- $(c\_q0 \cong ((Balance = 60) \wedge (CofeeLeft = 1) \wedge (Mago = 0) \wedge (Statut = 1)))$ —**ServeCoffee**→ $(c\_q2 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 60) \wedge (Statut = 1)))$

- $(c\_q4 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 6121) \wedge (Statut = 0)))$ —**powerUp** / **powerDown**— $(c\_q2 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 6121) \wedge (Statut = 1)))$ —**AutoOut**→ $(c\_q0 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 6121) \wedge (Statut = 2)))$

- $(c\_q2 \cong ((Balance = 1) \wedge (CofeeLeft = 0) \wedge (Mago = 6121) \wedge (Statut = 1)))$ —**backBalance**→

- $(c\_q2 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 0) \wedge (Statut = 1)))$ —**insert** (self loop)

- $(c\_q1 \cong ((Balance = 60) \wedge (CofeeLeft = 1) \wedge (Mago = 6120) \wedge (Statut = 1)))$ —**ServeCoffee**→ $(c\_q2 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 6180) \wedge (Statut = 1)))$

- $(c\_q0 \cong ((Balance = 60) \wedge (CofeeLeft = 2) \wedge (Mago = 0) \wedge (Statut = 1)))$ —**ServeCoffee**→ $(c\_q0 \cong ((Balance = 0) \wedge (CofeeLeft = 1) \wedge (Mago = 60) \wedge (Statut = 1)))$

- $(c\_q3 \cong ((Balance = 1) \wedge (CofeeLeft = 0) \wedge (Mago = 6120) \wedge (Statut = 1)))$ —**backBalance**→ $(c\_q3 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 6120) \wedge (Statut = 1)))$ (**insert** self loop) —**powerDown** / **powerUp**— $(c\_q4 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 6120) \wedge (Statut = 0)))$

- $(c\_q0 \cong ((Balance = 60) \wedge (CofeeLeft = 1) \wedge (Mago = 6060) \wedge (Statut = 1)))$ —**ServeCoffee**→ $(c\_q3 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 6120) \wedge (Statut = 1)))$ —**AutoOut**→ $(c\_q0 \cong ((Balance = 0) \wedge (CofeeLeft = 0) \wedge (Mago = 6120) \wedge (Statut = 2)))$

- $(c\_q1 \cong ((Balance = 60) \wedge (CofeeLeft = 2) \wedge (Mago = 6120) \wedge (Statut = 1)))$ —**ServeCoffee**→ $(c\_q0 \cong ((Balance = 0) \wedge (CofeeLeft = 1) \wedge (Mago = 6180) \wedge (Statut = 1)))$

- $(c\_q1 \cong ((Balance = 1) \wedge (CofeeLeft = 1) \wedge (Mago = 6120) \wedge (Statut = 1)))$ —**backBalance**→ $(c\_q1 \cong ((Balance = 0) \wedge (CofeeLeft = 1) \wedge (Mago = 6120) \wedge (Statut = 1)))$ (**insert** self loop) —**powerDown** / **powerUp**— $(c\_q4 \cong ((Balance = 0) \wedge (CofeeLeft = 1) \wedge (Mago = 6120) \wedge (Statut = 0)))$

- $(c\_q0 \cong ((Balance = 60) \wedge (CofeeLeft = 2) \wedge (Mago = 6060) \wedge (Statut = 1)))$ —**ServeCoffee**→ $(c\_q1 \cong ((Balance = 0) \wedge (CofeeLeft = 1) \wedge (Mago = 6120) \wedge (Statut = 1)))$ —**AutoOut**→ $(c\_q0 \cong ((Balance = 0) \wedge (CofeeLeft = 1) \wedge (Mago = 6120) \wedge (Statut = 2)))$

- $(c\_q4 \cong ((Balance = 0) \wedge (CofeeLeft = 100) \wedge (Mago = 0) \wedge (Statut = 0)))$ —**addCofee**→ $(c\_q4 \cong ((Balance = 0) \wedge (CofeeLeft = 101) \wedge (Mago = 0) \wedge (Statut = 0)))$ (**takeMago** self loop)

- $(c\_q4 \cong ((Balance = 0) \wedge (CofeeLeft = 100) \wedge (Mago = 0) \wedge (Statut = 0)))$ —**insert**→ $(c\_q4 \cong ((Balance = 1) \wedge (CofeeLeft = 100) \wedge (Mago = 0) \wedge (Statut = 0)))$ —**powerUp** / **powerDown**— $(c\_q0 \cong ((Balance = 1) \wedge (CofeeLeft = 100) \wedge (Mago = 0) \wedge (Statut = 1)))$ —**backBalance**→ $(c\_q0 \cong ((Balance = 0) \wedge (CofeeLeft = 100) \wedge (Mago = 0) \wedge (Statut = 1)))$ (**insert** self loop)