Eastern Idaho Electrical Plan
Community Advisory Committee
Meeting #7

Idaho Central Credit Union
4400 Central Way, Chubbuck, ID

Friday, April 10, 2009
Results

Meeting Purpose:

- *To provide final feedback and cost estimates for the committee's alternatives*
- *To evaluate and score the alternatives for each planning area*
- *To reach consensus for the committee's preferred and acceptable alternatives*

I. Attendance

Committee

- Brian Underwood
- Blaine Newman
- Gynii Gilliam
- Jake Evans
- Jeff Hammes
- Jim Johnston
- Jim Mende
- Kristen Jensen
- Larry Ghan
- Lynne Schultz
- Mike Virtue
- Mori Byington
- R.E. Bob Steinlicht
- Robert Chambers
- Robert Jensen
- Sam Nettinga
- Scott Rasmussen
- Stephen Nelson
- Stephen L. Love PhD
- Steve England
- Sue Skinner
- Travis Stone
- Paul Schneider (for Ladd Carter)

Planning Team

- Mark Lupo, Community Relations Representative
- Marc Patterson , Idaho Power, Engineering Leader, Planning
- Jared Hansen, Idaho Power
- Mike Pepper, KMP Planning – Facilitator
- Amber Buckley, Civil Science – Clerical

Other Idaho Power Employees

- Chris Punt
- Dan Olmstead
- Mike Barrie
- Dave Joerger

II. Welcome and Introductions

- Mark Lupo, *Community Relations Representative*
- Mike Pepper, *Facilitator*
  - *Review purpose of the Committee*
  - *Meeting purpose, agenda and format*
  - *Review planning steps / Where we are in the process*

Review CAC Meeting #6 Results – March 13, 2009

- Comments / Corrections, etc.

III. Alternatives Overview and Final Feedback – Marc Patterson / Jared Hansen

- Group alternatives map presentations, rough cost estimates and final clarification

Green Group Alternatives: see handout for technical notes

Q: What do you mean when you say the line is a radial feed?
A: A radial line is when there is only one line going from the station to a source. It doesn't meet the N-1 criteria. If the radial line is lost (goes down) the power is out but in some situations this possibility is acceptable. We'll specify which stations only have one line going to them.

Q: The sub-transmission costs look like a major component of the total cost. You (IPCo) said there were some upgrades that were included by IPCo that the groups didn't know about. Does the cost estimate shown include all of the upgrades or just part of the upgrades? Is the total amount shown reflecting only upgrades or is something else factored into that?
A: The upgrades the groups didn't know about are technical things such as places the wire is too thin and needed upgraded, so we just figured those upgrades into the costs. The total cost is broken into upgraded line and new line costs. Each of these costs is included in the sub-transmission totals.

Q: On the totals chart the number of miles in the Pocatello area is off and the costs are off.
A: There was a mistake on that, for the internal figures only – an excel sheet transfer error. The overall totals are still correct and we will revise those figures today for you to use when you are doing your scoring matrices. The important thing to remember about cost estimates is that they are rough at this point and should be considered for relative comparison only. Costs that are within 10% of each other should be considered virtually the same for comparison.

Cost Estimate Note: On the cost sheets the K after the numbers means thousands, so for numbers shown in thousands, they refer to millions of dollars.

Red Group Alternatives: see handout for technical notes

Q: That group had lower costs. Why is that?
A: This group had lower transmissions (i.e. no high voltage lines) and there were fewer numbers of lines that had a re-conductor, and fewer line upgrades.

Q: The red group is planning on removing some 46kv lines. Do you figure any removal costs into the final costs to get rid of the 46kv lines?
A: No. There are no removal costs figured into this. Sometimes when we remove lines we can get money from the wires and re-compensate the costs of removal.

Q: When you (IPCo) mention the radial capability coming into Pocatello, does that mean it's not N-1? Aren't there two lines coming in from there?
A: There are two lines coming in to that area. However, they are on the same poles. So on paper it is N-1 but in reality, if they are on the same corridor and because the possibility of both lines being taken out at the same time from the same cause is likely, the condition would not satisfy N-1 requirement.

