



November 5, 2007

Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Dear Secretary Bose:

Re: Docket No. AD07-14-000

Long View Associates, Inc. (“Long View”) is a consulting firm with substantial experience with licensing and license compliance related to hydropower development. We strongly support the development of sustainable energy sources, including projects applying new technology and we commend the Commission for its continuing leadership in developing a regulatory regime that will help promote the development of new hydrokinetic energy technology.

Long View appreciates the opportunity to provide additional comments to the Commission regarding the development of a licensing program to foster the development of innovative hydrokinetic technologies in response to its Supplemental Notice of Technical Conference with Agenda and Soliciting Comments.¹ Long View previously provided comments to the Commission in response to its Notice of Inquiry and Interim Statement of Policy Regarding Preliminary Permits for Wave, Current and Instream New Technology Hydropower Projects in Docket No. RM07-08-000 (“NOI”)²

We attended the recent Portland conference where the Commission staff’s proposed licensing process for hydrokinetic energy pilot projects was presented and discussed. We came away with the following general sense of the challenges facing the Commission in finalizing a licensing program for new hydropower technologies, based on the panel discussions and questions from attendees.

- State 401 agencies and federal agencies responsible for Endangered Species Act (ESA) compliance expressed their need for more time for their regulatory processes, more information to support their analyses, or both. In general these agencies indicated that it is unrealistic to expect that they would be able to reengineer their processes to fit within the Commission’s six-month process while still meeting their statutory obligations.

¹ Docket No. AD07-14 (August 31, 2007).

² 72 Fed. Reg. 9281 (Mar. 1, 2007).



- Thus, the formal timeframe proposed by the Commission with a target of six months to issue a pilot project license is likely too short to develop and process the information required by other agencies that will be involved in the processing of license applications.
- As such, applicants will need to either start other regulatory processes well in advance of undertaking the formal Commission process or expect that the time required within the Commission's formal process could significantly exceed the desired six month duration.
- Based on these factors, it would appear that the fundamental process and information requirements, and related time and cost, to acquire a pilot project license under the Commission's proposal might not be significantly reduced from that of a licensing process for a new 50-year license.
- This situation could raise concerns with entities pursuing the development of new technology regarding whether such a pilot project licensing program would actually be of sufficient benefit and could affect decisions on whether to pursue a pilot project license versus a standard license.

In order for a pilot license concept to be of sufficient interest to technology and project developers there needs to be a logical relationship between the time/effort to develop information and complete an application process and the benefits that accrue from that effort. The feedback expressed at the Portland conference may reflect the perception by some that the incremental cost of pursuing a full 50-year license as opposed to a five-year pilot license may be worth it.

Thus, the challenge for the Commission continues to be satisfying several critical objectives of a regulatory program designed to promote new technologies:

- Establishing a streamlined regulatory process that clearly shows the needed time, effort and financial cost are commensurate with the benefits that will accrue from pursuing such a path (a short term license) as opposed to a more conventional path, with greater costs but also greater benefits (50-year license).
- Creating a means for meeting the legitimate information needs of the Commission and its NEPA obligations, as well as other agencies and regulators who have consulting or approval roles within or directly related to the Commission's review of new technology proposals.
- Sending an unequivocal message to the investment community that when regulatory approvals are obtained, new technology developers have achieved both near-term certainty and a realistic framework for managing longer-term regulatory risk.

What is needed is a streamlined licensing process that allows new technology to be tested in-water on an expedited basis while adequately addressing applicable regulatory requirements and that also provides the kind of "managed regulatory risk" that is needed for these new technologies to gain the support of the investment community.



Long View believes that achievement of these objectives will require the Commission to move beyond its initial pilot license program proposal. The concept of a short-term pilot phase has merit and should be retained as the best way to keep the initial regulatory process, and its attendant information needs, as modest as possible. However, recognizing that key regulatory requirements and processes outside the Commission's control can be cumbersome and time consuming, we believe that further incentives must be made available to those project proponents willing to embark down the pilot project path.

Those incentives should include limiting the subsequent process requirements to the degree possible and increasing the regulatory certainty at the same time. We believe this can be achieved by changing the program's overall focus from a short-term research license that must be followed by a totally separate licensing process to approve commercial scale deployment, to a full 50-year license, with a limited "research phase" authorization, where subsequent commercial development can be authorized through the Commission's existing license amendment process. In other words, the license would provide adequate area within the project boundary for full commercial scale build out but would restrict where initial in-water activity could occur to a discrete area necessary to conduct the desired research for a limited period of time (e.g., five years). Baseline information gathering activities could occur on the balance of the area included within the project boundary, however no construction or bed disturbing activity would be allowed.

