

## RFP 2012 Credit Security Requirements Methodology

### Methodology Overview

RFP 2012 (includes eligible resources for 2012-2014) selected resources have the potential to expose PacifiCorp and its ratepayers to credit risk in the event a selected Bidder is unable to fulfill its obligations pursuant to the terms of an executed agreement. The credit risk profile is a function of several factors:

1. Type of eligible resource (see Eligible Resource Key at the end of this paper)
2. Size of eligible resource
3. Expected energy delivery start date
4. Term of underlying contract
5. Creditworthiness of Bidder or Bidder's credit support provider

### Acquisition of an Asset

For all resources that involve a physical asset with appropriate step-in rights (resources B3-B7), PacifiCorp views potential credit exposure as the cost it would incur in the event the resource failed to come on-line when expected. PacifiCorp believes it could take up to 12 months to either step in and complete the project or cause the project to be completed on its behalf. If the failure occurred near the expected on-line date, PacifiCorp would have to procure energy in the open market at then-prevailing market prices.

Although it may take up to one additional year to get the resource on-line in the event of a Bidder default, PacifiCorp is most concerned about replacing expected energy during the summer months (June-September), specifically the on-peak hours.

In determining where prices for replacement power might be between contract execution and the replacement period (i.e. the future summer months), PacifiCorp employs standard stochastic analysis to estimate future price levels within a certain confidence interval. Once the "stressed" forward price is determined, the expected cost to procure energy, had the project not been delayed, based on contract terms and conditions is subtracted. The difference between these prices is then multiplied by the number of megawatt hours for the replacement period to estimate the expected replacement cost, or damages, PacifiCorp might sustain due to Bidder nonperformance.

To illustrate, for the 2012 resource the forward price for on-peak power delivered at Mona over the four summer months during 2012 as indicated by the market on June 26, 2006 was \$66.26/MWh. Market-implied volatility of prices for those same delivery months was 37.5%<sup>1</sup> on the same observation date. Using this data, PacifiCorp estimated – with 84% confidence – that prices for that delivery point and replacement period are expected to be no higher than \$155.49/MWh. Subtracting the cost of on-peak power PacifiCorp expects to pay had the resource been operational (e.g. \$66.26/MWh) yields a potential replacement cost to PacifiCorp of \$89.23/MWh, or \$174,185<sup>2</sup> for a 1 MW resource.

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<sup>1</sup> Execution of contracts related to the RFP is expected to occur on June 1, 2007. Therefore, volatility for the 2011 period was used as the best estimate of where volatility levels would be in 2012 as viewed on June 1, 2007.

<sup>2</sup> Assumes 1,952 on-peak hours during June-September 2012.

Using a similar assessment for the 2013 and 2014 resources, the potential credit exposure was estimated to be \$190,574 and \$220,427, respectively, for a 1 MW resource.

### Asset-Backed Agreements

For other eligible resources that are backed by an asset with appropriate step-in rights (resources B1, B2, B8: asset-backed only), PacifiCorp views its potential credit exposure as the cost it would incur in the event the Bidder failed at any time during the life of the contract. However because the resource is backed by an attachable asset, PacifiCorp believes it can have the project operational, or cause to have the project operational on its behalf, within 12-18 months from the date of nonperformance. PacifiCorp acknowledges that the potential for prices to change is greater for this resource group due to the term of the underlying contract but will treat the potential replacement costs the same as asset backed resources B3-B7. PacifiCorp will hold the security for a longer period, however, due to the length of contract related to this resource group.

This discussion of the credit requirements for Power Purchase Agreements (and Tolling Services Agreements) and the Asset Purchase and Sales Agreements assumes, for these credit requirements to be comparably analyzed, that each of these types of agreement is backed by its respective physical asset. In order for this to be the case, the agreements by their terms must put that physical resource behind the agreement, which would include, but not be limited to, the following: allowing PacifiCorp meaningful and actual exercise of step-in rights and a second lien (behind only the project lenders) on the assets and the special purpose entity equity, limiting the amount of leverage on the project by way of a cap on the debt to equity ratio, and other financial covenants for the life of the Power Purchase Agreement (resources B1, B2 and B8).

