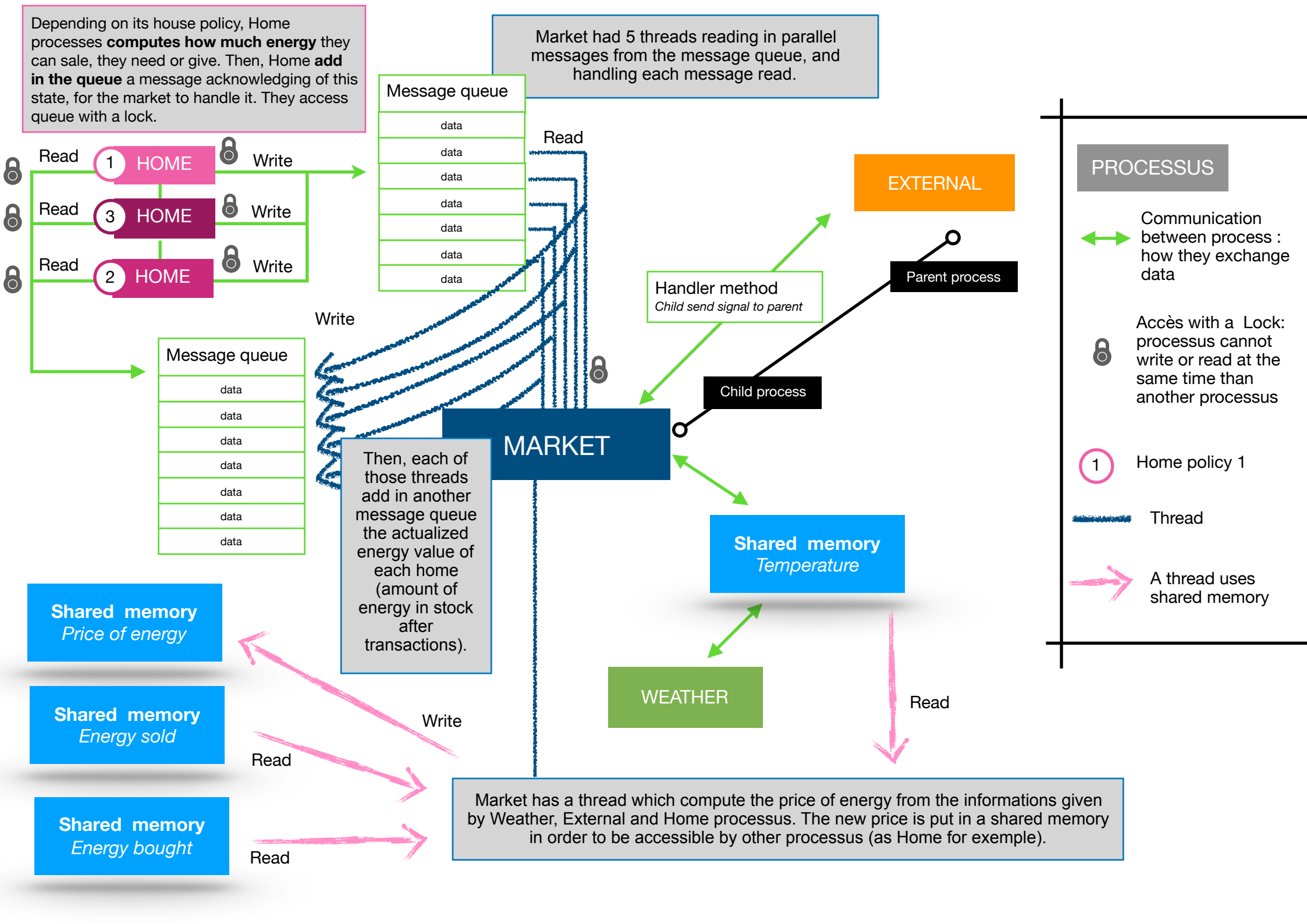
Depending on its house policy, Home processes **computes how much energy** they can sale, they need or give. Then, Home **add in the queue** a message acknowledging of this state, for the market to handle it. They access queue with a lock.
Market had 5 threads reading in parallel messages from the message queue, and handling each message read.
Message queue
data
Read
Write
Read
1 HOME
Write
Read
3 HOME
Write
Read
2 HOME
Write
Message queue
data
Write
EXTERNAL
Handler method
Child send signal to parent
Parent process
Child process
MARKET
Then, each of those threads add in another message queue the actualized energy value of each home (amount of energy in stock after transactions).
Shared memory
Temperature
Shared memory
Price of energy
Shared memory
Energy sold
Shared memory
Energy bought
WEATHER
Write
Read
Read
Read
Market has a thread which compute the price of energy from the informations given by Weather, External and Home processus. The new price is put in a shared memory in order to be accessible by other processus (as Home for exemple).
PROCESSUS
Communication between process : how they exchange data
Accès with a Lock: processus cannot write or read at the same time than another processus
1
Home policy 1
Thread
A thread uses shared memory