Gibson Dam Hydroelectric Project, FERC No. 12478

Fairfield, MT, Public Meeting

March 29, 2005

The meeting began at approximately 7:15 pm. In attendance were:

Name	Representing	Phone (Area Code 406 unless other wise noted)
Bob Larson	DNRC, water resources	265-5516
Jim Beck	DNRC	444-6695
Bill Vincent	USBR, archaeology	247-7329
Tim Brunner	GID	467-2895
Bob Hardin	GID	467-2533
Nancy Thornton	Choteau Acantha	466-2403
Edwin Holmquist	Self	467-2090
Alan & Staula Rollo	SRWG	727-4437
Corlene Martin	Teton County Dev.	466-5784
Gene Sentz	Self/ Choteau	466-2750
Jordan Love	Great Falls	455-8444
Mark Coverdale	GID	467-2161
Roger Beck	GID	467-2870
Ron Yates	USFS	771-1631
Allan Tschida	USFS	771-7711
Michael Enk	USFS	791-7729
Steve Davies	USBOR	247-7322
Scott Odegard	SREC	467-2526
Jim Heberly	Heberly Engineering	
John Burgmaier	SREC	463-2522
Leonard Sivumaki	SREC	264-5482
Mike Munoz	USFS	466-5341
Ron Hecker	USFS	466-5341
Quentin Kujala	MTFWP	467-2488
Darell Stott	SREC	466-2504
Alan Peew	Self	462-2640
Jim Hadley	Self	467-2860
Burton Ginther	Self	467-3602
Linda Brandvold	USFS	731-5329
Randy Parker	SREC	467-2974
Mark Lindberg	SREC	264-5438
Vonnie Jacobson	Fairfield Sun Times	467-2334

Jeff Baumberger	USBOR	247-7330
Harvey Bremer	SREC	467-2526
Steve Leathe	MTFWP	454-5855
Richard Rosenberg	GDHC	360-738-9999,129
Mike Prewitt	Licensing Consultant	206-525-3483

Acronym Legend:

DNRC	Montana State Department of Natural Resources and Conservation
GDHC	Gibson Dam Hydroelectric Corporation
GID	Greenfields Irrigation District
MFWP	Montana State Department of Fish, Wildlife and Parks
MTDEQ	Montana State Department of Environmental Quality
SREC	Sun River Electrical Cooperative
SRWG	Sun River Watershed Group
USACE	United States Army Corps of Engineers
USBOR	United States Bureau of Reclamation
USFS	United States Department of Agriculture Forest Service

Mike Prewitt began the meeting by welcoming attendees and describing the need for the meeting as part of the Federal Energy Regulatory Commission (FERC) process for licensing a hydroelectric project.

Mike described GDHC as a limited liability company composed of Greenfields Irrigation District (GID) and Tollhouse Energy of Bellingham, WA, represented by Dick Rosenberg. GID was represented by Bob Hardin.

Mike said the Project has a Preliminary Permit from FERC which allows an~~d~~ applicant three years to do feasibility studies. He said that the applicant must do public participation and agency consultation including work to satisfy National Environmental Policy Act (NEPA). Technical comments will be taken into account in study planning. The meeting is being tape recorded and will be summarized in writing. The tapes will be made available on request.

A few words about Whitewater engineering~~:~~. They are a Washington-based company with a lot of experience in taking hydro projects from initial concept to completed construction and monitoring. There aren't many companies that have this level of experience.

Bob described how GID will work to benefit irrigators and the community.

Mike described the two sign up sheets, one for attendance and the other for those who want to be on the Project mailing list. Mailing list members will get all required correspondence.

Q: Who represents FERC at this meeting?

Mike: FERC is not required to attend this meeting. You won't see FERC's face until fairly late in the game. They will assign a project manager in Washington D.C. They are an open agency, however, and if you have any questions at all about the process or the way it's being conducted you should contact them.

