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| NPRR Number | XX | NPRR Title | CRR Balancing Account Invoice data cuts |
| Date Posted | 10/XX/2015 |
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| Requested Resolution  | Normal  |
| Nodal Protocol Sections Requiring Revision  | **7.9.3.4 Monthly Refunds to Short-Paid CRR Owners;** **7.9.3.5 CRR Balancing Account Closure****7.9.3.6 Rolling CRR Balancing Account Fund** |
| Related Documents Requiring Revision/Related Revision Requests | **COPMG 8.2(7) and Balancing Account Extract User Guide** |
| Revision Description | Adds the prior month account fund balance CRRBAFBBAL as a new determinant to represent CRRBAF *(m-1)* |
| Reason for Revision |  Addresses current operational issues. Meets Strategic goals (tied to the [ERCOT Strategic Plan](http://www.ercot.com/content/news/presentations/2013/ERCOT%20Strat%20Plan%20FINAL%20112213.pdf) or directed by the ERCOT Board). Market efficiencies or enhancements Administrative Regulatory requirements Other: (explain)*(please select all that apply)* |
| Business Case | The CRR Balancing Account Extract is to provide Market Participants with a prototype of the CRR Balancing Account invoice. Without the prior month balance, the calculation cannot be verified from the month’s extract. The inclusion of the prior month data cut would align Nodal Protocols with the COPMG and the Balancing Account Extract User Guide.  |

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| Sponsor |
| Name | Heather Jo Boisseau on behalf of CSWG |
| E-mail Address | Heather.boisseau@lcra.org |
| Company | Lower Colorado River Authority |
| Phone Number | (512) 578-7952 |
| Cell Number |  |
| Market Segment | Cooperative |

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| --- |
| **Market Rules Staff Contact** |
| **Name** |  |
| **E-Mail Address** |  |
| **Phone Number** |  |

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| Proposed Protocol Language Revision |

**COPMG 8.2 (7)** Settlement details, including the supporting input, intermediate, and output Settlement billing determinants and other data associated with Settlement Statements and Invoices are found in the appropriate Settlements extracts and reports

**EMIL**  The CRR Balancing Account extract includes the monthly calculations used for the CRR Balancing Account Invoice

7.9.3.4 Monthly Refunds to Short-Paid CRR Owners

On a monthly basis, a refund may be paid to the CRR Owners that have a shortfall charge for any Operating Hour in a month. The refund to each CRR Owner for a given month is calculated as follows:

If CRRBACRTOT + CRRFEETOT < CRRSAMTTOT :

CRRRAMT *o* = (-1) \* Min (CRRBACRTOT + CRRFEETOT + CRRBAFA *m*, CRRSAMTTOT) \* CRRSAMTRS *o*

Where:

CRRBAFA *m* = Min(CRRBAFBBAL, CRRSAMTTOT – (CRRBACRTOT + CRRFEETOT))

Otherwise:

CRRRAMT *o* = (-1) \* Min (CRRBACRTOT + CRRFEETOT, CRRSAMTTOT) \* CRRSAMTRS *o*

Where:

CRRBACRTOT = CRRBACR *h*

CRRFEETOT =  (OPTAFAMT *crrh, a*)

If (CRRSAMTTOT = 0)

CRRSAMTRS *o* = 0

Otherwise:

CRRSAMTRS *o* = CRRSAMTOTOT *o* / CRRSAMTTOT

CRRSAMTTOT = CRRSAMTOTOT *o*

CRRSAMTOTOT *o* = DACRRSAMT *o, h*

The above variables are defined as follows:

| Variable | Unit | Definition |
| --- | --- | --- |
| CRRRAMT *o* | $ | *CRR Refund Amount per owner*—The refund to the short-paid CRR Owner *o* for the month. |
| CRRBACRTOT | $ | *CRR Balancing Account Credit Total*—The total of credits accumulated in the CRR Balancing Account for all Operating Hours in the month.  |
| CRRBAFA *m*  | $ | *CRR Balancing Account Fund Available–*The amount available to cover CRR shortfalls from the CRR Balancing Account fund for the month. |
| CRRBAFBBAL | $ | *CRR Balancing Account Fund Beginning Balance*—The amount in the CRR Balancing Account Fund .at the end of the previous month. |
| CRRSAMTTOT | $ | *CRR Shortfall Amount Total*—The total of shortfall charges to all CRR Owners for all Operating Hours in the month. |
| CRRSAMTRS *o* | none | *CRR Shortfall Amount Ratio Share per owner*—The ratio of the CRR Owner *o*’s total shortfall-charge to the total of all the CRR Owners’ shortfall charges, for the month. |
| CRRSAMTOTOT *o* | $ | *CRR Shortfall Amount Owner Total per owner*—The total of shortfall charges to CRR Owner *o* for all Operating Hours in the month. |
| DACRRSAMT *o, h* | $ | *Day-Ahead CRR Shortfall Amount per owner per hour*—The shortfall charge to CRR Owner *o* for its CRRs settled in the DAM for the hour *h*. |
| CRRBACR *h* | $ | *CRR Balancing Account Credit per hour*—The credit to the CRR Balancing Account for the hour *h*. |
| CRRFEETOT | $ | *CRR Auction PTP Option Award Charge Total*—The sum of the PTP Option Award Charges to all CRR Account Holders in single-month or multi-month CRR Auctions for the month. |
| OPTAFAMT *crrh, a* | $ | *PTP Option Award Charge Amount* *per CRR Account Holder per CRR Auction*—The charge assessed to CRR Account Holder *crrh* for PTP Option awards awarded in CRR Auction *a*, for the hour for which the clearing price is less than the defined Minimum PTP Option Bid Price for the month. For a multi-month CRR Auction, the charge shall be calculated for each month. |
| *m* | none | A month. |
| *h* | none | An Operating Hour in the month. |
| *o* | none | A CRR Owner. |
| *crrh* | none | A CRR Account Holder. |
| *a* | none | A CRR Auction |

7.9.3.5 CRR Balancing Account Closure

(1) After the calculation of refunds described in Section 7.9.3.4, Monthly Refunds to Short-Paid CRR Owners, any CRR Balancing Account and CRR Auction PTP Option Award Charge Total in excess of the refunds described in Section 7.9.3.4 will first be used to fund the CRR Balancing Account Fund if the prior month’s CRR Balancing Account Fund Balance is less than the CRR Balancing Account Fund Cap. Any surplus that remains from the CRR Balancing Account and CRR Auction PTP Option Award Charge Total above the CRR Balancing Account Fund cap is paid to the QSEs representing Load Serving Entities (LSEs) based on a monthly Load Ratio Share (LRS). The monthly LRS is the 15-minute LRS calculated for the peak-Load Settlement Interval during the month. The CRR Balancing Account Fund cap is $10 million.

(2) The credit to each QSE representing LSEs for a given month is calculated as follows:

LACRRAMT *q* = (-1) \* Max ((CRRBACRTOT + CRRFEETOT + CRRRAMTTOT) - (FUNDCAP- CRRBAFBBAL),0) \* MLRS *q*

Where:

CRRRAMTTOT = CRRRAMT *o*

The above variables are defined as follows:

| Variable | Unit | Definition |
| --- | --- | --- |
| LACRRAMT *q* | $ | *Load-Allocated CRR Amount per QSE*—The allocated surplus from the CRR Balancing Account and CRR Auction PTP Option Award Charge Total at the end of the month to QSE *q*, based on LRS for the month. |
| CRRBAFBBAL  | $ | *CRR Balancing Account Fund Beginning Balance*—The amount in the CRR Balancing Account Fund at the end of the previous month. |
| FUNDCAP | $ | *CRR Balancing Account Fund Cap*—The threshold amount in the CRR Balancing Account Fund above which funds are available to allocate to QSEs representing Load. |
| CRRBACRTOT | $ | *CRR Balancing Account Credit Total*—The total credit accumulated in the CRR Balancing Account during the month. See its calculation in Section 7.9.3.4. |
| CRRFEETOT | $ | *CRR Auction PTP Option Award Charge Total*—The sum of the PTP Option Award Charges to all CRR Account Holders in single-month or multi-month CRR Auctions for the month. |
| CRRRAMTTOT | $ | *CRR Refund Amount Total*—The total refund to all the previously short-paid CRR Owners at the end of the month. |
| CRRRAMT *o* | $ | *CRR Refund Amount per owner*—The refund credited to the CRR Owner *o* at the end of the month. |
| MLRS *q* | none | *Monthly Load Ratio Share per QSE*—The LRS calculated for QSE *q* for the 15-minute monthly peak-load Settlement Interval. See Section 6.6.2.2, QSE Load Ratio Share for a 15-Minute Settlement Interval, for the calculation of LRS for a 15-minute Settlement Interval. |
| *m* | none | A month. |
| *q* | none | A QSE. |
| *o* | none | A CRR Owner. |

7.9.3.6 Rolling CRR Balancing Account Fund

ERCOT shall establish a rolling CRR Balancing Account fund (CRRBAF) as follows:

(a) The CRRBAF shall be funded beginning in the first month after implementation and every month that the CRR Balancing Account credit exceeds monthly CRR shortfalls.

(b) The CRRBAF calculated for a month shall not exceed the CRR Balancing Account Fund Cap.

(c) The CRRBAF shall refund to LSEs any surplus above the fund cap.

(d) In the event that a resettlement of the CRR Balancing Account is required, the CRRBAF for the resettlement will be calculated using the CRRBAF at the end of the previous month from the date of the resettlement invoice.

(e) The end of the month CRRBAF is calculated as follows:

 **If CRRBACRTOT + CRRFEETOT < CRRSAMTTOT**:

CRRBAF *m* = CRRBAFBBAL - CRRBAFA *m*

**Otherwise if CRRBACRTOT + CRRFEETOT > CRRSAMTTOT and CRRBAF < FUNDCAP:**

**CRRBAF *m* = CRRBAFBBAL + (CRRBACRTOT + CRRFEETOT – CRRSAMTTOT) + LACRRAMTTOT**

Where:

LACRRAMTTOT =  LACRRAMT *q*

The above variables are defined as follows:

| Variable | Unit | Definition |
| --- | --- | --- |
| CRRBACRTOT | $ | *CRR Balancing Account Credit Total*—The total credit accumulated in the CRR Balancing Account during the month. See its calculation in Section 7.9.3.4. |
| CRRFEETOT | $ | *CRR Auction Fee Total*—The sum of the PTP Option Award Fees charged to all CRR Account Holders in single-month or multi-month CRR Auctions for the month. |
| CRRSAMTTOT | $ | *CRR Shortfall Amount Total*—The total of shortfall charges to all CRR Owners for all Operating Hours in the month. |
| CRRBAFBBAL  | $ | *CRR Balancing Account Fund Beginning Balance*—The amount in the CRR Balancing Account Fund at the end of the previous month. |
| CRRBAF *m*   | $ | *CRR Balancing Account Fund Balance*—The amount in the CRR Balancing Account Fund at the end of the current month. |
| CRRBAFA *m*  | $ | *CRR Balancing Account Fund Available*—The amount available to cover CRR shortfalls from the CRR Balancing Account Fund for the month. |
| FUNDCAP | $ | *CRR Balancing Account Fund Cap*—The threshold amount in the CRR Balancing Account Fund above which funds are available to allocate to QSEs representing Load. |
| LACRRAMTTOT | $ | *Load-Allocated CRR Amount Total*—The net total surplus from the CRR Balancing Account and CRR Auction fees at the end of the month. |
| LACRRAMT *q* | $ | *Load-Allocated CRR Amount per QSE*—The allocated surplus from the CRR Balancing Account and CRR Auction fees at the end of the month to QSE *q*, based on LRS for the month. |
| *m* | none | A month. |
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