

## **Connection of Storage Facilities Procedure (the “Storage Procedure”)**

**Note:** Capitalized terms not defined herein shall have the meaning ascribed thereto in NGTL’s Tariff and will be cross-referenced with NGTL’s electronic version of the Tariff on the TransCanada web site.

### **Availability**

NOVA Gas Transmission Ltd. (“NGTL”) may construct (own/operate) the meter station and pipeline Facilities required to connect new storage facilities and/or additions to existing storage facilities to the NGTL system (the “Connection Facilities”) pursuant to Rate Schedule FCS of the NGTL Gas Transportation Tariff (“Tariff”) and in accordance with this Storage Procedure.

### **Requirements for Storage Connection Service**

In order for a customer (the “Storage Operator”) to apply for storage connection service, the Storage Operator must complete an Application for Service (refer to Applying for Service Procedure) and forward it to the appropriate Customer Sales Representative at NGTL.

The request for connection of a new storage facility to the NGTL system must satisfy the following criteria:

1. Connection Facilities required are greater than or equal to 12 inches in diameter; and,
2. Peak injection and/or withdrawal volumes are to be greater than 100 MMcf/d.

The request for connection of a new storage facility to the NGTL system and/or additions to existing storage facilities to the NGTL system must satisfy the following additional criteria:

3. The storage facility is a commercial project. NGTL will consider the storage facility to be a commercial project if it determines in its sole discretion that the Storage Operator:
  - a) provides initial and ongoing open access to more than one non-affiliated customers; and
  - b) routinely allows for new contracts, which could translate into additional requests for IT-S contracts from NGTL Customers.

The storage operation must be perceived as a commercial project by other NGTL customers. Customers that do not perceive the storage facility to be operating as a commercial project may use the Collaborative Process to raise the issue or formally complain to the National Energy Board (“NEB”).

4. The storage facility is technically viable (see Section A).

## **Section A - Technical Review**

Upon receipt of the application, NGTL will undertake the following technical review to determine the technical viability of the storage facility.

NGTL will perform a hydraulic review to ensure that the storage facility design and operating parameters are compatible with NGTL's system hydraulics at the proposed location. NGTL will work with the Storage Operator to determine the most cost efficient technically viable alternative for the Connection Facilities.

The Storage Operator is also required to demonstrate to NGTL that its detailed design of its storage facility will meet the advertised performance parameters upon which the Connection Facilities are based. The Storage Operator must provide NGTL with a steady state performance simulation, which includes a reservoir and facilities model, unless relieved of such an obligation by NGTL.

The following additional design parameters may also be used by NGTL to evaluate the technical viability of a proposed storage facility.

### Reservoir:

- pressure response (permeability, porosity)
- injectivity/deliverability
- cycled volume
- capacity
- cushion
- boundaries

### Wells and Gathering System:

- well density
- inflow performance (from well tests)
- gathering system design (length, topography, pressures, size, etc.)

### Plant and Facilities:

- compression ratios
- flow requirements
- NGTL line pressure range
- dew point control
- instrumentation and control

## **Section B - Storage Connection Authorization**

If NGTL determines that a storage facility meets all the appropriate requirements for storage connection, NGTL will respond to the Storage Operator with a Project and Expenditure Authorization (PEA), which upon execution by the Storage Operator allows NGTL to spend the capital as defined by the capital threshold cap to construct the required Connection Facilities.

### **Capital Threshold Cap**

All new storage facilities or additions to existing storage facilities that meet all the appropriate requirements for storage connection will be allowed to proceed. Once NGTL determines the requirements of the Connection Facilities and the associated capital costs, the capital threshold cap is applied. NGTL will spend an amount of capital, for each storage facility, up to the lesser of:

- a) \$300,000/Bcf of working gas capacity that the storage facility provides (referred to as the capital threshold cap); or
- b) the total capital cost of the Connection Facilities.

All capital costs above the amount determined to be the capital threshold cap must be paid for by the Storage Operator through a capital contribution to NGTL. NGTL's rate base would only reflect the capital costs spent by NGTL.

In situations where a storage facility requires a staged development such that the initial working gas capacity will be increased in subsequent years, the storage operator is required to share these plans with NGTL in its application. If NGTL determined it would be more economically efficient to size its Connection Facilities to accommodate the ultimate capacity, then those Connection Facilities would be constructed. NGTL would only spend a capital amount associated with the initial stage of development, subject to the capital threshold cap. The remainder of the capital required must be paid for by the Storage Operator through a capital contribution to NGTL. NGTL would reimburse the Storage Operator for that portion of the capital contribution made by the Storage Operator, relative to the subsequent stages of development in accordance with the provisions of the capital threshold cap. This reimbursement would be associated with a corresponding increase in NGTL's rate base. The Storage Operator is eligible for reimbursement of its capital contribution for the term of the FCS Agreement.

### **Rate Schedule FCS**

Along with the PEA, the Storage Operator will also receive a Rate Schedule FCS, an Agreement to Provide Letter of Credit (if required - refer to Tariff, General Terms and Conditions, Section 10, Financial Information and Security) and an FCS Service Agreement (if required) for execution and return to NGTL. Service under Rate Schedule FCS will be provided once all the required Connection Facilities are completed.

### **Minimum Annual Volume**

Rate Schedule FCS requires the Storage Operator to deliver a minimum annual volume (“MAV”) through the Connection Facilities to the storage facilities. This MAV requirement ensures that the Connection Facilities are being utilized and provides for an ongoing level of storage facility accountability. The MAV is a test to ensure that the unit cost of service on the storage facility is less than or equal to the system average unit cost of service.

#### *MAV Example (for illustrative purposes only)*

Capital Cost of Connection Facilities (using the capital threshold cap)	= \$2.4 million
Annual Cost of Service (“ACS”) of Connection Facilities	= \$380,000
Firm Transportation unit cost of service	= \$0.160 <sup>1</sup> /Mcf

The MAV requirement would be 2.38 Bcf (\$380,000/\$0.160/Mcf)

**Note:** The Cost of Service of the Connection Facilities is calculated on an annual basis using the net book value of the Connection Facilities and only includes the capital as determined by the capital threshold cap.

### **FCS Charge**

If the Storage Operator fails to meet its MAV requirement, it must pay to NGTL an amount equal to the shortfall as calculated pursuant to paragraph 3.4 of Attachment 1 of Rate Schedule FCS as follows:

$$\text{MAV Charge} = \left( \frac{\text{MAV} - C}{\text{MAV}} \right) \times \text{ACS}$$

Where:

“MAV Charge” = the MAV component of the FCS Charge; and

“C” = the actual volume of gas delivered by NGTL for Customer, as determined by NGTL. NGTL’s determination of the Storage Operators’ actual volume is based on NGTL’s measurement of the Storage Operators’ actual physical delivered volume from the Connection Facilities to the storage facilities (i.e. metered

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<sup>1</sup> Illustrative NGTL Rates, based on the aggregate revenue requirement and billing determinants for both FT-R and FT-D service.

deliveries), adjusted for offsetting NGTL receipt volumes which has paid a NGTL receipt toll (e.g. native production which occurs during injection mode). This adjusted volume will be compared to the Storage Operators' MAV requirement by NGTL on an annual basis to determine whether or not the Storage Operator will be invoiced for the shortfall. Deemed delivery volumes will not be included in NGTL's determination of the Storage Operators' actual volumes.

*FCS Charge Example (for illustrative purposes only)*

Per the above MAV example, if the actual volume for the year was zero, the Storage Operator would receive a bill from NGTL for the entire cost of service of the Connection Facilities (\$380,000). If the actual volume (metered deliveries plus offsetting receipts) was 1.19 Bcf for the year (half of the MAV requirement), the Storage Operator would be required to pay \$190,000 (half of the Cost of Service of the Connection Facilities) to NGTL.

**Forms Referenced in this Procedure**

Agreement to Provide Letter of Credit  
Application for Service  
Project and Expenditure Authorization