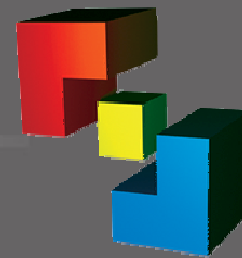


# Case Study Covanta Energy Corp.



## Microsoft InfoPath 2003 Deployment

Award-winning Microsoft Gold Certified Partner **The Henson Group, Inc.** implemented a highly customized solution based on Microsoft InfoPath 2003 and SharePoint Portal Server 2003 to replace a critical manual-based reporting compliance process.

### BUSINESS SITUATION

Covanta Energy Corp. owns and operates 25 facilities, primarily in the U.S., where municipal solid waste is converted into renewable energy. The company processes 30,000 tons of waste daily, producing 565 megawatts of renewable electricity — enough to power 800,000 homes. The company serves 12 million people annually.

Covanta has a Sarbanes Oxley manual reporting compliance process called the "Facilities Monthly Closing Checklist" it wanted to convert from a manual process to a more automated system. To accomplish such automation, Covanta sought to leverage its investment in Microsoft InfoPath and SharePoint technologies.

Microsoft recruited The Henson Group for the initial SharePoint deployment, based on its designation as a "Go To" Gold Certified Partner and a recognized expert for SPS and InfoPath deployments. THG also possesses Microsoft's Information Worker Solutions Competency for proven ability at building collaboration and group productivity solutions. To achieve the IW competency, The Henson Group not only demonstrated its expert-level abilities across multiple technologies, but it must maintain a roster of Certified Consultants with applicable experience and produce a steady stream of positive client references.

Previously, preparing the Monthly Closing Checklist involved creating a Microsoft Word document, which was altered as necessary, then printed out and faxed from company headquarters to workers in the field. The document was then circulated by hand and then faxed back to Covanta headquarters. Covanta also needed an automated system to more effectively maintain relevant historical data.

### SOLUTION

SPS extended Covanta's existing Microsoft Office applications and made them available through a single portal to all employees, both at headquarters and in the field. The new SPS-based system installed by THG is more dynamic than the previous solution, which was largely manual and paper-based and thus established a conduit to automate the Monthly Closing Checklist process.

The incumbent process revolved around disseminating and manually modifying a basic Word document. As a manual-based process, this method did not leverage investments in IT infrastructure that are in place at Covanta. Specifically, the decision was made to use InfoPath forms to provide both the User Interface for gathering this information, as well as the workflow portion of this process.

To that end The Henson Group design a solution to achieve the following:

- Created an InfoPath form to replace current Monthly Closing Checklist process
  - This form is flexible to accommodate future initiatives
  - A SQL Server Database was created to support this InfoPath solution
- Stored information in SQL Server 2000. This will enable future generation of reports on this information. Documents were also stored in SharePoint to make the information accessible to the appropriate audiences.

The Henson Group created a workflow within the InfoPath forms to increase the efficiency of the process. This workflow was based on information stored in SQL Server 2000 databases.

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ENERGY

### Project Vitals

**Industry:** Energy Provider

**Customer Profile:** Covanta Energy owns and operates 25 facilities, primarily in the U.S., where municipal solid waste is converted into renewable energy.

**Business Situation:** Covanta has a Sarbanes Oxley manual reporting compliance process called the "Facilities Monthly Closing Checklist" it wanted to convert from a manual process to a more automated system. To accomplish such automation, Covanta sought to leverage its investment in Microsoft InfoPath and SharePoint technologies.

**Solution:** The InfoPath solution The Henson Group designed successfully replaced the existing Facilities Monthly Closing Checklist process and was flexible enough to handle future changes. The solution will evolve with Covanta's needs, such as changing questions, question order, additional sections, etc.

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In conceiving the design, THG's developers appreciated that questions for this project are not static, meaning that some questions have historically changed from time to time. In addition, regulatory requirements often change. Therefore, these checklists were designed to accommodate the need for changes and the system created is dynamic.

In order to more readily leverage this system and its inherent flexibility, the system was designed with reusability in mind. (*Designing and implementing the system with reuse in mind was easier and cheaper to do at the beginning of the project than redesigning the project at a later date.*) Checklists, both past and current, are available through SharePoint and the structure of portals that have been made available in a related project.