Yellow Group Alternatives: see handout for technical notes

Q: One of the things the Yellow Group did was try to bring additional power in from new or different sources. Is that important or not?
A: It can be. If there were a terrorist attack and a major station got taken out. We would need the additional stations. It just depends on the situations. Each of these stations will connect into the bigger projects (i.e. Gateway West) and as long as we have stations that can tap into that we can tie that generation together and have redundancy and reliability.

White Group Alternatives: see handout for technical notes

Blue Group Alternatives: see handouts for technical notes

General Questions and Discussion:

Q: Should an alternative that connects to more generation be viewed as more desirable than others? Are we accomplishing any of that?
A: An interconnected system will be secure and reliable and will provide the N-1 capability, so it is more desirable. But if we (IPCo) get to a point where more reliability isn't worth the extra money we won't connect it.

Q: As a matter of security, what is the difference between taking out a line than driving by Borah and shooting at it?
A: There are certain key points where security can be an issue. If a station was taken out that would be bad, but such occurrences are extremely rare. Line outages outside the station are more likely since there are many miles of line exposure over a great distance.

Q: I would assume there are more lines taken out by car accidents and fires than sabotage or terrorism. Is that correct?
A: Yes.

Q: The Red, White, Yellow, and Blue Groups all tie into Populus but only two list them as a source. Why?
A: The only groups that sited Populus as a source have 138 kV lines coming out of it. The other groups have high voltage lines coming from Populus.

Q: How do we distinguish if the solid colored lines on the maps showing all the groups alternatives are just one group's lines or all of the group's lines?
A: You'll have to look at the other maps to distinguish individual alternatives.

Q: If someone picks a preferred alternative for the Blackfoot area, and then chooses an alternative for Pocatello with a different voltage line, is that going to be an issue? For example, if someone picks a Blackfoot alternative with a 345 kV line and then picks a Pocatello alternative with just a 138 kV line, will that voltage difference cause a problem?
A: The difference between voltages will only be an issue in a couple of cases where high voltage lines span two separate areas, but be aware if choosing those group solutions. When looking at high voltage lines follow their path and determine if it will work when connected to different alternatives in other planning areas.

IV. Alternatives Scoring and Evaluation Process - Mike

- Evaluate alternatives for each planning area; Pocatello, American Falls, Blackfoot
- Refer to goals and objectives
- Consult other committee members as needed

Q: Sometimes when determining scores for things like this, you may think it's a "maybe" and give a score of "3", which is in the middle of the "0 to 5" scoring range. Are we trying to push ourselves to go one way or the other instead of staying in the middle?
A: Spend some time with the alternatives as you score them and see if you can go one way or the other (2 or 4) to make that evaluation more definitive. Try to stay out of the middle if possible, but ultimately, it's your choice.

Q: How will certain options impact costs according to tapping into the big line (500 kV) projects?
A: For the purpose of what you're trying to decide, you can consider that the big projects (500 kV) coming in will accommodate (adequately serve) any of these options.

Q: When the committee is looking at reliability, is there anything beside the N-1 component and non-radial lines that we should evaluate?
A: Look for lines placed on separate structures that will provide better N-1 capability than those on the same structure. ~~Also, if 3 sources are used instead of 2, that makes the system more reliable.~~

V. Lunch and Scoring

- Submit matrices as completed / tally total scores – See scoring results below

Alternatives	GRAND TOTAL SCORING				
	0				
Pocatello Area	***Reliability***	***Design & Sustainability***	***Siting***	***Cost Effectiveness***	**Total Score**
Blue Preferred	99	85	67	81	332
Blue Alternate	74	73	72	75	294
Blue Alternate 2	91	71	57	42	261
Green	87	82	89	94	352
Red	82	85	84	98	349
White	89	74	68	49	280
Yellow	86	66	62	62	276
Blackfoot Area	***Reliability***	***Design & Sustainability***	***Siting***	***Cost Effectiveness***	**Total Score**
Blue Preferred	87	86	83	97	353
Blue Alternate	71	75	65	57	268
Green	90	83	81	94	348
Red	80	84	87	99	350
White	83	78	71	47	279
Yellow	84	82	76	95	337
American Falls Area	***Reliability***	***Design & Sustainability***	***Siting***	***Cost Effectiveness***	**Total Score**
Blue Preferred	95	95	97	97	384
Green	102	96	96	102	396
Red	92	91	95	97	375
White	91	92	94	98	375
Yellow	102	95	96	97	390

