

Customer Connection and Start-up Requirements

The following defines the Customer Connection and Start-up Requirements for a New Customer or an existing Customer whose DES service has been inactive for a period of time.

I. For a New Customer Building

- a. A New Customer Building is defined as a building to which steam, condensate and/or chilled water service from the DES has not previously been connected.
- b. It is the responsibility of the Customer to determine if the building's internal steam, condensate and chilled water piping and related systems are in sound operating condition and can achieve start-up without incident when the DES services energize the piping and equipment.
- c. Prior to the activation of energy services from the DES, the following must be completed, as a minimum, and such documentation as required shall be submitted to the DES. Unless otherwise stated, the following requirements shall be performed by the Customer and are the sole responsibility of the Customer. Energy services from the DES shall not be provided without first meeting these requirements.
- d. Requirements for DES Energy Service Activation
 - i. All in-building steam piping and systems from the Delivery Point up to the pressure reducing valve (PRV) or other such device that serves to continuously reduce and maintain a lower pressure than the DES shall be hydrostatically tested to 225 psig in accordance with ASME B31.1 with a hold time shall be 10 minutes. Meters, instruments, heat exchangers and similar devices may be excluded from the hydrostatic test
 - ii. All in-building condensate piping and systems from the Return Point back into the Customer building to the condensate return pump discharge shall be hydrostatically tested to 225 psig in accordance with ASME B31.1 with a hold time shall be 10 minutes. Meters, instruments, pumps, heat exchangers and similar devices may be excluded from the hydrostatic test.
 - iii. All in-building chilled water supply piping and systems from the Supply Point up to the building pumps or heat exchanger (if decoupled) and chilled water return piping and systems from the pumps or heat exchanger (if decoupled) to the Return Point shall be hydrostatically tested to 225 psig in accordance with ASME B31.1 with a hold time shall be 10 minutes. Meters, instruments, pumps,



heat exchangers and similar devices may be excluded from the hydrostatic test.

- iv. All hydrostatic test reports shall be submitted to the DES for review and acceptance.
- e. The following shall have been performed by the Customer prior to activation of the DES energy services.
 - i. All steam traps and drain and vent lines shall be operational.
 - ii. All steam lines shall be drained of water prior to energizing.
 - iii. All in-building chilled water lines shall be flooded with water and vented of air.
 - iv. All chilled water and condensate piping shall have been cleaned and flushed.
 - v. Chilled water circulation pumps shall be started at minimum speed or powered off. Valves on the chilled water return may be throttled to reduce or control the initial flow of chilled water through the building.
 - vi. Prior to energizing the steam system, drain lines and appropriate vents shall be opened to purge the in-building steam piping of air and to facilitate the slow warming of the steam piping.
- f. DES approved personnel will be present to assist in energizing the Customer's steam and/or chilled water system. The System Operator is the only one authorized to operate the DES steam and chilled water isolation valves to the Customer's building.
- g. A Customer Representative must be present during start-up.
- h. Additional items may be required prior to start-up and may be addressed by the appropriate DES personnel.

II. For an Inactive Customer Building

- a. An Inactive Customer Building is defined as a building to which the steam, condensate and/or chilled water service from the DES has been inactive for a period of time.
- b. Since the Customer building has been inactive for a period of time, the Customer acknowledges that the in-building systems will require serious attention by qualified technicians during start-up to ensure a safe and reliable operation. It is the responsibility of the Customer to determine if the inbuilding steam, condensate and chilled water piping and related systems are in sound operating condition and can achieve start-up without incident when the DES services energize the piping and equipment.
- c. The following shall have been performed by the Customer prior to activation of the DES energy services.



- i. All steam traps and drain and vent lines shall be operational.
- ii. All steam lines shall be drained of water prior to energizing.
- iii. All in-building chilled water lines shall be flooded with water and vented of air.
- iv. All chilled water and condensate piping shall have been cleaned and flushed.
- v. Chilled water circulation pumps shall be started at minimum speed or powered off. Valves on the chilled water return may be throttled to reduce or control the initial flow of chilled water through the Customer's building.
- vi. Prior to energizing the steam system, drain lines and appropriate vents shall be opened to purge the in-building steam piping of air and to facilitate the slow warming of the steam piping.
- d. DES approved personnel will be present to assist in energizing the Customer's steam and/or chilled water system. The System Operator is the only one authorized to operate the DES steam and chilled water isolation valves to the Customer's building.
- e. A Customer Representative must be present during start-up.
- f. Additional items may be required prior to start-up and may be addressed by the appropriate DES personnel.



III. All Customers

CUSTOMER

- a. The start-up and activation of the DES energy services is at the sole risk of the Customer and without liability to MNDES, the city of Nashville, the System Operator or their consultants (collectively referred to herein as DES). The Customer agrees to defend, indemnify and hold harmless DES and their employees from and against demands, losses, expenses, damages, penalties and liabilities of any kind, including attorney fees, arising out of, or relating to the in-building system start-up.
- b. The Customer agrees to the provisions contained herein and acknowledges such agreement by signing in the designated place below.

DES REPRESENTATIVE

Signature:	Signature:
Printed Name:	Printed Name:
Title:	Title:
Date:	Date: