```
Hardcoded vs Qiskit Overall Summary (L=2..4)

L=2 PASS: True (final iter1)
  gs delta: 1.886020006836e-09
  fidelity max delta: 5.488942633747e-13
  energy_trotter max delta: 4.551914400963e-13
  n_up_site0_trotter max delta: 2.754463324095e-13
  n_dn_site0_trotter max delta: 2.763345108292e-13
  doublon_trotter max delta: 7.899236820208e-14

L=3/L=4 all-pass: True
  L=3 PASS=True max coeff delta=0.000e+00
    fidelity: 0.000000000000e+00
    energy_trotter: 0.000000000000e+00
    n_up_site0_trotter: 0.000000000000e+00
    n_dn_site0_trotter: 0.000000000000e+00
    doublon_trotter: 0.000000000000e+00
  L=4 PASS=True max coeff delta=0.000e+00
    fidelity: 0.000000000000e+00
    energy_trotter: 0.000000000000e+00
    n_up_site0_trotter: 0.000000000000e+00
    n_dn_site0_trotter: 0.000000000000e+00
    doublon_trotter: 0.000000000000e+00

PDF Artifacts included in bundle:
- hardcoded_vs_qiskit_l2_match_final_report.pdf
- hardcoded_vs_qiskit_l3_time_dynamics_report.pdf
- hardcoded_vs_qiskit_l4_time_dynamics_report.pdf
- hardcoded_vs_qiskit_vqe_energy_comparison.pdf
- hardcoded_vs_qiskit_l2_l4_overall_summary.pdf
```

Interpretation Notes

1) Exact vs trotter in time dynamics:
   exact = exp(-i H t) propagation; trotter = Suzuki product-formula approximation.

2) qiskit exact/hardcoded exact labels do not change the definition of exact.
   They indicate which path's coefficient set/operator construction generated H.

3) Site-0 panel includes n_up(site0) and n_dn(site0) for both paths,
   each with exact and trotter traces.

4) Delta panels plot absolute self-errors, e.g.
   |qiskit trotter - qiskit exact| and |hardcoded trotter - hardcoded exact|.

5) VQE/QPE/HPE page now includes hardcoded and prior Qiskit QPE/HPE overlays.
   Prior Qiskit QPE/HPE artifact exists for L=2 and L=3; L=4 is marked n/a.