VI. Identify Preferred and Acceptable Alternatives

- Begin with scoring results, then discussion to committee consensus
- Mike facilitated group discussion that resulted in the following conclusions, discussion and comments. He reminded the group that the group will have an opportunity at the May meeting for final discussion to confirm their consensus agreements on recommended alternatives for the plan.

American Falls Planning Area

- **Group Consensus**:
  - ***Preferred alternative: Green and Yellow Alternatives are equally preferred***
  - ***Acceptable alternatives: Red, White and Blue Alternatives***

- ***Specific Alternatives Implementation Notes:***
  - *Use the line in the Yellow Alternative where it comes in from Borah if needed to better benefit future industrial development.*

- **American Falls Area Discussion and Comments:**
  - From "30,000 ft. level, an alternative might look good. But when you get to the siting details and specifics of the plan, then the alternative may not be such a great thing.
    - Those details can make the difference but that is why the committee identifies other acceptable alternatives, in addition to the preferred alternative. If we (IPCo) get to that point and the public objects, we have other options. The committee's work provides critical guidance, but is just the first step in the process.
  - Kristen preferred the yellow alternative because of the forthcoming urban renewal district. This would support this incoming district. However, she is willing to support the green alternative.
  - Both the green and yellow plans would support this incoming urban renewal development.
  - Q: Does it make sense to accept the plans as they are because there are so many variables? Are we going to go through and evaluate these variables and change the alternatives?
  - A: Not at this time. That is why there are alternatives.
  - Q: Can we say that we accept the green plan but have stipulations added to that?
  - A: Other groups have done that; yes, that's certainly an option.

Blackfoot Planning Area

- **Group Consensus**:
  - ***Preferred alternative: Blue Preferred Alternative***
  - ***Acceptable alternatives: Green, Yellow and Red Alternatives***
  - ***Dropped alternatives:***
    - *White Alternative due to high cost caused primarily by more 230kV lines*
    - *Blue Alternate Alternative due to high cost, caused primarily by more high voltage lines*
  - ***Specific Alternatives Implementation Notes:***
    - *Satisfy N-1 condition for the Moreland area*
    - *If the Red Alternative is used, make adjustments to satisfy the N-1 condition for Ft. Hall*
    - *To improve reliability, avoid putting two lines on one pole*
    - *The siting of a new source station on Sheepskin Road (on the reservation) will be a problem and is not desirable*

- **Blackfoot Area Discussion and Comments**
  - There are several of these plans that don't reveal any outstanding issues until you get right down to reviewing the details. Pioneer is deceiving as a substation because it's small - about 100 ft sq. Several of these alternatives utilized Pioneer (for expansion as a source station) extensively and that is going to cause problems later on.
  - Sue is concerned about the alternatives that propose new lines going down US 91 (Blue preferred, Green, and Red Alternatives). The US 91 corridor has a lot of homes and businesses. It is going to be a very controversial location for new infrastructure.