Based on the results of information gathering efforts during the initial research phase, the licensee would be allowed to file a license amendment application to expand the footprint of development in a logical fashion beyond the initial research area. The Commission should consider allowing the licensee to expand the development in more than a single phase, depending on the advancement of the technology, the time required for commercial build-out or other considerations identified by the licensee in its amendment application. This would allow the licensee to take advantage of continued technology advancements from earlier phases of the project.

No new regulatory process would be required for the Commission to implement this proposal; rather the Commission's existing regulations for capacity related license amendments would appear to be perfectly suited for this purpose.

Such an approach would be a significant improvement over the current pilot license proposal that would require a project proponent to initiate a totally new licensing process before the expiration date of the pilot project license. This current proposal does not take full advantage of the significant opportunity to build on expanding knowledge that would come from having a continuum of activity from the preliminary permit term through a research phase of a license to ultimate commercial deployment, without the unnecessary regulatory burden of having to undertake two (or more) completely separate licensing processes. The schematic at the end of this letter illustrates how such a progression from preliminary permit to full commercial deployment could occur through the use of an "incremental development" licensing approach.

As shown in the schematic, an incremental licensing approach for new technologies would retain all of



the resource protection that would occur under the Commission's pilot project licensing proposal by limiting in-water activity during the initial license phase to a discrete area deemed necessary for conducting research. At the same time, the licensee would be able to demonstrate to the investment community that they have sufficient area within the project boundary to allow for full commercial deployment should the technology prove out.

Concerns regarding site banking that have been previously raised could be adequately managed by the Commission by continuing to apply a "strict scrutiny" standard during the preliminary permit term, along with comparable scrutiny of the license application before issuance of the new technology license and subsequent license amendment applications.

One of the keys to success of such an incremental licensing approach for new technologies is that the regulatory and information requirements must be commensurate with the amount of actual in-water development activity that would be authorized at any point in time. The preliminary permit conditions need not change from their current form, and would not authorize any "construction" activity. Thus, the basic requirements of a preliminary permit application would not need to change. The three year preliminary permit term, or whatever portion is needed, would continue to be utilized by the permittee to develop information necessary to support the submittal of the application for license.³

An application for a new technology license would need to meet the same basic requirements as outlined in the Commission's current proposal for a pilot project license application. As such, the application would identify a limited area for in-water research activity, along with details regarding the information that would be developed during the initial research phase of the license. The contents of the license application under this proposal would also identify the area to be included within the project boundary to allow for full commercial build out of the project, based on the information gathered during the preliminary permit term. Ultimate build out parameters (e.g., number of units, unit capacity) would need to be identified along with the applicant's current, at the time of license application, proposal for commercial deployment (e.g., planned number of phases).

It is vitally important that a license issued for new technology development include the ability to hold preference to an area within a project boundary needed for full commercial development, while at same time limiting the initial area of in-water research activity under the license to an amount needed for conducting the specific activities to prove out the technology and/or appropriateness of the site. This approach should keep the NEPA requirements of the Commission, as well as other pertinent regulatory bodies, commensurate with the type and extent of proposed in-water activity during the initial phase of the license.

During the initial research phase the licensee would develop information pursuant to a Commission approved information development and reporting program on both the in-water technology development efforts and the baseline information for the remaining area within the project boundary to support the

³ Nothing in these comments is intended in any way to eliminate any of the currently existing regulatory paths for seeking a new license.



subsequent commercial development phase(s). When the licensee has developed adequate information to support a proposal to move beyond the initial research area, it would file a capacity-related amendment application with the Commission to expand the area of development under the license. The Commission could provide policy guidance regarding the target for filing of a license amendment application, e.g., within five years of license issuance, with appropriate, but not unfettered, flexibility that could be exercised based on the progress of the research conducted in the initial license phase.

As required by the Commission's current capacity related amendment regulations, a license amendment application would need to meet all applicable requirements, including the filing of revised exhibits A, B, C, D, E, F, G, as well as appropriate information required by the Commission's integrated licensing regulations.⁴ Therefore, information needs of federal and state regulators that will need to be consulted regarding the proposed action will also be met.

This licensing approach would allow new technology development in a phased manner and would be responsive to industry needs to be able to first prove out technology and check the appropriateness of sites, at a reasonable cost and regulatory burden, before proceeding to full commercial development of a project. The Commission should allow flexibility as to how the holder of a license can seek a license amendment. Some developers might want to move quickly to full commercial deployment while others might want to take a more phased approach which allows for new generations of technology to be developed and deployed. Obviously, the information that would be required in the license amendment application would need to be commensurate with the proposed activity.

