
NEW YORK POWER AUTHORITY

30 South Pearl Street
10th Floor
Albany, New York 12207-3425

**AGREEMENT FOR THE SALE
OF FIRM AND INTERRUPTIBLE HYDROELECTRIC POWER AND ENERGY FROM
THE ST. LAWRENCE-FDR POWER PROJECT
TO ALCOA INC.**

Service Tariff No. 22 - Schedule of Rates for Sale of Firm and Interruptible
Hydroelectric Power Service

NEW YORK POWER AUTHORITY

**30 South Pearl Street, 10th Floor
Albany, New York 12207-3425**

**AGREEMENT FOR THE SALE OF FIRM AND INTERRUPTIBLE
POWER AND ENERGY TO ALCOA INC.**

Alcoa Inc. ("Alcoa" or "Customer") hereby enters into this Agreement with the New York Power Authority ("Authority" or "NYPA," and collectively with Customer, the "Parties") for the sale of firm and interruptible power and energy for its facilities at 194 County Route 45 ("East Plant") and at Park Avenue East ("West Plant"), Massena, New York 13662 as follows:

WHEREAS, the existing contracts (1) between Customer, f/k/a Aluminum Company of America, and Authority for the sale of 174,000 kilowatts ("kW") of firm power and energy and 65,000 kW of interruptible power and energy by Authority to Customer, and (2) between Customer's Reynolds Metals Company subsidiary ("Reynolds") and Authority for the sale of 200,000 kW of firm power and energy and 39,000 kW of interruptible power and energy by Authority to Reynolds are both set to expire on June 30, 2013; and

WHEREAS, the Parties seek to replace the existing contracts with a single contract that will provide to Customer from the Authority's St. Lawrence-FDR Project 374,000 kW of firm power and energy and 104,000 kW of interruptible power and energy to be used by Customer at both its own facility and its Reynolds facility as it sees fit; and

WHEREAS, such Allocations shall be sold by the Authority to Customer under this Agreement for the Sale of Firm and Interruptible Power and Energy ("Agreement"); and

WHEREAS, such Allocations are subject to the tariffs of the New York Independent System Operator, Inc. ("NYISO");

NOW THEREFORE, the Parties hereto agree as follows:

I. Definitions

- A. Agreement** means this Agreement.
- B. Allocation(s)** means the allocation(s) of Firm and Interruptible Power and Energy to Customer on the terms set forth herein.
- C. Authority** is the New York Power Authority.

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- D. **Contract Demand** will be the amount set forth in Article II or such other amount as may be determined in accordance with the provisions of this Agreement.
- E. **Customer** is Alcoa.
- F. **Electric Service** is Power and Energy sold to Customer in accordance with this Agreement and applicable Service Tariffs and Rules.
- G. **Firm and Interruptible Power and Energy** is power and associated energy from the Project as provided in Service Tariff No. 22, and allocated by Authority for business use as Preservation Power pursuant to Section 1005 (13) of the New York Public Authorities Law ("NY PAL").
- H. **FERC** means the Federal Energy Regulatory Commission (or any successor organization).
- I. **FERC License** means the license issued by FERC to Authority for the continued operation and maintenance of the Project, pursuant to Section 15 of the Federal Power Act.
- J. **Hydro Projects** is a collective reference to the Project (defined below) and Authority's Niagara Project, FERC Project No. 2216.
- K. **NYISO** means the New York Independent System Operator or any successor organization responsible for the transmission and the reliable supply of electricity in the State of New York.
- L. **Project** means Authority's St. Lawrence-FDR Project, FERC Project No. 2000.
- M. **Rate Year** means a twelve (12) month period starting July 1 and ending June 30 for which Electric Service is provided under this Agreement.
- N. **Rebuilding of the East Plant** means the decommissioning of the existing Soderberg smelting technology and facilities at the East Plant, the construction of new prebake smelting technology and facilities at the East Plant, and the addition of new supporting facilities at the West Plant.
- O. **Rules** are the applicable provisions of Authority's Rules and Regulations for Power Service (Part 454 of Chapter X of Title 21 of the Official Compilation of Codes, Rules and Regulations of the State of New York) as they are modified from time to time.
- P. **Service Tariffs** are schedules or tariffs of Authority establishing rates and other conditions for sale of Electric Service to Customer, including Service Tariff No. 22 as it may be modified from time to time, except as noted herein.

- Q. Unforced Capacity** shall have the same meaning as set forth in the NYISO Market Services Tariff, as it may be modified from time to time.

II. Electric Service to be Provided

- A. Contract Demands.** Authority shall provide Electric Service pursuant to Service Tariff No. 22 ("ST-22") for Power and/or Energy to enable the Customer to receive its Allocation of Firm and Interruptible Power from the Project, in the amounts set forth below:

374,000 Kilowatts of Firm Power

104,000 Kilowatts of Interruptible Power

Which amounts shall be the Contract Demands.

As part of the Allocation, Authority shall provide Unforced Capacity in amounts necessary to meet Customer's NYISO Unforced Capacity obligations associated with the foregoing allocations of Firm and Interruptible Power and Energy in accordance with the rules and tariffs of the NYISO. Neither Ancillary Services (as defined in the rules and tariffs of the NYISO), nor "green" attributes or renewable energy credits (collectively referred to herein as "RECs," as may be hereinafter defined and as modified from time to time by the New York State Public Service Commission or other agency having jurisdiction over such matters) are included in such Allocation. Authority retains for its own use and benefit any such RECs associated with that portion of the Project that supports the Allocation; provided, however, that: (1) should Customer be required by federal or state law, rule or regulation to secure RECs in connection with the operation of the East and/or West Plants; and (2) such RECs are deemed transferable under applicable federal or state law, rule or regulation, then Authority shall make available such RECs to Customer on a basis consistent with the policies adopted by Authority's Trustees for all similarly situated customers.

- B. Delivery Points.** At 115,000 Volts at the points of interconnection of Customer's transmission lines to the Barnhart Island Switchyard of Authority at the West Plant, Massena, New York and at 13,800 Volts at the low side of Authority's stepdown substation at the East Plant and/or at 115,000 Volts at the East Plant, Massena, New York, or at such other points and voltages as agreed between Customer and Authority.
- C. Reduction of Contract Demands.** The foregoing Contract Demands may be reduced by Authority (i) in accordance with Schedule A for failure to meet Capital Investment, Employment or Power Utilization Commitments, or (ii) if the amount of Firm and/or Interruptible Power and Energy available for sale from the Project is reduced as required to comply with any unstayed ruling, order or decision of any

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regulatory or judicial body of competent jurisdiction. Any such reduction in the Contract Demand shall be in proportion to the overall reduction in the aggregate contract demands of hydroelectric customers sold by Authority from the Project; provided, however, that in the case of (ii), Customer's Employment Commitment shall be revised in a proportionate manner for the duration of the reduction to reflect the reduction in Contract Demand.

- D. Authority and Customer shall cooperate in any relocation or installation of transformers or other related facilities servicing Customer's plants that either Party reasonably deems necessary or desirable. The costs of any such relocation or installation shall be the responsibility of Customer, except in cases where Authority seeks the relocation or installation; provided however, that Authority will, if requested by Customer, consider in good faith whether its other customers receive any substantial benefit from such relocation or installation. If NYPA determines that such substantial benefits exist, it shall negotiate in good faith with Customer regarding an alternative funding arrangement. In any event, NYPA shall not be obligated to agree upon an alternative funding arrangement.
- E. In the event that Customer is unable to use a portion of its Contract Demand, Authority will if requested use commercially reasonable efforts to resell the Unforced Capacity associated with the unused portion of the Allocation into the NYISO-administered markets to the extent permitted under the NYISO's tariffs and rules. Such proceeds to Authority (if any) exclusive of any energy-related proceeds associated therewith shall be credited against Customer's Billing Demand obligation.

