



Eastern Idaho Electrical Plan Community Advisory Committee Meeting #3

Idaho Central Credit Union
4400 Central Way, Chubbuck, ID

Friday, December 12, 2008

Results

Meeting Purpose:

- *To continue education regarding Eastern Idaho's electrical system function*

I. Attendance

Committee

- Blaine Newman
- Brandon Bird
- Brian Underwood
- Gynii Gilliam
- Jake Evans
- Jeff Hammes
- Jim Johnston
- Jim Mende
- Ken Estep
- Kristen Jensen
- Matt Creamer
- Matt Hunter
- Michael Watson
- Mike Virtue
- Mori Byington
- R. Scott Reese
- R.E. Bob Steinlicht
- Richard D. Kirkham
- Robert Chambers
- Robert Jensen
- Roger Chase
- Sam Nettinga
- Stephen Nelson
- Stephen L. Love
- Steve Hadley
- Steve England
- Steven Smart
- Sue Skinner
- Travis Stone
- Vicki Meadow

Planning Team

- Mark Lupo, Idaho Power Community Relations Coordinator
- Dave Angell, Idaho Power Planning Division Mgr.
- Bryan Hobson, Idaho Power Regional Planning Engineer
- 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

- Dave Joerger, Eastern Idaho Power Operations Manager
- Mike Barrie
- Becky Stewart
- Ric Gale
- Celeste Becia

II. Welcome and Introductions

- Mark Lupo, *Community Relations Representative*
- Bryan Hobson, *Project Leader*
- 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 #2 Results – November 14, 2008

- Comments / corrections, etc. – no additional corrections

III. Substations – Bryan Hobson

Bryan presented an overview of the design and function of substations. No questions were asked by the committee at this time.

IV. Rates and Regulatory – Ric Gale

Q: Is there a definition of what a fair rate is? Or is that always a moving evaluation?

A: Supreme Court cases have stated that a company needs an adequate return to fund their business. Adequate returns are a combination of funds sufficient to pay interest on debt and get people to invest in the business and sustain the company's credit rating. There isn't a clean definition of return but there is a lot to it.

Q: In regards to the Capital Structure slide on page 14 of the presentation, are you (IPCO) above or below the 8.109% for 2008? When you say you haven't seen 8.109% since 2001 are you below or above that percentage now?

A: Currently we are below that percentage. There are 2 primary dynamics in the last 6 years that drive this percentage, one is growing cost structure and the other is the dry weather in Idaho. We are primarily a hydro-based utility and the dry weather of the last few years has affected the amount of power that can be generated from our hydro operations.

Q: When people are appointed to the Idaho Public Utilities Commission, are the appointments to the committee made by the governor?

A: Yes and committee members are appointed for 6 years.

Q: When you (IPCO) decide to do a major project, how soon in advance do you go for the equity in order to move forward with that project? How soon will those projects reflect on rate cases?

A: The company will need to finance the project and will want to have the credit rating and equity balance set up prior to the project. When we start pursuing the project it depends on the size of the project as to the time table set up for the equity. If it is a small project like a substation it usually only takes 1 year and that substation will be included in rate cases soon after the project is complete. A transmission line or combined cycle gas plant takes hundreds of millions of dollars but will not be in rates until much later on. The company will not get cash flow to match that sum for quite some time.

Q: New projects and new development imply new demands. If there is always rate adjustment for growth, how much do new customers pay and how much do current customers pay for that new development?

A: Line extensions and impact fees are usually associated with new developments. In the case of a line extension, they are the delivery part of the system. Idaho Power tries to charge the new customer as much as possible for improvements due to their development, to avoid charging existing customers for these developments. Impact fees have to do with distribution costs. Idaho Power doesn't have the legal ability to enforce an impact fee for power costs. We don't have the ability to say "you (developers) are causing this impact to our energy cost and we'll charge you for those impacts." The cost is mitigated for the group.

V. 11:30 a.m. Energy Efficiency – Celeste Becia

Q: Idaho Power is looking at alternative energy sources like wind and thermal. Why isn't Idaho Power looking at nuclear power?

A: That would be considered thermal power as well. This service would be through the INL. The INL isn't currently producing the nuclear power, however if they were to produce this power we could buy it.

Q: How do Idaho Power's efforts on efficiency compare to other states (power providers) efficiency?

A: ACEE publishes a yearly list regarding efficiency. Last year Idaho moved up 10 places. The reason we moved up was the strength of the utility. The new ACEE report comes out in March and that may be something that this committee is interested in learning about when it is available.

