ELECTRIC INTEGRATED RESOURCE PLAN (EIRP)
Public Meeting
Jan. 10, 2007
Summary

WELCOME AND OVERVIEW:
Springs Utilities Issue Manager Gail Conners welcomed all and reviewed the evening's agenda. In addition, she called out the Public Utility Regulatory Policies Act of 1978 (PURPA) table that was not part of the EIRP, but would be of interest to those in attendance. PURPA was enacted in response to our country's energy crisis. President Bush signed the Energy Policy Act of 2005 (EPAct). EPAct contains five new sections which must be considered by state regulatory agencies for adoption. Springs Utilities will be taking comments on PURPA via our website as well as all EIRP public meetings. Ms. Conners stressed that the January meeting was on the first in a series of EIRP meetings and that the first one was geared to help educate and introduce the project. Additional meetings in February and March will have additional technical analysis.

EIRP OVERVIEW

John Romero, general manager of the Energy Services Division provided an update on the current energy supply situation, and discussed the need and drivers for updating the 2004 EIRP.

General comments from participants:

- I would hope it's not business as usual with Colorado Springs Utilities. Springs Utilities needs to be a leader.
- Springs Utilities is not pushing demand side management.
- Climate change needs to be part of the analysis
- Pumped hydro should be reviewed

Question 1: Is 13 megawatts freed by a pump station? Could you explain the move to Aurora and working with the group to change the schedule?

Answer: Yes. At times of anticipated summer peak demand, combined with potential generating capacity or market power availability shortfall, Springs Utilities could, reduce load at Otero and Twin Rock Pump Stations. It is anticipated that this procedure would be implemented relatively infrequently, only under the aforementioned special circumstances, and limited to peak electrical load periods of the day. The Otero Pump Station is part of the Homestake Water Project jointly owned and operated by Springs Utilities and the City of Aurora. The water pumping interruption is feasible as a result of water delivery and storage system flexibility. The pumping interruption is enabled by an agreement with Aurora and close coordination between electric and water operations.

After the presentation, participants were encouraged to visit all three EIRP project-related open house stations, which included:

CURRENT CONDITIONS

Station One/Current situation and portfolio: Station One will include information on load forecast, reserve margins and our current situation.

Question 2: Why doesn't Springs Utilities look at nuclear energy?

Answer: Springs Utilities initially included all supply-side options, including nuclear power generation, in the EIRP analysis. As a result of the initial screening of viable resource supply options, the nuclear power generation option was eliminated. This decision was made based on the following combination of factors:

- Estimated high overall resource cost (including initial capital cost, O&M - specifically fuel handling and spent fuel storage, disposal and decommissioning). Consideration of this type of a plant would ideally be undertaken as a joint project with several partners to share in plant costs, output and risks (financial and operational).
- A mismatch between SU's current capacity needs and optimal plant size, 1000 megawatts (MW) or larger, dictated by economies of scale for this type of a resource.
- Anticipated licensing process duration and construction lead times not meeting SU projected resource timing needs.
- A general lack of recent proven industry experience with permitting and construction of nuclear plants.
- Perceived high level of risk associated with this type of technology, particularly in light of life-cycle-cost uncertainties, potential regulatory changes and public perception and acceptance of nuclear power.

Question 3: What's the difference of Front Range costs on the poster and the Energy Resource Mix poster - $86 per megawatt hour (MWH) versus **$**55 mwh?

Answer: The $86/MWH includes all Front Range Power Plant (FRPP) costs (capacity charge, O&M and fuel). The $55/MWH figure includes only the natural gas fuel (average cost per MWH) typically used for making generation unit dispatching decisions. Both figures are for period January 1, through November 30, 2006.

Question 4: How many hours did Front Range Power run last year?

Answer: The FRPP combined cycle plant actually consists of three generating units, two combustion turbine driven generators (CT1 and CT2) and a heat recovery boiler and associated steam turbine powered generator (ST). The plant can be operated with just one CT, or both CTs and the steam generator. During 2006 (Jan-Dec period) hours of operation were as follows: CT1: 6726 hours, CT2: 6877 hour and ST: 7648 hours.