We believe there are clear advantages to site and technology developers of this licensing approach as opposed to proceeding directly from a preliminary permit to a full commercial license, including:

- The information needed to support an initial application for a full commercial license will be challenging to develop due to the lack of existing baseline information and the constraints on gaining information from in-water activities during the preliminary permit term.
- The information needs to support the application for a license should be easier to meet as in-water research related activity will be limited initially to a small area.
- Higher quality, site specific information gained from the research phase will be available to support later license amendment applications for commercial deployment.
- During the period that technology is being tested/developed, the licensee will have secured sufficient area within the project boundary to allow for ultimate commercial build out.

We have reflected on whether this incremental license approach, with an initial research phase followed by one or more commercial build out phases authorized by license amendments would provide less

⁴ While the Commission's pilot licensing program proposal would require the use of the integrated licensing process, we believe that there is merit in allowing license applicants to choose among the available licensing processes. We can envision situations where the ability to utilize the alternative licensing process (ALP), including the development of an applicant-prepared environmental assessment could provide the best opportunity for the applicant, agencies and other interested parties to address issues prior to a license application being submitted to the Commission.



environmental protection or regulatory oversight than the current Commission proposal. We believe it would not, and indeed it might provide for better protection and oversight. The benefits of this approach for regulators and resource agencies include the improved quality of the information that will be available by the time that license amendment applications are filed for commercial deployment over the information that would otherwise be available at the time of the initial license application to authorize research related activity.

With regard to regulatory oversight, the same review opportunities that would exist for a pilot license application followed by a separate commercial license application would be available for this incremental development approach using phased activity authorization under a single license. The license amendment applications as envisioned in our proposal would be subject to Section 401 Water Quality Certification review, Coastal Zone Management Act consistency review, Endangered Species Act (ESA) and other similar consultation requirements. We are aware of numerous 401 certifications that have been issued with provisions requiring review and approval before undertaking any change to the certified project that might affect water quality, including changes to project structures and operations. Likewise there are recent examples of the Commission conducting ESA consultation on license amendment applications. As part of its new technologies licensing program as envisioned in these comments the Commission could clearly state its policy to conduct the necessary ESA consultation and adopt any required 401 certification or CZMA consistency conditions as part of the license amendment process.

Importantly, the investment community will also be able to see clearly that the licensee has secured the ability to take their technology to full commercial deployment through the establishment of a project boundary containing sufficient area for ultimate commercial build out. Should a project be determined to be infeasible and thus would not proceed to commercial deployment, the Commission, agencies and other interested parties would likewise be assured that the research activities would cease and appropriate site restoration activities undertaken.

Having provided this additional incentive to the development community through the ability to acquire a long term license covering both new technology development and commercial deployment, it nonetheless makes for good public policy to include appropriate safeguards in any such licenses issued by the Commission. Consistent with the Commission's proposed standard license articles for the pilot license program, such safeguards could include:

- Clear license requirements for studies to be conducted during the research phase, and monitoring and evaluation to be conducted during the commercial operations phase(s).
- Based on the monitoring and evaluation efforts, licensees should be required to make necessary modifications to their projects to address significant adverse effects of operations using the concepts of adaptive management.
- A decommissioning plan should be a standard requirement of licenses to adequately plan for restoration of the initial study area should a project not proceed to commercial deployment.



The Commission could consider the following additional conditions for inclusion in a license authorizing incremental technology development and deployment:

- If an adequate license amendment application has not been filed by a date established in the initial license order, then the license can be terminated after opportunity for notice and hearing.
- Both the initial research phase authorization and subsequent authorizations under the license for commercial deployment should have clear time requirements for initiating and completing the planned construction activity; flexibility for good cause should be allowed.
- Requirements to report information developed in all phases of the license should be clearly spelled out in the license, with appropriate consideration given to any confidential aspects of the technology under development.
- Any amendment application for commercial deployment should contain a proposed decommissioning plan for the ultimate removal of the project if deemed appropriate at the end of the license term.

Below we address three other areas that received substantial comment at the Portland conference.

