

Testimony on H 554 by Hilton H Dier III
January 9, 2017

I am the co-owner of a small hydroelectric plant in North Troy Vermont and a board member of the Vermont Independent Power Producers Association.

I understand the purpose of this bill – to document and inspect dams not currently regulated. However, I see elements of this bill that are dangerously broad or ambiguous. Specifically, I see elements of this bill that could be used against hydroelectric dams. I'd like to see a clause in this bill that exempts any dam associated with the generation of hydroelectric power
notwithstanding any other part of the bill.

I would also like to note that dams not now being used for hydroelectric power are untapped potential that will be necessary for the state to reach its goal of 90% renewable energy. The use of short time scale intermittent sources such as solar and wind will require either fuel based sources (biomass) or sources with longer time scale variability (hydroelectric). The amount of solar and wind used in the utility grid will be limited to a percentage of the continuous power available. In a normal grid this is limited to around 20%. Dynamically controlled smart grids can increase this penetration percentage, but it is still limited by dispatchable power capacity.

There is a limited band of economic viability for hydroelectric power at present. If a dam is too small, then it can't make back its permitting and capital costs at present rates. If a potential dam site is too large, then environmental and permitting considerations prevent it. This band will expand as fossil and nuclear energy prices increase and the effects of climate change manifest themselves with more force. Smaller dams will become both viable and necessary. That is, if they haven't been torn out.

My text specific comments, in order:

Page 2, line 5

(3) "Interested person" means, in relation to any dam, a person: who has riparian rights affected by that dam,; who has a substantial interest in economic or recreational activity affected by the dam, or; whose safety would be endangered by a failure of the dam; or who notifies the Department of interest in the dam."

Comment: Party status is conferred on anyone who wants it.

Page 2, line 21: "(iii) has not been properly removed or mitigated."

Comment: "Properly" is not defined. It also implies that action is always required.

Page 3, Lines 15-19

(a) Powers and duties. Unless otherwise provided, the powers and duties
16 authorized by this chapter shall be exercised by the Department, except that the
17 Public Utility Commission shall exercise those powers and duties over dams

18 and projects that relate to or are incident to the generation of electric energy for
19 public use or as a part of a public utility system.

Comment: This is more of an obscure legal point, but this section may conflict with *Town of Springfield v. McCarren*, [549 F. Supp. 1134](#) (D. Vt. 1982), *aff'd* by order, 722 F.2d 728 (2d Cir. 1983)

Page 4, Lines 3-5

Jurisdiction is transferred from the Public Utility Commission to the Department whenever such a federal license expires or is otherwise lost,...

Comment: There are two dozen federally licensed hydroelectric plants requiring relicensing in the next five years. Several have had their licenses expire and are operating under temporary extensions. ANR Water Quality has only two full time employees assigned to relicensing. VIPPA has met with the director and employees of ANR to try to solve this crisis, but it is likely that more dams will see their licenses expire before the multi-year process can be completed. There should be a guarantee written into this bill that jurisdiction over these dams will not be transferred to DEC, especially since the expirations will be due to a lack of capacity at DEC.

Page 4, lines 13-17 Comment: Any dam modifications would be under the jurisdiction of the Army Corps of Engineers.

Page 4, Line 15 Comment: 500,000 cubic feet is a 1 acre pond 11.5 feet deep. It is hard to conceive of anything near this scale as a safety hazard. The hazard of flowing water from a dam breach has as much to do with dam height and downstream drop as water volume. Imagine, for instance, a 1,000 acre lake 3 inches deep versus a 3 acre lake 1,000 inches (83 feet) deep. The volume standard is almost irrelevant to safety.

Also, calculating the volume of a pond is not trivial. Dammed ponds are never a perfect geometric shape. Such a calculation can be done using detailed topographic maps and GIS software, but this depends on the accuracy and precision of the topographic lines, as well as an interpretation of how much of the soil below the water is accumulated sediment. This process would be the wellspring of lawsuits.

Page 10, Line 3: “(14) in the case of the proposed removal of a dam that formerly related to or was incident to the generation of electric energy, but which was not subject to a memorandum of understanding dated prior to January 1, 2006, relating to its removal, the potential for and value of future power production.”

Comment: Why that particular date and MOU reference? What dam(s) are subject to such an MOU? What about the environmental value of future power production?

Page 12, Lines 5-21, Page 13, Lines 1-4, Comment: Allowing any ten people, or one person with nine compliant friends, to force the DEC (Line 7, “shall”) to start an investigation seems reckless. Any person with a personal grudge or other extraneous motivation can initiate state

sponsored harassment of a landowner. Literally anyone on earth can hold the threat of possible eminent domain over a landowner with a dam.

Page 14, Lines 7-11: “§ 1098. REMOVAL OF OBSTRUCTIONS; APPROPRIATION

The department Department may contract for the removal of sandbars, debris, or other obstructions from streams which the department Department finds that while so obstructed may be a menace in time of flood, or endanger property or life below, or the property of riparian owners.”

Comment: Define “obstructions.” “May be a menace”? What is the standard of proof? What kind of property? This is vague, to the point of constitutional objection. This could give the DEC to remove any dam at its whim. The DEC could remove a dam on the remote possibility that it might flood a quarter of an acre of pasture.

Page 15, Line 2, Comment: What is a “nonfederal” dam? This is not a legal term of art. There are operating municipal hydroelectric dams that are pre-FERC and that have no federal license. There are hydroelectric dams such as the Little River Dam in Waterbury that have been subject to decades of litigation over ownership and jurisdiction.

Page 16, Lines 7-11, Comment: For hydroelectric dams, PUC jurisdiction over hazard classification may be redundant to, and possibly conflict with present FERC jurisdiction and safety reports.