Question 5: There's new legislation calling for 20 percent renewables. What will be the impact of that on Springs Utilities?

Answer; Springs Utilities plans to analyze 20 percent renewable scenario in the EIRP. We understand that specific legislation addressing this topic will be introduced in the current legislative session.

Question 6: Will you be getting any wind power from Holcomb in Kansas?
Answer: Holcomb generally refers to the site of Sunflower Electric's Power Generating Station in Finney County, Kansas. It is also the proposed site of the new coal power plant addition proposed by Tri-State G&T. To our knowledge, there will be no wind power generation at this site.
Question 7: What are our plans in regards to IGCC?
Answer: Springs Utilities plans to include an IGCC type generating plant in the EIRP analysis of possible supply-side options.
Question 8: What happened to small hydro – why doesn't it look good now?
Answer: Remaining potential hydro sites have lower water flows and/or low available heads (hydraulic pressures). Furthermore, they are in remote locations in mountainous terrain with no existing infrastructure. These factors, in combination with lack of pressure regulation facilities (dams) at these sites, distances to the nearest point of possible electrical interconnection and lack of basic communication facilities makes these sites unfeasible for small hydro development. The economics evaluation shows that the benefits and payback periods are well below the threshold of what is considered a viable project. For example, the levelized cost of energy (LCOE) from a plant on the most attractive site would be $199/MWH. This would be well above the cost of other forms of renewable energy such as wind powered generation.

Comments:

- Springs Utilities only meets regulations – you should exceed regulations.
- Business as usual can't cut it anymore – it's like the fox watching the chickens.
- Higher cost won't make a dent in some people's budgets. The only way to make headway is nuclear power.
- People will do it (conserve) if they are encouraged to do so. Use ads and marketing.
- People need to learn to conserve what they use.
- You should have a progressive (tiered) rate structure.
- Time of day doesn't reflect "standby" capability. Purchase cost resolved through energy charge.
- Time of day rate – could encourage small increments of demand side management (DSM) which will add up for each customer.

Comment from Springs Utilities: Springs Utilities electric rate structure is cost-based. The actual costs for building, maintaining and operating the distribution and generation systems (along with fuel and purchased power costs) are utilized to establish the amount of annual revenue that must be recovered. These costs are then allocated to the various electric customer classes (residential, commercial, industrial and contract) based upon methodologies that account for the various classes' usage of the systems, including maximum demand, equipment utilized, energy consumption patterns, *etc*. A cost-of-service study for the electric system will be conducted in 2007 to review and to update allocations among the customer classes.

A comment made at the EIRP meeting suggested that Springs Utilities should consider the costs of external environmental factors, such as carbon emissions, when setting rates. However, because these costs are not physically incurred by Springs Utilities when providing electric service, current rate-making practice would not permit the inclusion of such costs when setting rates. Springs Utilities' rates must conform to the sections of the City Code of the City of Colorado Springs that control how rates are established, as well as to sections of State of Colorado statutes that govern utility rates. Taken together, these code sections and state laws necessitate cost-based rates and also mandate that undue and unreasonable discrimination may not exist among rate classes. These laws greatly limit Springs Utilities' ability to include costs not actually incurred when setting rates. These laws also limit Springs Utilities' ability to differentiae between customer classes. Any revision in Springs Utilities' rate structure must be reviewed and then authorized by the City Council of the City of Colorado Springs.

Utilities Board directed Springs Utilities to investigate tiered rate structure in 2004. Utilities hired Navigant Consulting to conduct the study and presented the result to the Utilities Board in March 2004. Utilities Board's direction at that time was not to implement any tiered rate structure based on the conclusion that tiered rate structure could encourage some conservation but the impact on low income customers was found to be a greater concern at that time. However, the study recommended that other rate structures to encourage conservation and demand side programs should be considered in the future.

Springs Utilities intends to use the EIRP analysis when considering possible future rate approaches to encourage efficient use of resources and to assure full recovery of appropriate costs (including capacity, energy and incurred environmental costs).

Station Two/Demand Side Management and Renewables: Information included what has been done to date since the 2004 EIRP; what Springs Utilities is currently doing; and what are the gaps.

