

ADDENDUM

Electricity Rates 2021

Rate for Cryptographic Use Applied to Blockchains

In decision D-2021-160, the Régie de l'énergie approved new conditions applying to Rate CB related to cryptographic use applied to blockchains.

This addendum presents the updated articles in Chapter 7 of the *Electricity Rates* that came into effect on December 9, 2021.



CHAPTER 7

RATE FOR CRYPTOGRAPHIC USE APPLIED TO BLOCKCHAINS

SECTION 1

RATE CB

Subsection 1.1 – Hydro-Québec Customers

Application

7.1

Rate CB applies to an annual contract under which electricity is delivered, in whole or in part, for cryptographic use applied to blockchains and where the installed capacity dedicated to this use is at least 50 kilowatts.

More specifically, it applies to service contracts for cryptographic use for mining or to maintain a cryptocurrency system in return for compensation.

The person responsible for a Rate CB contract may not benefit from the rates or options described in sections 6 to 9 of Chapter 4 and sections 1 to 7 of Chapter 6.

The customer must not be served by an off-grid system.

Definitions

7.2

In this section, the following definitions apply:

“authorized consumption”: A value, expressed in kilowatthours, corresponding to the consumption associated with the authorized demand during a consumption period.

“authorized demand”: A value, expressed in kilowatts, corresponding to either:

- a) the maximum power demand recorded between the beginning of the consumption period that includes January 1, 2018, and the end of the consumption period that includes June 7, 2018; or
- b) the available power for cryptographic use applied to blockchains at the connection point that was confirmed to the customer in writing by Hydro-Québec and agreed to in writing by the customer prior to June 7, 2018. To avail itself of all or part of this capacity, the customer must submit

at least one connection request by March 3, 2022, as provided for in Hydro-Québec's *Conditions of Service*. After this date, any power demand that is not included in a connection request is no longer considered to be authorized demand and the associated energy consumed by the customer is billed at the price of energy for consumption above or other than authorized consumption; or

- c) the installed capacity covered by a connection agreement signed with Hydro-Québec by a customer selected through a request for proposals; or
- d) the installed capacity officially allocated under the process for allocating the balance of the dedicated block, in accordance with Hydro-Québec's *Conditions of Service*.

"blockchain": A distributed and secure database, in its current and future versions, in which successive transactions between users are recorded in chronological order in the form of interlinked blocks going back to the first block in the chain.

"cryptographic use applied to blockchains": The use of electricity for the purpose of operating computer equipment dedicated to cryptographic calculations which serve, in particular, to validate successive transactions made by users of a blockchain.

"curtailment period": A period during which the customer's real power demand may not exceed 5% of the highest value recorded during a consumption period included in the 12 consecutive monthly periods ending at the end of the consumption period in question.

"mining": Operation based on a validation mechanism to add blocks of transactions to a cryptocurrency system, in exchange for miner fees.

Structure of medium-power Rate CB

7.3

The structure of monthly Rate CB for a medium-power annual contract, that is, a contract with a minimum billing demand of less than 5,000 kilowatts, is as follows:

\$14.770 per kilowatt of billing demand,

plus

5.095¢ per kilowatthour for the first 210,000 kilowatthours of authorized consumption, and

3.778¢ per kilowatthour for the remaining authorized consumption,

plus

15.195¢ per kilowatthour for any consumption above or other than the authorized consumption.

The minimum monthly bill is \$12.490 when single-phase electricity is delivered or \$37.471 when three-phase electricity is delivered.

If applicable, the credit for supply at medium or high voltage and the adjustment for transformation losses, as described in articles 11.2 and 11.4, apply.

Structure of large-power Rate CB**7.4**

The structure of monthly Rate CB for a large-power annual contract, that is, a contract with a minimum billing demand of 5,000 kilowatts or more, is as follows:

\$13.432 per kilowatt of billing demand,

plus

3.505¢ per kilowatthour for authorized consumption,

plus

15.195¢ per kilowatthour for any consumption above or other than the authorized consumption.

If applicable, the credit for supply at medium or high voltage and the adjustment for transformation losses, as described in articles 11.2 and 11.4, apply.

Billing demand**7.5**

The billing demand at Rate CB is equal to the maximum power demand during the consumption period in question, but is never less than the minimum billing demand as described in Article 7.7.

