Excerpt from i.MX 7 Dual Applications Processor Reference Manual

6.2.4.3 Power mode transitions

Table 6-8. Power mode transitions

Power mode	Configuration with external PMIC	Configuration with internal PMIC
ON, first time	 Either coin cell or SoC power supply is connected to SNVS. When button is pressed, PMIC powers on. 	 Either coin cell or SoC power supply is connected to SNVS. When button is pressed, 'state' goes ON, PMIC_ON_REQ goes '1'. External regulator is enabled.
Normal ON to OFF, by button	 Button is pressed for a short duration on the external PMIC. Interrupt request (irq) is sent to SoC from external PMIC. SoC is programming PMIC for power off when standby is asserted. 	 SoC button is pressed for a short duration. Interrupt request (irq) is sent to SoC from FSM. Alarm timer is set up by software routine and started. Upon alarm_in assertion to '1', PMIC_ON_REQ goes '0'.

Excerpt from Q&A: How is mx6 PMIC_ON_REQ under SW control?