III. Firm and Interruptible Power Commitments

Schedule A to this Agreement entitled "Capital Investment, Employment, Power Utilization Commitments and North Country Economic Development Fund" is attached to and made a part of this Agreement ("Schedule A").

IV. Rules, Regulations and Service Tariffs

The Rules and the Service Tariffs are hereby incorporated into this Agreement with the same force and effect as if herein set forth at length. In the event of any inconsistencies, conflicts or differences between the provisions of the Service Tariffs and the Rules, the provisions of the Service Tariffs shall govern. In the event of any inconsistencies, conflicts or differences between the provisions of this Agreement and the Service Tariffs, the provisions of this Agreement shall govern. Except as may be provided under Section V.G., below, Authority shall provide at least sixty (60) days prior written notice to Customer of any proposed change in the Rules or Service Tariffs, but in no event shall Authority provide less notice than that provided to similarly affected customers within New York State.

V. Power and Energy Rates, Pricing Adjustments, Other Charges and Bond Covenant

- A. Base Rates and Annual Adjustment Factor: Power and energy associated with the Allocation shall be sold to Customer hereunder at base rates determined in accordance with ST-22 attached hereto, subject to the following provisions:
1. For the first Rate Year under this Agreement (July 1, 2013 through June 30, 2014), the base rates shall be the base production charge for demand and energy made effective in ST-22, and except as may be provided in Section V.G. below, shall not be changed on or before July 1, 2013.
 2. Effective on the Rate Year commencing July 1, 2014 and on the start of each succeeding Rate Year through the end of this Agreement, the base rates shall be adjusted by applying an Annual Adjustment Factor to the base rates for the current Rate Year. In each case, the base rates, as so adjusted, will be applicable for the succeeding twelve (12) months ("Contract Year").
 3. The Annual Adjustment Factor will be based upon a weighted average of three indices described below. For each Contract Year, the index value for the latest available calendar year ("Index Value for the Measuring Year") will be compared to the index value for the calendar year immediately preceding the latest available calendar year (the Index Value for the Measuring Year - 1"). The change for each index will then be multiplied by the indicated weights. As described in detail below, these products are then summed, producing the Annual Adjustment Factor. The Annual Adjustment Factor will be multiplied by the base rate for the current Rate Year to produce the base rates for the Contract Year, subject to a maximum adjustment of +/-2.2%.

Index 1, "BLS Industrial Power Price" (35% weight): The average of the monthly Producer Price Index ("PPI") for Industrial Electric Power, Bureau of Labor Statistics ("BLS") Series ID WPU0543, not seasonally adjusted, as reported by the U.S. Department of Labor, BLS electronically on its internet site and consistent with its printed publication, "Producer Price Index Detailed Report". For Index 1, the Index Value for the Measuring Year will be the index for the calendar year immediately preceding July 1 of the Contract Year.

Index 2, "EIA Average Industrial Power Price" (40% weight): The average weighted annual revenue per kWh for electric sales to the industrial sector in the ten states of CT, MA, ME, NH, NJ, NY, OH, PA, RI and VT ("Selected States") as reported by Coal and Electric Data and Renewables Division; Office of Coal, Nuclear, Electric and Alternate Fuels; Energy Information Administration ("EIA"); U.S. Department of Energy Form EIA-861 Final Data File. For Index 2, the Index Value for the Measuring Year

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will be the index for the calendar year two years preceding July 1 of the Contract Year.

Index 3, "BLS Industrial Commodities Price Less Fuel" (25% weight): The monthly average of the PPI for Industrial Commodities less fuel, BLS Series ID WPU03T15M05, not seasonally adjusted, as reported by the U.S. Department of Labor, BLS electronically on its internet site and consistent with its printed publication, "Producer Price Index Detailed Report". For Index 3, the Index Value for the Measuring Year will be the index for the calendar year immediately preceding July 1 of the Contract Year.

Annual Adjustment Computation Guide and Sample Computation:

- Step 1: For each of the three Indices, divide the Index Value for Measuring Year by the Index Value for the Measuring Year-1.
- Step 2: Multiply the ratios determined in Step 1 by percentage weights for each Index. Sum the results to determine the weighted average. This is the Annual Adjustment Factor.
- Step 3: Multiply the current Rate Year base rate by the Annual Adjustment Factor calculated in Step 2 to determine the adjusted base rate.
- Step 4: Determine if the adjusted base rate is within +/- 2.2% of the current Rate Year base rate. Apply the maximum adjustment as appropriate to determine the Contract Year base rate.

The foregoing calculation shall be performed by Authority consistent with the sample presented in Appendix A to this Agreement.

Authority shall provide Customer with notice of any adjustment to the current base rate per the above and with all data and calculations necessary to compute such adjustment by June 15th of each year to be effective on July 1 of such year, commencing in 2014. The values of the latest officially published (electronically or otherwise) versions of the indices and data provided by the BLS and EIA as of June 1 shall be used notwithstanding any subsequent revisions to the indices.

If during the term of the Agreement any of the three above indices ceases to be available or ceases to be reflective of the relevant factors or of changes which the indices were intended by the Parties to reflect, Customer and Authority shall mutually select a substitute Index. The Parties agree to mutually select substitute indices within 90 days, once notified by the other party that the indices are no longer available or no

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longer reflect the relevant factors or changes with the indices were intended by the Parties to reflect. Should the 90-day period cover a planned July 1 rate change, the current base rates will remain in effect until substitute indices are selected and the adjusted rates based on the substitute indices will be retroactive to the previous July 1. If unable to reach agreement on substitute indices within the 90-day period, the Parties agree to substitute the mathematic average of the PPI--Intermediate Materials, Supplies and Components (BLS Series ID WPUSOP2000) and the PPI--Finished Goods (BLS Series ID WPUSOP3000) indices for one or more indices that have ceased to be available and shall assume the percentage weighting(s) of the one or more discontinued indices as indicated in this Section III.A.3.

4. No subsequent amendment to ST-22 shall affect the determination of the base rates, including all annual adjustments, as described herein.

B. London Metals Exchange ("LME") Adjustment: Based on the quarterly average "cash buyer" price for aluminum on the London Metals Exchange ("LME Reference Price"), Customer may be subject to a quarterly adjustment ("LME Adjustment Rate"). For each \$100 increment, including any fraction thereof, above the LME Reference Price of \$2000, a LME Adjustment Rate will be applied to the Customer's quarterly energy consumption. The LME Adjustment Rate will be determined using the schedule of rates described below (all ranges expressed in 2008 dollars):

1. From \$2000 to and including \$2200, the adjustment rate will be \$1.25 per MWh.
2. From \$2201 to and including \$2500, the adjustment rate will be \$1.50 per MWh.
3. From \$2501 to and including \$2800, the adjustment rate will be \$2.00 per MWh.
4. From \$2801 and above, the adjustment rate will be \$3.00 per MWh.

The rates in the above categories are additive so that, for example, if the LME Reference Price is in category 2 for a given quarter, the Customer's LME Adjustment Rate will be sum of (a) \$1.25/MWh times the portion of the LME Reference Price in category 1, and (b) \$1.50/MWh times the portion of the LME Reference Price in category 2.