Q: Is the Solar for our Schools program funded through Idaho Power? What exactly is this program?

A: The Solar for our Schools program is not funded through Idaho Power. It is funded through the Mother Jones Foundation. This program funds educational programs that teach children electric conservation. For anyone interested in this type of program, the Mother Jones Foundation accepts applications until March 31st.

One of the programs Idaho Power is participating in now is the Project Share Program. Customers can donate money to the Project Share Program and Idaho Power will match the pledged amount. Those who are unable to pay their power bills are given financial support for their power bills through this program.

Q: A photovoltaic system has a 5 year payback. What kind of payback is there on windmills?

A: Windmills are more cost effective and you can generally get more KW nameplate from wind installations. However, wind installations can cause problems with neighbors and, unlike solar, wind is very intermittent. With wind energy you will typically get 30% of the nameplate amount.

Q: Does Idaho Power know what the payback is for wind installations?

A: I don't have that information. We can get that information from Scott Gates.

If customers are interested in funding any type of green power, Idaho Power's Green Power Program accepts donations to help fund those facilities.

Lunch – catered on-site by Chartwells / ISU Catering

VI. Eastern Idaho Current Conditions – Jared Hansen

Q: For summer loads in eastern Idaho, how much of the load is from irrigation and how much is from residential cooling? What percentage are those?

A: I don't know. We can find out for the next meeting.

Q: In regards to the map on page 33 of the slides, why was the "Atomic" station located where it is?

A: By spacing the sources around the load, we can serve that load area more reliably. So Atomic, Blackfoot, Kinport, and Brady transmission stations form a kind of circle around that load area and allow us to serve this area more reliably.

Q: According to the slide on page 34 of the handouts the Brady station has available capacity of 300 MW. I heard that the Brady substation is maxed out and that it wouldn't distribute to Rockland. Is that true?

A: When we talk about available capacity that is just local load coming into the station. The capacity at this station to transfer to the west is limited. In talking about the station's capacity we are talking about the ability to bring power down in size from 240kv to 125kv. This is just transformer capacity. Rockland is served with distribution. It is the distribution to Rockland that is "maxed out".

Keep in mind that the bulk of the discussion for this committee will have to do with transmission and not distribution. Unless there is a blend of transmission and distribution facilities placed on the same pole/structure, this committee will not be involved on the distribution side of things.

Q: On the map on page 37 of the handouts, the line shown coming out of Atomic City is part of future facilities development. How soon will that line likely be constructed?

A: It should be constructed within the next few years. We anticipate between 2-8 years depending on budgets.

Q: If a situation arose where 2 distribution lines went out on a summer day, would you (IPCO) shut down the whole system to make repairs and to ensure you don't overload the existing lines?

A: It depends on the situation. Sometimes we have to react immediately which means we will shut down load. We have plans in place that outline what to do in situations like these.

Q: There was a power pole that got taken out by the "Green T" last week. As a result, there was an area that had no power for a good amount of time. Was there no other way to feed that area?

A: That was actually a distribution pole that came off the substation so it tripped off the whole distribution system. When the distribution is taken out we have to manually switch it. We can backfeed some of the distribution system. It would be too expensive to backfeed all of the distribution system, especially in the rural areas.

Q: When large companies like Simplot are doing maintenance and take their generation off-line, does the system suffer or miss the power they (Simplot) generate?

A: If they pull their generation off, we don't get that generation but we do get it from a different source.

Q: Why do merchant plants want to come here (to eastern Idaho) as compared to somewhere else? Is it because the Kinport substation is easy to tie into?

A: I don't know that it is energy related. We have constraints on this side of the system like other places. Idaho Power does have lower prices than other utilities so that may be part of the decision. However there are other factors in the area that affect that decision. If you were to go back to the energy crisis in 2000, what most developers did was map the crossing of electric and gas utilities. The reason this area is ideal is because there is regulation in the state that is positive for generation. There is also a natural gas pipeline in addition to electric lines coming through the area.

Q: Would you consider capturing the energy these companies generate instead of allowing it to go elsewhere?

A: In each area of control there is a balance between generation and load. For example, if a 600 MW plant is developed, and we already have all we need to meet our demand, then that power should go elsewhere. If we don't keep this balance then we get out of frequency. If there is too much generation then the grid could get shut down.

Q: On page 38 of the handouts, it reads that the 46kv loop has not been updated since 1980? Why haven't these lines been updated since then?

A: The lower voltage lines have less capacity. If Idaho Power were to invest money into a new station in this area it would be a 138 kV station and the lines would be updated to the higher capacity lines. This provides a higher capacity for the future.