Mike asked if everyone had received the ICD. He said that the group at the meeting was much larger than the agency list to whom the ICD was sent. He said that anyone who did not receive one could ask, and GDHC would provide it.

Mike said three things needed to be done in this meeting:

1. Describe the project and its construction and operation, what it will do to water, land resources. He said that a hydro project at this point is just an idea and that during the Preliminary Permit period, GDHC would use input to form comments and studies to help finalize how the Project will look and operate.

2. Describe the licensing process, and

3. Take comments and answer questions.

Mike said that after this meeting you have 60 days to send comments to GDHC. The address is in the ICD. (Dick reads address from ICD)

Mike: I'd like to turn it over to Dick Rosenberg who will give the Project Description

Dick showed drawings of the powerhouse, Gibson dam, the gate house and the power penstocks, which were installed in 1929 with the idea that there might be some electrical generation. There was a previous license issued (Grisdale Hill) in 1989 for a project of about 10 MW.

Dick showed the powerhouse with horizontal-shaft Francis turbines, and said that flows were highly variable, ranging from about 50 to 2000 cfs. He said that Francis turbines can run down to about 40 percent of max, so need some small turbines for lower flows. He described and arrangement with two 1.5 MW turbines and one 7 MW, and said that the smaller turbines would operate under the lower flows.

He said that the power penstocks were about halfway up the dam and can become dewatered in winter at lower reservoir elevation. In winter we would use the smaller turbine(s).

Dick said that GDHC needed to do additional work to determine the powerhouse dimensions, but expected a building about 70 by 90 feet. The first alternative has powerhouse right up against the dam, which Dick said may cause construction problems related to dam stability.

He said that the other alternative would have the powerhouse further downstream. Dick said that this alternative would tap both penstocks using a common header. All piping would be underground, 6 foot diameter pipe. He said this alternative would use the same turbines. The disadvantage would be a longer penstock, the advantage that there would be no construction near dam.

Q: What protects the powerhouse in 100 year flood?
Dick: The powerhouse is strong concrete, but if it were next to the dam, we would need to be sure water gets below the powerhouse.

Q: Doesn't water come above the powerhouse height?
Dick: You can put a sump pump in the powerhouse, or get it at a high enough elevation, but that has problems as well. We also want to make sure the powerhouse doesn't affect the high flow in Sun River.

Q: Which parts of the pipes are underground?

Dick showed the underground portions on the drawing.

Dick said the proposal was to not modify streamflow in the Sun River.

Dick then went on to describe the transmission line. The 1989 Grisdale Hill Project proposed a 35-mile t-line. This line was too long which was one of reasons that the Project didn't go. They also projected 6 cents per kWH~~Hz~~ when market was 2.3 cents.

We looked at this at 4 cents per kwh and proposed to shorten the transmission line.

Dick showed transmission line alternatives on a map. He said that the Grisdale Hill application saw visual impacts as an issue.

Dick said that the 34.5 Kv line would be buried in the road in the canyon. He said that taps could be installed to serve users in the canyon.

He said that there would need to be a step-up transformer to 69 Kv transmission, and that the line could then be carried on wood poles along the county road to join up in Augusta, a distance of 17 miles. Or, he said, we could go cross country, to existing substations to the east.

He said that the 69 Kv line would be single wood pole with poles about 60 feet tall, with conductors about 52 feet up, and armless construction.

Q: A comment on substations, it appears you have them backwards. Dick acknowledged.

Q: How do you go from 9 mw and up to 67 Kv?

Dick: Explains conversion through transformers.

Q: How big is the wire?

Dick: About ½ inch in diameter. Poles are not going to be big lattice metal, etc. they will be single wood poles.

Q: How to you get from north Augusta sub to northwestern? Are you planning on riding on sun river's lines all the way into Augusta?

Dick: Yes.

Q: Is substation located about where the cabins are now?

Dick: More or less, but it can be moved a few thousand feet without any problem. We had to show it somewhere, and wanted to get it off USFS land.

