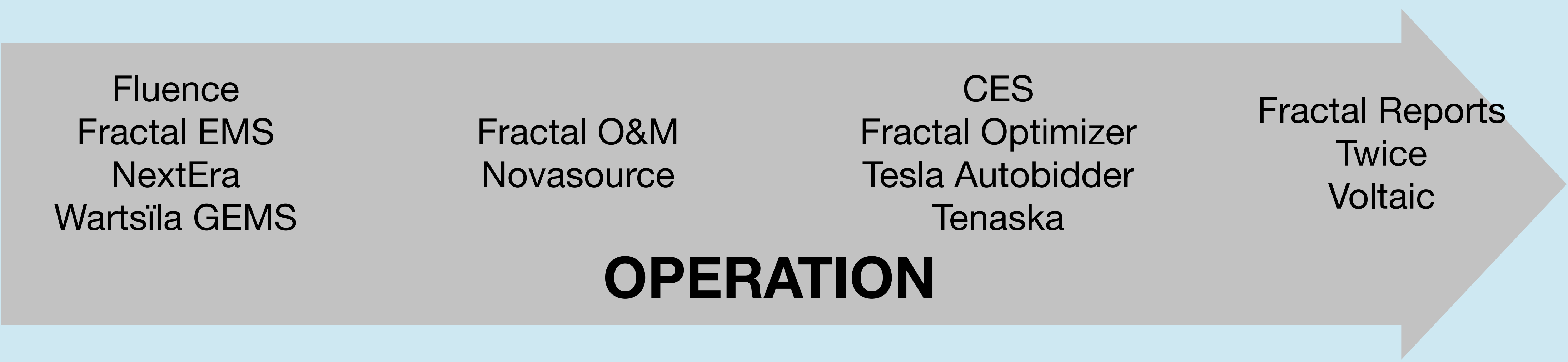
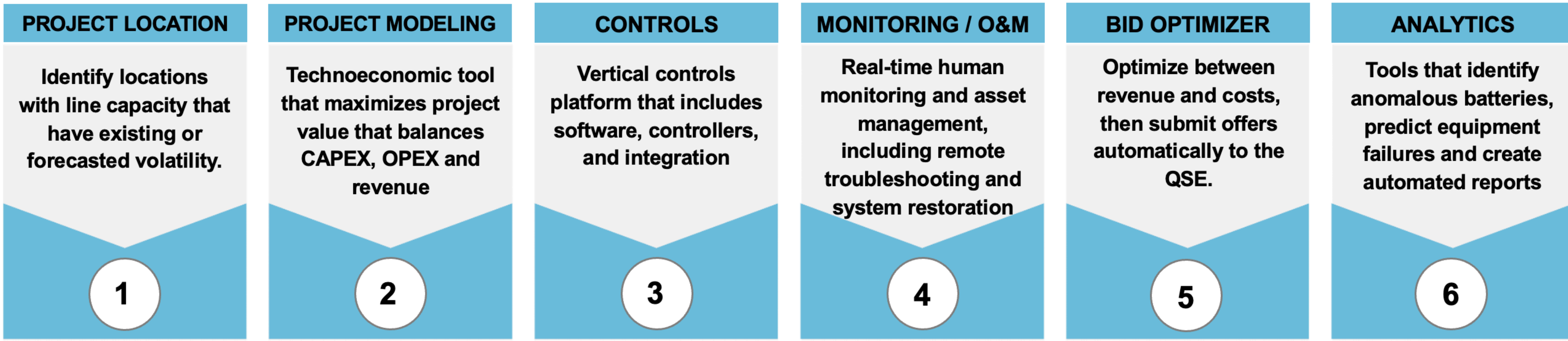


