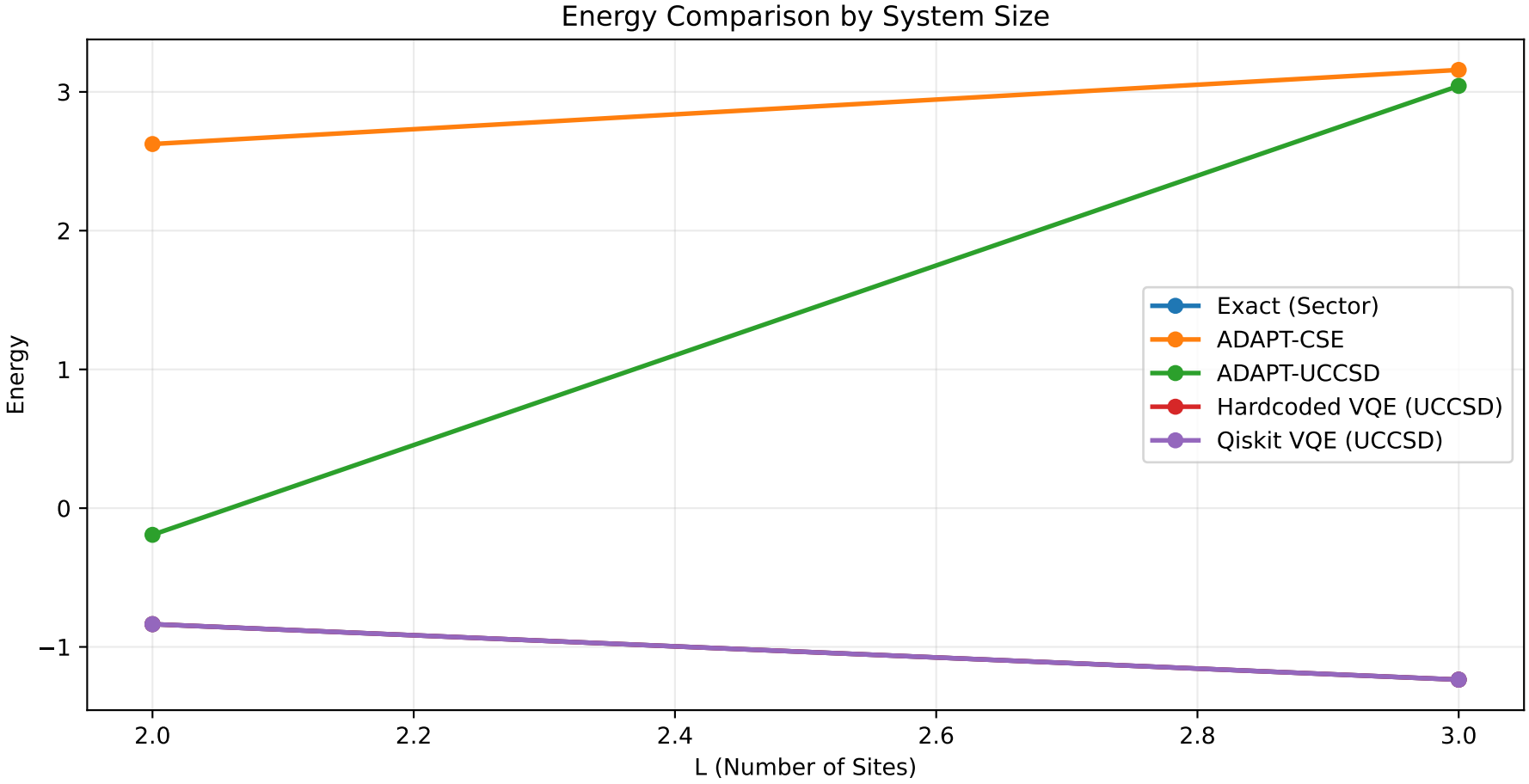
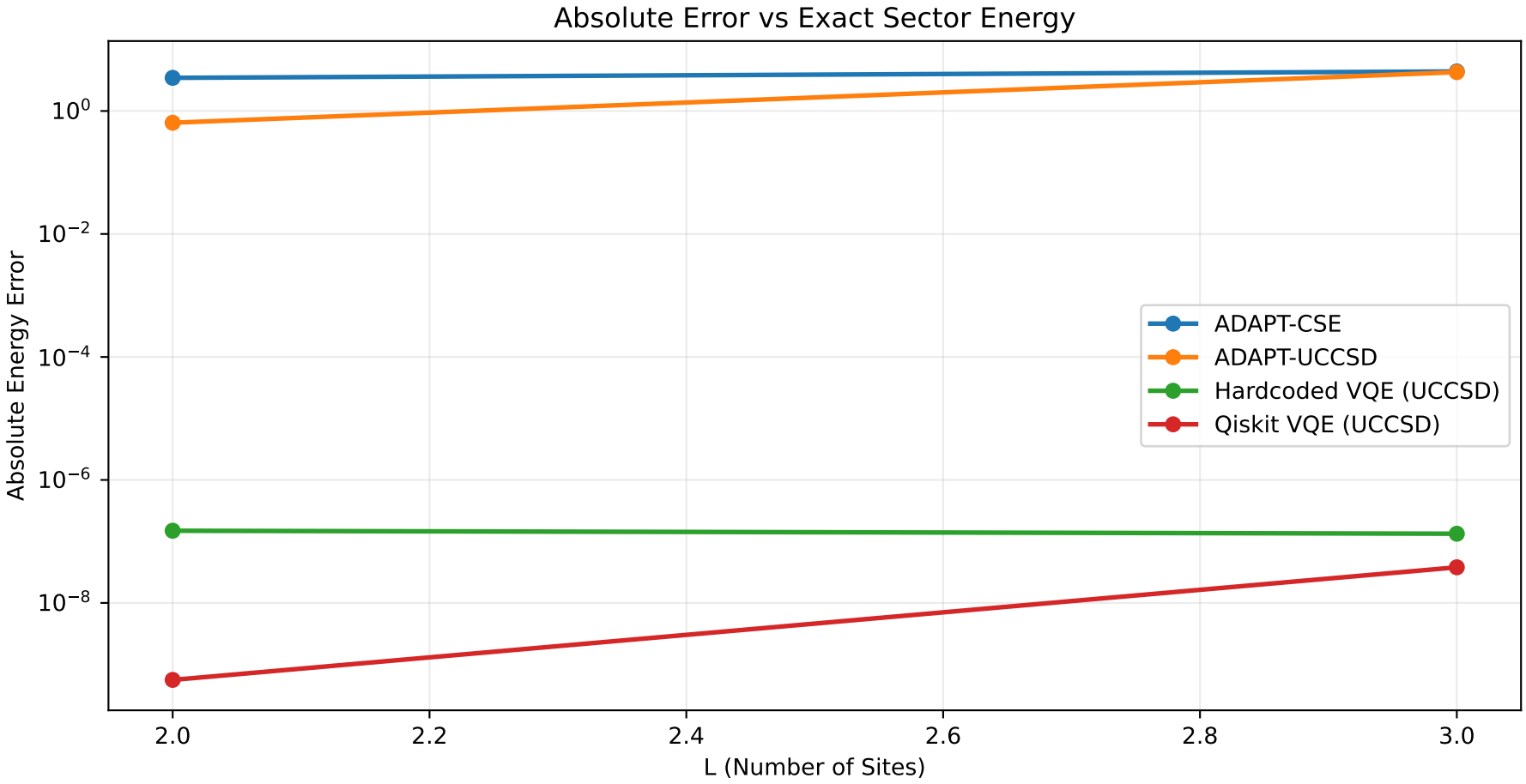
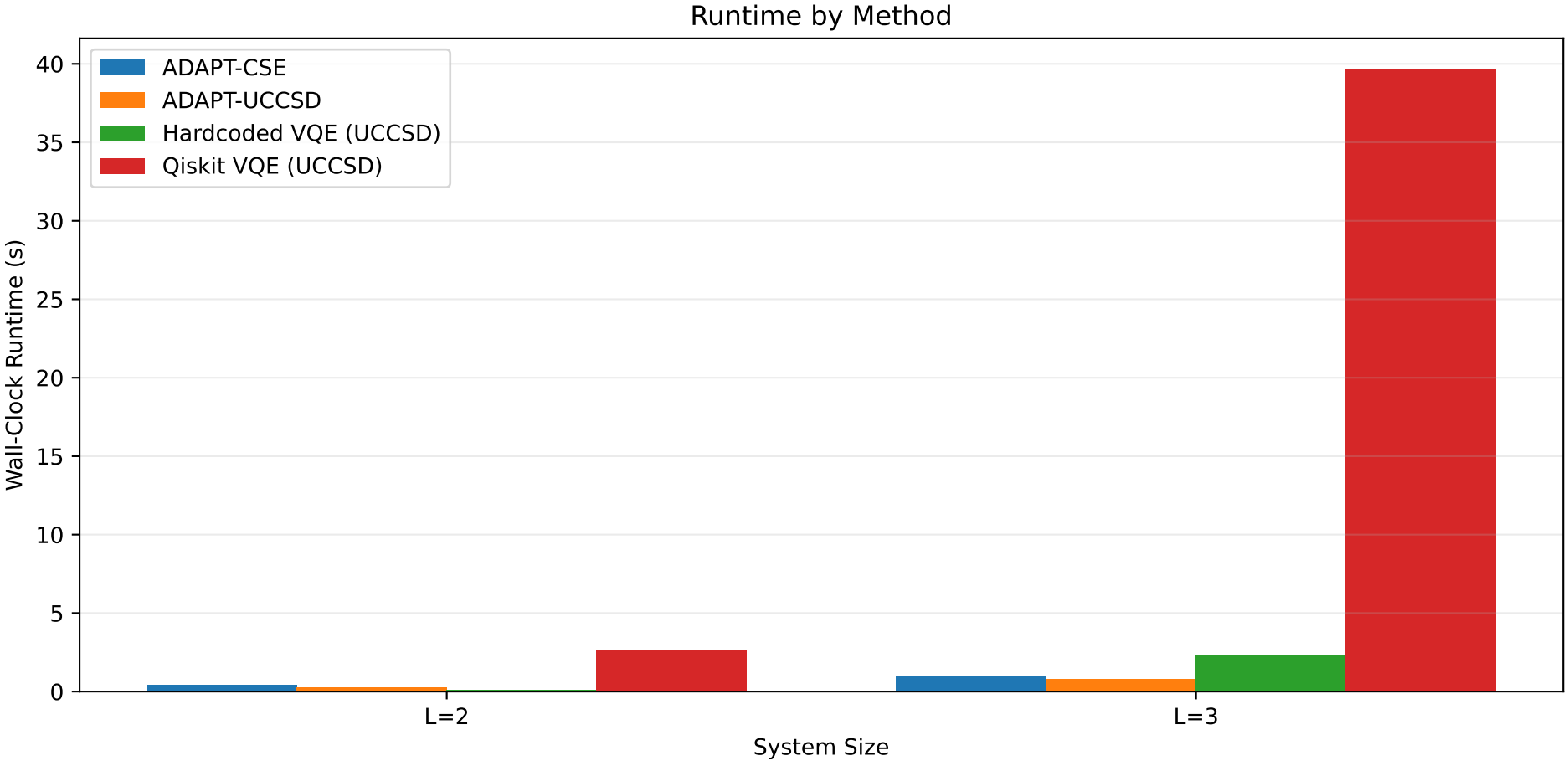
```
ADAPT/VQE Benchmark Summary
Generated (UTC): 2026-02-21T14:42:47.294002+00:00

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=1, max_depth=1, max_time_s=1.0)
  VQE(reps=2, restarts=1, maxiter=2000, 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= 2.624209203055 |dE|=3.460e+00 t=0.40s
