Idaho Power IRP

September 6, 2012

Handouts on web

<http://www.idahopower.com/AboutUs/PlanningForFuture/irp/2013/IRPAC_Materials.cfm>

Idaho Power Company (IPC) began its public process to develop the 2013 Integrated Resource Plan (IR) this August when it convened its IRP Advisory Council. The Council includes customer representatives from agriculture, industry, technology, and environmental sectors; the Idaho and Oregon Public Utilities Commissions, Northwest Power and Conservation Council. It will give IPC feedback on its resource planning for the next 20 years.

The September agenda focused on price forecasts for natural gas, coal, and cogeneration and small power production. There was also a Carbon Adder Presentation that generated a heated discussion – no pun intended. Price volatility is always a central component of any discussion revolving around natural gas. IPC relies on natural gas to fuel its peaker plants and to integrate wind. Like hydropower, natural gas can be ramped up or backed down quickly. While hopeful that contracts will reduce some short-term price volatility exposure, IPC acknowledges that long-term exposure is more difficult to address. The price will promote more drilling; but there are other risk factors are also involved: infrastructure including pipeline capacity and storage, weather in the form of a cold winter or bad hurricane season, U.S. Environmental Protection Agency (EPA) regulations, and federal land restrictions relating to drilling access and practices like fracking.

Coal Price Forecast: The price to supply coal for IPC’s three coal plants is more stable than natural gas, in part due to long-term contracts and also because it is not traded. There was a dramatic jump around 2006 to 2008 that was attributed to a significant increase in mining costs. But concerns about a potential coal adder, in the form of cap and trade or a tax of coal is more stable less volatile than natural gas in part due to the fact that it is not traded; – long-term contracts 3 coal plants – coal, transportation, heat rates, costs & rates different at each less volatile, less controversial, significant jump mining costs, diesel, price tends to cluster with other commodities mining costs coal not traded; escalation based on EIA ? stability; dramatic change from 06 08 analysis no reflect stability depends on existing contracts coal plan operation – significant difference last 2 IRPS 09 Cap & Trade 2011 Carbon Adder how treatment regulated tremendous impact use resources, costs

Price will promote more drilling, but other risk factors about short and long-term natural gas supply & price

Risk – with gas know wrong have range is it adequate

Volatility factor

?will U.S. become exporter? Infrastructure, no capability 4-5-6 years

And would need regulatory authority

Lot gas today by-product of oil; price will promote drill gas

Noll – contracts hopefully reduce exposure to shorter term volatility; longer term tougher

Use for wind integration and use gas instead of hydropower – pipeline capacity and storage summer pipeline surplus capacity N & S Mike – weekends especially where put it

Noll resources with ability to ranp up and back down Oregon at this time you have enough flexibility – yes

2 issues: weather (hurricane/cold winter and ? 2) EPA 3)fed lands restrictions on fracking not going to happen

Need gas price to use for Aurora DSM forecasts other

Coal Price Forecast – long-term contracts 3 coal plants – coal, transportation, heat rates, costs & rates different at each less volatile, less controversial, significant jump mining costs, diesel, price tends to cluster with other commodities mining costs coal not traded; escalation based on EIA ? stability; dramatic change from 06 08 analysis no reflect stability depends on existing contracts coal plan operation – significant difference last 2 IRPS 09 Cap & Trade 2011 Carbon Adder how treatment regulated tremendous impact use resources, costs

Carbon Adder - OR IRP Guidelines Environmental costs shall be included in reg comp costs expected for… analyze potential ocsts….0 to $40 sensitivity analysis

Idaho Power Coal Study at request OPUC & IPUC initiated by Oregon final order 2011 IRP IPUC has an interest

Coal identified ti spring to begin study

Planning case – risk vs. reality & probability; congress or administrative;

Economy & natural gas have lowered emissions

Next 8 years probably nothing haven’t lived thru a 20 year planning period prudent to consider range imprudent not to

Odds getting not very good; odds dev rules and regs very good $20 planning will runn model under all 4 scenarios

0 $20 $40 $20 to $140 range

What if still pay coal res, now new res, then back-up to new resources; we pay for 3 resources

System flexible & dynamic to address no extreme positions when happs will be significant to change p??

Looking for starting point. Not too big; don’t wait too long onset /rate of escalation worldwide trajectory about 10% range to get to goal Result

Role of Langley – dispatchched before coal some instances changes conservation, renewables and other cost-effective costs in plan will influence capacity cost

Dispatchable cost

How will carbon tax be used to offset carbon?? Need answer from economic standpoint no outlandish competiveness

Oregon – carbon adder must be meaningful; significant enough to make a difference; carbon reductions en to meet climate change goals intent – flexible current

CIPUC coal study prudent investment to continue operation plans – load & resource balance what get out plants first?

IRp DIFFERENT ASSUMPTIONS WHY

IPC want feedback on #s chosen last spring same IRP as coal study

IPUC 2 10 year periods starting point not impact 1st 10; real question how impact 2nd 10 years; coal adder input not only input

Riskt to utility – reliability – can we react quick ; risk to ratepayer equal credence

Reasonable range uncertainty – congress/taxes or regulations/higher/administration

SNRcarbon adder address env impacts and public health – modeling/politics

Express in monetary terms preferred portfio no longer preferred or not cost

IPC will develop graph and send out with proposal.

Co-gen & Small Power Production Forecast – nameplate 2009 89 projects – 452 MW

2011 101 682 MW 2013 109 831 MW

Wind 27 577 MW

Hydropower: 65 148 MW staple for years 831 MW nameplate

Annual Average 243 in 2013 & 254 in 2015

Put to – no opp turn on or off must operationally manage and plan around

254 in 2015 stays constant; assumes no contract expiration all nrenewed only signed contracts curtailment – history negligible; Richardson 20% wind

Commitmentpieces source most delay

October field trip – note next week caron propert DSM & EE