

**Regulatory Advisory Panel (RAP) Meeting**  
Small Renewable Water-Related Energy Permit by Rule  
September 27, 2011  
FINAL Meeting Notes

**Location:** DEQ Piedmont Regional Office  
4949-A Cox Road, Glen Allen, VA 23060  
**Start:** 9:35 a.m.  
**End:** 3:45 p.m.

**RAP Leader/Facilitator:** Carol Wampler, DEQ  
**Recorder:** Heather Mackey, DEQ

**RAP Members Present:**

Tony Banks, VA Farm Bureau	Laura McKay, DEQ/CZM
Bob Bisha, Dominion Virginia Power	Sally McNeilan, Fugro
John Evans, ACOE	Amanda Myers, Navy/DoD
Ray Fernald, DGIF	Billy Newcomb, Draper Aden
Ron Jenkins, DOF	Nikki Rovner, TNC
Roger Kirchen, DHR	Frank Simms, AEP
Larry Land, VACO	David Spears, DMME
Rick Lutz, ESS	Bev Wade, Float Fishermen of VA

**RAP Members Absent:**

Tom Smith, DCR	Lyle Varnell, VIMS
Richard Street, Spotsylvania County	Stephen Versen, VDACS
Bill Tanger, FORVA	Tony Watkinson, VMRC

**Guests and Public Attendees:**

Kerri Nicholas, OAG	Bob Baldwin, NAVFAC Mid-Atlantic
Cindy Berndt, DEQ Regulatory Affairs	
Guy Chapman, Dominion (Alt)	

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**Agenda Item: Welcome, Introductions & Overview**

**Discussion Leaders: Carol Wampler and Cindy Berndt, DEQ**

Ms. Wampler welcomed all attendees, who then proceeded to introduce themselves. Ms. Wampler presented an overview and background information on DEQ's involvement in renewable energy, beginning with the Small Renewable Energy Projects statute, approved on April 8, 2009, directing DEQ to develop regulations for the construction and operation of small renewable energy projects, including provisions necessary to protect Virginia's natural resources, identified in the statute primarily as wildlife and historic resources. Ms. Wampler then reviewed the permits by rule (PBR) created for (or in process, as is the case for solar and combustion projects) for small renewable energy projects producing energy from wind, solar, biomass, energy from waste or municipal solid waste. Ms. Wampler reviewed what a PBR is, and is not, noting that the PBR process is intended to replace the current practice of case by case review and approval by the State Corporation Commission (SCC) for these projects. She then reviewed the challenging timeline and the special issues presented by water-related media, including the question of whether Virginia has adequate wave, tidal and geothermal resources, the existence of adequate technology to actually develop a project should the resources exist, and whether some portion of Virginia's authority is actually pre-empted by the Federal Energy Regulatory Commission (FERC).

Ms. Berndt reviewed DEQ's expectations for the RAP, Administrative Process Act requirements (including those for public notice), and FOIA requirements for a public body. Ms. Berndt also remained throughout the meeting to answer procedural questions that occasionally surfaced.

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Ms. Wampler called the RAP's attention to the public comments received by DEQ via Town Hall in response to the Notice of Intended Regulatory Action (NOIRA) concerning the Water- Related PBR. Ms. Mackey summarized these comments as RAP members read them from the handout provided. These public comments are hereby referred to the RAP, to be considered by RAP members in the course of their deliberations.

**Agenda Item: Hydroelectric (Falling Water) Projects**

**Discussion Leaders: Carol Wampler, DEQ and Frank Simms, AEP**

After a short break, Ms. Wampler introduced Mr. Frank Simms, a RAP member and Hydro Manager for American Electric Power (AEP). Mr. Simms introduced AEP, which has been involved in the relicensing of all 17 of its hydroelectric facilities since 1987. AEP has 7 facilities in Virginia and all have gone through the relicensing process with FERC in recent years. Mr. Simms then proceeded with a presentation reviewing the FERC licensing process including a review of FERC licensing authority, documentation and study requirements, environmental and economic impacts and issues that are addressed, applicable federal and state laws that must be adhered to by licensed facilities, and the extent of public participation by the public, state agencies, local governments and participating non-governmental organizations.