Condition related to the power factor for power demand less than 5,000 kilowatts under a large-power contract

7.6

If, during a consumption period, the maximum power demand exceeds the highest real power demand, which is less than 5,000 kilowatts, Hydro-Québec applies the demand charge to the difference between:

- a) the maximum power demand up to 5,000 kilowatts; and
- b) the highest real power demand.

If applicable, the credit for supply at medium or high voltage and the adjustment for transformation losses, as described in articles 11.2 and 11.4, apply.

Minimum billing demand

7.7

Depending on whether the contract is a medium-power or large-power contract, the minimum billing demand for any given consumption period is equal to 65% or 75%, respectively, of the maximum power demand during a consumption period that falls wholly within the winter period included in the 12 consecutive monthly periods ending at the end of the consumption period in question. For a large-power contract, this value cannot be less than 5,000 kilowatts.

When the minimum billing demand reaches 5,000 kilowatts or more, the contract ceases to be eligible for medium-power Rate CB and becomes subject to large-power Rate CB.

Large-power Rate CB applies as of the beginning of the consumption period during which the minimum billing demand reaches 5,000 kilowatts or more.

When a customer terminates an annual contract and signs another for the delivery of electricity at the same location and for similar purposes within the following 12 consecutive monthly periods, these two contracts are considered to be a single contract for calculation of the minimum billing demand.

For a change to medium-power or large-power Rate CB from Rate G, Rate M, Rate G9, Rate LG or a domestic rate, the minimum billing demand is determined as specified in this article.

Minimum billing demand of less than 5,000 kilowatts

7.8

The person responsible for a large-power Rate CB contract may opt for medium-power Rate CB at any time by submitting a written request to Hydro-Québec. The rate change takes effect

either at the beginning of the consumption period during which Hydro-Québec receives the written request, at any date and time during that consumption period or at the beginning of the previous consumption period, at the customer's discretion.

Conditions applicable to non-firm service**7.9**

For customers with a connection agreement who were selected through a request for proposals or whose installed capacity was officially allocated under the process for allocating the balance of the dedicated block, in accordance with the *Conditions of Service*, Hydro-Québec may curtail the real power demand under the contract to 5% of the highest value recorded during a consumption period included in the 12 consecutive monthly periods ending at the end of the consumption period in question. It may do so for a maximum of 300 hours per rate year, that is, from April 1 of one calendar year through March 31, inclusive, of the next year, upon 2 hours' notice prior to the start of any curtailment period.

For customers with a connection agreement with Hydro-Québec who were not selected through a request for proposals or whose installed capacity was not officially allocated under the process for allocating the balance of the dedicated block, in accordance with Hydro-Québec's *Conditions of Service*, the number of hours that are subject to curtailment is established as follows:

- a) For the rate year from April 1, 2021, to March 31, 2022, Hydro-Québec may curtail the real power demand under the contract according to the conditions provided for in the first subparagraph of this article for a maximum of 100 hours;
- b) For the rate year from April 1, 2022, to March 31, 2023, Hydro-Québec may curtail the real power demand under the contract according to the conditions provided for in the first subparagraph of this article for a maximum of 200 hours;
- c) Beginning with the rate year starting on April 1, 2023, Hydro-Québec may curtail the real power demand under the contract according to the conditions provided for in the first subparagraph of this article for a maximum of 300 hours.

Electricity consumed above the 5% limit during this period will be billed at 50.650¢ per kilowatthour.

Notice of curtailment**7.10**

Hydro-Québec will notify the representative(s) designated by the customer, by telephone, email, or by any other means agreed upon with the customer of the start and end date and time of

any curtailment period. If no representative can be reached, the customer is deemed to have refused to curtail power during that curtailment period.

Subsection 1.2 – Customers of a Municipal System

Application **7.11**

This subsection applies to a municipal system that applies Rate CB set forth in Subsection 1.1 to one or more medium- or large-power contracts, with the adaptations set out in the following articles.

