BAKER RIVER PROJECT RELICENSE

Economics/Operations Working Group

April 11, 2001

1:30 – 4:30
Puget Sound Energy Mount Vernon Business Office
1700 E. College Way
Mount Vernon, WA 98273

AGENDA

Review/revise minutes and agenda	
Economics and Operations Modeling	Bob Barnes Joel Molander
	Lloyd Pernela
Scope of economics/ops group	Group Discussion
Action items	
Set agenda for next meeting	
Evaluate meeting	

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PSE Office
Mount Vernon. WA

FINAL MEETING NOTES

Team Leader: Lloyd Pernela (PSE), 425-462-3507; lperne@puget.com

PRESENT
Lloyd Pernela (PSE), Bob Barnes (PSE), Stan Walsh (Skagit System Coop), Bob Helton (Private Citizen), Wayne Wagner (U.S. Army Corps of Engineers), Chris Hansen - Murray (U.S. Forest Service), Lyn Wiltse, facilitator (PDSA Consulting)

NEW/INCOMPLETE ACTION ITEMS
- ALL: Come to next meeting with a list of scenarios (conditions you'd want to examine). Be clear about what form of output (e.g., copy, etc.) you desire. Be specific about constraints.
- Bob & Lloyd: Summarize some of the scenarios they (PSE) are having the modelers model.
- Stan: Discuss constraints for model with resource agencies.
- Chris: Reduce Emergency Action Plan map and give a copy to Lyn.
- Lloyd: Check FERC regulations of Emergency Action Plan as they pertain to this group

Agenda for April 11, 2001 at PSE Office in Mt. Vernon, WA
1:30 to 4:30
1. Review/revise minutes and agenda
2. Economic and Operations Modeling – Bob Barnes, Lloyd Pernela
3. Scope of Economics/Operations Group – Group Discussion
4. Action Items
5. Set agenda for May 22nd meeting
6. Evaluate meeting

ISSUES FOR THIS WORKING GROUP TO CONSIDER:

- ECONOMIC MODEL OF PROJECT OPERATIONS
- ECONOMICS OF STUDIES AS THEY RELATE TO ECONOMICS OF THE PROJECT
- ECONOMIC MODEL OF SUGGESTED SOLUTIONS OF WORKING GROUPS

INTERESTS LIST SUBMITTAL FROM SOLUTION TEAM

The team briefly reviewed copies of the latest versions of interest statements from Solution Team members. They will work to meet these interests when they get to the point of suggesting options for solution.

CHARLES HOWARD'S HYDRO OPTIMIZATION MODEL – Presented by Bob Barnes and Lloyd Pernela

This is a real-time watershed operational model used to determine the best operation of each of the turbines while satisfying operational constraints and resource availability. This model can be set up to produce power output (with assigned differential values) on an hourly basis. It also allows for seasonal adjustments, e.g. snow melt. PSE is fine tuning this model and will begin using it for operations and forecasting. If team members become confident in the capability of this model, Charles Howard & Associates (as an independent third party) would analyze various scenarios using this model and databases to assist this team.

NOTE: All models have different constructs. Consistent use of a model affords us a standardized methodology to compare relative impacts of various scenarios, e.g. one rule curve against another, or a dry year versus normal versus wet. The key in comparing different models is standardization of constraints and assumptions.

The approval of this model Economics Working Group participants for the Baker Relicensing Process will require their confidence in Hydrops ability to simulate sixty years of weather and operations and determine optimal operations scenarios for given changes in operations and facilities. This review maybe beyond the experience of some team members. We probably don't want to dig into the "nuts and bolts" of the model. One approach maybe to hire consulting/peer review to help validate the model as a meaningful tool for this process. After establishing base case for comparisons the major challenge for this team is to define/ structure the scenarios that will be run through this model. We need to get meaningful results from realistic scenarios.

Using a simple simulation for a small Pacific coast basin rainfall and snow pack and dam constraints, Bob walked the group through process of making monthly reservoir operations decisions for a year assuming normal precipitation, snow pack, temperature. The primary objective in this demonstration was to avoid spill.

HANDOUTS:

- HYDROPS Functional Interaction of Decision Support System Modules
- Baker Solution Team Members – Draft interest statements (As of March 27, 2001)

PARKING LOT

- Forest Service Watershed Analysis
- Consider who will be the number cruncher for this team: PSE? Other?
- GANNT chart with due dates, etc.
- Presentations:
  - Wild and scenic river 101
  - Flood Plain Values 101
  - Fisheries/Hydraulics 102
  - Economic Model

EVALUATION OF THE MEETING:

Well-Dones:

- Good discussion
- Wayne's participation
- Bismarcks
- Facilitator caffeineated

Need to Improve:

- Team LEADER LATE
- Group speaker late
- Optimize meeting length
- Still missing local government participation
- No coffee
- Facilitator caffeineated

TENTATIVE AGENDA FOR NEXT MEETING

May 22, 2001 at PSE Office in Mt. Vernon, WA

1:30 to 4:30

1. Review/revise minutes and agenda
2. Action items
3. Update CH watershed analyses
4. Discuss base case scenarios for models
5. Expectations and constraints from other Working Groups
6. Scope of this group
7. Set agenda for next meeting
8. Evaluate meeting