  ADAPT-UCCSD              E=-0.192228194594 |dE|=6.438e-01 t=0.23s
  Hardcoded VQE (UCCSD)    E=-0.836056968909 |dE|=1.492e-07 t=0.07s
  Qiskit VQE (UCCSD)       E=-0.836057117595 |dE|=5.600e-10 t=2.66s

L=3  (n_up=2, n_down=1)
  Exact (Sector)           E=-1.236067977500 |dE|=0.000e+00 t=0.00s
  ADAPT-CSE                E= 3.158529015596 |dE|=4.395e+00 t=0.93s
  ADAPT-UCCSD              E= 3.043066873062 |dE|=4.279e+00 t=0.79s
  Hardcoded VQE (UCCSD)    E=-1.236067844029 |dE|=1.335e-07 t=2.34s
  Qiskit VQE (UCCSD)       E=-1.236067939546 |dE|=3.795e-08 t=39.64s
```


Energy Comparison by System Size
Energy
L (Number of Sites)
3
2
1
0
−1
2.0
2.2
2.4
2.6
2.8
3.0
Exact (Sector)
ADAPT-CSE
ADAPT-UCCSD
Hardcoded VQE (UCCSD)
Qiskit VQE (UCCSD)


Absolute Error vs Exact Sector Energy
Absolute Energy Error
10^{0}
10^{-2}
10^{-4}
10^{-6}
10^{-8}
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
5
10
15
20
25
30
35
40
L=2
L=3
System Size