

# Topology 00: Both Switches OFF

*Physical State: Maximum power transfer mode. Both phases simultaneously transfer stored energy to output bus. Both D7, D8 forward biased.*

## Inductor Equations

$$diL1/dt = (V_{in} - vC3 - vC0) / L1$$

$$diL2/dt = (V_{in} - vC1 - vC0) / L2$$

$$diL3/dt = 0$$

$$diL4/dt = 0$$

$$diL5/dt = vC0 / L5$$

$$diL6/dt = vC0 / L6$$

## Capacitor Equations

$$dvC1/dt = iL2 / C1$$

$$dvC3/dt = iL1 / C3$$

$$dvC0/dt = (iL1 + iL2 + iL5 + iL6 - P/vC0) / C0$$

**Maximum Power Delivery:** All four inductors (L1, L2, L5, L6) deliver current to output. Both coupling capacitors (C1, C3) receive energy from input inductors while supplying output inductors. Output capacitor charges from four parallel sources.