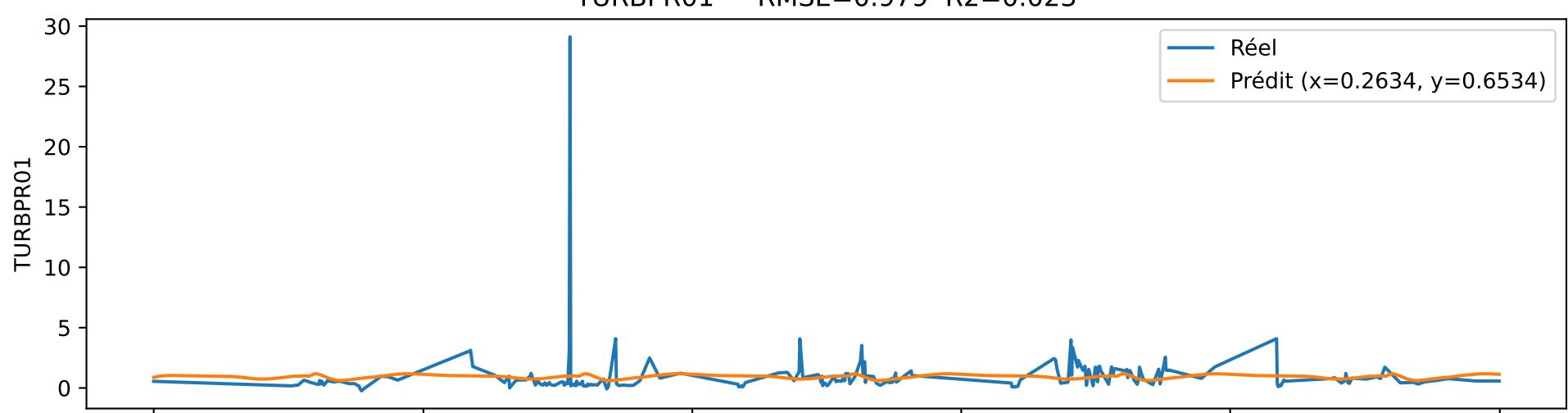
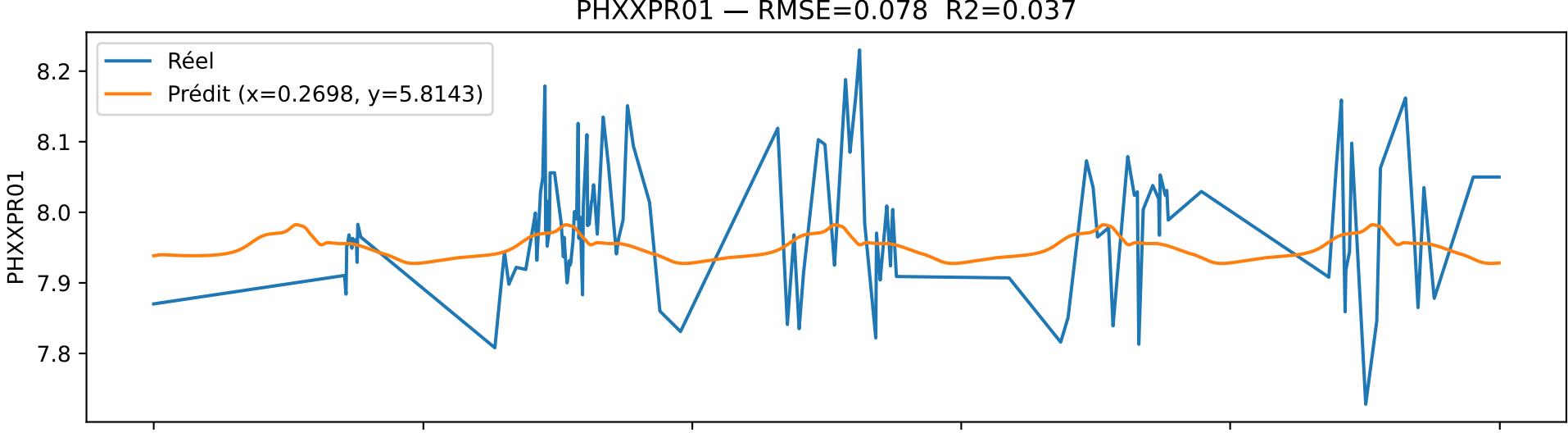