Questions:

Question 9: How do you incentivize builders for the ENERGY STAR® Standard?

Answer: Colorado Springs Utilities Builder Incentive Program (BIP) is designed to encourage Colorado Springs homebuilders to qualify their homes under the U.S. Environmental Protection Agency's (EPA) ENERGY STAR New Homes program. ENERGY STAR New Homes are independently verified to save at least 15 percent more energy than local code requires. Builders will incur upfront costs to integrate energy-efficiency measures in their homebuilder practices and to pay for third-party verification. Springs Utilities Builder Incentive Program is intended to partially offset the incremental cost to builders of making the transition to producing ENERGY STAR New Homes. This incentive is not available to homebuyers.

Question 10: There are architectural standards for energy efficiency in the Pikes Peak Region. What is Springs Utilities role?
Answer: Colorado Springs Utilities interprets this question to be directed at clarifying what Springs Utilities' role is with respect to energy efficiency standards in the local building code. In May 2002, Utilities Policy Advisory Committee (UPAC) advised Springs Utilities not to weigh in on Regional Building Department's consideration of new energy codes. When it comes to regulatory affairs, Springs Utilities was advised to take a voluntary, rather than mandatory approach. Therefore, Springs Utilities decided to promote energy efficiency in new home construction through the ENERGY STAR New Homes Builder Incentive Program, which is a voluntary program.
Question 11: Is demand rate accurately priced for on-peak demand?
Answer: All rates, including demand-based commercial and industrial Time-of-Use rates and the residential Time-of-Day Pilot rate, are structured to accurately recover on-peak and off-peak costs, by rate class, according to cost of service. A new Cost of Service study is currently underway, scheduled for completion in 2007. Results of the cost of service study will form the basis of any potential adjustments to current rate schedules.
Question 12: What is the downside of wind energy?
Answer: The principal drawback of wind energy is that it is an intermittent energy source, meaning the power production varies continuously as the wind resource changes. Intermittent power sources cannot be relied upon to provide capacity at a given point in time, such as when system demand is at peak. In some areas of the country, evidence suggests that wind turbines, or generators, can have a harmful effect on bird (and bat) mortality due to collisions with turbine blades. However, wind farms with high bird mortality are typically older facilities located in migratory corridors that were unknown at the time the facilities were permitted and constructed. New wind facilities are required to undergo environmental impact assessment and obtain approval by state and local agencies to prevent bird mortality. Other "downsides" cited by opponents of wind energy include noise pollution, visual impacts, and potential depreciation of property values; and many of these claims are disputed by proponents of wind energy.
Question 13: Is the hydro plant in the "pipe" to create energy?
Answer: Cascade hydro (900 kilowatts) a low-impact hydro plant, is slated for completion in 2008.

Comments:

- Distinguish between $2.49 and $20.49 REC price compared to fossil fuel (coal) price per megawatt hour (mwh) - $18 is quoted.
- Nuclear power plant should be considered as a source of energy. France is 80 percent nuclear.
- 0.25 percent for the DSM load
- Have hour-by-hour metering with real time price signals.
- Advertise DSM programs better.
- Please show a smart metering time line – it's a great idea.
- Have a progressive rate structure for all utilities. (Note earlier response to this comment in the **Comment** section, following **Question 8.)**
- Actual costs need to include externalities, such as environmental impacts, health, etc.

- There can't be a water project without a hydro component.
- Wind and coal need a "battery" for peaking = hydro pump back up.
- Look at the Manitou Springs greenhouse reduction program – it affects renewable demand and electric – possible partnering opportunity.

Station Three/Supply Side Options and Interconnection System: Information on our transmission system, future capacity options and how it relates to energy planning.

Questions:
Question 14: There is investment in Governor Ritter's office for grid capacity, where is Springs Utilities with that?
Answer: We believe this question is in regards to House Bill HB07-1150 "Creating a renewable energy and infrastructure authority to provide loans for the development of electric transmission lines" which has been recently proposed in the Colorado State Legislature. Springs Utilities is closely following this proposed legislation, but at this time has not taken an official position.
Question 15: Have we permitted in El Paso County for inter-connectivity?
Answer: Springs Utilities has worked with other regional utilities in El Paso County to strengthen the system in this area. We do not have any current projects that are undergoing permitting at the County level.

