

From: [David Webb](#)
To: [Wr401program](#)
Subject: Klamath 401
Date: Tuesday, February 26, 2019 7:03:25 PM

Perhaps I missed it in the document, but in meetings and general discussion I have never seen any effort to describe the likely design life of any of the power plants to be removed. I do know that back in the 1990's I was speaking to the operator of Iron Gate hydro plant, who at the time was struggling with trying to figure out how to remove and replace the runner in the plant, which had been weld repaired so many times that it was warped and cracking. Most plants have large hatches or other openings, and a place to park a crane so that large and heavy items can be lifted out. At the time we spoke he told me that in designing that plant, PP&L had assumed that by the time anything major needed to be replaced, nuclear plants would have made power so cheap that the plant would be abandoned instead of repaired.

All the discussion I have heard to date opposing dam removal seems to be predicated on the unspoken assumption that all these plants would continue to fill their design function forever unless removed, something that simply cannot be true. All machinery eventually reaches the point where its cost of repair cannot be recovered, and it winds up getting scrapped. The same holds true for steel, and for reinforced concrete, where eventually it too ages and cracks and is eventually irreparable.

I recall that ~20 years ago FERC directed operators of all high risk hydro plants to travel down the inside of their penstocks beating on them with a hammer, searching for weak spots. Sounded somewhat crude, but likely indicative that some plants' penstocks had nearly rusted through and would need difficult and expensive repairs if they were to continue in operation.

At any rate, while it is clear that for many people dam removal and related restoration work is strictly an emotional issue, (i.e. not one where opinions will change as a result of factual discussion), for those others seeking the whole picture, I think it would help to understand that the discussion is not whether the dams will be removed, but when it should be done, as eventually it must.

Another aspect affecting the useful life of the plants is the likely rate of return they will yield going forwards. Siskiyou County is right now struggling with the near complete loss of income from the sale of power from Box Canyon Dam on the Sacramento River, where PP&L is apparently showing little interest in buying the hydro power produced even for ~ \$.04/kwh. This suggests that the energy market is oversupplied, at least for much of the year, and may indicate that aging plants like those on the Klamath where maintenance costs are probably rising, have become more liabilities than assets. This aspect of the plant economics also seems to have escaped everyone's attention also.

Thank you.

David Webb

From: [David Webb](#)
To: [Wr401program](#)
Subject: klamath
Date: Thursday, February 28, 2019 9:00:55 AM

I realize this is after the deadline, but perhaps you can include it--the last set of storms left me without power and internet access until too late to get this in on time.

At the meeting in Yreka, Wayne Hammar noted that PP&L is the largest single property tax payer in the county, one of the few substantive comments I heard at the meeting. What was not clear at all was whether he was referring to all PP&L assets, (poles, lines, buildings, trucks, etc., along with real property along the Klamath and elsewhere) or just the dams and their built in equipment themselves as would be most appropriate in the context of the discussion. Can you get clarification on that and provide dollar amounts also?

Dave