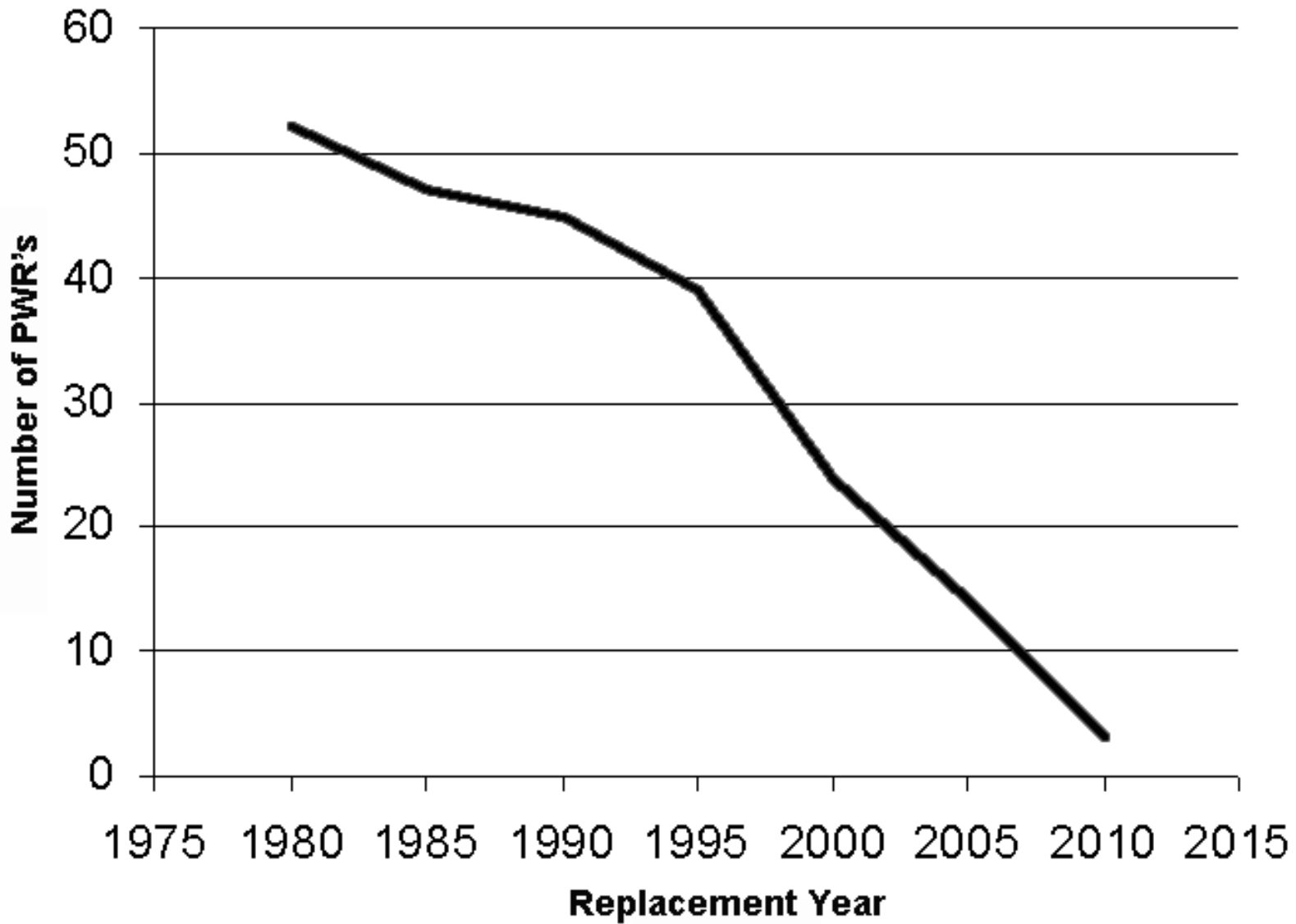


The purpose of the Project is to replace the SONGS 2 & 3 steam generators. The SONGS 2 & 3 PWR nuclear power units are located on the California coast near San Clemente, California. The units are rated 1,070 and 1,080 MW, respectively. PWRs use large components called steam generators to transfer energy from the nuclear fuel to the steam turbine, where this thermal energy is converted to electrical energy. There are two steam generators each for SONGS 2 & 3 for a total of four steam generators at the site. All four of the original steam generators are proposed to be replaced as part of the Project.

The steam generators have exhibited degradation as a result of a variety of corrosion and mechanical factors associated with the original materials. Almost all other PWRs of similar vintage and materials in the United States have already had their steam generators replaced or are in the process of replacing them (Figure 2-1).

As explained in detail in Exhibit SCE-2 of this application, the SONGS 2 & 3 steam generators will eventually reach a state where, under applicable NRC regulations, the steam generators must be replaced or the plant must be shut down. SCE, operating agent for SONGS 2 & 3, expects this to occur as early as spring 2009. Consequently, SCE proposes in this application to replace the steam generators for both units in the Fuel Cycle 16 RFO. Replacement of the SONGS 2 steam generators may occur as early as spring 2009 and replacement of the SONGS 3 steam generators may occur as early as fall 2009. This Project to replace the steam generators is necessary to allow SONGS 2 & 3 to continue to supply electric power.

Given anticipated regulatory approval times and the length of time necessary to design, fabricate, and transport the RSGs to the site, SCE submits this application now and seeks California Public Utilities Commission (CPUC) approval of steam generator replacement by mid 2005. A discussion of the fabrication and transportation process, as well as a schedule showing preparation, design, fabrication, transportation, and installation of the Project is located in Exhibit SCE-3 to this application. If the SONGS 2 & 3 steam generators are not replaced, operation of SONGS 2 & 3 may not be possible beyond the Fuel Cycle 16 RFO, which could occur as early as 2009.



PWR = Pressurized water reactor

SOURCE: Southern California Edison (Graph).

**ACTUAL AND PROJECTED NUMBER
OF PWRs THAT HAVE NOT
REPLACED STEAM GENERATORS**



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