Q: Why is the Borah substation left off the maps on page 39 of the handouts?

A: Borah is not a source for the 46kv systems that are shown on those maps. That station is there but it is involved in transferring energy across the grid.

Q: It doesn't seem like there is much backup on the 46kv lines. Is it not feasible to make the 46kv system redundant?

A: There are capacity limitations and voltage limitations on the existing loop that mean we can't necessarily serve someone in the case of an outage.

Q: When you (IPCO) talk about losses, there are "black outs", "brown outs", and "rolling blackouts". When a line goes out, are you talking about one of those types of outages?

A: In a situation where there is an outage and no redundancy, there is no power and it is a “blackout”. A “brown out” happens when we’re operating between 110 to 114 Volts. “Rolling black” outs occur when we initiate blackouts to unload some of that transmission. We would turn off power for an hour or so to some customers, and then roll that blackout over to a different set of customers. This could continue until full power is restored.

Q: After power comes back on there is inevitably a spike on the system with all the appliances and household things coming back on. How does that spike affect the system?

A: We have to be careful to sectionalize and turn on in rolling style in order to prevent that spike on the system so we avoid an overload. This is called “cold-load pickup”.

Q: Is there damage to equipment when a “brown out” range is reached?

A: No, a “brown out” should not damage equipment.

Q: Are the 138 kV lines coming from Pocatello attached to the 138 kV system? Do those tie in the 46 kV system?

A: There is a line that comes from Don, meets with Pingree, meets with Blackfoot then comes back to American Falls. This line does feed into the 46 kV system when it is transferred at Pingree to 46 kV.

Q: If you (IPCO) build the Atomic station, will that give Blackfoot more redundancy?

A: It will provide additional capacity and will help with reliability.

Q: In an emergency situation would you ((IPCO) work with other power companies, like the entities around Idaho Falls, to buy or transfer some of their power to this area?

A: We have a lot of agreements with other entities regarding what power we can use from them in emergency situations. As long as we have the line to transfer the power, it is possible.

Q: Is Idaho Power looking to upgrade away from a 46kv line?

A: This committee will help determine which 46kv lines should be upgraded to 138 kV systems. It makes more sense that if we are going to upgrade the line, we move towards a higher capacity line.

In radial sections along a line, especially in a rural area, it becomes more costly if we make every one of these stations redundant. There is a balance between reliability, the continuity of service, and the price of service. Cost wise, it is more reasonable to let small loads remain radial as they are, than to make them redundant.

Q: In the areas that won’t have redundancy would there be agreements with homes to provide backup sources? For example, would Idaho Power help these people buy a backup generator?

A: Idaho Power offers a tariff, Schedule 46 that allows customers to pay for backup service. We are working on a program that allows Idaho Power to make use of backup diesel facilities during peaks and essentially pay the maintenance of the facility and the fuel for the facility. Idaho Power is using generators but Idaho Power does not buy generators for customers.

Q: Is there is a way that reliability is measured? If there is, what is the reliability number for this area?

A: I don’t have that information right now but I will get that for next time.

Q: Can we get the number of outages that are less than 5 minutes for this area?

A: We can get that information for the next meeting.

Q: What is the time frame for total build out of this plan?

A: The time frame for build out will be as needed. Idaho Power will build the facilities the committee determines as the need arises. The build out for this plan is not tied to a calendar schedule. It largely depends on load growth, so build out could happened sooner or later as needed to satisfy load growth and demand for power.

Q: There have been changes in technology recently that have caused increase in demand. What expectation is there that future technology will change the demand from the usage we're experiencing right now?

A: The intent of this plan is to plan for build out needs based on the technology in use today. If new technology comes along that requires more usage or less usage, then Idaho Power will adjust the plan accordingly. This is a flexible plan that will be adjusted based upon these types of instances.

Keep in mind that there are many acceptable ways to accomplish the 2000 MW build out. There isn't necessarily one right way to do this and there could be several good options.

Q: Hypothetically, if in a couple of years we needed 100 MW more power, will this area be ready for that?

A: Mostly that depends on where the new load is located. If the new load is out by Lava we're not ready. Some places would be set to accommodate that load but in most places we would have to build to satisfy the new demand.

Q: Does it make a difference if the power lines are built on state land, federal land, or private land? Is one type of land ownership better than the other? Or is one option cheaper than the other?

