Generating Resources Advisory Committee
Friday, November 7, 2014
Notes

Meeting Time: 1:00 PM to 2:30 PM
Meeting Location: Northwest Power and Conservation Council and via Webinar
Facilitators: Steven Simmons & Gillian Charles, NW Power and Conservation Council

Attendees: Steve Simmons, Northwest Power and Conservation Council
          Gillian Charles, Northwest Power and Conservation Council
          Jeff King, J.C. King and Associates
          Sima Beitinjaneh, Portland General Electric
          Stefan Brown, Portland General Electric
          Cameron Yourkowski, Renewable NW
          Michael O’Brien, Renewable NW
          Kathleen Newman, Oregonians for Renewable Energy Progress
          Sandra Elverud, Portland General Electric

Attendees: Via Webinar
          Anna Berg, Snohomish PUD
          Luke Hansen, NorthWestern Energy
          Anna Kim, Seattle City Light
          Elizabeth Hossner
          Rick Sterling, Idaho PUC
          Kevin O’Meara, Public Power Council
          Greg Nothstein
          Gurvinder Singh
          Robert Del Mar, Oregon DOE
          Brian Dekiep, Northwest Power and Conservation Council
          Nick Lawton, Lewis and Clark
          Jeff Kugel, PNGC Power
          Leann Bleakney, Northwest Power and Conservation Council
          Bryan Neff, California...
          Ehud Abadi, Bonneville Power Administration
          Rob Petty, Bonneville Power Administration
          Gail Hammer, Bonneville Power Administration
          Larry Stene, Bonneville Power Administration
          Keith Knitter, Grant County PUD
          Sibyl Geiselman, Eugene Water and Electric Board
          Philip DeVol, Idaho Power
          James Gall, Avista
          Zac Yanez, Snohomish PUD
          Kurt Conger, Northwern Wasco PUD
          Angela Tanghetti
          Dave Levee, PwrCast
          Bill Dickens, Tacoma Power
Purpose of Today’s Meeting, Agenda
Note, we can revisit these assumptions between the draft and the final. Main purpose for today is to bring solar PV to a conclusion for the draft.

Assessment timeline
Solar pv changed the most in terms of cost since the Sixth Plan, so we dealt with it early in the Seventh Power Plan process

Definition – LBNL

Phil DeVol - IPUC website has publically available info – levelized cost around $70, $75/MWh
Specific Projects - Grand View – single axis, Boise City – dual axis
Rick Sterling – 11 other projects with signed PPAs, totaling 280 MW, in S. Idaho; one is 30 MW, others are 20MW
Rates in contract - ~$62/MWh, not the costs

Stefan Brown – Installation costs? Steve – wrapped up in capital costs. Stefan – hard costs coming down pretty steadily, soft costs are a big component and who knows how much those will change. It might make sense to track them separately.
PGE engaged consultants on solar – in OR, tracking just doesn’t pencil out for cost reasons. Examined fixed instead.
Steve – we need to be careful and not assume we know more than we do.
Stefan – messaging perspective – break out components

Nick Lawton – working with ETO on survey and benchmark Oregon soft cost – results in December.

SunShot Initiative

Capital Cost Projections
2016-2035
Simmons described meaning of reference plant
Gray – range from collected analysts
Capital costs when they come online –

Estimate of capital costs – 2016 - $2,413


Stefan – levelized cost based on Idaho, not going to work as good for those of us west of the cascades. Steve – focused on best location for the model.

Stefan – if you are using ITC, you are effectively choosing a non-utility owner.

Steve – wide range of levelized cost estimates. A lot of times what is included in terms of a single reported cost is not obvious. Easier comparing capital cost estimate. Tried to make it as transparent as possible what the Council counts in its levelized cost calculation. Purpose to compare generating costs to conservation.

Results today are from IOU.

Questions on property tax, integration costs.


Question on why you can’t just take PPA prices and use those as the levelized costs.

Jeff – reason the building blocks are important. Need to go back to the essentials to apply other assumptions. Steve – past factual data… trying to determine what the future will look like.

Stefan – Transmission. Are you assuming S. ID reference plant is being delivered locally? Until Boardman/Hemingway is built, BPA can’t get to S. ID. You have at least two wheels, until BPA is built and you can have one wheel all the way.

Cameron/Stefan – what is the variable transmission cost? Jeff – mandatory pick-ups in BPA. Stefan – I’ll have to think about that. Cameron – transmission losses? Stefan - Going back to my previous point, if you have to have more than one wheel, you have to have more transmission losses.

Property tax is almost as large a contributor as O&M.

Stefan – no variable transmission costs in BPA. Something to check into.

Big takeaways - ITC calculation and IOU vs IPP Adding in recent Idaho projects to portfolio. Transmission losses and wheels. Annual degradation. Variable transmission costs.

Capital Cost chart – how do people feel about it?

Developable potential – B&V report for S. ID. 700 MW. Send thoughts on that.

Any other comments on the phone?

Cameron – next steps? Steve – we will work through the list. Drop-dead time before January. Work through list until then to get a more refined estimate.