Comments:
- Pikes Peak Regional Water Authority would like to invite Springs Utilities to the table to discuss hydro power. Who should they talk to?

Answer: Mr. John Romero, General Manager Energy Acquisition Engineering and Planning.

FACILITATED DISCUSSION WITH PROJECT TEAM
FINAL QUESTIONS AND COMMENTS

Questions:
Question 16: Why is DSM a practical goal? Customers can cut at least one percent from their use – what's the social stigma against conserving?
Answer: DSM (Demand Side Management) is a practical goal because it provides measurable and quantifiable savings addressing existing electric end use that is not up to the most current energy efficiency standards. As far as a stigma against conservation, lifestyle issues may be a factor and the decision to conserve is ultimately a personal choice.
Question 17: Mountain View Electric has peak and off-peak – how long would it be to get meters in place to set up time of day billing?
Answer: Springs Utilities currently offers time of day (TOD) rates on a voluntary basis for residential customers. The current cost of advanced meters limits the widespread use of TOD rates. The Automated Meter Reading (AMR) Project, scheduled for completion in 2010, can provide a lower cost option for residential TOD rates either through the future installation of special meters or by estimating TOD use from available daily consumption data.

Question 18: How much power are we looking for?
Answer: Based on the latest 2006 load forecast, Springs Utilities will need to add 157MW of new resources by 2015, and 351MW by the year 2020.
Question 19: Habitat for Humanity is at "zero" energy. Is Springs Utilities doing anything similar to this?
Answer: Springs Utilities has introduced the Builder Incentive Program (BIP), which is a rebate program available to builders who build ENERGY STAR qualified residential new housing (EPA's ENERGY STAR New Homes Program). BIP homes are at least 15 percent more efficient than a typical "code built" home. The BIP doesn't build, or offer, zero-energy homes. Customers that would like to purchase an ENERGY STAR qualified new home can do so through one of the local participating builders.
Question 20: Are there any programs to help the disadvantaged with putting in skylights, or more efficient window panes? Such as switching out single panes to double pane windows? The upfront costs are problematic.
Answer: Colorado Springs Utilities offers the Home Efficiency Assistance Program (HEAP) to help low-income customers make free energy and water efficiency upgrades in their homes. Unfortunately, the HEAP program does not include installation of skylights or repair/replacement of windows. Window replacements are not included because they do not offer substantial energy savings to the customer, or have a big impact on the customer's energy bill, (e.g., cost of the windows and installation/labor costs outweigh the energy savings - the typical payback for window replacements are around 20+ years). Colorado Springs Utilities does offer the HomeVantage Home Improvement Financing Program which provides a lower financing rate to complete energy efficiency projects in the home. Also, the City of Colorado Springs Urban Redevelopment Department offers a variety of housing rehabilitation programs, one of which includes the repair/replacement of windows. For more information on City of Colorado Springs programs the customer should contact the Urban Redevelopment Department at 385-5985.

Comments:

- Springs Utilities doesn't push for conservation. Springs Utilities needs to look at air pollution and other factors that contribute. As a municipal-owned utility you need to look at all those factors.
- Look at a tiered system such as water and automated meter reading with meters.
- Use total kilowatt hours
- Include a block rate structure to help the disadvantaged
- Peak demand costs is a penalty on the commercial side and you never want to do that to a resident
- People who pay to use more aren't the solution – it squeezes people at the bottom
- Springs Utilities doesn't tell the whole truth and doesn't educate customers on environmental impacts.
- Look at a climate protection campaign, such as the one that Manitou Springs is implementing.

Upcoming EIRP Meetings:

Tuesday, Feb. 20, 2007
Thursday, March 22, 2007

Mesa Conservation and Environmental Center at 5:30 p.m. The center is located at 2855 Mesa Rd.

For more information, contact Gail Conners, Issues Management, at 668-8012 gconners@csu.org