

## Technology Transfer Improvements

**Description:** A process to assist companies in successful transition of new technologies from the R&D phase to end users.  
**Status:** Completed – Investigation report and implementation plans have been submitted to funding companies.

### BENEFITS

Many companies do an excellent job in introducing R&D projects and new technologies within their organizations. When it comes to reaping the benefits of using the final product, in many cases, companies encounter challenges in successfully transferring the technology to end users. The Technology Transfer process is critical in bringing a new technology to fruition and realizing potential benefits. Properly implementing a Technology Transfer Program can help to improve safety and reduce company expenses by millions of dollars. When R & D products are successfully implemented, there is also more support for R & D programs and ultimately more impact to the gas business' bottom line.

### BACKGROUND

A novice or someone not familiar with the Technology Transfer (TT) Process may think it relatively easy and straight forward. Once the development phase is completed and proven, the technology would be introduced to users, users would be trained and with the appropriate support, the technology would become part of the operation. However, the reality is that the process is much more complex and its success is dependent on many factors; what works well in one company may not in another. The Technology Transfer process is dependent on organization culture, company size, acceptance and process for change, internal relationships, level of commitment and the technology itself.

NYSEARCH and its members have experienced both success and failure regarding Technology Transfer. Seeking constant improvement,

NYSEARCH member companies have recognized limitations and shortfalls in their ability to keep internal users committed through R & D phases and during the TT process. Member companies have expressed a willingness to address technology transfer issues jointly as part of a group initiative. Also, the members recognize a need for seed funding for demonstrations and the need to address gaps between where voluntary R & D funding approvals stop and where commercializers are willing to assume full financial responsibility.

The objective of the project is to assist members to facilitate and improve the TT process within their companies. The goal is to get new technology ideas and products from the R & D evaluation/demonstration phase to be fully implemented by the users/operators within each company. The program assists companies in formalizing the process and addressing problems or barriers that companies and utility contractors have in attempting to obtain a successful technology transfer.



Figure 1: A Technology Selected: SlimKit

## TECHNICAL APPROACH

A successful Technology Transfer (TT) process can be broken down into three distinct stages. The three stages are: 1) Investigative, 2) Experimentation and, 3) Anchoring. This three-stage approach will provide NYSEARCH member companies with the general guidelines and recommendations needed to develop their own technology transfer process within their organization.

### Stage 1

During the Investigative and Data Gathering phase, the TT process is defined from initial technology introduction to full implementation for each company. This includes technology justification, development, field trials, demonstrations, approvals, training, cost benefit analysis, etc. During the NYSEARCH project, formal interviews were held with each company to identify within each R&D organization, the differences and barriers in successful implementation. Each company selected a number of technologies to demonstrate within their companies to begin the process (Figure 1). NYSEARCH coordinated this effort working very closely with assigned company representatives, documented all information and provided each company with a detailed report.

### Stage 2

During the Experimentation stage, personnel are assigned and teams are created to implement and oversee the transfer of new technologies. Pilots/field trials and field training sessions (Figure 2) are performed in an effort to obtain user feedback, make technology improvements and to document the benefits. The TT organization must be in place and key stakeholders at various levels identified. Assigned teams communicate and meet periodically to assure that technologies are properly received and implemented.

### Stage 3

During the Anchoring stage, the personnel involved must continue to improve the TT process to assure that technologies are fairly evaluated with the understanding that modifications/refinements are part of the implementation and transfer process. The focus must be on providing an understanding of how

the technology works and assure that the right level of training and documentation are provided.



Figure 2: Live Main Insertion Demo

## PROGRAM STATUS

NYSEARCH Staff and member companies worked closely together to complete the Investigative Stage and a formal report was provided. The Experimentation stage was completed with three selected technologies demonstrated. For the Anchoring stage, NYSEARCH conducted Webinars to help companies initiate or improve the TT process within their organizations. NYSEARCH staff will continue to support member companies in demonstrating and conducting pilot programs for new technologies selected in Stage 1. When requested, Webinars and assistance will be provided for individual companies planning to implement or improve their Technology Transfer process.

### Highlights

- Three stage formal approach applied in project
- Focus is on teams and stakeholders
- Resources are organized to evaluate and improve technologies
- Goal remains to evaluate and improve technology implementation process

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