RAP members were provided handouts containing DEQ's preliminary research on issues to be addressed by the RAP. Ms. Wampler asked the RAP to take a few minutes to review the statement by Ms. Ann Miles of FERC regarding the extent of FERC authority over hydro-electric projects, research compiled by Connor Kain, DEQ's summer intern, and the U.S. Supreme Court's 1946 decision in *First Iowa Hydro-Electric Co-op v. Federal Power Commission*. Ms. Wampler then led the RAP in a discussion of the extent of FERC's authority, potential projects that may not be licensed by FERC (if any), whether or not any new licenses had been issued in recent years, the extent to which natural and historic resources are regulated by FERC, and other issues. RAP members with expertise in federal and state permitting processes indicated that new licenses have been issued by FERC for projects placing power plants on existing dams, but that (in part because of the expense involved and extensive regulatory permitting requirements and processes) there had been no licenses for new dams in Virginia in over 15 years.

A discussion ensued concerning the definition of "falling water" and whether FERC has jurisdiction over a project placed within a stream that is "flowing," rather than "falling." Ms. Wampler indicated that because Virginia does not have legislative history, we don't really know why the General Assembly chose to use the term "falling water" over "hydro-electric." Our best guess is that all but one (energy from waste) of the renewable media identified in the statute can actually be characterized as a fuel source, a category which the term "falling water" fits into. It was also reiterated that FERC would have authority over all projects located on navigable waters of the U.S.; projects that occupy public lands or reservations of the U.S.; projects that use surplus water or water power from a federally licensed dam; and projects located on a water body over which Congress has Commerce Clause jurisdiction, which is any project constructed on or after August 26, 1935, and which affects the interests of interstate or foreign commerce. The fact that FERC's authority extends to all conceivable projects relating to falling or flowing water was discussed, as was the fact that the FERC process addresses both historic and natural resources extensively.

The RAP discussed what happens in the event DEQ decides that there is no need for a PBR at this time, and were assured that any project that did emerge prior to a rulemaking in the future would come under SCC review, as well as other federal and state regulatory processes, if FERC does not pre-empt the field. Ms. Wampler and Ms. Berndt also noted that DEQ can reconsider the issue, and any citizen can petition DEQ for a rulemaking, at any time. Ms. Wampler summarized the research findings and discussion with the statement that all issues the Small Renewable Energy Project statute covers are fully addressed by FERC, including public processes, and historic and natural resource issues, and that DEQ is legally pre-empted from having any jurisdiction over projects that generate energy from falling water, according to research findings and FERC itself.

**The RAP recommended by unanimous consensus that no PBR is necessary for falling water/hydro-electric projects at this time.**

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*The RAP broke for lunch at 11:55 a.m. and reconvened at 1:15 p.m.*

**Agenda Item: Waves, Tides, and Geothermal Projects**

**Discussion Leaders: Carol Wampler and Heather Mackey, DEQ**

Following the lunch break, Ms. Wampler presented power-point slides to highlight discussion points for the RAP, beginning with the 2009 statute's directive that DEQ is to develop permits by rule (PBR's) for renewable resources "if the department determines" that one or more PBR's are "necessary."

Ms. Wampler presented via handouts and slides the research findings for tides and wave energy, giving RAP members time to read through the findings themselves. RAP members with expertise in the area relayed information concerning several different projects they are familiar with that illustrate Virginia's lack of adequate resources and the experimental nature of existing technology. A RAP member mentioned, that to his knowledge, Virginia does not have enough kinetic energy off the coastline for effective electrical generation projects and that the technology at this time is at a very early stage of development. Because of this we do not have the knowledge necessary to adequately assess adverse impacts. According to this RAP member, a PBR assumes that an understanding of potentially adverse impacts exists, as well as effective means of impact mitigation – such knowledge is not the case for wave and tidal energy projects at this time.