The price ranges noted above will be adjusted each quarter beginning in the third quarter of 2008 based on the following combination of indices noted below, subject to a maximum adjustment of (a) 0.625% per quarter; and (b) 2.5% for each rolling 12 month period measured each quarter:

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- Basket of indices used to determine the Annual Adjustment Factor as described herein used determine the base rates for the Contract Year (50% weight; for 2013, NYPA will calculate an Annual Adjustment Factor in the same manner as that which will apply July 1, 2014 and each year thereafter);
- PPI--Finished Goods (BLS Series ID WPUSOP3000), as reported by U.S. Department of Labor, BLS (50% weight).

The first calculation to determine if an LME Adjustment Rate applies will be performed following the first quarter of Electric Service under the Agreement (September 30, 2013) and will reflect previous adjustments, beginning with the third quarter of 2008. A sample calculation illustrating the LME Adjustment is shown in Appendix B to this Agreement.

The LME Adjustment (if any) will be billed on or about the first day of the second month following the end of the quarter for which the LME Adjustment is calculated, and payable in equal increments over three billing periods.

- C. At all times the applicable rates for power and energy associated with this Allocation determined in accordance with Sections V.A. and V.B. above (the "Adjusted Rates"), shall be no lower than the rates charged by Authority for the sale of hydroelectricity for the benefit of rural and domestic customers receiving service in accordance with the Niagara Redevelopment Act, 16 U.S.C. § 836(b)(1) and NY PAL § 1005(5) (the "Rural/Domestic Rate"). This provision shall be implemented as follows: if the rates determined in accordance with Section V.A. above only, i.e., exclusive of the LME Adjustments under Section V.B. above, are lower than the Rural/Domestic Rate on an average \$/MWh basis, then the base rates determined under Section V.A. above will be revised to make them equal to the Rural/Domestic Rate on an average \$/MWh basis; provided, however, the base rates as so revised will have no effect until such time as the Adjusted Rates are lower than the Rural/Domestic Rate.
- D. Customer agrees to compensate Authority for all transmission costs incurred as set forth in ST-22. Such charges or costs shall be in addition to the charges for power and energy.
- E. Customer understands that delivery of the Allocation will be made over transmission facilities under the control of the NYISO, including those owned by Customer. Unless Customer provides Authority sixty (60) days written notice otherwise, Authority will act as the Load Serving Entity ("LSE") with respect to the NYISO, or arrange for another entity to do so on its behalf. Customer agrees and understands that it shall be responsible to Authority for all costs incurred by Authority with respect to the Allocation for the services established in the NYISO's applicable tariffs, as set forth in ST-22, whether or not such charges are

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transmission-related. Such charges or costs shall be in addition to the charges for power and energy.

- F. To the extent Authority incurs any taxes, assessments or other charges imposed by third parties associated with or attributable to the Allocation, Customer agrees to compensate Authority for all such costs incurred as set forth in ST-22. Such charges or costs shall be in addition to the charges for power and energy.
- G. Notwithstanding any provision of this Agreement to the contrary, the power and energy charges shall be subject to increase by Authority at any time upon 30 days prior written notice to Customer if, after consideration by Authority of its legal obligations, the marketability of the output or use of the Project and Authority's competitive position with respect to other suppliers, Authority determines in its discretion that increases in rates obtainable from any other Authority customers will not provide revenues, together with other available Authority funds not needed for operation and maintenance expenses, capital expenses, and reserves, sufficient to meet all requirements specified in Authority's bond and note resolutions and covenants with the holders of its financial obligations. Authority shall use its best efforts to inform Customer at the earliest practicable date of its intent to increase the power and energy charges pursuant to this provision. Any rate increase to Customer under this subsection shall be on a non-discriminatory basis as compared to other Authority customers after giving consideration to the factors set forth in the first sentence of this subsection. With respect to any such increase, Authority shall forward to Customer with the notice of increase, an explanation of all reasons for the increase, and shall also identify the sources from which Authority will obtain the total of increased revenues and the bases upon which Authority will allocate the increased revenue requirements among its customers. Any such increase in rates shall remain in effect only so long as Authority determines such increase is necessary to provide revenues for the purposes stated in the preceding sentences.
- H. Notwithstanding any provision of this Agreement to the contrary, to the extent that capital expenditures exceeding \$75 million in 2008 dollars for a single capital project not reasonably foreseen at the time this Agreement is executed and which are not sustaining capital are required at the Project and which project will be completed during the term of this Agreement, Authority may on sixty (60) days' notice to Customer increase the rates established under this Agreement by allocating to Customer a pro rata share on the basis of Customer's Contract Demand and the Contract Demand of all customers supplied from the Project of the costs associated with such capital expenditures. For avoidance of doubt, this provision is not applicable to capital expenditures not reasonably foreseen and made during the term of this Agreement to sustain Authority's operations by installing or upgrading equipment using mostly incrementally improved technology, including repair and maintenance, and replacement items such as spare parts. Within thirty (30) days of the imposition of any such rate increase,

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Authority shall provide Customer a report and necessary workpapers documenting the required capital expenditures.

VI. Curtailments, Interruptible Power and Substitute Energy

- A. Firm Power and Energy. If hydraulic or hydrological conditions affecting the Hydro Projects require Authority to curtail the amount of Firm Power and Energy provided to Customer under this Agreement to an amount below such normal level, reductions shall be applied to all the firm power customers served from the Hydro Projects, including Customer, in proportion to their relative allocations of Firm Power and Energy from the Hydro Projects. Reductions as a percentage of the otherwise required Power and Energy deliveries will be the same for all firm Authority hydropower customers served from the Hydro Projects. Customer will receive appropriate bill credits as provided under the Rules.

If, on the basis of reports received from Authority on hydrological conditions, Customer anticipates a curtailment of Firm Power and Energy lasting six (6) months or longer and reasonably believes that both plants cannot be economically operated, Customer shall have the option of reducing Contract Demand to as low as 239,000 kW of Firm Power and Energy for up to two (2) years, or until operations at the second plant are restarted, if sooner. Terms and conditions of such restart, including the ramping up of Contract Demand, will be subject to mutual agreement between the Parties. The Parties agree that the operation of both Customer plants is desirable, and will work together towards that end.

- B. Interruptible Power and Energy. Interruptions will be based on the daily measurement of the 7-day rolling average net generation at the Hydro Projects. The threshold value for interruption will be average hourly net generation below 2250 megawatt-hours per hour. Authority will provide Customer with two (2) business days' notice of interruptions, including a list of NYPA holidays. With respect to the notice discussed in this subsection and for other notices related to generation levels at the Hydro Projects, the document "NIA & STL Generation and DAM Scheduling for Alcoa and Reynolds, Hydro Notification Procedures ("Notification Procedures"), as it may be modified from time to time by agreement between the Parties, shall apply.
- C. Upon written request by the Customer, Authority will provide Substitute Energy to the Customer to replace the hydroelectricity that would otherwise have been supplied.
1. Billing for Substitute Energy. For each kilowatt-hour of Substitute Energy so supplied by Authority, the Customer will pay Authority directly the difference between the average wholesale cost (including any transmission costs) incurred by Authority for supplying the Substitute Energy to the Customer during the

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billing month and the energy charge in ST-22 (the Difference). Billing and payment for Substitute Energy shall be governed by the Billing and Payments provision of Section 454.6 of the Rules and shall apply directly to the Substitute Energy service supplied to the Customer.

2. Substitute Energy Provision Effect on Contract. All other provisions of the Agreement shall continue in effect with Substitute Energy being delivered in the same manner as would have otherwise been the case. The provision of Substitute Energy may be terminated by Authority or the Customer on fifteen (15) days' prior written notice.

VII. Billing

Authority shall render bills for power and energy and any other costs incurred by Authority on behalf of Customer by the 10th business day of the month for charges due for the previous month. Such bills shall include the NYISO Charges (as defined in Authority's ST-22) associated with the Allocation, subject to later adjustment consistent with any later NYISO re-billings to Authority.