BESS OPTIMIZATION

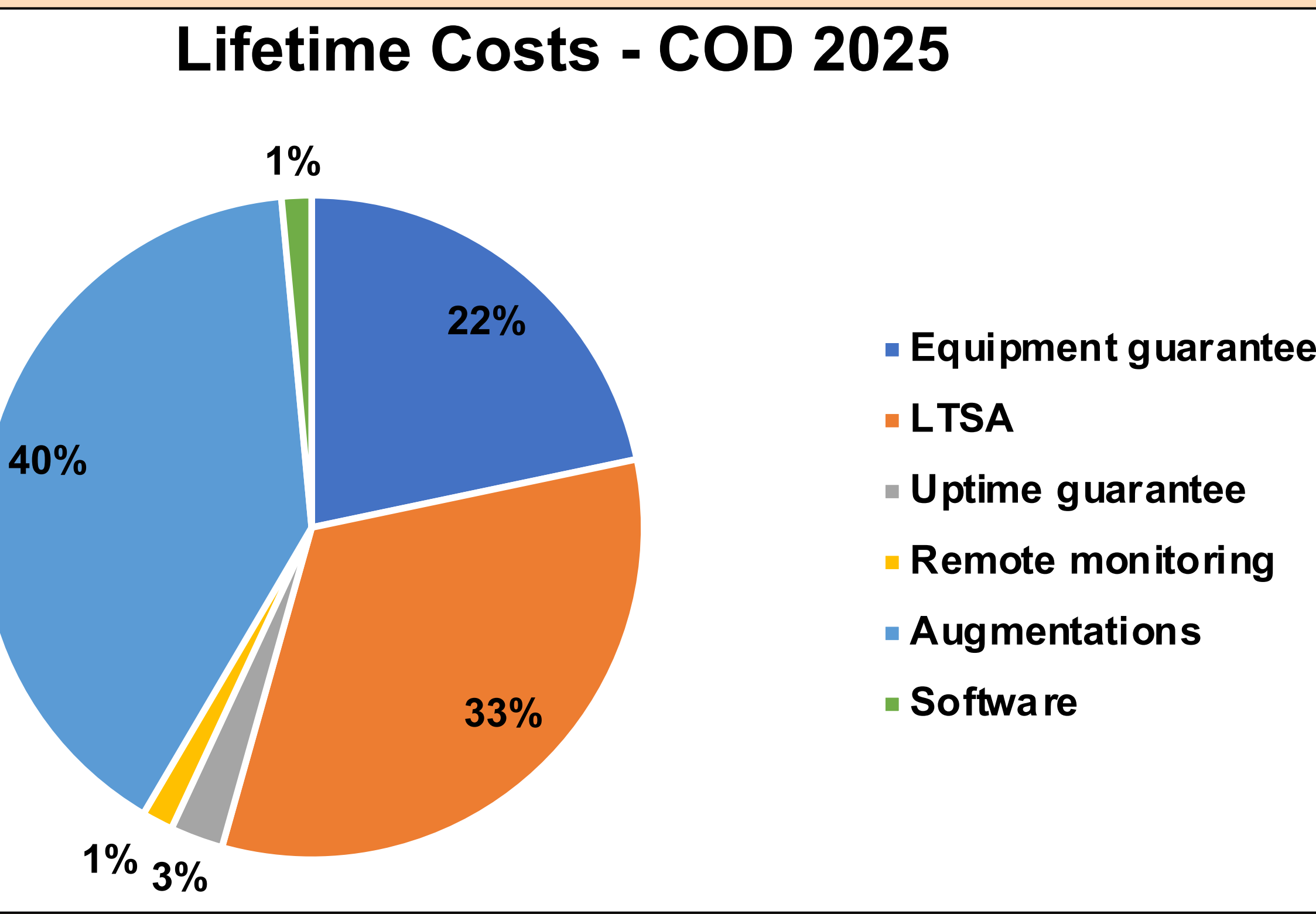
PRE - COD

POST - COD



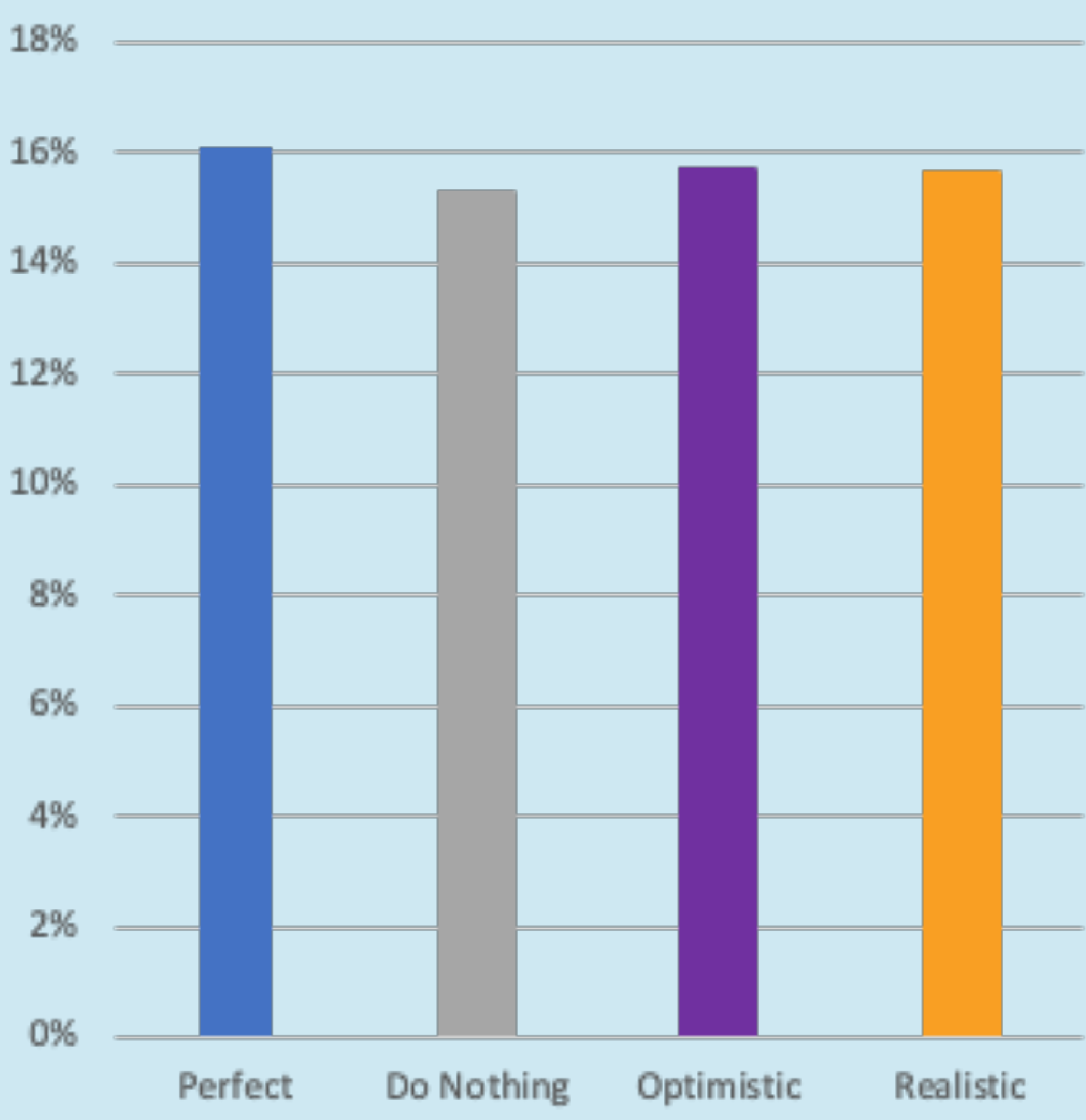
5 MOST COMMON MISTAKES

- 1. Improper Sizing:** Goldilock's - don't buy too little or too much
- 2. Underestimating OPEX Costs**



- 3. Miscalculating Degradation**
- 4. Inadequate EMS; look for these key features:**
 - Real-time Visualization / Historian
 - SCADA with substation operability
 - Networking
 - Cyber-Security
- 5. Contract Negotiations**
 - Warranties - Get a Custom Warranty
 - Performance Guarantees (Availability, Capacity (Power and Energy), RTE)
 - Liquidated Damages - Delay Delivery, Guaranteed COD
 - Performance Scope of Work & Testing

BID OPTIMIZATION



Perfect (unattainable): → **16.1% IRR**
99% Availability → 100% perfect, 0% fees

Do nothing (no bid opt): → **15.3% IRR**
99% Availability → 95% perfect, 0% fees

Optimistic (not realistic): → **15.72% IRR**
99% Availability → 99% perfect, 1% fees

Fractal (realistic): → **15.65% IRR**
99% Availability → 98% perfect, 0.5% fees

Purchasing the BESS with a 15% integrator premium can reduce project IRR by 5.5%

PROCUREMENT OPTIMIZATION

