

<p><b>Newmarket-Tay Power Distribution Ltd.</b></p> <p><b>Conditions of Service</b></p>	<p><b>Number:</b> NT POWER COS – 230 – 02</p> <p><b>Issue Date:</b> July, 2007</p> <p><b>Next Review Date:</b> February, 2015</p>
<p><b>Power Quality</b></p>	

## 1. Preamble

Newmarket-Tay Power Distribution Ltd. (NT POWER) endeavors to supply continuous *energy* with no power quality problems. Policies and procedures have been developed to address these issues, including *supply voltage* guidelines and outage notification processes. This section outlines those policies and procedures, as well as indicating the process NT POWER uses for handling voltage disturbances and power quality testing and remedial action.

This section includes conditions under which supply of *energy* to *Consumers* may be interrupted, and may become unreliable or intermittent.

## 2. Power Quality Testing

In response to a *Consumer* power quality concern, where the utilization of *energy* adversely affects the performance of electrical equipment, NT POWER will perform an investigative analysis on their *distribution system* up to the *ownership demarcation point* to attempt to identify the underlying cause. Depending on the circumstances, this may include review of relevant power interruption data, trend analysis, and/or use of diagnostic measurement tools.

Upon determination of the cause resulting in the power quality concern, where it is deemed a *distribution system* delivery issue and where *good utility practice* are not met, NT POWER will recommend and/or take appropriate mitigation measures. NT POWER will endeavor to take appropriate actions to control power disturbances found to be detrimental to the *Consumer*. If NT POWER is unable to correct the problem without adversely affecting other NT POWER *Consumers*, then it is not obligated to make the corrections. NT POWER will use appropriate industry standards (such as *Canadian Standards Association* or *IEEE* standards) and *good utility practice* as a guideline. If the problem lies on the *Consumer* side of the *distribution system*, NT POWER shall seek reimbursement from the *Consumer* for the costs incurred in its investigation.

### 3. Prevention of Voltage Distortion on Distribution

*Consumers* having a non-linear load shall not be connected to NT POWER's *distribution system* unless power quality is maintained by implementing proper corrective measures such as installing proper filters, and/or grounding. Further, to ensure the *distribution system* is not adversely affected, power electronics equipment installed must comply with *IEEE* Standards. The limit on individual harmonic distortion is 3%, while the limit on total harmonic distortion is 5%.

### 4. Obligation to Help in the Investigation

If NT POWER determines the *Consumer's* equipment may be the source causing unacceptable harmonics, voltage flicker or voltage level on NT POWER's *distribution system*, the *Consumer* is obligated to help NT POWER by providing required equipment information, relevant data and necessary access for monitoring the equipment.

### 5. Timely Correction of Deficiencies

If an undesirable *distribution system* disturbance is being caused by the *Consumer's* equipment, the *Consumer* will be required to cease operation of the equipment until satisfactory remedial action has been taken by the *Consumer* at the *Consumer's* cost. If the *Consumer* does not take such action within a reasonable time, NT POWER may *disconnect* the supply of *energy* to the *Consumer*.

### 6. Notification for Interruptions

Although it is NT POWER's policy to minimize inconvenience to *Consumers*, it is necessary to occasionally interrupt a *Consumer's* supply of *energy* to maintain or improve the *distribution system*, or to provide new or upgraded services to other *Consumers*. NT POWER will endeavor to provide the *Consumer* with reasonable advance notice of planned *energy* interruptions. Notice may not be given where work is of an *emergency* nature, involving the possibility of injury to *Persons* or damage to property or equipment.

However, during an *emergency*, NT POWER may interrupt supply of *energy* to a *Consumer* in response to a shortage of supply of *energy* or to effect repairs on NT POWER's *distribution system* or while repairs are being made to a *Consumer-owned substation*.

### 7. Notification to Customers on Life Support

*Consumers* who require an uninterrupted source of *energy* for life support equipment must provide their own *emergency backup* equipment for these purposes. *Consumers* with life support systems are encouraged to inform NT POWER of their medical needs and their available *emergency backup*. These *Consumers* are responsible for ensuring that the medical information they provide NT POWER is accurate and up-to-date. This information is maintained

in NT POWER's Customer Information System and supplied to the Operations Department.

With planned interruptions, the same procedure as prescribed in Section 6 above will be observed. For those unplanned *energy* interruptions that extend beyond six hours and the time expected to restore the supply of *energy* is longer than what was indicated by *Consumers* (registered on life support) as their available *emergency backup*, NT POWER will endeavour to contact these *Consumers* but will not be liable in any manner to the *Consumer* for failure to do so.

## 8. Emergency Interruptions for Safety

NT POWER will endeavour to notify *Consumers* prior to interrupting the supply of *energy*. However, if an unsafe or hazardous condition is found to exist, or if the use of *energy* by apparatus, appliances, or other equipment is found to be unsafe or damaging to NT POWER's *distribution system* or any other *Person*, the supply of *energy* may be interrupted without notice.

## 9. Emergency Service (Trouble Calls)

NT POWER will exercise reasonable diligence and care to deliver a continuous supply of *energy* to the *Consumer*. However, NT POWER cannot guarantee a supply of *energy* that is free from interruption.

When *energy* is interrupted, the *Consumer* should first ensure that their failure is not due to the opening of a *Consumer*-owned protective device such as a fuse or breaker operating within their installation. If there is a partial power failure, the *Consumer* should obtain the services of an electrical contractor to carry out necessary repairs. If, on examination, it appears that NT POWER's main source of supply of *energy* has failed, the *Consumer* should report these conditions at once to NT POWER by calling the 24 hour phone number outlined in NT POWERCOS-500 Appendix A, Corporate Contacts.

NT POWER operates a trouble-call response, 24 hours a day, seven days a week, to provide service to *Consumers*. NT POWER will initiate restoration efforts as rapidly as practicable.

## 10. Outage Reporting

Depending on the outage, duration and the number of *Consumers* affected, NT POWER may issue a news release to advise the general public of the outage. In turn, news radio stations may call for information on a 24 hour basis when they hear of an outage.