VIII. Term, Termination of Service and Early Termination

Service under the Agreement shall commence on July 1, 2013 and continue until the earliest of (a) termination by Authority pursuant to Part 454 of the Rules upon required notice, or (b) June 30, 2043. Authority may cancel service hereunder or modify the quantities of power and energy associated with the Allocation only (a) if such cancellation or modification is required to comply with any unstayed ruling, order or decision of any regulatory or judicial body of competent jurisdiction (including any licensing or re-licensing order or orders of the FERC or its successor agency), or (b) as otherwise provided herein or in the Rules.

Notwithstanding the foregoing, if Customer (a) fails to complete a detailed engineering study of its proposed Rebuilding of the East Plant by January 29, 2010, (b) fails to approve the expenditure of at least \$600 million for the Rebuilding of the East Plant, or (c) if having completed such detailed engineering study and approved the expenditure of at least \$600 million for the Rebuilding of the East Plant, then fails to invest such funds, Authority may terminate this Agreement immediately upon ninety (90) days' written notice. Provided it has approved the expenditure of at least \$600 million for the Rebuilding of the East Plant as discussed in this paragraph, Customer agrees to diligently and in good faith complete the capital investments in a timely manner and on the schedule to be provided to Authority upon completion of the detailed engineering study, all in compliance with Schedule A of this Agreement.

Notwithstanding the foregoing, and in the event the Agreement is not otherwise terminated and Customer is not in default, the Customer will have the option to extend the Agreement, upon the same terms, for an additional ten (10) years

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commencing July 1, 2043 and ending on June 30, 2053, if the difference between the annual LME “cash buyer” price (defined using a 12-month rolling average) and the numbers of curtailed days, as calculated on Appendix C to this Agreement for the period July 1, 2013 through June 30, 2039, is less than zero. Alcoa shall exercise such option in writing no later than December 31, 2040. The escalator used to adjust nominal LME prices back to 2008 dollars will be PPI—Finished Goods (U.S. Department of Labor, BLS Series ID WPUSOP3000). The LME Variable defined and used in Appendix C will be a function of the total capital expenditures that Customer makes in both the East Plant and West Plant as part of the modernization of East Plant (“Modernization Capital Expenditures”). Customer agrees to maintain all documentation that supports the Modernization Capital Expenditures that Customer invests in these facilities, including both the planned investment and the actual investment, and to provide Authority such documentation upon request. When calculating the total Modernization Capital Expenditures for the purposes of determining the LME Variable (2008\$) to be used in Appendix C, Customer and Authority will use the planned capital expenditures and not the actual capital expenditure; planned capital expenditures are defined as the authorized capital expenditure that Customer management approves using its standard approval policies when a project is released for construction and will not include project cost over-runs.

Notwithstanding any other provision of this Agreement to the contrary, Customer may, for any reason, permanently reduce or terminate service at any time on written notice given to Authority no less than one year in advance.

IX. Notification

Correspondence involving the administration of this Agreement shall be addressed as follows:

To: Authority

Director -- Marketing Analysis and Administration
New York Power Authority
123 Main Street
White Plains, NY 10601

To: Customer

Alcoa Inc.
Attention: Vice President -- Energy
390 Park Avenue
New York, NY 10022-4608

X. Applicable Law

This Agreement shall be governed by and construed in accordance with the laws of the State of New York to the extent that such laws are not inconsistent with the FERC License.

XI. Successors and Assigns, No Resale of Allocation

This Agreement shall be binding upon, shall inure to the benefit of, and may be performed by, the legal successors and assigns of either Party hereto; provided, however, that no assignment by either Party or any successor or assignee of such Party of its rights and obligations hereunder shall be made or become effective without the prior written consent of the other Party, which the other Party shall grant or refuse in writing within ninety (90) days of a written request for assignment by the first Party. Subject to approval by Authority, and acceptance of all provisions of this Agreement by any assignee, any assignment of this Agreement by Customer shall only be to another entity that will utilize the Allocations for the same purposes and same location as such Allocations are utilized by Customer. If Customer is unable to or does not use any portion of its Allocations for any period of time, in addition to any remedies available to Authority under Schedule A (Capital Investment, Employment, Power Utilization Commitments and North Country Economic Development Fund) any such unused Power and/or Energy (and all rights attendant thereto) shall revert to Authority for its exclusive use until utilized by Customer and Customer shall have no right to sell, transfer, assign, monetize or otherwise use such unutilized power and energy.

XII. Supplementary Provision

Section 454.2(c) of the Rules is inapplicable to this Agreement.

XIII. Previous Agreements and Communications

This Agreement shall constitute the sole and complete agreement of the Parties hereto with respect to the sale, transmission and delivery of the Allocation and supersedes all previous communications between the Parties hereto, either oral or written, with reference to said Allocation. No modifications of this Agreement shall be binding upon the Parties hereto or either of them unless such modification is in writing and is signed by a duly authorized officer of each of them.

XIV. Severability and Voidability

If any term or provision of this Agreement shall be invalidated, declared unlawful or ineffective in whole or in part by an order of the FERC or a court of competent

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jurisdiction, such order shall not be deemed to invalidate the remaining terms or provisions hereof.

Notwithstanding the preceding paragraph, if any provision of this Agreement is rendered void or unenforceable or otherwise modified by a court or agency of competent jurisdiction, the entire Agreement shall, at the option of either Party and only in such circumstances in which such Party's interests are materially and adversely impacted by any such action, be rendered void and unenforceable by such affected Party.

XV. Effectiveness of Agreement

This Agreement shall become effective upon execution by both Parties.

AGREED:

ALCOA INC. (CUSTOMER)

BY: _____

Title: _____

Date: _____

(Seal)
Attest by: _____

AGREED:

NEW YORK POWER AUTHORITY

BY: _____

Title: _____

Date: _____

(Seal)
Attest by: _____

Schedule A
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**CAPITAL INVESTMENT, EMPLOYMENT, POWER UTILIZATION COMMITMENTS
AND NORTH COUNTRY ECONOMIC DEVELOPMENT FUND**

I. Capital Investment

Customer's Board of Directors shall take action on the investment of at least \$600 million in the Rebuilding of the East Plant by January 29, 2010. Customer shall provide Authority with the construction schedule (which shall include a projected "completion date") within 10 days of the issuance of such notice to proceed, and construction shall begin prior to June 30, 2011. Customer shall be required to provide Authority with detailed reports of the construction process on a monthly basis, or as otherwise mutually agreed.

If:

- A. The completion date of the Rebuilding of the East Plant is delayed by more than six (6) months for reasons reasonably within the control of Customer and assurances reasonably acceptable to Authority are not provided; or
- B. If at any time, construction activity at the site of the East Plant is not active and continuous and there is no reasonable prospect of completion of the Rebuilding of the East Plant; or
- C. Customer publicly announces its intention to abandon the Rebuilding of the East Plant or otherwise informs Authority that it plans to permanently discontinue construction activities,

then this Agreement may be terminated immediately by Authority upon ninety (90) days written notice.

II. Employment Commitment

A. Employment Levels.

The provision of Firm and Interruptible Power to Customer hereunder is in consideration of Customer's creation and/or maintenance of the employment level set forth in Appendix 1 of this Schedule (the "Base Employment Level"). Such Base Employment Level shall be the number of full-time positions held by employees of the Customer at the facilities identified in such Appendix 1, and shall not include part-time employees (less than 35 hours per week); provided, however, that two part-time

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employees each working 20 hours per week or more shall be counted as one full-time employee.