Q: What's the appearance of substation?

Dick explained parts of substation, 50 by 80 footprint, chain link fence.

Q: Could you describe the taps from the 34.5 Kv section? You'd have to do transformers on every tap.

Dick: We figured that in and we're receptive to other ideas.

Q: Who's going to own the project?

Dick: It would seem the natural thing is for Sun River (Electric Cooperative) to own it.

Mike the explained the FERC process.

He said it is a three year process, and the Preliminary Permit was issued a year ago. He said that the first year is often spent setting up business arrangements, which is what has been happening here.

He said that it is a 3-stage process to interact with agencies, public, Non Governmental Organizations (NGO's) and affected Indian tribes, collectively called stakeholders.

GDHC will fund and do the studies, get out the study reports and then prepare draft and final license applications.

We are currently in Stage I, initial consultation. The Initial Consultation Document (ICD) was sent out a month ago. We expect the mailing list will get bigger and bigger.

We held an agency and public meeting in Helena yesterday. This is the public meeting. We conducted a site visit today. If you missed it, we're going to do another next fall.

We need to gather information necessary to do NEPA, economics, engineering analyses. We will write draft study plans to get some work done this summer. When Study Plans are approved, that represents the end of Stage I.

Stage II is doing studies, and this can go on for 2 to 5 years, plus monitoring to see what the effects of constructed project are.

There are a lot of items on the mailing list, lots of things to review.

You'll see that Recommendations and Terms and Conditions are done fairly early in the process. I like to get started on this as early as possible.

Next fall we will start NEPA process. To find out what to evaluate in this process, we do Scoping. Scoping is a lot like what we are doing now, but after one year of studies. Next fall we will prepare Scoping Document 1 (SD1, and send it out about 30 days prior to the Scoping meeting. In SD1 there will be a much better project description, and a draft list of issues.

An issue is something that might be affected by some element of project construction or operation. An example is visual impact of project due to transmission lines, or water quality in the Sun River resulting from releases from various levels in the reservoir.

We need to have issues stated in the language of whether an aspect of the project will affect the resources such as water rights, economics, water delivery, etc.

Once we have all the comments, we revise SD1 to SD2. You can add or change issues, but it's not easy. FERC will review changes. We will send SD2 out again as a draft for another review before it's final.

Next we prepare a Preliminary Draft Environmental Assessment (PDEA), which addresses all the issues in SD2. In the PDEA will be sections on affected environment, impact, and mitigation.

The PDEA plus drafts of all engineering and economic analysis results will go out as the Draft License Application. Comments on the DLA are due after 90 day review period.

Based on comments, we'll revise the DLA into the Final License Application, and send it to FERC. Once it is accepted by FERC, they will write another EA, the first done by the lead agency. You'll have 30 days to review it, and may not even know that it came out because it's in a back page of the federal register. We then complete the final recommendations process, and FERC decides whether to issue the license. It speeds up in the end and it's mostly done in DC.

We like to get a lot of things done early to keep from having surprises at the end. It's to everyone's benefit to settle the major issues before the FLA goes to FERC. If things aren't settled, we may not like the way things are resolved.

Mike then presented the licensing schedule, as follows:

- Spring 2005, Initial Consultation
- Summer 2005, field studies
- Fall, 2005 Scoping
- Winter spring, DLA
- July 2006, DLA to agencies
- DLA 90-day review process. Mike encouraged all reviewers to plan for it in advance.
- July-Sept, 2006, 90-day review
- April, 2007, final license application

Mike said to note that there would be ninety day review process in summer, 2006, which was very important; put it on your calendars.

Mike said that studies may continue after license as part of the monitoring of project effects.

He said that it takes FERC about a year to 18 months to issue or deny a license after the FLA is accepted. After FERC issues the license, they give about 6 months to complete final design and prepare plans for construction. Then they set a construction start date perhaps a few months after that to allow review of the design and plans. This would mean construction could start in 2008, but it's not unreasonable to predict that construction would start in 2009. FERC also requires that construction start within a specified period after the FERC start date.

