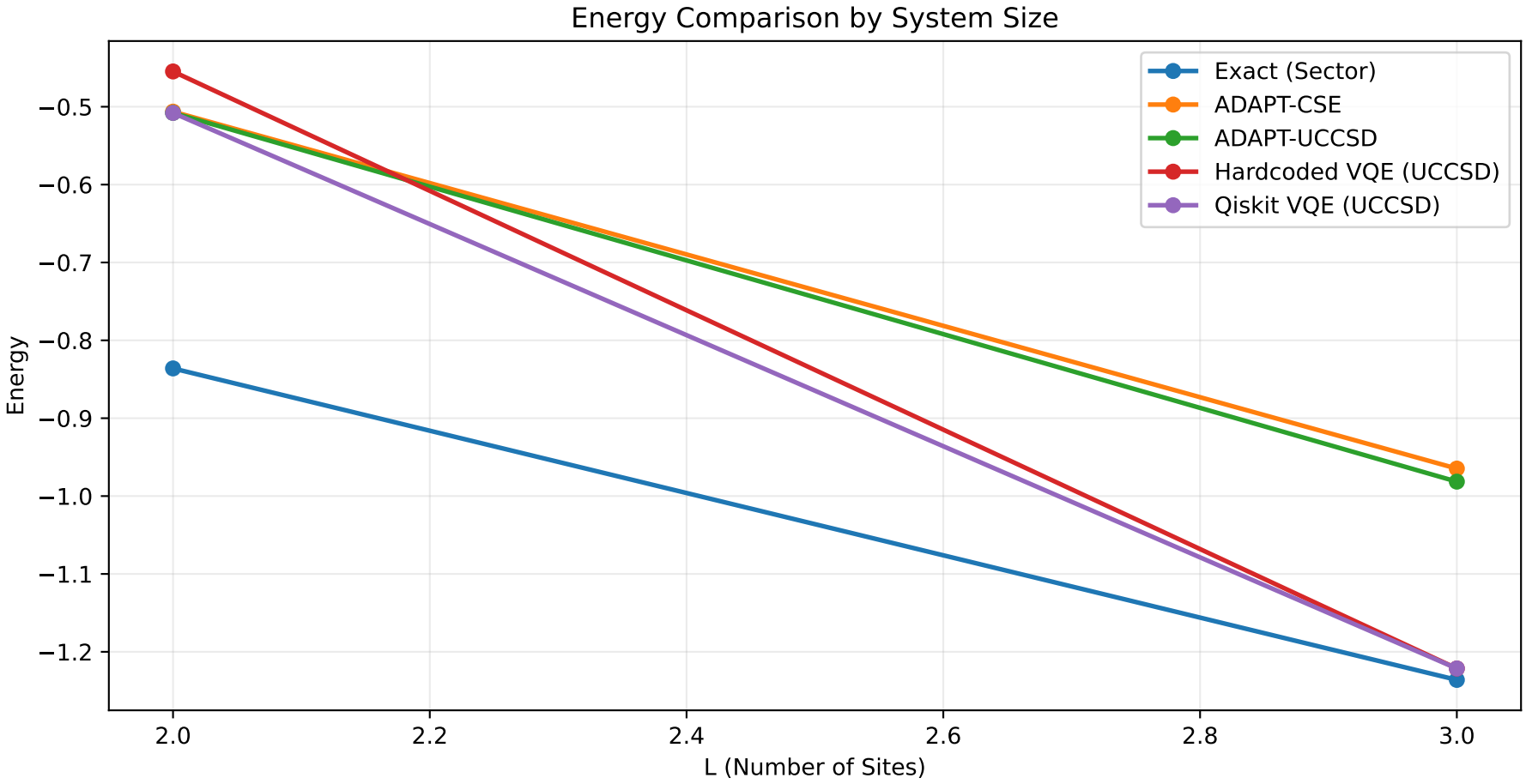
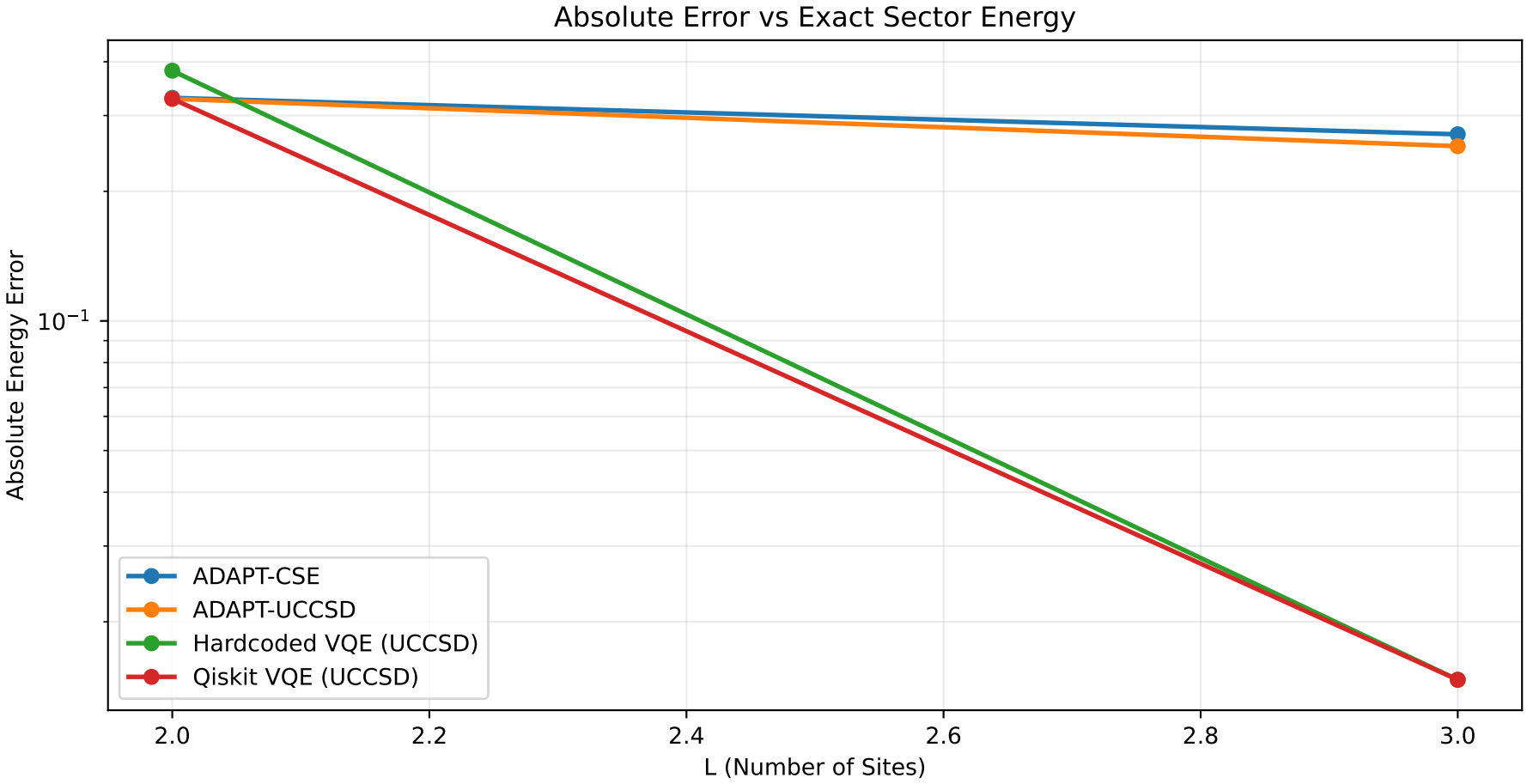
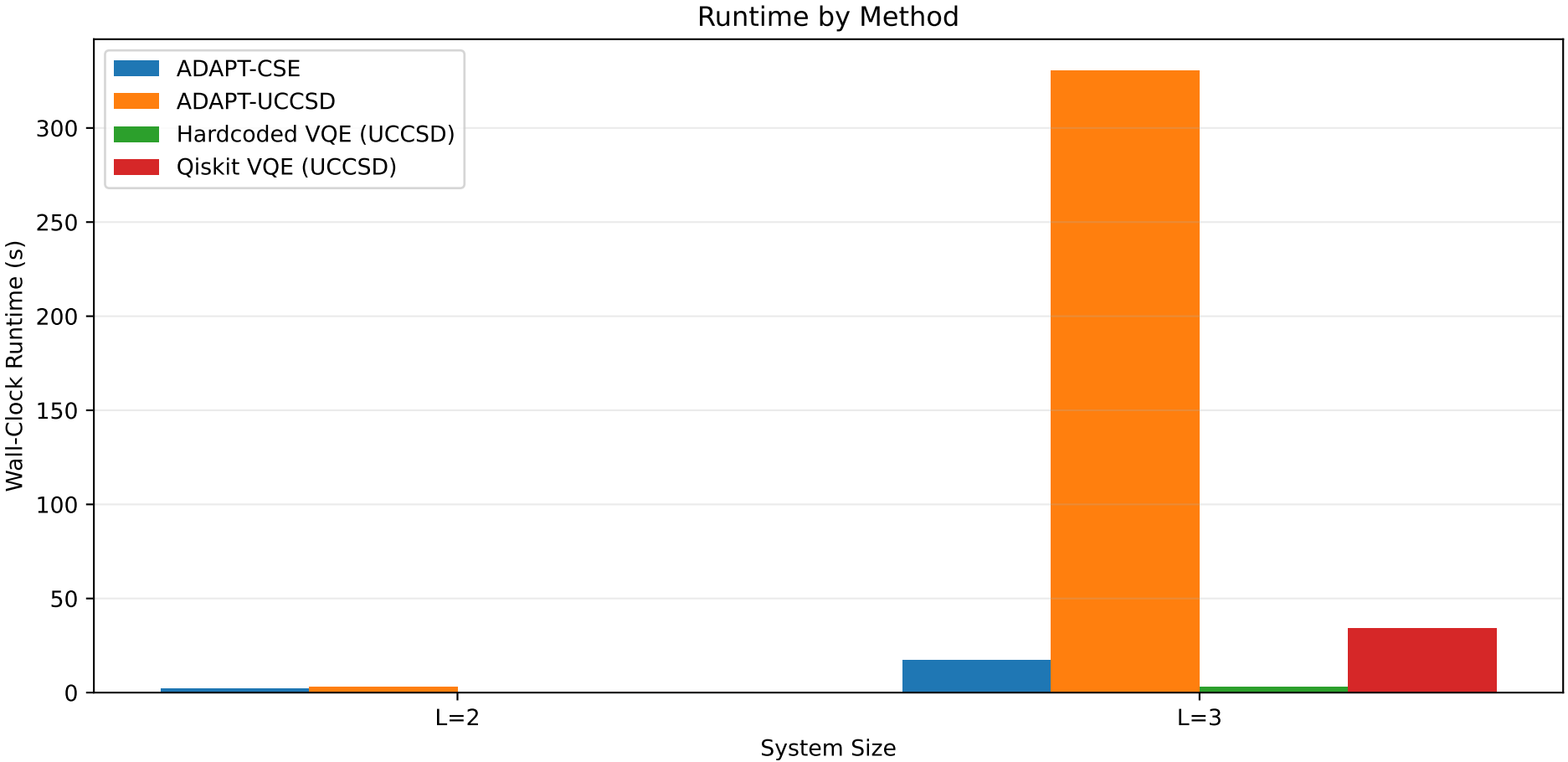
```
ADAPT/VQE Benchmark Summary
Generated (UTC): 2026-02-21T14:18:30.350175+00:00

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=250, max_depth=12, max_time_s=300.0)
  VQE(reps=1, restarts=1, maxiter=250, 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=2.06s
  ADAPT-UCCSD              E=-0.507936507935 |dE|=3.281e-01 t=2.93s
  Hardcoded VQE (UCCSD)    E=-0.454692982308 |dE|=3.814e-01 t=0.02s
  Qiskit VQE (UCCSD)       E=-0.507936490223 |dE|=3.281e-01 t=0.50s

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=17.09s
  ADAPT-UCCSD              E=-0.981447918746 |dE|=2.546e-01 t=330.63s
  Hardcoded VQE (UCCSD)    E=-1.221399398428 |dE|=1.467e-02 t=2.95s
  Qiskit VQE (UCCSD)       E=-1.221399599808 |dE|=1.467e-02 t=34.19s
```


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}
ADAPT-CSE
ADAPT-UCCSD
Hardcoded VQE (UCCSD)
Qiskit VQE (UCCSD)
2.0
2.2
2.4
2.6
2.8
3.0
L (Number of Sites)


Runtime by Method
ADAPT-CSE
ADAPT-UCCSD
Hardcoded VQE (UCCSD)
Qiskit VQE (UCCSD)
Wall-Clock Runtime (s)
0
50
100
150
200
250
300
L=2
L=3
System Size