

**National Grid’s Steam Trap Survey Initiative
Memorandum of Understanding**

Customer Information

Customer Name: _____ Acct. #: _____

Facility Name: _____ Building Square Feet: _____

Facility Address: _____ City: _____ Zip: _____

Mailing Address (if different): _____ City: _____ Zip: _____

Contact Person: _____ Phone: _____

E-mail address _____ Steam Pressure (s) ___ ___ ___

Survey Cost: _____ Fax: _____

Benchmarking Services

National Grid understands that the following Utility Customer (“the Owner”): _____ has agreed to participate in National Grid’s Steam Trap Survey Initiative for Commercial and Industrial Customers.

Through this initiative, National Grid will provide a comprehensive service to help you get the most value from the steam energy that you use. In this effort National Grid will be collaborating with local steam trap survey providers and expert consultants to help its commercial & industrial customers find smart ways to manage the steam energy needed to run their businesses.

By agreeing to the terms outlined in this Memorandum of Understanding (MOU), your organization can realize numerous short and long-term benefits, including:

- Sizable energy cost reductions with short paybacks and limited costs.
- Incentives for technical assistance from experts who will detail low cost strategies to reduce your production costs, thereby freeing up funds to invest elsewhere in your business.
- Financial assistance in making efficiency improvements in your steam system.
- Long term improvements in system performance and reliability due to reduced steam loss and other operational improvements.

Stakeholder Responsibilities and Data Requirements

Through the Steam Trap Survey Initiative, the vendor will provide free high quality technical assistance and clear written recommendations for system improvements. Participating customers, in return, commit to paying 50% of project installation costs for steam trap repairs/replacements which have a simple payback less than 2 years. In addition, customers agree to repair all identified steam trap deficiencies within 90 days. Following initial steam trap repairs/replacements customer agrees to maintain an on-going effort to identify and minimize system deficiencies.

By agreeing to participate, stakeholders agree to the division of responsibility as identified in the table below.

Table 1 – Overview of Steam Trap Survey Participation

National Grid will provide...*	The Participating Customer will...
<ul style="list-style-type: none"> ✓ Financial support for complete steam trap survey and system technical review ✓ Recommendations for low cost O&M improvements ✓ National Grid will pay up to 50% of all costs for steam trap repair/replacement or other low cost O&M improvements. ✓ Other assistance may include a follow-up system assessment & staff training 	<ul style="list-style-type: none"> ✓ Issue initial Purchase Order for steam trap survey. National Grid will reimburse customer following steam trap repairs/replacements. ✓ Pay 50% of costs for steam trap repair/replacement or other O&M improvements. ✓ Repair identified steam trap deficiencies within 90 days of system survey review with National Grid staff. ✓ Provide periodic steam system operating data to National Grid or designated service providers. ✓ Implement on-going steam trap repair/replacement program within the facility.

* Capped at \$10,000 for Rhode Island customers

Steam Trap Survey - Initial Steam Trap Survey and System Review

Prior to conducting the steam trap survey, customer’s steam trap vendor must submit a proposal for approval by National Grid. This proposal must detail the project scope of work. See Attachment A for an example of required information for this proposal.

A technical consultant and National Grid staff will tour your facility to perform a complete steam trap survey system review. For training purposes, customer staff will be encouraged to participate. A written report will then be provided to the customer identifying system deficiencies and any other O&M opportunities. This technical report will provide the following information:

- Identification of specific steam trap deficiency locations and estimated trap losses
- Project cost estimates for repairs/replacements and other low cost O&M modifications.
- Energy savings estimates and simple payback on investment
- Estimated National Grid financial incentives

Implementation: Steam Trap Repairs/Replacement Implementation

- Steam traps deficiencies to be repaired within 90 days of National Grid review with customer. Customer may perform repairs in-house or utilize outside vendors at customers discretion. National Grid will contribute up to 50% of actual repair/replacement costs.
- Post inspection to confirm steam trap repairs/replacements
- Following repair/replacement of steam traps, National Grid will reimburse customer for steam trap survey in addition to up to 50% of repair/replacement costs. If repairs are not made within 90 days reimbursements will be limited to 50% of survey costs.

This Agreement is the entire agreement between the parties concerning the participation in National Grid’s Steam Trap Survey Initiative. Neither party shall be liable to the others for any indirect, incidental or consequential damages under this Memorandum of Understanding.

Customer Signature: _____ Date _____

National Grid Signature: _____ Date _____

National Grid's Steam Trap Survey Initiative Proposal Template

To: _____(Customer Name)
CC: _____(National Grid Technical Representative)
From: _____(Steam Trap Survey Vendor)
Date: September 5, 2010
Re: **Steam Trap Survey Proposal under National Grid**

Dear _____,

As a follow up to our last visit to your facility, VENDOR would like to offer the following proposal for steam trap survey and tagging in conformance with the National Grid's Steam Trap Survey initiative. Please note that this proposal does not include actual repairs of the deficiencies identified.

For a fee of \$XXXX.XX _____ Inc (VENDOR) will provide the following services listed as #1 - #2 below. Note that National Grid will reimburse _____(CUSTOMER) for these costs upon completion of leak repairs within 90 days.

- 1- A thorough leak survey using the methods below. During this survey VENDOR will introduce your maintenance staff to techniques for locating leaks that will recur in the future. All leaks will be tagged and numbered.
 - Locate, identify and tag all the steam traps located within your facility.
 - Provide steam trap log including such information as operating status, model number, manufacturer, trap type, pressures and a description of trap location (trap map) if one does not exist. The surveyor(s) shall utilize a combination of testing methods including but not limited to: test valve method, ultrasonic method, infrared method, pyrometer method, and visual observation.
 - Test all steam traps wherever possible and tag those traps that are not operating properly.
 - Instruct plant maintenance personnel in proper testing methods.
 - Note specific problems such as water hammer, improper sizing of condensate return systems and poorly designed piping configurations.
 - Provide report of surveyed traps, including operating status, condition of each trap, those traps needing repair or replacement, and inlet and outlet pressures.
 - Report shall also detail estimated therm losses for each trap and a cumulative site loss.
- 2- Following the survey, VENDOR will produce a detailed listing of all deficiencies found along with other information necessary for future repairs and leak management. A brief written report will also be submitted which summarizes preliminary estimates of costs, likely repair costs and potential energy savings from reduced leakage. In addition to summarizing steam issues, this report will briefly summarize the general condition of the steam system and any prominent opportunities to reduce energy or steam generation.

Thank you for the opportunity to serve CUSTOMER with high quality steam trap services. Upon approval of this proposal by CUSTOMER and National Grid, VENDOR can schedule these services.

Sincerely,

XXXXXX
VENDOR