A: There will be costs associated with building lines in any of those instances. This is where the goals of the plan will be important. Following the goals set forth by the committee will steer us in the right direction for siting and type of facility development. If we propose to develop new facilities on federal lands, there is a formal permitting process for the whole route. There is also paperwork and fees required if we go across BLM lands. Any route we choose will require a certain amount of paperwork and fees. We have members on the committee who are with various entities such as the BLM, the tribe, counties, etc., to help determine which areas would be best to place lines or which areas would not be good areas to place lines. This is one of the critical roles for members on this committee, to provide input on behalf of their entity, as part of the committee process, to help determine the most desirable and acceptable locations for new infrastructure.

Q: When dealing with industry, does Idaho Power put redundancy in the industrial areas?

A: We do what we can to provide that.

Q: What is the 2000 MW build out number based on?

A: The numbers developed for build out were based on current zoning designations which outline allowable types and densities for development. This electrical plan should be incorporated into local comprehensive plans so that this plan can adjust according to land use changes as they are modified by local jurisdictions over time.

If someone on the committee knows of growth somewhere other than what Idaho Power has on this build out plan, we would like to have that information to incorporate into the plan.

Q: Can someone bring more information about the zero energy homes?

A: We can bring that information next time.

Q: Is it best to group industries together in the same location or in close proximity to each other? Would Idaho Power want industry concentrated or spread out?

A: From a planning perspective it makes good sense to concentrate similar types of development and load uses. If industrial developments are centered, it is easier and less expensive to bring in multiple sources. Idaho Power could more easily run power into industries if they were grouped together.

Q: Do we (the committee) understand correctly that conservation and efficiency is the best way to give us more power?

A: If customers can conserve enough energy that will make the customer another resource to Idaho Power in providing sufficient power. Conservation programs are one of the cheapest resources we have.

Q: Can we tap into the INL and get energy from them?

A: Right now the INL is a load customer. They do not produce enough energy to be independent of Idaho Power. The forecast is that they will continue to be a load. If they do become a production facility in the future, we can use that power to help supply power to this area.

Idaho Power will send a link to the committee so they can look at the Magic Valley Electrical Planning Committee's draft plan.

VII. Develop Preliminary Goals – Mike Pepper – overall group and small groups discussion

- Mike oriented the group to the purpose of the goals (see slides)
 - Purpose of the goals
 - To outline the important local issues and objectives for electrical service, facilities and related programs to meet eastern Idaho electrical needs through buildout
 - To guide the committee's identification of infrastructure alternatives – siting and design
 - To guide the committee's ranking of alternatives
 - To guide the identification of the committee's preferred and acceptable alternatives
 - To guide IPCo in the future development and siting of physical infrastructure
- Mike provided an introduction to the process that will be used to develop of goals
- The overall group identified the following preliminary goal areas to reflect their areas of concerns regarding the development of the electrical plan for Eastern Idaho.

Preliminary goal Areas and related issues

- Sustainability
 - Source Generation
 - Residential/Business
 - Irrigation
 - Net Zero Energy Homes
- Reliability
 - Short term, long term sustainability.
 - Improve reliability and dependability of the system.
 - Improve reliability for existing customers.
- Cost Effective
 - Cost of power
 - Cost of infrastructure (lines, transmission, etc.)
 - Improve balance with cost.
- Sensitive Siting and Design
 - Environmentally acceptable
 - Socially acceptable
 - Not putting infrastructure right through neighborhoods
 - Use comprehensive plans and land resource plans to site new infrastructure
 - Aesthetically pleasing
- Planning
 - Satisfy industrial load growth
 - Coordinate and support local planning goals, objectives and direction
 - Incorporate all appropriate generation sources (Future INL & nuclear energy, other alternate sources wind, manure, solar, etc.)
 - Respond and adjust plans to respond to new technology
- Conservation and Efficiency
- Political Support
- The committee then divided up into four small groups to further refine their goal areas, develop preliminary goals and objectives
- Next steps in developing goals

- Using the committee's preliminary goal areas and information from the small groups, Mike will produce a draft list of goals and objectives for the group to consider and refine into final goal and objectives at the next meeting. Mike will send the draft goals and objectives to the committee for review in advance of the next meeting.

VIII. Next Steps and Wrap up / Adjourn by 3:00 p.m. – Mike Pepper

- Final discussion
- Next CAC meeting – **Friday, January 9th / 8 a.m. to 11:30 a.m.** / Idaho Central Credit Union – 4400 Central Way, Chubbuck – Lunch will be served at 11:30 for those not leaving for the Chamber meeting.
 - Refine and confirm goals
 - Future electrical buildout needs
 - Transmission & related components to meet buildout needs
 - Initial alternative discussion