RAP members discussed the Federal Powers Act under which FERC authority is broadly construed, and questioned whether FERC would also have authority over wave and tidal projects, thereby pre-empting DEQ's authority for these media as well as hydro-electric. Ms. Wampler indicated that Ms. Miles of FERC in her email made it clear that FERC has no authority over geothermal projects, but remained silent on waves and tides, leaving the question open to possibility. Discussion among RAP members indicated that there is some evidence that FERC does have authority over wave and tidal projects, an issue that will be clarified prior to the next meeting. Ms. Wampler summarized the RAP's discussion by saying that it appears that Virginia does not have the necessary resources to support tide and wave motion projects large enough to exceed the PBR "de minimis" levels, that the technology is in its infancy, and that not enough is known of potential adverse impacts and mitigation techniques to warrant a PBR at this time. The RAP agreed with this summary, stating that DEQ should review the issue and the need for a PBR in four years, or sooner if the situation changes. Further discussion ensued concerning developing technology and potential projects, with RAP members questioning what happens if there is no PBR and new projects are developed. Ms. Wampler and RAP members explained that if there is no PBR, existing permitting processes on a federal and state level remain in place that would address impacts and public notice requirements. One RAP member reminded the group that VMRC's permit concerning activities affecting state-owned bottom lands would likely be required (if FERC does not pre-empt the field). He noted that, for the Wind PBR, the directors of DEQ and VMRC agreed that VMRC would address the wildlife and historic-resources issues at and below the surface of state waters, while DEQ would address such issues above the water. If the same approach were adopted for tide and wave motion projects, VMRC's permit might cover all the relevant issues. This point may constitute another reason why a DEQ PBR is not necessary. In addition, Ms. Berndt reiterated that DEQ can review the need for a PBR at anytime.

**The RAP unanimously made a preliminary recommendation that no PBR is necessary for wave and tidal energy projects at this time, and further recommended that the need for a PBR be reviewed within four years or sooner if circumstances change.**

The RAP turned to geothermal projects next, with Ms. Mackey reviewing research findings and giving RAP members time to read through the information presented in the research compilation memorandum. In response to a question, Ms. Wampler clarified that the Small Renewable Energy Projects statute gives DEQ authority to develop a PBR for geothermal projects that generate electricity. A RAP member clarified that geothermal projects referenced in the statute involved a process of electrical generation using the heat (in the form of steam) from the earth's interior. This

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process is different from the generation of heating or cooling for residential or commercial buildings using ground source heat pumps.

A RAP member mentioned that, unlike wave and tidal projects, geothermal projects use established technologies, and that whether or not a PBR would be necessary is a resource issue, not a technological issue. Heat recapture technology exists today for development of effective geothermal power generation projects; the question is the extent of Virginia's resources. Research indicates that Virginia does not have the geothermal resources necessary to generate electricity from heat recapture processes that would exceed the PBR "de minimis" level. The issue is also one of economics; some developers are experimenting with drilling deeper or using old gas and oil wells to reach adequate geothermal resources, but at this time, such efforts are not proving to be cost effective in Virginia. Ms. Wampler summarized the RAP's discussion by saying that it appears Virginia does not have the geothermal resources to warrant a PBR at this time; however, the RAP would like for DEQ to revisit the issue in no more than four years' time, or concurrent with the review of the wind PBR in 2014.

**The RAP unanimously made a preliminary recommendation that no PBR is necessary for geothermal energy projects at this time, and further recommended that the need for a PBR be reviewed no later than 2014.**

**Public Forum**

No one signed up to speak during the public forum.

**Other Business and Adjournment**

The RAP decided to hold a final meeting on October 21, to be held at the DEQ Piedmont Regional Office at 10:00 a.m. RAP members were asked to consider further the issues and questions discussed at today's meeting and confirm the RAP's preliminary decision. RAP members were asked to, forward any additional information or concerns to Ms. Wampler. Staff will conduct follow up research on the extent of FERC's authority over wave and tidal energy projects, prepare and circulate draft Minutes, and will draft appropriate language for the recommendations made today for review by the RAP at its final meeting. The meeting adjourned at 3:45 p.m.



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Attachment 1: Water-related Research Findings Memorandum



9 27 2011 Carol

Wampler Overview fc

Attachment 2: Carol Wampler's RAP Introduction and Statutory Overview



FrankSimms.pdf

Attachment 3: Frank Simms's FERC Licensing Presentation



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Attachment 3: Water-related Research Findings Presentation