- When we looked at siting we looked at existing corridors as part of our siting goals, I'd rather go on an existing corridor than go to new areas.
- I think that power should be kept on existing power corridors, not along a corridor like this (SH 91 doesn't have high power lines running along it. Maybe put that line on the east side of the railroad track).
- Along the railroad there are railroad zone control lines. There is already something there but the corridor is narrow.
- The Woodriver Electrical Planning Committee had this same type of discussion. They ended up siting new infrastructure along an existing corridor because they didn't want to go out of the way, requiring the development and purchase of new right of way and easements. It made a lot of sense to that group to stay on existing highway corridors where they could.
- Regarding the Pioneer station, we came away with the understanding that you couldn't take that substation and use it as a major source. The yellow group brought a brand new source into that area.
- Another thing is that Mooreland is out on a radial line and it is a major growth area. As a matter of reliability that should be addressed.
- I think it is significant that red team removed an existing 46 kV line(s) for visual purposes.
- Q: Are the 138 kV lines going to be enough to meet future demands?
- A: Typically there are 2 or 3 138 kV lines coming from a source and that will be enough to meet projected demand.
- The Red Alternative has dual circuit poles, so there is redundancy. However, if a pole gets taken out, ~~the~~ it is likely that both lines would be affected, possibly resulting in an outage. We need to avoid putting two lines on one pole, to improve reliability.
- Q: Are there problems with siting the source where they have in the Red Alternative?
- A: Yes, siting a source station on Sheepskin Road on the reservation is not desirable.
- The siting on Sheepskin Road (on the reservation) will be a problem and is not desirable.
- Q: Do we need a source closer to Blackfoot than Goshen, like in the Blue plan?
- A: No, the Blue plan would work.

Pocatello Planning Area

- **Group Consensus:**
  - ***Preferred alternative: Green Alternative***
  - ***Acceptable alternatives: Red, Blue Preferred and Blue Alternate Alternatives are acceptable***
  - ***Less acceptable alternative: White Alternative, except as shown around the Pocatello area***
  - ***Dropped alternatives:***
    - *Yellow and Blue Alternate 2 Alternatives, due to high cost of high voltage lines (230 kV)*
  - ***Specific Alternatives Implementation Notes:***
    - *If a route along I-15 is used, set back any new lines from the roadway to reduce the visual impact – prefer using the RR right of way in this case*
    - *If the Red alternative is used along I-15, this will cause a visual impact to this entry corridor*
    - *If needed, use the White Alternative's proposed Populus to Pocatello routing*

- *Do not go south of Populus with a new line.*

- **Pocatello Area Discussion and Comments:**
  - Q: Are there power lines following the I-15 corridor or not?
  - A: There are not.
  - Red Alternative has the line following the I-15 corridor and that property is considered pristine. People are not going to want to see lines.
  - Steven Love thinks we should tap into the Populus station, White Alternative brought those lines up along another power companies lines. So we could blend the White Alternative with one of the other alternatives.
  - Gynii had some information on the White Alternative and that is why it boxes out the way it does.
  - The White Alternative uses the other route but its return line goes through BLM land and USFS land. Running new lines over that type of land would be harder to do. So if we use a mix of the alternatives by using the PacifiCorp lines as a corridor that would be a better alternative.
  - Populus is a logical place to tie into, but we want the power not the lines, either we go down an acceptable corridor or over mountain ranges.
  - The White Alternative was planning on just upgrading the existing line.
  - From Populus to Pocatello with a 230 kV line, the White Alternative, may not upgrade the existing line.
  - The reason the Green Alternative doesn't use Populus was because it didn't need to. Maybe upgrade that existing line if needed. Or if you need the extra capacity use the line in from the white group.
  - The Red Alternative is more cost effective because it has Populus and Kinport as sources to Pocatello between Populus and Pocatello
  - There are a lot of houses in that railroad area, so new lines there could be an issue.
  - Populus will be a major source substation because it will tap into the Gateway West line, so by tapping into Populus you will have that Gateway West power available through Populus.
  - You don't have to bring a line from Populus though because Populus and Borah are tied together.
  - Coming up from Populus and going to the side of Pocatello is providing power to an area that is not needing extra help.
  - The Yellow Alternative that is planned to go over the hills will be a problem, causing negative impacts to resources and aesthetics.
  - Q: Can we get details of the White Alternative for the Pocatello area?
  - A: Yes, we can discuss that further at the next meeting if needed

VII. Next Steps and Wrap up – Mike Pepper

- Next CAC meeting #8– Friday, May 8th / 8 a.m. / Idaho Central Credit Union – 4400 Central Way, Chubbuck
  - *Verify/confirm committee consensus for the preferred alternative(s) and acceptable alternatives (and ranking if needed)*
  - *Discuss the tentative project implementation plan*
  - *Discuss local plans coordination – identify schedule and actions as needed*

VIII. Adjourn