## 10.4 Energy management

This section describes the elements of energy management to help you understand the requirements for power and cooling, monitoring and trending, and reducing power consumption. The energy management structure for the server is shown in Figure 10-9.

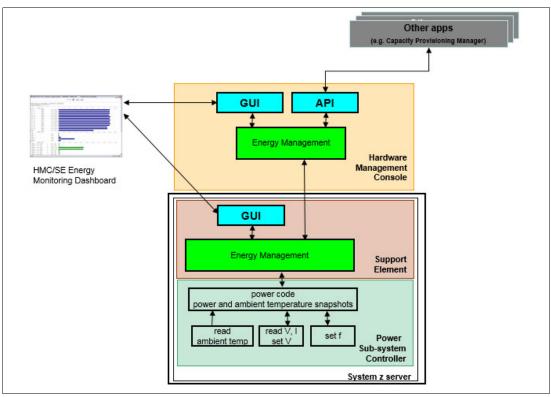


Figure 10-9 z14 energy management

The hardware components in the z14 ZR1 server are monitored and managed by the energy management component in the Support Element (SE) and HMC. The graphical user interfaces (GUIs) of the SE and HMC provide views, such as the Monitors Dashboard and Environmental Efficiency Statistics Monitor Dashboard.

The following tools are available to plan and monitor the energy consumption of z14 ZR1 servers:

- Power estimation tool on Resource Link
- Energy Management task for maximum potential power on HMC and SE
- Monitors Dashboard and Environmental Efficiency Statistics tasks on HMC and SE