facilities and the feasibility and costs of alternative water supply facilities. 136

Mines urges the Commission to consider the socioeconomic impact of decommissioning hydropower projects, pointing out that electricity can account for as much as one third of the cost of smelting aluminum. Thus, the loss of a source of affordable electricity could lead to a loss of jobs and social dislocation.

New York suggests that if a decision is made to continue operation of an uneconomic project because of its other benefits, then long-term maintenance costs could be shared by government agencies or financed out of a decommissioning trust fund.¹³⁷

Central Maine states that, because the cost of applying to surrender a license is the same as the cost of applying for a new license, under certain circumstances there is a financial incentive to seek a new license for an uneconomic project.¹³⁸

8. What are the existing licensee's responsibilities with respect to decommissioning, if the existing licensee does not apply for a new license and wants to abandon the project? In such a situation, is a licensee responsible for decommissioning the project, with or without removal of facilities, at the end of the term of the license or of the project's useful life? If so, how should "useful life" be defined?

NHA states that there is no means of predicting a project's useful life; it can only be determined after the fact on a case-by-case basis. NHA refers to U.S. projects that have been in operation since the previous century, and dams in India and Ceylon that have stored water for irrigation for over 2000 years. NHA states that projects can be damaged or destroyed by natural events (e.g., earthquakes, landslides, or floods), or can be rendered obsolete by improper or outmoded design or construction, or by improper maintenance or operation. A project's useful life could also be affected by economic circumstances, or by the conditions imposed in a license and their related costs.139

Reform states that "useful life" has been defined as "the number of years as a baseload facility plus the number of years as an indeterminate load facility." ¹⁴⁰ Wisconsin Electric suggests a definition based on "useful economic life" measured in terms of the project's capacity, the value of its energy, and its projected future costs. ¹⁴¹ Walton defines

"useful life" as the length of time during which the project is profitable, but with profitability adjusted to include "social and environmental costs" including the costs of dam removal and associated sediment control. 142

Interior believes that it is reasonable to require the licensee to bear the cost of decommissioning after it has enjoyed the economic benefits of the license. 143 Commerce urges the Commission to require prompt removal of project facilities within a "reasonable period" after expiration of the license "rather than allowing projects to remain abandoned until the end of a 'useful life' threshold." 144

New York notes that the "useful life" of a hydropower project could run much longer than that of a nuclear plant, and that the project could be abandoned well before it reaches the end of that useful life. Therefore, New York would require that decommissioning planning take place at the midpoint of the term of the license. 145

Susquehanna recommends that "the Commission should commission a comprehensive study to develop guidelines to determine the useful life and projected cost of decommissioning a 'typical' or generic project." Susquehanna recommends that licensees submit decommissioning studies 20 years in advance of license expiration; Susquehanna believes this would provide adequate time for planning. 146

Oregon advises that the Oregon Public Utility Commission has the authority to allow rate recovery for project decommissioning for regulated utilities. Oregon suggests that unregulated project owners could treat decommissioning as a cost of doing business.¹⁴⁷

Alabama Power points out that if the Commission determines that the public interest mandates relicensing a project after a trust fund has been accumulated to decommission it, then the trust will have increased the operating cost of the project for no useful purpose.¹⁴⁸

9. Assuming that project facilities removal/decommissioning is the project owner's responsibility, how should the appropriate time to begin recognition of this liability be determined in light of the fact that most projects continue to be economic when the original license expires? Would it be appropriate to impose such a requirement at the time the first new license is issued?

APPA points out that decommissioning in the sense of shutting down project operations without removing the dam is relatively inexpensive, and contends that removing a dam is too speculative to warrant collection of funds in advance. APPA would allow licensees flexibility to determine when and how to accumulate funding for decommissioning, noting that project costs are frequently front-loaded in the earlier years of the project. 150

Interior and Reform advocate inclusion in all licenses of a condition reserving the Commission's right to mandate decommissioning of the project if it ceases to be in the public interest to continue operating it.¹⁵¹ Commerce would review the propriety of decommissioning at license expiration.¹⁵²

10. Can the Commission condition new licenses (if so requested) to require a reserve or trust fund that could be used to finance the cost of decommissioning and/or the removal of project facilities when the new license expires? If so, under what circumstances should it do so?

NHA contends that, since in its view the Commission lacks statutory authority to compel decommissioning, it also lacks legal authority to mandate a trust fund for that purpose. 153 APPA finds legal authority for a trust fund only with respect to minor licenses when sections 14 and 15 of the FPA are waived. 154

Reform finds legal authority for mandating trust funds in section 10(c) of the FPA, and would have the Commission issue regulations requiring the creation of trust funds. Reform would also require licensees to submit decommissioning plans. 155

Referring to regulations governing the decommissioning of nuclear facilities, Susquehanna believes that a decommissioning trust fund requirement would fall within the scope of the Commission's authority, but does not elaborate on the source of that legal authority. 156

NHA reiterates its view that the useful life of a project cannot be determined in advance, and that licensees cannot be compelled to decommission their projects without their consent.

Therefore, it rejects any generic rule on this subject. 149

¹³⁶ *Id.* at 12–13.

¹³⁷ New York at 3.

¹³⁸ Central Maine at 3.

¹³⁹ NHA at 37–40

¹⁴⁰ Reform at 35–36. ¹⁴¹ Wisconsin Electric at 8.

¹⁴² Walton at 13.

¹⁴³ Interior at 8.

¹⁴⁴ Commerce at 11-12.

 $^{^{145}}$ New York at 3. 146 Susquehanna at 1–3.

¹⁴⁷ Oregon at 4.

¹⁴⁸ Alabama Power at 8-9.

¹⁴⁹NHA at 40-41.

¹⁵⁰ APPA at 17.

¹⁵¹ Interior at 8-9; Reform at 36-37.

¹⁵² Commerce at 12.

¹⁵³ NHA at 42.

¹⁵⁴ APPA at 18-19.

¹⁵⁵ Reform at 38-39.

¹⁵⁶ Susquehanna at 2-3.