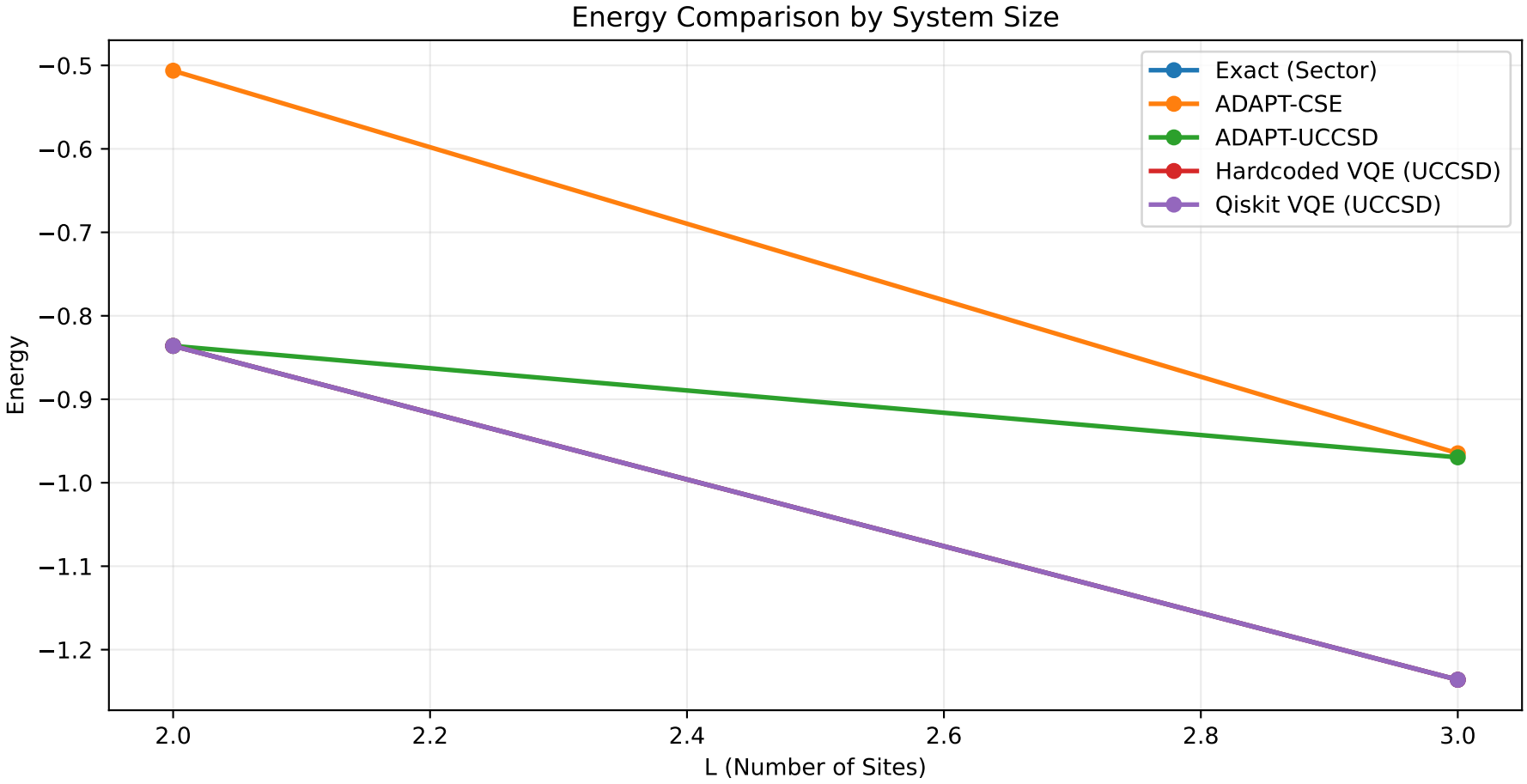
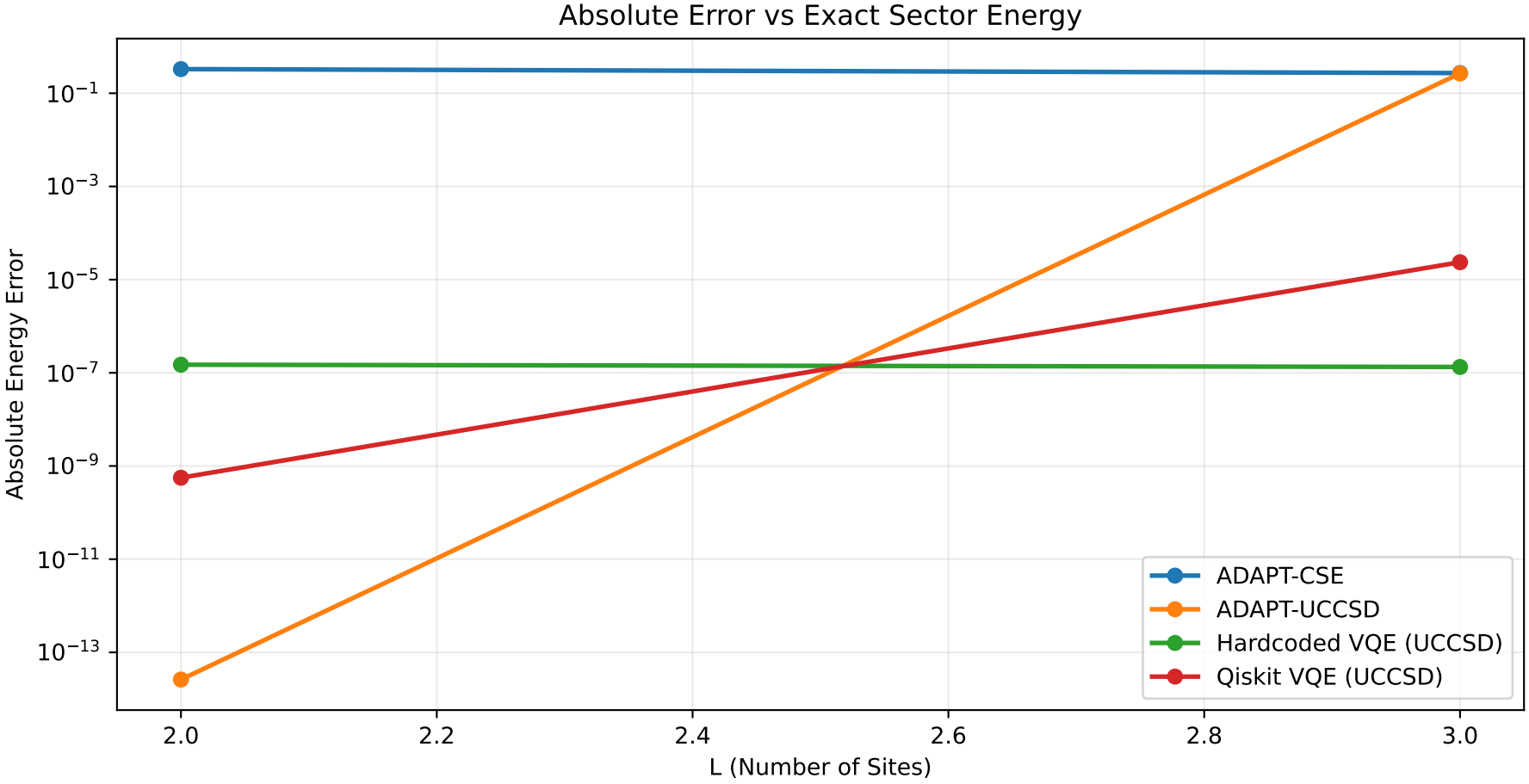
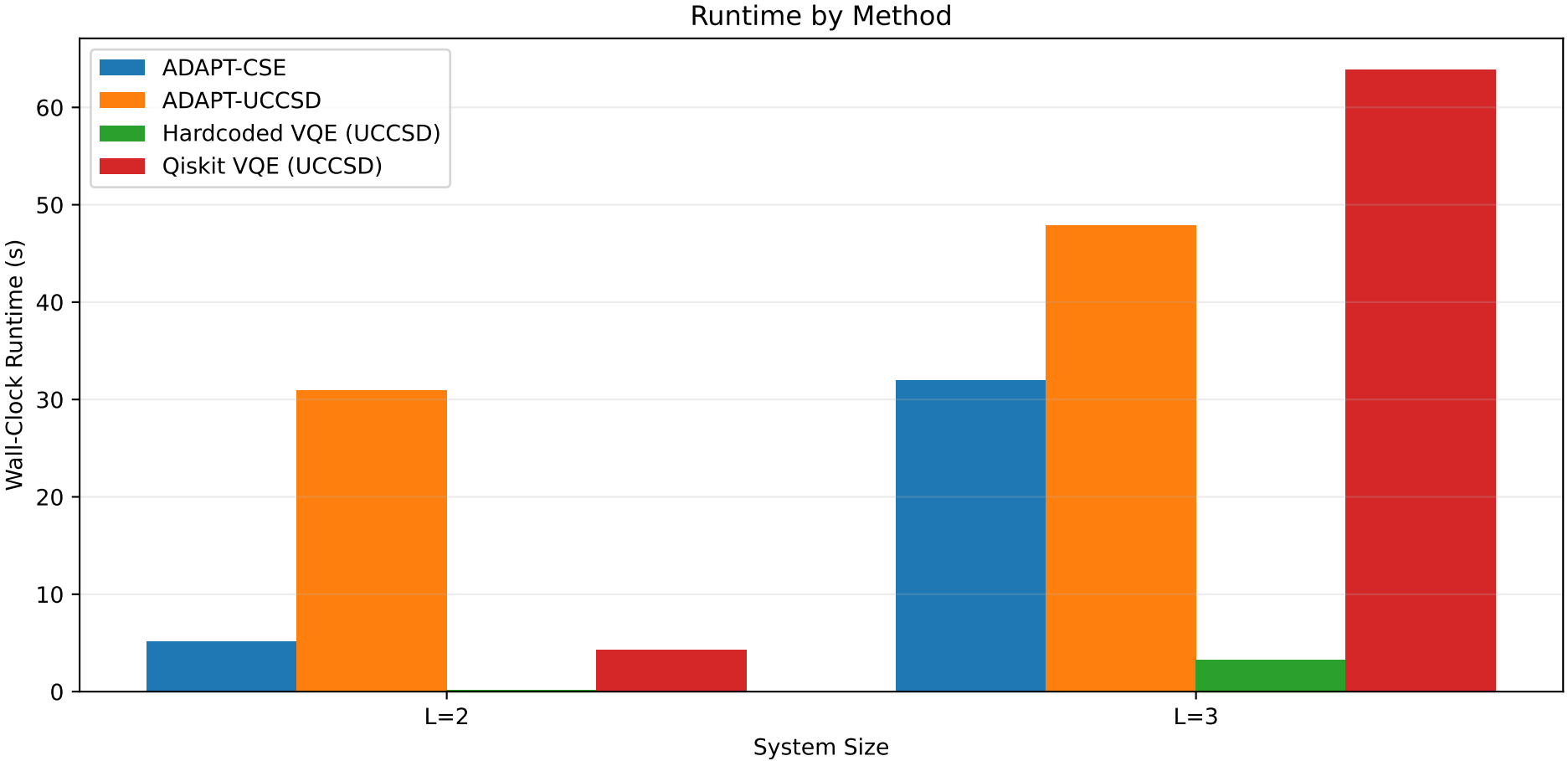
```
ADAPT/VQE Benchmark Summary
Generated (UTC): 2026-02-21T19:41:15.527198+00:00

Settings:
  sites=[2, 3] t=1.0 u=4.0 dv=0.5 boundary=open ordering=blocked odd_policy=min_sz
  ADAPT(inner_optimizer=lbfgs, inner_steps=0, max_depth=6, max_time_s=30.0, allow_repeats=True)
  VQE(reps=2, restarts=1, maxiter=20, seed=7)

L=2  (n_up=1, n_down=1)
  Exact (Sector)           E=-0.836057118155 |dE|=0.000e+00 t=0.00s
  ADAPT-CSE                E=-0.506312970693 |dE|=3.297e-01 t=5.12s