State comprehensive plans

Comments were made at the conference about the Commission needing to take state comprehensive plans into account in its licensing decisions. While it is obvious to those who have experience with conventional hydropower licensing activity that the Federal Power Act requires the Commission to take comprehensive state plans into account in its licensing decisions, what is not so apparent is the influence that such plans actually have in the Commission's decisions. The content of the Commission's licensing orders has changed over the years in response to regulatory and policy directives. For example, greater treatment of mandatory conditioning and Section 10j recommendations occurs today in license orders than historically. However, little information is presented in current Commission orders that would allow state agencies, local governments and members of the public to understand how the Commission accounts for state interests, as expressed in comprehensive plans, as it makes its licensing decisions. The Commission could establish by policy that it will give more explicit treatment to relevant state comprehensive plans in its licensing orders and related NEPA analyses. This should not entail more effort by the Commission staff yet it would provide valuable information to those who are interested in seeing how State's interests have been taken into account.

Programmatic information development

The development of programmatic information on new technologies is something that would benefit all involved, from developers to regulators to local communities. This type of effort would seem to lend itself to an MOU/MOA among relevant federal and state agencies, and others including local communities, and various resource users. A coordinated approach to information development would provide an opportunity to collaborate in the development of a nationwide database of existing relevant information for areas where tidal, ocean and instream hydrokinetic energy development might occur.



Given the differences that exist regionally and among different basic technology types (e.g., tidal, wave, instream kinetic) it would be prudent to divide up such an effort into logical regional or state subareas that can proceed on their own pace within a consistent overall framework. We recommend that the Commission collaborate with the Department of Energy and with the Department of the Interior, in particular the Minerals Management Service and the U.S. Geological Service, which have a long history of developing resource information on public lands. Other valuable contributors might include educational institutions, national labs, and international information sources.

The Commission should also consider ways of updating and expanding such a programmatic information resource on an ongoing basis by ensuring that resource information generated during the term of any new technology license and reported to the Commission would be added to this database. The Commission could assist in making the information from this database, as well as from ongoing license compliance activities, accessible to any potential license applicants, federal, state, local agencies, Tribes or other interested parties.

Programmatic Assessment/EIS

The concept of conducting a programmatic assessment/NEPA evaluation of new technologies was also raised at the Portland conference, and we agree that completion of such an assessment could streamline the regulatory process. Similarly, a programmatic Biological Opinion might also be appropriate when multiple actions in different places have similar impacts that can be addressed with similar measures. However, we are not convinced of the near-term applicability of such an assessment, given the general lack of information that currently exists on these technologies.

If a decision were reached to conduct such a programmatic evaluation, we would recommend that the Commission not delay the processing and issuance of new technology licenses until such an assessment is completed. By using the phased development approach described above it is entirely possible that such an assessment could be completed in time to help inform a licensee's subsequent license amendment(s), which would be a substantial benefit for all concerned.

Similar to the development of a programmatic information database, it might be best to consider conducting programmatic assessments on a regional and/or major type of technology basis (e.g., ocean power in the Pacific Northwest [PNW] should be separate from tidal power in the PNW). If such assessments could be tied to the programmatic information database, then the issuance of periodic programmatic assessments could occur when there is sufficient new information to warrant the effort. Indeed, information from early phases of licenses issued under this program would be valuable in developing a programmatic assessment/EIS.

We appreciate the opportunity to provide comments to the Commission regarding its continuing efforts to develop a regulatory program for new technologies that balances the needs of the development and investment communities, relevant regulators and resource agencies, local government, traditional resource users and interested members of the public. We applaud the Commission's innovation in



issuing its pilot license proposal and believe that the additional refinements noted above would assist in achieving the desired benefits of efficiently and effectively regulating these new technologies.

Sincerely,

Stephen D. Padula

Stephen D. Padula
Principal

Attachment



Incremental Development Licensing Process for New Technologies

Preliminary Permit Application Processing	Preliminary Permit Term	License Application Processing	License Term – Research Phase	License Amendment Application Processing	License Term – Commercial Deployment
3 months	Up to 3 years (as needed)	12-18 months	+/- 5 yrs	12-18 months	5 – 50 years
Completeness check Public comment Issue permit with strict scrutiny requirements	Conduct stakeholder outreach Consult with resource agencies and regulators Gather existing info Select licensing process Develop application for incremental license	Completeness check Determine eligibility for incremental license Public comment NEPA analysis 401 WQC process CZMA process ESA review [commensurate with proposed in water research activity] Develop license conditions	Conduct research and testing activity in delineated initial research area Collect baseline information for entire project area Consult with resource agencies, regulators and other stakeholders Develop license amendment application	Completeness check Public comment NEPA analysis 401 WQC review CZMA review ESA review [commensurate with proposed commercial deployment activities] Authorize commercial deployment OR initiate license termination and decommissioning	Commercial deployment Operations/maintenance activities Monitoring and evaluation activities Adaptive Management

