This paper develops a design methodology for switched flux (SF) hybrid permanent magnet memory machines (HPMMMs). The memorable flux is achieved due to the variable magnetization level of low coercive force (LCF) permanent magnets (PMs) Thus, the associated excitation loss is negligible, resulting in high efficiency operation over a wide speed range. A general hybrid PM magnetic circuit is modeled, which is characterized by spoke-array NdFeB PMs and LCF PMs sandwiched between an outer stator ring and an inner stator pole. Based on the magnetic circuit, the design conflicts within the stationary side are unveiled. Thereafter, the machine configuration is introduced, followed by a description of the design procedure. First, the optimal stator pole number is determined based on one-phase machine models. In addition, a simplified permeance function is utilized to analytically optimize the rotor number, accounting for different ratios of the slot opening to NdFeB PM thickness. The electromagnetic performance of the machines with alternate stator/rotor pole combinations are compared. The design guidelines for LCF PMs are presented. Finally, the theoretical analysis is verified experimentally on the prototype machine. This paper develops a design methodology for switched flux (SF) hybrid permanent magnet memory machines (HPMMMs). The memorable flux is achieved due to the variable magnetization level of low coercive force (LCF) permanent magnets (PMs) Thus, the associated excitation loss is negligible, resulting in high efficiency operation over a wide speed range. A general hybrid PM magnetic circuit is modeled, which is characterized by spoke-array NdFeB PMs and LCF PMs sandwiched between an outer stator ring and an inner stator pole. Based on the magnetic circuit, the design conflicts within the stationary side are unveiled. Thereafter, the machine configuration is introduced, followed by a description of the design procedure. First, the optimal stator pole number is determined based on one-phase machine models. In addition, a simplified permeance function is utilized to analytically optimize the rotor number, accounting for different ratios of the slot opening to NdFeB PM thickness. The electromagnetic performance of the machines with alternate stator/rotor pole combinations are compared. The design guidelines for LCF PMs are presented. Finally, the theoretical analysis is verified experimentally on the prototype machine.