## RESULTS

InfoPath provides information workers with a set of tools that enable the creation of dynamic forms to gather and share information across a wide range of formal and informal business processes. Unlike traditional forms packages, InfoPath provides a high degree of information-gathering flexibility, enabling people to obtain the information they need in a timely fashion and to make well-informed decisions.

The InfoPath solution The Henson Group designed successfully replaced the existing Facilities Monthly Closing Checklist process and is flexible enough to handle future changes. The solution will evolve with Covanta's needs, such as changing questions, question order, additional sections, etc. In addition, since THG's solution stores its data in an SQL Server 2000 database, SQL Server 2000 Reporting Services can be used to report on the data.

Additionally, since this system was built with flexibility in mind, the system can be used for many different surveys with little or no modification. The database and the form were both built with this in mind. In fact, the solution that THG provided is already providing two surveys to replace the original survey. Both of these surveys are using the same form.

Furthermore, because the native file format for InfoPath is XML and the application supports any customer-defined XML schema, as well as interoperability with Web services, the information gathered in InfoPath can easily be integrated with an organization's databases and servers.

This means that any information gathered with InfoPath can be reused and repurposed by anyone or any process in the organization, which greatly increases productivity and the power of that information.

In the current implementation, the Facilities Monthly Closing Checklist is secure, insofar as it is an XML document and it cannot be sent through the firewall. The document would also not have access to the SQL Server database outside of the COV domain. The form uses Windows Authentication to access the SQL Server. That means that the user must be specifically permitted to use the database by the Database Administrator.

When developing the system, The Henson Group decided to allow the user to select the facility to be viewed or modified. This would help the system to deal with circumstances like absences, changes in personnel, and persons filling multiple roles for multiple facilities. This allows a user to view documents that have been filled out by other users. This has been raised as a possible breach in security. The system can be altered in order to prevent users from viewing data from other facilities.

Several methods of addressing this issue were discussed. It was determined that the best and simplest approach would be to create code to perform a lookup to the WorkflowPersonnel table where the Business Unit (BU) and the Personnel are listed. The code would use the user's identity (this was determined using Active Directory) and this WorkflowPersonnel table to determine the user's access to the requested BU.

## About The Henson Group



**Founded:** June, 2000

**Headquarters:** New York City

**Consultants:** 37 (including both full-time and part-time professionals)

**Partners:** MS, HP, IBM, Cisco, AviCode, Dell, EMC, eXc Software, K2.net, Netscaler, Network Engines

**Certifications:** Microsoft Gold Certified and Cisco Certified

### Official Microsoft Competencies:

Advanced Infrastructure Solutions  
Information Worker Solutions  
Integrated E-Business Solutions  
Learning Solutions  
Networking Infrastructure Solutions

**History:** Founded by former Microsoft employees from the development teams in Redmond and Microsoft Consulting Services

**Consultants:** All MS Certified, most former Microsoft engineers, and each have a minimum of three years of vertical-specific experience

**Annual Client-Retention Rate:** (2000 through 2004) 98%

**Annual Client-base Growth:** (2000 through 2004) 50%

**Company Description:** THG is an award-winning Microsoft Gold Certified Partner specializing in deploying Microsoft technologies for U.S. and international companies across 20 industry categories.

Founded by former Microsoft employees from the development groups in Redmond and Microsoft Consulting Services, THG offers clients direct access to Microsoft's product groups and technical information often not publicly available.

THG's competencies include .NET application development, infrastructure deployments, Line-Of-Business solutions, security, product training, and strategic consulting.

Delivering projects in a fraction of the time it takes competitors, THG's proprietary project management process and attention to detail consistently produces a 98% client-retention rate.

Everywhere clients need THG to be, the consultancy has operations, engineers, and partners located in countries around the world that are committed to the highest level of client satisfaction.

**To learn more about THG, please visit [www.HensonGroup.com](http://www.HensonGroup.com). For more information on how THG can deploy this type of solution in your environment, please call 800.980.1130 or e-mail [Info@HensonGroup.com](mailto:Info@HensonGroup.com).**