The Base Employment Level shall not be created or maintained by transfers of employees from previously held and then eliminated positions with the Customer or its affiliates within the State of New York, except that the Base Employment Level may be filled by employees of the Customer laid off from other Customer facilities for bona fide economic or management reasons.

B. **Employment Records and Reports.**

A record shall be kept monthly by the Customer, and provided on a calendar year basis to Authority, of the total number of employees at Customer's facilities identified in Appendix 1, as reported to the United States Department of Labor (or as reported in such other record as agreed upon by Authority and the Customer). Such report shall be certified to be correct by the plant manager or such other person authorized by the Customer to prepare and file such report and shall be provided to Authority on or before the last day of February following the end of the most recent calendar year. Authority shall have the right to examine and audit on reasonable advance written notice all non-confidential written and electronic records and data concerning employment levels including, but not limited to, personnel records and summaries held by the Customer and its affiliates relating to employment in New York State.

III. Reductions of Contract Demand

A. **Employment Levels.**

If the year-end monthly average number of employees is less than 95% of the Base Employment Level set forth in this Schedule A, for the subject calendar year and is not temporary in nature and being actively addressed by Customer, the Contract Demand may be reduced by Authority subject to Paragraph III.C of this Schedule. The maximum amount of reduction will be determined by multiplying the Contract Demand by the quantity one minus the quotient of the average monthly employment during the subject calendar year divided by the Base Employment. Temporary decreases in employment resulting from production curtailment due to prolonged firm and/or interruptible power curtailment by Authority shall not be counted for the purpose of this provision. Any such reduction shall be rounded to the nearest fifty (50) kW. In the event of a reduction of the

Schedule A
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Contract Demand to zero, this Agreement shall automatically terminate.

Customer shall provide Authority with 3 months notice of any anticipated, significant reduction in employment at either its East Plant or West Plant of at least 6 months duration.

B. Power Utilization Levels.

A record shall be kept monthly by the Customer, and provided on a calendar year basis to Authority on or before the last day of February following the end of the most recent calendar year, of the maximum demand utilized each month in the facilities receiving the power covered by this Agreement. If the average of the Customer's six (6) highest Billing Demands is less than 95% of Customer's Contract Demand in such calendar year, adjusted for prolonged firm and/or interruptible power curtailment by Authority, Authority may reduce the Contract Demand. The maximum amount by which Authority may reduce the Contract Demand shall be determined by multiplying the Contract Demand by the quantity one minus the quotient of the average of the six (6) highest Billing Demands in such calendar year divided by the Contract Demand. Any such reduction shall be rounded to the nearest megawatt. If the Contract Demand is reduced to zero, this Agreement shall automatically terminate.

C. Notice of Intent to Reduce Contract Demand.

In the event that Authority determines that the Contract Demand will be wholly or partially reduced as provided above, at least ninety (90) days prior written notice of such reduction shall be given to the Customer, specifying the amount of the reduction of Contract Demand and the reason therefore provided, however, that before making the reduction, Authority may consider Customer's scheduled or unscheduled maintenance or facilities upgrading periods when such events temporarily reduce plant employment levels or electrical demand as well as business cycle.

IV. North Country Economic Development Fund

Customer shall capitalize a \$10 million North Country Economic Development Fund ("NCEDF") within ninety (90) days of the date upon which its Board of Directors approves the Rebuilding of the East Plant. The NCEDF will be exclusively used for economic development purpose in St. Lawrence County, Franklin County, Essex County, Jefferson County, Lewis County, Hamilton County, Herkimer County and the

Schedule A

Draft; For public hearing

Akwasasne Mohawk Reservation. Disbursements from this fund will be made public on a quarterly basis or more frequently as may be required by law then in effect. The NCEDF will be jointly administered by NYPA and an entity of or specified by the State of New York.

**APPENDIX 1
of SCHEDULE A**

Base Employment Level

In accordance with Article II of this Schedule A and as shown in the table below, the Customer agrees to a job commitment of 1,065 jobs beginning in 2008, to be no less than 900 over the term of the Agreement, located at the existing West Plant and the re-built East Plant, each in Massena, New York or otherwise located in St. Lawrence County, New York and shall include annual job reporting by Customer to Authority.

<u>Years</u>	<u>Labor Commitment</u>
2008-13	1,065
2014-20	1,050
2021-25	1,000
2026-36	950
2037-42	900

Appendix A

**Sample Computation for Annual Adjustment Factor
(hypothetical values for July 1, 2014 implementation)**

Step 1. Determine the Index Value for the Measuring Year and Measuring Year - 1 for Each Index.

Index 1.

PRODUCER PRICE INDEX - INDUSTRIAL POWER		
	Measuring Year (2013)	Measuring Year - 1 (2012)
January	171.2	167.8
February	172.8	167.6
March	171.6	168.2
April	173.8	168.6
May	175.1	171.6
June	185.7	180.1
July	186.4	182.7
August	184.7	179.2
September	185.5	181.8
October	175.5	170.2
November	172.2	168.8
December	171.8	166.6
Average	177.2	172.8
Ratio of MY/MY-1		1.03

Index 2.

EIA INDUSTRIAL RATE				
STATE	REVENUES (\$000)	SALES MWh	AVG. RATE (cents/kwh)	
<u>Measuring Year (2012)</u>				
CT	590,972	6,814,757		
MA	1,109,723	13,053,806		
ME	328,594	4,896,176		
NH	304,363	2,874,495		
NJ	1,412,665	15,687,873		
NY	2,001,588	26,379,314		
OH	3,695,978	78,496,166		
PA	3,682,192	63,413,968		
RI	152,533	1,652,593		
VT	155,903	2,173,679		
TOTAL	13,434,511	215,442,827		6.24
<u>Measuring Year -1 (2011)</u>				
CT	579,153	6,678,462		
MA	1,076,431	12,662,192		
ME	310,521	4,626,886		
NH	298,276	2,817,005		
NJ	1,370,285	15,217,237		
NY	1,891,501	24,928,452		
OH	3,622,058	76,926,243		
PA	3,571,726	61,511,549		
RI	144,144	1,561,700		
VT	152,785	2,130,205		
TOTAL	13,016,880	209,059,931		6.23
Ratio of MY/MY-1				1.00

Index 3.

PRODUCER PRICE INDEX - INDUSTRIAL COMMODITIES LESS FUEL		
	Measuring Year (2013)	Measuring Year -1 (2012)
January	190.1	187.2
February	190.9	188.0
March	191.6	188.7
April	192.8	189.9
May	194.7	191.8
June	195.2	192.3
July	195.5	192.3
August	196.0	193.1
September	196.1	193.2
October	196.2	193.8
November	196.6	193.7
December	196.7	194.0
Average	194.4	191.5
Ratio of MY/MY-1		1.02

Sample Computation for Annual Adjustment Factor
(hypothetical values for July 1, 2014 implementation)

Step 2. Determine Annual Adjustment Factor by Summing the Weighted Indices.

<u>Index</u>	<u>Ratio of MY to MY-1</u>	<u>Weight</u>	<u>Weighted Factors</u>
PPI Industrial Power	1.03	0.35	0.361
EIA Industrial Rate	1.00	0.40	0.400
PPI Industrial Commodities less fuel Annual Adjustment Factor	1.02	0.25	<u>0.255</u> 1.016

Step 3. Apply Annual Adjustment Factor to Calculate Adjusted Base Rate.

	<u>Demand \$/kw</u>	<u>Energy \$/mwh</u>
Current Rate Year base rate	6.23	12.30
Adjusted base rate	6.33	12.50

Step 4. Apply Cap of +/- 2.2% to Determine Contract Year Base Rate.