### Non-Asset Backed Agreements

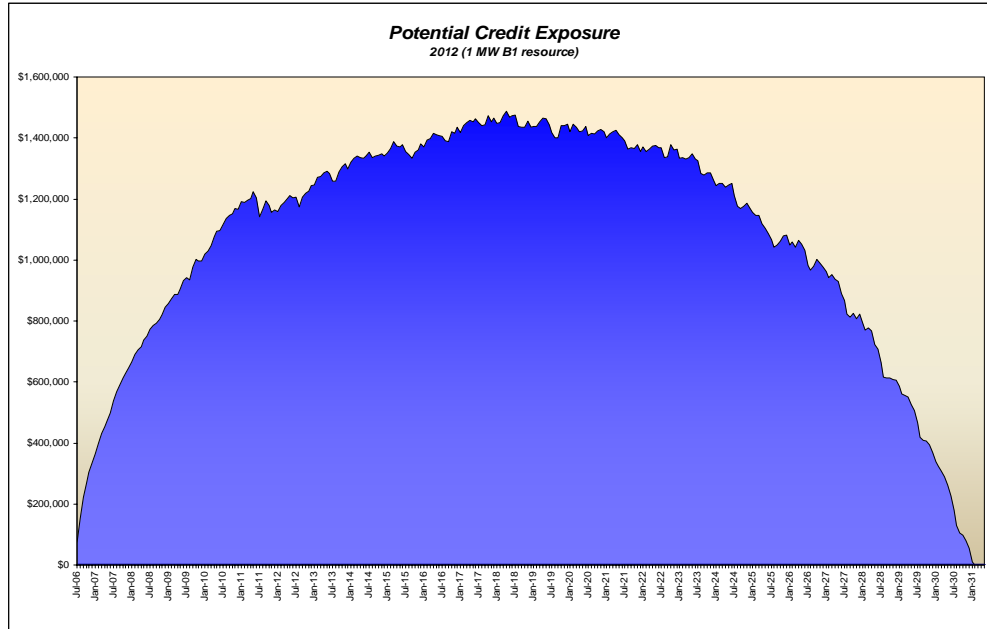
For eligible resources that are not backed by an asset (resources B1, B2, B8, and B9a), PacifiCorp estimates potential credit exposure on not just four summers' worth of replacement volume but on the entire remaining volume at any point a Bidder might default during the term of a contract. PacifiCorp also takes into account the full-time horizon of the contract from contract execution. To estimate potential credit exposure at any possible point of default, PacifiCorp performs a Monte Carlo simulation<sup>3</sup> using a program purchased from a third-party vendor<sup>4</sup> that factors in forward prices, forward price volatility, temporal correlations, and asset correlations. The simulation steps through time, removing delivered volumes from the valuation while revaluing remaining, undelivered volumes. The result is a distribution of potential credit exposures from which PacifiCorp uses those at the 84th percentile.

The following chart shows the potential credit risk profile of a 1 MW, B1 resource for 2012:

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<sup>3</sup> A Monte Carlo simulation incorporates randomness into the revaluation process while mindful of the boundaries imposed by volatility and correlation assumptions.

<sup>4</sup> Risk Capital Management Partners, LLC, acquired by Towers Perrin on June 19, 2006.



For the 2012, 2013, and 2014 resources that are not backed by an asset, the potential credit exposure was estimated to be \$1,488,754, \$1,603,434, and \$1,605,863, respectively, for a 1 MW resource.

### Credit Matrix

Once the potential credit exposures were estimated for all resources, the exposures then were inserted into a series of credit matrices (each a “Credit Matrix”). Each Credit Matrix lists various sizes of resources in 50 MW increments (columns) for each possible credit rating of Bidder or Bidder’s credit support provider (rows). A Credit Matrix for each resource category is shown for each resource year.