Terms and conditions of application **7.12**

The terms and conditions described in Subsection 1.1 of this chapter apply, with the following adjustments:

- a) The authorized demand, expressed in kilowatts, corresponds to either:
 - i. the installed load already in place for cryptographic use applied to blockchains for all existing contracts between a municipal system and its customers prior to June 7, 2018; or
 - ii. the available power for cryptographic use applied to blockchains at the connection point of the municipal system was confirmed in writing by the municipal system and agreed to in writing by the customer prior to June 7, 2018; or
 - iii. the installed capacity covered by a written agreement signed by the municipal system and a customer selected following the awarding of a certain amount of power demand authorized by the Régie de l'énergie.
- b) The municipal system must send Hydro-Québec a copy of any agreement it has signed with a customer selected following the awarding of a certain amount of power demand authorized by the Régie de l'énergie regarding any installed capacity for cryptographic use applied to blockchains. Hydro-Québec must preserve the confidentiality of any agreement transmitted to it in this way.
- c) The municipal system must disclose to Hydro-Québec any installed capacity for cryptographic use applied to blockchains other than that provided for in subparagraph b) of this article.

In the case of a municipal system's customers who meet one of the characteristics set out in Section 7.12, service at Rate CB is provided as a non-firm service. The municipal system, subject to the conditions provided below, decides how to apply the curtailment means at its disposal.

Hydro-Québec and a municipal system that supplies electricity to one or more Rate CB customers must conclude an agreement that defines the curtailment conditions applicable for a maximum of 100 hours per winter period, that is, from December 1 of one calendar year through March 31, inclusive, of the next year, at Hydro Québec's request, for a power demand corresponding to the total load for cryptographic use applied to blockchains supplied by the municipal system. For these 100 hours, Hydro-Québec may ask a municipal system to curtail the real power demand of its Rate CB customers to a maximum of 5% of the highest value recorded during a consumption period included in the 12 consecutive monthly periods ending at the end of the consumption period in question. The municipal system can, at its discretion, apply the curtailment means to any load on its system, not specifically to load for cryptographic use applied to blockchains.

The total load for cryptographic use supplied by a municipal system subject to one or more curtailment periods is not eligible for compensation by Hydro-Québec and no penalty will be claimed by Hydro-Québec should a municipal system fail to respect a curtailment period.

If, in accordance with the terms and conditions of an agreement between Hydro-Québec and a municipal system, this agreement is terminated further to the failure of the municipal system to respect any of its obligations related to non-firm service conditions set out in the second paragraph of this article, the number of curtailment hours for the municipal system is fixed at 300 for the winter period. Hydro-Québec and the municipal system will then together decide on the measures required to reduce the power demand of CB customers. The municipal system will be able to conclude a new agreement with Hydro-Québec that provides for a curtailment period of 100 hours per winter, on condition that it is able to demonstrate, to Hydro-Québec's satisfaction, that it is capable of respecting its obligations related to non-firm service conditions set out in the second paragraph of this article.

Notice of curtailment

Hydro-Québec advises the representative(s) designated by the municipal system, following the conditions included in the agreement provided in article 7.13, by telephone, email,

or by any other means agreed upon with the municipal system, of the start and end date and time of any curtailment period. If no representative can be reached, the customer is deemed to have refused to curtail power during that curtailment period.

**Refund to municipal systems for large-power
Rate CB contracts**

7.15

A refund is provided to a municipal system at Rate LG as compensation for the distribution activities it must engage in to serve one or more Rate CB customers whose installations are supplied at medium voltage.

The municipal system is entitled to a refund of 5.6% of the amounts billed to each of its large-power Rate CB customers if the maximum power demand under their contracts during a given consumption period is at least 5,000 kilowatts and no more than 12,000 kilowatts. A municipal system that supplies electricity to a Rate CB customer may not divide the load among multiple delivery points to a single building.

If the maximum power demand is between 4,300 and 5,000 kilowatts, the percentage of the refund is determined as follows:

$$\frac{(\text{Maximum power demand} - 4,300 \text{ kW}) \times 5.6\%}{700 \text{ kW}}$$

If the maximum power demand is greater than 12,000 kilowatts, the percentage of the refund is determined as follows:

$$\frac{12,000 \text{ kW} \times 5.6\%}{\text{Maximum power demand}}$$

If the maximum power demand is less than 4,300 kilowatts, the municipal system is not entitled to a refund.

For a municipal system to be entitled to the refund, the customer cannot be a former Hydro-Québec customer, unless it became a customer of the municipal system with Hydro-Québec's consent.

To obtain a refund, the municipal system must provide Hydro-Québec, for each consumption period, with supporting documents proving that it is entitled to a refund.