Q: What is the condition of the dam now? And what is the silt factor? Is there anything needed in structure?
Dick: BOR monitors the dam structure.

BOR: In a recent sediment survey, we found that capacity had dropped from about 100,000 acre feet (af) to about 95,000 af. Regarding structural aspects, BOR would have to approve the project; we are charged with maintaining Project safety and this project can't have a negative impact on that.

Q: Is water released from bottom of dam?

BOR: Yes, except in spring when it overtops. Most of the time it comes from bottom. That's the coldest water. But you can't do anything with temperature. BOR doesn't maintain a temperature data base.

Dick: Grisdale Hill application had some temperature data.

Q: Are you going to look at gas super saturation? Changes in oxygen and nitrogen.
Dick: super saturation is below falls. Doesn't occur with turbines. Questions will come up.

Mike: Gas super saturation will be on the issues list. There's a lot of information on what causes it; generally if you don't have a plunge, you won't have it. We can call an expert if necessary.

Q: Is water in penstocks in a sealed system?
Dick: Yes, it's sealed. Water in the penstocks is at fairly low velocity. There is also a lot of experience on Francis turbines, which don't cause it, but that will be discussed relative to specifics of the selected turbines.

Q: Are turbines noisy?

Dick: My experience is that there is very little external noise. We believe that the jet flow pipe noise is~~f~~ very much louder.

Q: What's difference in cost between underground and overhead transmission?

Dick: Underground is about .5 million dollars per mile in the canyon. The 69 Kv to Augusta is about 1 million for the whole thing. In the canyon, it's not a normal underground situation because of rock. Trenching gets easier outside the canyon because we're in alluvial material.

Mike: More questions? Any prepared comments.

Q: Where do we send comments?

Mike: All comments will go to Steve Marmon. FERC holds him responsible. In the ICD 3633 Alderwood Ave., Bellingham 98225.

Comments, Scott Odegard, General Manager, SREC

Read a letter into the record. (attached)

Summary of comments: Sun River Electric Cooperative has reviewed the feasibility report and concluded that the project has an Achilles heel in the length of transmission line necessary to reach a solid transmission connection. The Project has been tried in the past and did not go to construction for this reason. Feasibility report does not provide a workable solution to the project. Sun River would like to participate in this project. We buy primarily hydropower, we like hydropower, and there is a lot of energy being wasted at the dam. But I would be remiss if I didn't show strong feelings at this point and have it crop up later.

Dick: We will work with you and we think we can meet your objectives.

Q: On the partnership with GID, can you get cheaper power or interest for irrigators?

Bob Hardin: We are looking at 35 year payoff, and think it will be a great project down the road.

Q: If it was evaluated in today's dollars, how's it going to look 9 years from now?

Dick: We escalated costs, used the Tiber Project study for power sales costs, used standard methods for escalation.

Q: With all the studies that need to be done, is GID a 50:50 partner? I can see a half million dollars in studies without a blink.

Dick: We figured $450,000 for the cost of licensing.

Tim Brunner: GID Board has thought this is a viable project. We will not be using additional assessments; all money will come from our reserve. In the long term we believe that this will be a good investment.

Q: How much are you going to put into Diversion Dam Project?
Tim Brunner: We don't plan on doing anything on that.

Q: You're required to have 6 month progress report on the Preliminary Permit for that project.. How can you not do anything about it?

Bob: I spoke with Brent Smith, our agent for the Diversion Dam Project, who is filing progress reports. He's assured me he'll take care of it.

Q: Will you be looking at entrainment?

Dick: Yes, it will be an issue

Q: How many years do you expect to pay for project.

Dick: we will be generating a million dollars a year. The feasibility study showed that it cash flowed in first year but interest rates can change that and we need to manage risk.

The meeting ended at approximately 9:30.