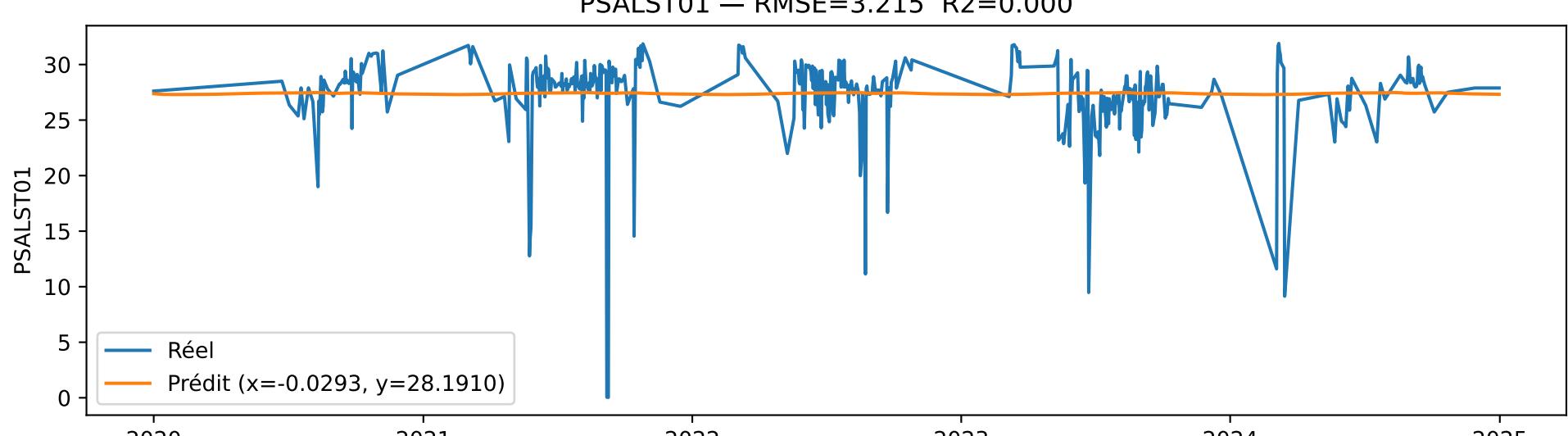
TURBPR01 — RMSE=0.979 R2=0.023



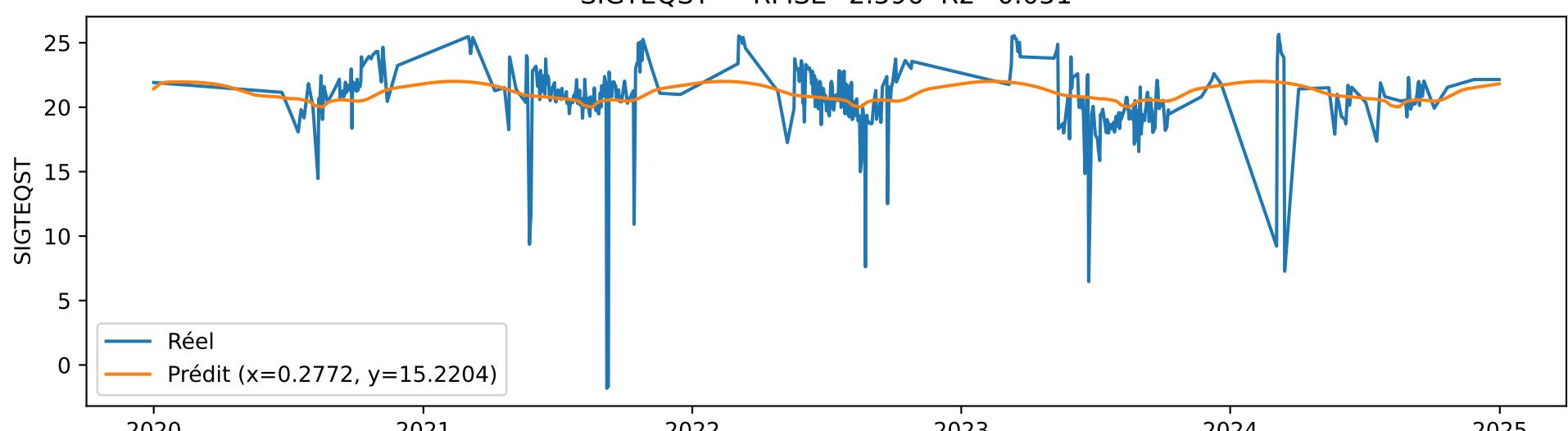
PHXXPR01 — RMSE=0.078 R2=0.037



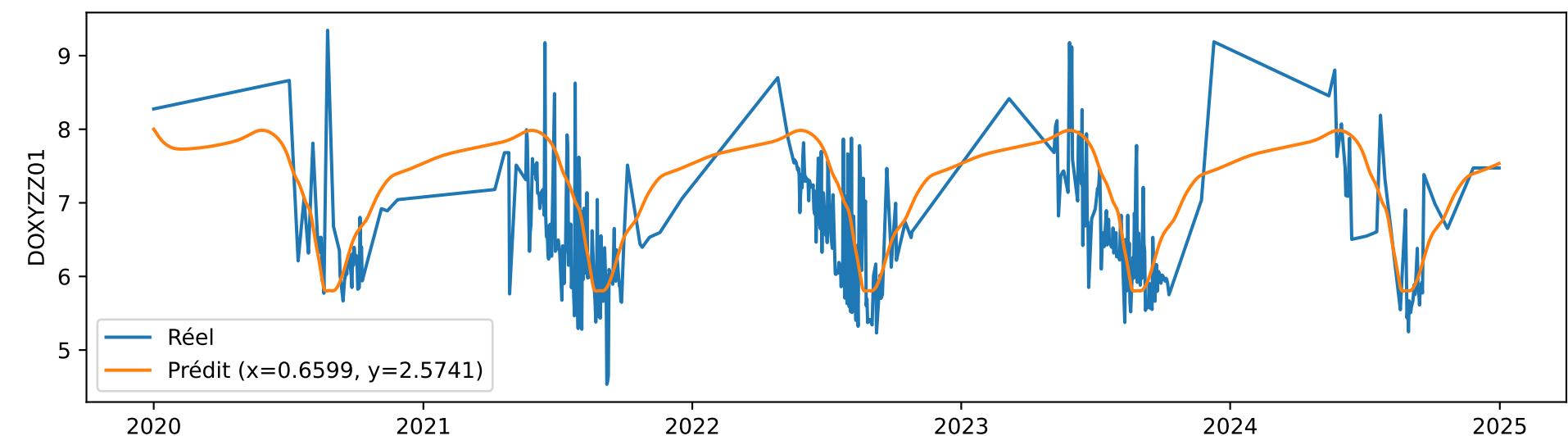
PSALST01 — RMSE=3.215 R2=0.000



SIGTEQST — RMSE=2.596 R2=0.051



DOXYZZ01 — RMSE=0.700 R2=0.450



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=2.1370, R2=0.0135 ($x=0.249009$, $y=0.598647$, $R2_{opt}=0.013536$)
- TURBPR01: RMSE=0.9793, R2=0.0226 ($x=0.263420$, $y=0.653374$, $R2_{opt}=0.022591$)
- PHXXPR01: RMSE=0.0785, R2=0.0368 ($x=0.269844$, $y=5.814314$, $R2_{opt}=0.036800$)
- PSALST01: RMSE=3.2147, R2=0.0003 ($x=-0.029288$, $y=28.191020$, $R2_{opt}=0.000305$)
- SIGTEQST: RMSE=2.5955, R2=0.0507 ($x=0.277205$, $y=15.220401$, $R2_{opt}=0.050692$)
- DOXYZZ01: RMSE=0.7003, R2=0.4499 ($x=0.659936$, $y=2.574126$, $R2_{opt}=0.449866$)