

**TEXTE DES**

**TARIFS ET CONDITIONS DE SERVICE POUR  
L'USAGE CRYPTOGRAPHIQUE APPLIQUÉ  
AUX CHAÎNES DE BLOCS**

**(VERSION ANGLAISE)**

**(MISE À JOUR SUIVANT LA DÉCISION D-2019-052 RENDUE LE 29 AVRIL 2019)**



## RATES AND CONDITIONS OF SERVICE FOR CRYPTOGRAPHIC USE APPLIED TO BLOCKCHAINS

The following rates and conditions of service for cryptographic use applied to blockchains supplement the *Electricity Rates and Conditions of Service* approved by the Régie de l'énergie. The definitions set out in Article 1.1 of the *Electricity Rates* and in Section 21.1 of the *Conditions of Service* apply herein.

### General Provisions

1. In these rates and conditions of service for cryptographic use applied to blockchains, the following definitions apply:

**“blockchain”**: A distributed and secure database, in its current and future versions, in which successive transactions (blocks) between users are recorded in chronological order. Each block is linked to the block before it and so forth 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, in particular, serve to validate successive transactions made by users of a blockchain.

2. A contract is considered to be for cryptographic use applied to blockchains if the installed load corresponding to this use is at least 50 kW.
3. The service offered under a contract for cryptographic use applied to blockchains is a non-firm service. Hydro-Québec may make demand curtailment requests on 2 hours' notice prior to the start of any given period, during which the maximum power demand under the contract must not exceed 5% of the maximum recorded during the 12 previous consumption periods. Curtailment requests may apply to a maximum of 300 hours per year, that is, from April 1 of one year through March 31, inclusive, of the next year, without compensation and without further restrictions as to the number or duration of curtailment periods. Should the customer consume electricity during a curtailment period, all consumption above the 5% limit during this period will be billed at 50¢/kWh.
4. A customer whose contract is for cryptographic use applied to blockchains must pay for the total cost of the work required to fulfill the related connection request, with no possibility of reimbursement. Hydro-Québec must receive payment in full before the work begins.

### Existing Contracts

5. The rates provided for in Section 1 of Chapter 3, Section 1 of Chapter 4 or Section 2 of Chapter 5 of the *Electricity Rates*, as the case may be, apply to electricity distributed by Hydro-Québec for cryptographic use applied to blockchains in the following cases:
  - a. all existing contracts as at June 18, 2018, but only for the installed load already in place for cryptographic use applied to blockchains;

- b. when the available capacity for cryptographic use applied to blockchains at the connection point was confirmed in writing by Hydro-Québec and agreed to in writing by the customer prior to June 18, 2018.
6. The rate applied to a municipal system by Hydro-Québec for power and energy associated with cryptographic use applied to blockchains is the same as that provided for in Article 8 hereinafter. However, Rate LG continues to apply to the power and energy billed to a municipal system by Hydro-Québec for cryptographic use applied to blockchains in the following cases:
- a. all existing contracts with a municipal system as at June 7, 2018, but only for the installed load already in place for cryptographic use applied to blockchains;
  - b. when the available capacity 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.

#### **Terms and Conditions Applicable to Customers Selected Under the Request for Proposals**

7. Hydro-Québec is launching a request for proposals to allocate a 300-MW block of power and associated energy to non-firm service for cryptographic use applied to blockchains. The specifications of the request for proposals are described in Appendix 1. All bids selected under this request for proposals will be subject to the following rates and conditions of service:
- a. The rates applicable will be those provided for in Section 1 of Chapter 4 or Section 2 of Chapter 5 of the *Electricity Rates*, as the case may be.
  - b. The customer must fulfill the economic development undertakings and, if applicable, the environmental undertaking set out in the customer's bid for a 5-year period beginning on the date on which service to the customer's electrical installation is first established.
  - c. Hydro-Québec may at any time mandate an independent firm to conduct an audit aimed at determining whether the customer is fulfilling the economic development undertakings and, if applicable, the environmental undertaking set out in the customer's bid. In such a case, Hydro-Québec will ask the customer in writing to send it the information required by the independent firm to perform the audit. The customer must provide this information within 30 days of the date of Hydro-Québec's written request.
  - d. Should the customer fail to fulfill the economic development undertakings and, if applicable, the environmental undertaking set out in the customer's bid, Hydro-Québec may increase the price applicable to the energy consumed.

The increase will be applied as follows:

- i. Should the customer fulfill 50% or more of each of the economic development undertakings and, if applicable, the environmental undertaking set out in the customer's bid, the increase will be equal to the difference between the first-tier energy price at Rate M or the energy price at Rate LG, as the case may be, and the disincentive rate of 15¢/kWh, prorated to the number of undertakings not fulfilled, as follows:

- a single undertaking not fulfilled – 33% of the difference;
- two undertakings not fulfilled – 66% of the difference;
- three or more undertakings not fulfilled – 100% of the difference.

The increase will be applied for a maximum period of 12 months or until the undertakings set out in the customer's bid are fulfilled, whichever comes first. Should the customer's undertakings remain unfulfilled at the end of this period, the disincentive rate provided for in Article 8 hereinafter will apply.

