About the September 8 TPP Package

Caveat

Our current modeling is being performed very rapidly, and this "About …" description is being written very rapidly, and it may contain errors. If you read something here that you think isn't what BPA told you in the past – don't blow a gasket yet until you have a chance to find out if the words here are just reflecting the author's misunderstanding of what other BPA internal experts have more definitively stated at other times.

What's New

Compared to previous TPP materials BPA has released or discussed in August and September, the main change is that the total load BPA is forecasting that it will probably have to serve has increased by 161 MW, to a total of 1,374 more than in the rate filing. (In the August 9 Technical Meeting, BPA presented figures for three possible levels of load beyond the assumptions in the rate case – 900, 1200 and 1400. Our current projection is close to the 1400 MW level.)

Running the ToolKit

In order to model the most recent TPP Solution Proposal (3b), the ToolKit needs to read in two RiskMod files. The name for the second one is entered in cell M3. Not all of the runs in this package actually make use of a second RiskMod file, but a valid RiskMod file name still needs to be entered.

Some statistics are calculated in range N19 – R41 on the main ToolKit worksheet – average CRAC $ per year, etc.

Notes on the Runs (the ToolKit files)

NoSlice

The RiskMod file reflects a load assumption that there is no Slice load; Slicers are assumed to take an equivalent quantity of another product, perhaps block. There are, then, no Slicers in this run. The load basis for the CRAC is assumed to be 9,239 MW.

Solution 3b

These runs have a CRAC for Non-Slicers and a parallel method for Slicers. The CRAC for FY 2002 is triggered by the ending 2001 reserves (technically, the Accumulated Net Revenue equivalent of reserves – "reserves" is just an easier way to explain it). It would start in April of 2002 (that's when rates would change). The CRAC for 2003 is triggered by a forecast of ending 2003 reserves, and is designed to deliver 25% of the CRAC revenue cash before the end of 2003. Therefore, it starts in April 2002 also. The CRAC for 2004 – 2006 is parallel to the 2003 CRAC with the exception for 2006 that a CRAC for 2006, starting in April of 2005, would NOT stop after 12 months, but would continue throughout the remainder of 2006.

When the CRAC triggers, the ToolKit wants to collect the difference between the threshold and the forecast of ending reserves (the ToolKit uses a "perfect forecast"). This may need to be scaled back because of the annual cap. The cap itself is scaled back

by the fraction of load that is purchasing Slice, assumed here to be 21.65% (2000 MW out of 9,239). So, an annual cap of $400M translates into an effective annual cap of $400 * (1-.2165) = $313M, all to be collected from Non-Slicers.

Slicers also pay more in CRAC years. In non-CRAC years, they pay 28.3% of the augmentation costs from the rate filing – about 1700 MW at 28.1 mills, more or less. The RiskMod files with "Cap28" in their names do not reflect this – they assume that the Slice customers pay for augmentation according to the formula from the rate filing – a 28.3% share of the full MW quantity of augmentation at 28.1 mills, more or less. So to accommodate this Solution 3b feature, a fixed amount of cash is deducted from each year in the ToolKit that is the difference between current augmentation needs and those assumed in the rate case, valued at 28.1 mills less the PF rate (assumed for simplicity to be 20 mills): 1,374 aMW * ($28.1 - $20) * 8,760 hours * 28.29% = $27.6M. Then in CRAC years, Slicers true up for MW and prices – so they pay the $27.6M plus the difference between 28.1 and the market price for that simulation game on all the augmentation that had not been purchased by August 31, 2000.

Solution 2

These two runs have Slice load, but assume that the Slice customers share in the superCRAC in an equitable but undetermined fashion. The difference between these runs and the NoSlice runs is that Solution 2 is assuming that BPA's nonfirm, balancing purchase costs, NORM risks, etc., have all been reduced by 28.29%.

Reallocation

BPA expects to receive more requests for Slice product than the 2000 MW it has said it will sell. Therefore, it is likely that Slice purchasers will receive an allocation of Slice that is less than they request, and they will also be allocated a quantity of Slice Block. Some customers have indicated that if their allocation is below a specified fraction of their request they would prefer to switch to different products. In that event, the sum of the allocations of Slice that are still desired will total less than 2000 MW. In the "NoReall" scenarios, this allocation is not adjusted. In the "w_Reall" scenarios, the remaining Slice customers are allowed to increase their Slice allocations until the sum of the Slice load is 2000 MW. The net effect of this is to shift 500 from Slice Block to Slice. This reduces BPA's block load, reduces the load from which the CRAC can be collected, reduces BPA's nonfirm and reduces BPA's power purchase risks and several other risks.

80% (or not)

Some ToolKit names have "80%" in them, others don't. The ones that do not have been run with the CRAC threshold set to $825M for 2003 – 2006, and the TPP has been calculated. The ones with "80%" in their names have had the CRAC annual cap adjusted until the TPP was just barely 80% (in $5M increments – that's why some weigh in at 80.2%, for example).

Files

PriorToolKit_090700.xls

This is the ToolKit that represents what is left of the current rate period. In the final 2000 rate case studies, we modeled both FY 2000 and FY 2001 probabilistically; we have now turned off the probabilistic logic for FY 2000. There is still significant uncertainty about the final FY 2000 numbers, but it is so much smaller than that for FY 2001 that turning off the randomness for FY 2000 seems the smaller inaccuracy.

RiskMod files

There are five. One has no Slice load modeled – other forms of PF load, including Slice Block, take up the slack.

The other 4 are all combinations of with and without reallocation and with Slice true-up set at 28.1 or set at the spot price determined game-by-game. S1500 indicates no reallocation; S2000 indicates reallocation of 500 MW of Slice Block back to Slice.

NORM Files

There are two – one is the NORM file from the final 2000 rate case studies; the other has been modified by reducing all of the deviations by 28.29% to reflect the share of those risks absorbed by the Slice customers. This file has "72%" in the name. This file was also used with the no reallocation ToolKit runs, and is a slight mismatch, but the size of the NORM deviations is so small compared to the RiskMod deviations that this mismatch is trivial.

ToolKit Files

See above "Notes on the Runs (the ToolKit files)"

Byrne Lovell-BPA-KP-7 (503) 230-3930 belovell@bpa.gov

September 11, 2000