  ADAPT-UCCSD              E=-0.836057118155 |dE|=2.609e-14 t=30.91s
  Hardcoded VQE (UCCSD)    E=-0.836056968909 |dE|=1.492e-07 t=0.13s
  Qiskit VQE (UCCSD)       E=-0.836057117595 |dE|=5.600e-10 t=4.27s

L=3  (n_up=2, n_down=1)
  Exact (Sector)           E=-1.236067977500 |dE|=0.000e+00 t=0.00s
  ADAPT-CSE                E=-0.964712231458 |dE|=2.714e-01 t=31.93s
  ADAPT-UCCSD              E=-0.969560234766 |dE|=2.665e-01 t=47.83s
  Hardcoded VQE (UCCSD)    E=-1.236067844029 |dE|=1.335e-07 t=3.23s
  Qiskit VQE (UCCSD)       E=-1.236044321811 |dE|=2.366e-05 t=63.89s
```


Energy Comparison by System Size
Exact (Sector)
ADAPT-CSE
ADAPT-UCCSD
Hardcoded VQE (UCCSD)
Qiskit VQE (UCCSD)
Energy
−0.5
−0.6
−0.7
−0.8
−0.9
−1.0
−1.1
−1.2
2.0
2.2
2.4
2.6
2.8
3.0
L (Number of Sites)


Absolute Error vs Exact Sector Energy
Absolute Energy Error
10^{-1}
10^{-3}
10^{-5}
10^{-7}
10^{-9}
10^{-11}
10^{-13}
2.0
2.2
2.4
2.6
2.8
3.0
L (Number of Sites)
ADAPT-CSE
ADAPT-UCCSD
Hardcoded VQE (UCCSD)
Qiskit VQE (UCCSD)


Runtime by Method
ADAPT-CSE
ADAPT-UCCSD
Hardcoded VQE (UCCSD)
Qiskit VQE (UCCSD)
Wall-Clock Runtime (s)
0
10
20
30
40
50
60
L=2
L=3
System Size