Next, PacifiCorp applies its internal credit risk tolerance specific to this RFP to each potential credit exposure in every cell of every Credit Matrix. The results are the amounts of excess credit risk that PacifiCorp requests be secured through third-party guaranties, cash, letters of credit, or other collateral, or combinations thereof.

To interpret a Credit Matrix, a Bidder needs to select the type of resource, the size of the resource, and the year the resource is expected to be operational. Depending on the credit rating of the Bidder or the Bidder’s credit support provider, the value in the specific Credit Matrix represents the maximum value of credit security the Bidder or Bidder’s credit support provider must provide.

Using the Credit Matrix excerpt below for illustration, credit security required for a 550 MW asset purchase and sale agreement for 2012 with a ‘BBB+’ rated Bidder would be \$0 (row 8). If the Bidder was not rated or was rated less than investment grade, the Bidder would be required to provide \$95,801,750 (row 11) in credit security to cover the potential credit exposure. Security could include a third-party guaranty from an investment grade entity but in that event additional security may be required depending on the security amounts listed in the Credit Matrix corresponding to the rating of the guarantor. For instance, if the third-party guarantor was only rated ‘BBB’, PacifiCorp would require a guaranty in the amount of \$75m (\$95,801,750 (row 11)

minus \$20,081,750 (row 9)) from the guarantor and additional security (i.e. a letter of credit) in the amount of \$20,801,750 (row 9) from the Bidder.

Size of Nameplate bid in MW ==>	501-550	
Credit Rating		
AAA/Aaa and above	\$0	row 1
AA+/Aa1	\$0	row 2
AA/Aa2	\$0	row 3
AA-/Aa3	\$0	row 4
A+/A1	\$0	row 5
A/A2	\$0	row 6
A-/A3	\$0	row 7
BBB+/Baa1	\$0	row 8
BBB/Baa2	\$20,801,750	row 9
BBB-/Baa3	\$45,801,750	row 10
Below BBB-/Baa3	\$95,801,750	row 11

In the event the Bidder's credit rating or Bidder's credit support provider's credit rating adversely changes during the contract term, the amount of credit security must be adjusted commensurate with the amounts listed in the Credit Matrix.

#### Posting of Credit Security

For all eligible resources that are backed by an asset that can be attached by PacifiCorp, credit security must be posted in accordance with the following schedule:

Cumulative Value of Credit Security*	2012 Resource	2013 Resource	2014 Resource
10%	Effective Date (ED)	Effective Date (ED)	Effective Date (ED)
20%	ED+6 months	ED+18 months	ED+30 months
30%	ED+12 months	ED+24 months	ED+36 months
40%	ED+18 months	ED+30 months	ED+42 months
100%	ED+24 months	ED+36 months	ED+48 months

\* When the Bidder receives project development financing, 100% of the required credit security is then immediately due, regardless of the deadlines contained in the schedule.

The Effective Date is the date the contract is approved by the Utah Commission or the date the contract is executed by the parties, which ever is later.

A Bidder may select to either post the initial security, which must be in the form of cash or letter of credit only, or alternatively, a Bidder may post the full amount of credit security using *any* form of security acceptable to PacifiCorp (e.g. a third-party guaranty.)

For all other resources, full credit security is due within ten (10) business days after the Effective Date.

Eligible Resource Key:	
B1	Power Purchase Agreements
B2	Tolling Service Agreements
B3	Asset Purchase and Sale Agreements on PPW sites
B4	Asset Purchase and Sale Agreements
B5	EPC Contract for Currant Creek
B6	Purchase of an Existing Facility
B7	Purchase of a portion of a facility jointly owned by or operated by PPW
B8	Restructuring of existing Power Purchase Agreement or Exchange Agreement
B9a	Load Curtailment