	<u>Demand \$/kw</u>	<u>Energy \$/mwh</u>
Current Rate Year base rate, -2.2%	6.09	12.03
Current Rate Year base rate, +2.2%	6.37	12.57

Contract Year base rate	6.33	12.50
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Appendix B

Sample Calculation for LME Adjustment
For adjustment applicable after 3rd Quarter 2013

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Year	Quarter	Annual Adjustment Factor	PPI Finished Goods	Adjustment Factor Average	Effective Adjustment Factor	Tier I	Tier II	Tier III	Tier IV	Hypothetical LME Price	\$ 1.25/MWh	\$ 1.50/MWh	\$ 2.00/MWh	\$ 3.00/MWh	Weighted \$/MWh
2008 Base Year		1.009	1.016	1.01250	1.00625	\$ 2,000.00	\$ 2,200.00	\$ 2,500.00	\$ 2,800.00	\$2,593.45	2.27	0.97	-	-	4.29
2013 3rd Q						\$ 2,255.41	\$ 2,480.95	\$ 2,819.27	\$ 3,157.58						
2013 4th Q						\$ 2,269.51	\$ 2,496.46	\$ 2,836.89	\$ 3,177.31						

(5) Average of cols. (3) and (4).

(6) Minimum of 1.00625 and col. (5). For annual period, cap is 1.025.

(7) - (10) 2008 are the base year LME Reference Prices that are escalated through the sample period.

The 4th Quarter prices are col (6) times the 3rd Quarter prices.

(11) Average daily market price for the 4th Quarter.

(12) (Col (11) - col. (7)) / 100, if positive, but not greater than col. ((8) - col. (7)) / 100.

(13) (Col (11) - col. (8)) / 100, if positive, but not greater than col. ((9) - col. (8)) / 100.

(14) (Col (11) - col. (9)) / 100, if positive, but not greater than col. ((10) - col. (9)) / 100.

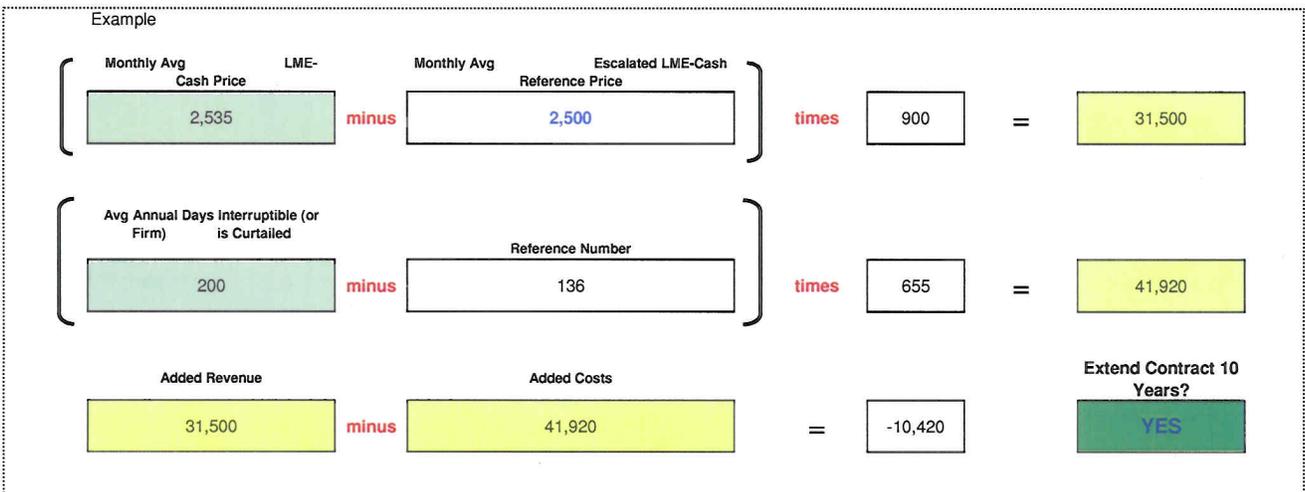
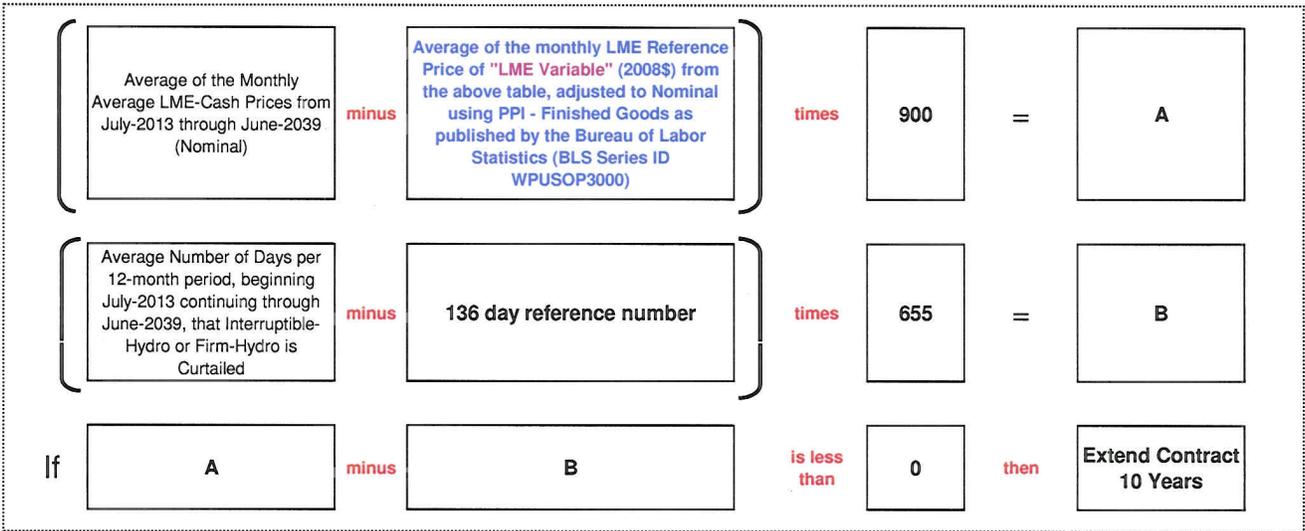
(15) (Col (11) - col. (10)) / 100, if positive.

(16) (Col. (12) * LME Rate (1.25) + col. (13) * LME Rate (1.50) + col (14) * LME Rate (2.00) + col (15) * LME Rate (3.00)

Calculation Regarding Customer Option to Extend Agreement

If Sum of Modernization Capital Expenditures** Falls between	Then "LME Variable" (2008\$) =
\$600 - \$665 million	\$2,500
\$665 - \$765 million	\$2,600
\$765 - \$865 million	\$2,700
\$865 - \$965 million	\$2,800
\$965 - \$1,065 million	\$2,900
\$1,065 - \$1,165 million	\$3,000
\$1,165 - \$1,265 million	\$3,100
\$1,265 - \$1,365 million	\$3,200

** Modernization Capital Expenditures Include:
> Upgraded Massena East Smelter
> Demolition of the Old Massena Facilities that is Completed through 2020
> Investments in Massena West Carbon Assets to Provide Anodes to Massena East
> Investments in Massena West Casthouse to Support Massena East Molten Aluminum Production
Additional detail included on Tab "Appendix C - Capital Investment"



Appendix C

The Modernization Capital Expenditures used in Appendix C will be a function of the total capital expenditures that Customer makes at both East Plant and West Plant as part of the modernization of East Plant. These investments include but are not limited to the following:

- A) East Plant Smelter Upgrade: This will include everything in the "Main Project", which will be presented to the Alcoa Board of Directors, and any other project required for that plant's continued existence, such as:
 - Outfall compliance / "Water Vision" implementation
 - Ore Unloading / Transportation improvements
 - Corrections of deficiencies
- B) Demolition Old East Plant Completed Through 2020
- C) Additions and Modifications to West Plant Carbon Assets to Support the New East Plant Smelter:
 - Replace Butt Crushing Dust Collector
 - Rebuild Stripping Press
 - Cast Iron Cleaning
 - Refurbish Ball Mill
 - Anode Handling Cranes
 - Dry Scrubber
 - Upgrade Green Mill PLC/SCADA
 - Coke Unloading/Storage/Blending
 - Rebuild 3 Mixers
 - Install Bake Furnace FTM's
 - Rebuild Anode Bake Furnace #5*
 - Install New Anode Formers*
 - Revise Coke Fines Feed*
 - Replace Preheaters*
 - Upgrade Anode Cooling*
 - * These items are presently included in the Main Project but we currently evaluating the option of accelerating the installation of these items so they are up and running in advance of the new East Plant smelter.
- D) Additions and Modifications to the West Plant Casthouse Assets to Support the New East Plant Smelter:
 - Closed Loop Water Recycle
 - Increase Billet Output Phase 1 (includes tooling, inspection, sawing, banding, homogenization, cooling, racks, etc.)
 - Increase Billet Output Phase 2 (includes additional equipment beyond Phase 1)
 - Installation of New Automated Sow Caster (East/West Location TBD)



POWER AUTHORITY OF THE STATE OF NEW YORK
30 SOUTH PEARL STREET
ALBANY, NY 12207

Schedule of Rates for Sale of Firm and Interruptible
Hydroelectric Power

Service Tariff No. 22

Date of Issue:

Date Effective: July 1, 2013

Issued by James H. Yates, Senior Vice President
Power Authority of the State of New York
30 South Pearl Street, Albany, NY 12207

Table of Contents

To be completed with final version

Date of Issue:

Date Effective: July 1, 2013

Issued by James H. Yates, Senior Vice President
Power Authority of the State of New York
30 South Pearl Street, Albany, NY 12207

Schedule of Rates for Sale of Firm and Interruptible Hydroelectric Power Service

I. Applicability

This Service Tariff is applicable to the sale of power and energy produced by the Authority's St. Lawrence-FDR Project to Alcoa Inc. ("Alcoa" or "Customer") or other customers engaged in aluminum smelting and related activities and as further defined in the Agreement for the Sale of Firm and Interruptible Hydroelectric Power and Energy from the St. Lawrence-FDR Power Project ("Agreement") between the Power Authority of the State of New York ("Authority" or "NYPA") and Customer.

II. Abbreviations and Terms

A. The following abbreviations are used:

kW	kilowatt(s)
kWh	kilowatt-hour(s)
MWh	megawatt-hour(s)
NYISO	New York Independent System Operator
NY PAL	New York Public Authorities Law

All other capitalized terms and abbreviations used herein shall have the same meaning as set forth in the Agreement between Customer and Authority.

III. Rates and Charges

A. The Base Production Charge (demand and energy) effective July 1, 2013 shall be:

Demand Charge: \$6.23/kW-month

Energy Charge: \$12.30/MWh

The base production rates set forth above shall be subject to an Annual Adjustment Factor in accordance with the Agreement and do not include any applicable costs for delivery services.

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B. Minimum Monthly Charge (for Firm Service Only)

The sum of (i) the product of the Demand Charge and the Firm Power portion of Contract Demand, (ii) the product of the Energy Charge and the quantity of energy utilized, and (iii) a charge representing reimbursement to the Authority for all applicable Taxes (as defined herein) incurred by the Authority as a result of providing the Allocation to the Customer.

C. Contract Demand

The Contract Demand for Customer will be the amounts of Firm and Interruptible Power allocated to such Customer by the Authority under the Agreement unless reduced pursuant to the Agreement and/or this Service Tariff, which the Customer agrees to take and pay for.

D. Billing Period

Any period of approximately thirty (30) days, generally ending with the last day of each calendar month, but subject to the billing cycle requirements of the utility in whose service area Customer's facilities at which Power is delivered are located.

E. Niagara and St. Lawrence-FDR Hydroelectricity Rates

At all times the rates for power and energy associated with this Allocation shall be no lower than the rate charged by Authority for the sale of hydroelectricity for the benefit of rural and domestic customer receiving service in accordance with the Niagara Redevelopment Act, 16 U.S.C §836(b)(1) and NY PAL §1005(5).

IV. General Provisions

General Provisions for service supplementing or modifying the Rules and Regulations for Power Service (Part 454 of Chapter X of Title 21 of the Official Compilation of Codes, Rules and Regulations of the State of New York) with regard to deliveries to the Customer are as follows:

A. Character of Service

Alternating current, 60 hertz, three-phase.

B. Firm Power Service

Firm power and energy under this Service Tariff are power and associated energy intended to be available at all times except for limitations provided in the Agreement, the Rules and in this Service Tariff.

C. Interruptible Power Service

Interruptible Power and Energy under this Service Tariff are power and associated energy normally available continuously, but subject to interruption for extended periods because of decreased water flow as provided herein. Interruptible Power and Energy under this Service Tariff will be subject to curtailment or interruption upon two business days' notice if the seven-day rolling average of hourly net generation for the Authority at its Hydro Projects is less than 2250 megawatts for hydraulic or hydrological reasons. The Authority will provide Customer with a daily measure of the average hourly net generation during periods when the seven-day average is 2450 megawatts or below. This information will be provided on a weekly basis during periods that the seven-day average is greater than 2450 megawatts. These procedures are consistent with the document, "NIA & STL Generation and DAM Scheduling for ALCOA and Reynolds, Hydro Notification Procedures" (hereinafter, "Notification Procedures"), which has been agreed upon by NYPA and Customer.

If Customer requests that it be provided an alternate source of power and energy in lieu of the curtailed power and energy, such alternate power and energy being referred to as "Alternative Energy," Authority will provide Alternative Energy from the NYISO Day Ahead and Real Time Markets as directed by the Customer in accordance with the Notification Procedures, or as otherwise agreed upon by Authority and Customer, i.e. to acquire "3rd Party Supplemental Energy."

D. Availability of Energy

1. The Authority shall provide to Customer in any Billing Period Firm and Interruptible Energy (subject to hydrologic conditions, see subsection 2, below) in amounts equal to the amount of power and energy set forth in the Agreement. The offer of Energy for delivery shall fulfill Authority's obligations for purposes of this Provision whether or not the Energy is taken by Customer.
2. The Authority will have the right to reduce on a pro rata basis with respect to other firm hydropower customers supplied by the Hydro Projects the amount of Firm Energy provided to Customer if such reductions are necessary due to low flow (i.e., hydrologic) conditions at the Hydro Projects. Contract Demand for the affected Billing Period(s) shall reflect all such

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reductions. The Authority shall be under no obligation to deliver and will not deliver any such curtailed energy to Customer in later Billing Periods. No reductions in Contract Demand shall apply for the provision of Substitute Energy.

E. Adjustment of Rates

To the extent consistent with the Agreement between Authority and the Customer, the rates contained in this ST-22 may be revised from time to time on not less than sixty (60) days written notice to Customer. Should Authority need to increase rates in order to meet all requirements specified in its bond and note resolutions and covenants with holders of its financial obligations, Authority may do so upon 30 days' prior written notice if permitted under the Agreement.