- ii. Should the customer fail to fulfill 50% or more of each of the economic development undertakings and, if applicable, the environmental undertaking set out in the customer's bid, the disincentive rate provided for in Article 8 hereinafter will apply.
- e. The customer undertakes to consume the energy associated with the power demand provided for in the bid for a 5-year period.
  - f. The customer must provide a financial guarantee in accordance with the specifications set out in Schedule 1.

### **Disincentive Rate**

8. The rates applicable to all contracts for cryptographic use applied to blockchains that are not covered by articles 5, 6 or 7 herein are those provided for in Section 1 of Chapter 4 or Section 2 of Chapter 5 of the *Electricity Rates*, as the case may be, but energy consumption is billed at 15¢/kWh.
9. Should the customer replace an existing use of electricity by cryptographic use applied to blockchains or add installed load, the rate set out in Article 8 hereinabove will apply to the customer's contract.

## APPENDIX 1

### **Main specifications of the request for proposals related to cryptographic use of electricity applied to blockchains**

The specifications of the request for proposals that will be launched by Hydro-Québec take into account the concerns expressed by the Québec government in its Order-in-Council No. 646-2018 of May 30, 2018, and are consistent with Decision D-2019-052 of the Régie de l'énergie (the "Régie").

The *Electricity Rates and Conditions of Service* applicable to the customers selected under the request for proposals are those defined in these rates and conditions of service for cryptographic use applied to blockchains.

#### **1. Quantity offered**

The request for proposals is for a block of 300 MW  $\pm 10\%$ , including a block of at least 50 MW reserved for projects of 5 MW or less.

#### **2. Agreement (the "Agreement")**

An Agreement will be signed with each bidder selected under the request for proposals. The Agreement must be consistent with the rates and conditions of service set by the Régie and must include the information presented in the bid, as well as the terms of service and the penalty clauses for undertakings not fulfilled.

#### **3. Selection process**

##### **Step 1: Evaluation of bids with respect to the minimum requirements**

To qualify for this request for proposals, the projects submitted must meet the following minimum requirements:

1. The electricity service requested must be for *cryptographic use applied to blockchains*.
2. The power demand must be at least 50 kW and must not exceed 50 MW.
3. The bidder must commit to a 5-year period, and this period must be specified in the Agreement. A financial guarantee equal to one year's energy consumption at 1¢/kWh will be required upon signing the Agreement to cover any penalties applicable in the event that the bidder's consumption undertaking is not fulfilled. At the end of the initial 5-year term of the Agreement, the provision regarding the financial guarantee equal to one year's consumption will cease to apply and service will continue in accordance with the *Conditions of Service* in effect on the date the Agreement is renewed.
4. To participate in the request for proposals, the bidder is required to pay a non-refundable registration fee of \$2,000 at the time of registration.

5. The bidder must also include a bid bond in the form of a letter of credit for an amount equal to \$10/kW. Should the bid not be chosen, the bid bond will be released at the end of the selection process.
6. The bidder must specify the date on which electricity service is requested and the location at which connection to the main grid already exists or is requested.
7. If the bidder is a customer of a municipal system, a certificate of compliance issued by the municipal system must be included with the bid.

## Step 2: Classification of bids in accordance with the evaluation criteria

The bids meeting the minimum requirements listed in Step 1 will be evaluated on an individual basis according to the criteria and corresponding weightings set out in the following table.

Once the evaluation is completed, the bids will be classified based on the scores obtained. Only the bidders with the highest scores in Step 2 will move on to the next step in the selection process.

Criteria	Weighting
Economic development criteria: <ul style="list-style-type: none"> <li>• Number of direct jobs in Québec/MW</li> <li>• Total payroll of direct jobs in Québec/MW</li> <li>• Capital investment in Québec/MW</li> </ul>	30 30 30
Environmental criterion: <ul style="list-style-type: none"> <li>• Heat recovery: Avoided electricity use/Total electricity use<sup>1</sup></li> </ul>	10
<b>Total</b>	<b>100</b>

1. Electricity use avoided through heat recovery/Total electricity use: Minimum of 7.5%.

## Step 3: Simulation of combinations

The Distributor will establish and analyze different project combinations based on the highest-scoring bids in Step 2. This detailed analysis will involve determining the combination that will provide the Distributor with the most electricity sales revenue for the quantity offered. Consequently, projects for which service can be established sooner than others will gain an advantage.

Once Step 3 is completed, bidders whose projects have been selected will be notified by the Distributor of connection lead times as well as of the results of the parametric evaluation of the costs of connection to the distribution or transmission system.

Selected bidders who sign an Agreement must assume the costs of all work required on

the distribution or transmission system. Bids may be withdrawn without penalty within 5 days of the bidder's receipt of information from the Distributor regarding these costs.

#### **4. Steps in the request for proposals process**

The main steps of the request for proposals process are outlined below. The deadline for each step will be indicated when the request for proposals is launched.

Launch of the request for proposals
Registration
Question/answer period
Publication of addenda(s), if required
Bid submission
Bid analysis and selection