Small-Scale Hydroelectric Generation in Oregon
May 16, 2007
Work Session Notes

Needs:

1. Definition of "small" hydro, "micro" hydro
2. Issues with definitions:
    a. This depends on particular points of view, situations
    b. Outputs are referred to but maybe we should consider inputs
    c. Intrusiveness (environmental, size, etc) of project is a concern for WRD
    d. Impact (i.e. low impact hydro)
3. Need to provide information about the resources that an individual can tap to make determinations about feasibility of potential projects
4. Produce economic modeling for various sizes, use examples
    a. Costs, revenues, projections
5. Meet with Power Council to determine changes over time
6. Locate potential sites in state
    a. Are limits to looking at current sites
    b. Inventory resources
7. Some projects have fatal flaws
    a. i.e. too large of impact, to far from transmission
    b. Guidelines are needed to help determine potential feasibility
8. Need economic benefit analysis introduced in code, from agencies involved
    a. Environmental mitigation measures may be too stringent or unnecessary
9. State has hydro review team in place for proposed projects
10. Consider the potential of climate change when new facilities are sited
    a. Effects on stream flows
    b. Impacts to individual sites
11. Timeline for applicants perspective
    a. Need flow chart for process, incentives, financing
    b. Need timeline for processes
12. Need to address needs for landowners and municipals (separately)
13. System size differentiation
14. Regulatory background need to see where things don't line up
15. Need for streamlining the system
    a. Expediting of process
    b. Reduce regulatory burdens
    c. Make it economically feasible
    d. Help reduce the impetus for people with develop small hydro outside of regulation (i.e. without permits)
16. FERC integrated licensing process
17. State agencies, lawmakers need information about what is considered "low impact" hydro
    a. This could be utilized to propose new rules, laws, regulations
    b. What could mall hydro look like?
    c. Work group could make determination, recommendation to REWG (and ultimately to the Governor)

18. A paradigm shift is needed for hydro- maybe agencies should be required to prove why something shouldn't be allowed (vs. why they should be allowed)
    a. Education, dialogue needed
19. Recognize projects eligible for cost-sharing opportunities

Work Group Focus Areas:
1. Policy
    a. Regulatory burdens
    b. Streamlining of projects, reduction of timelines
2. Technology
    a. What's out there, what's appropriate
3. Outreach
    a. Sharing of best practices, resources, example projects
    b. Education of work group members, public
4. Mitigation
    a. How do statutes determine net benefits
    b. Clearer interpretation
    c. Breakdown of project that includes mitigation
5. Development of standards, codes for hydro projects
6. Workforce development
    a. Development of hydropower technician certification program (expansion of LCC program?)
7. Conservation & efficiencies

Work Group Product/Outcome:
1. Report to REWG
2. Drive increased hydro generation in the state

Future workshop topics:
1. Have full workshop day that works through one specific example of a real projects
    a. Learn the process
    b. Learn by using experiences of others
2. Presentation of case studies (history, cost, timeline, challenges)
    a. Symbiotics has multiple projects underway
    b. Gary Marcus with low-impact hydro site near Eugene
3. Timeline for small/micro projects

Work Group Next Steps/Structure:
1. How often to meet?
2. Break into two categories per WRD (minor, major)
3. Break into subgroups – less than 1 MW, 1.1-10MW, greater than 10 MW
4. Send out preliminary agenda for input (fall 1-2 day conference)
5. FERC/Non-FERC project level
6. Invite small project licensees (about 80 permitted by WRD) to participate