F. Delivery

For the purpose of this Service Tariff, Power and/or Energy shall be deemed to be offered when Authority is able to supply Power and Energy and NYISO transmits it to its designated points of interconnection with Customer's Transmission Agent(s). If, despite such offer, there is a failure of delivery by Customer or Customer's designated transmission agents, such failure shall not be subject to a billing adjustment pursuant to Section 454.6(d) of the Rules.

G. Payment by Customer to Authority

1. Power and Energy Rates, Taxes.

The Customer shall pay the Authority for Firm and Interruptible Power and Energy during any Billing Period the higher of either (i) the sum of a), b) and c) below or (ii) the Monthly Minimum Charge as defined herein:

- a) The Demand Charge per kilowatt for Firm and Interruptible Power and Energy specified in this Service Tariff or any modification thereof applied to the Customer's Billing Demand (as defined in General Provision H.1 below) for the Billing Period; and
- b) The Energy Charge specified in this Service Tariff or any modification thereof applied to the amount of firm Energy delivered by Authority to the Customer during such Billing Period as determined in General Provision H.2.
- c) A charge representing reimbursement to the Authority for all applicable Taxes (as defined herein) incurred by the Authority as a result of

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providing the Firm and Interruptible Power and Energy allocated to the Customer.

2. Transmission Charge.

The Customer shall compensate the Authority for all transmission costs incurred by the Authority with respect to the Allocation, including such costs that are charged pursuant to the NYISO Open Access Transmission Tariff ("OATT").

3. NYISO Charges.

With respect to all Electric Service provided to Customer in accordance with the Agreement and this Service Tariff, the Customer shall compensate the Authority for the following NYISO Charges assessed on the Authority for services provided by the NYISO or any successor organization pursuant to its OATT or other applicable tariffs (as the provisions of those tariffs maybe amended and in effect from time to time):

- A. Ancillary Services 1 through 6 and any new ancillary services as may be defined and included in the OATT from time to time;
- B. Marginal losses;
- C. The New York Power Authority Transmission Adjustment Charge ("NTAC");
- D. Congestion costs, less any associated grandfathered Transmission Congestion Contracts ("TCCs") as provided in Attachment K of the OATT; and
- E. Any and all other charges, assessments or other amounts associated with deliveries to Customer or otherwise associated with the Authority's responsibilities as a Load Serving Entity for the Customer that are assessed on the Authority by the NYISO or any successor organization under the provisions of its OATT or under other applicable tariffs.

4. Other Third-Party Charges.

The Customer shall compensate the Authority for any third-party charges attributable to Customer, including without limitation, any costs incurred to comply with any programs applicable in New York State related to the payment for reliability or infrastructure upgrades, energy efficiency

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programs, renewable portfolio standards or carbon emissions laws or regulations.

5. Taxes Defined.

Under this Service Tariff, Taxes shall be any adjustment as Authority deems necessary to recover from Customer any taxes, assessments or any other charges mandated by federal, state and local agencies that are levied on the Authority or that the Authority is required to collect from Customer if and to the extent such rates, charges, taxes or assessments are not recovered by Authority pursuant to another provision of this Service Tariff.

6. The Customer shall pay for Substitute Energy, if applicable, as specified in the Agreement between the Customer and Authority.
7. Bills computed under this Service Tariff are due and payable by electronic wire transfer in accordance with the Rules. Such wire transfer shall be made to J P Morgan Chase NY, NY / ABA021000021 / NYPA A/C # 008-030383, unless otherwise indicated in writing by Authority. In the event that there is a dispute on any items of a bill rendered by Authority, Customer shall pay such bill and adjustments, if necessary, will be made thereafter.

H. Billing

The following billing provisions shall apply to the sum of all the meters used to determine the Customer's load:

1. Demand – The Billing Demand will be the highest sixty (60) minute integrated demand measured during the Billing Period. Should service be interrupted during the Billing Period, the Billing Demand will be adjusted pursuant to Section 454.6(d) of the Rules.
2. Energy – Unless separately metered, the kilowatt-hours charged by Authority to Customer (billed usage) will be the total number of kilowatt-hours recorded on the Customer's meters for the Billing Period as adjusted per NYISO procedures for losses or unaccounted for energy which shall be equal to the energy billed to NYPA by the NYISO on the Customer's behalf.

The Customer's billed hourly usage shall be allocated among their available energy types hourly in the following order:

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- a. Firm Energy (hydroelectric, plus any Substitute Energy)
- b. Firm Incremental Energy (from Contract FD-4)
- c. Interruptible Energy (hydroelectric; when available)
- d. 3rd Party Supplemental Energy
- e. Alternative Energy

For each of the NYPA-supplied energy types, the amount of hourly energy available will be determined using the Customer's actual metered monthly load factor and Contract Demand for that energy type up to but not exceeding their hourly billed usage, where load factor is the average of the hourly kilowatt-hours recorded on the Customer's meters during the Billing Period divided by the Billing Demand.

In cases where the Customer's hourly billed energy quantity exceeds the quantities available for Firm, Firm Incremental, Interruptible, 3rd Party Supplemental or Alternative Energy, the Customer will be responsible for purchases from the NYISO balancing market which is settled in the NYISO "Real Time Market" as that term is defined and as modified from time to time in the NYISO OATT.

In cases where the Customer's hourly billed energy does not require full utilization of 3rd Party Supplemental or Alternative Energy, the Customer will be entitled to the revenue received from the NYISO for sales of these energy amounts into the NYISO balancing market which is settled in the NYISO Real Time Market.

Any quantity of unused hourly Firm or Interruptible energy types will not be charged to the Customer, nor will the Customer receive the proceeds from any balancing market sales of those energy types.

I. Electrical Fluctuations

The power and energy taken hereunder shall not be used in such a manner as to cause unusual fluctuations or disturbances on Authority's system. Customer shall provide, at its expense, suitable apparatus which will reasonably limit such fluctuations. In the event that unreasonable fluctuations or disturbances, including without limitation harmonic currents resulting in actionable interference with communications systems or in harmonic resonance of now existing facilities, are caused by Customer's facilities, Authority shall immediately notify Customer of the circumstances and Authority shall then have the right to discontinue the delivery of power and energy under this contract upon 30 days prior written notice until conditions causing such fluctuations or disturbances are corrected by Customer. Despite such discontinuance of

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service Customer shall be obligated to pay the amounts due for power and energy under this contract, including the minimum bills for such power.

J. Adjustment of Charges

1. Power Factor

For service provided under this and any other Service Tariff or agreement Customer shall maintain not less than ninety-seven and one-half percent (97.5%) power factor at the point of delivery. The Billing Demand under this Service Tariff will be increased one-half percent (1/2%) for each one-half percent (1/2%) by which the average power factor at which energy is supplied during such Billing Period is less than ninety-seven and one-half percent (97.5%). Average power factor will be computed to the nearest one-half percent (1/2%) according to the following formula:

$$\text{Average Power Factor} = \frac{kWh}{\sqrt{kWh^2 + k \text{ var } h^2}}$$

The data used in the above formula shall be obtained from meters which are ratcheted to prevent reverse registration.

2. Adjustment for Transformer Losses

If delivery is made at a transmission voltage but metered on the low-voltage side of Customer's substation, the meter readings will be increased by two percent (2%) to compensate for transformer losses; provided, however, that this percentage may be reduced to reflect improvements in loss rates should new transformers be put in use at Customer's plants.

K. Conflicts.

In the event of any inconsistencies, conflicts or differences between the provisions of this Service Tariff and the Rules, the provisions of this Service Tariff shall govern. In the event of any inconsistencies, conflicts or differences between the provisions of the Agreement and the Service Tariff, the provisions of the Agreement shall govern.

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