

# Feature

To respond to accelerating structural changes to the market, the azbil Group is tackling "business structure reform (or creating new businesses)" and conducting CSR management that prioritizes people.

This section presents our latest initiatives in the areas of "international" and "environment," two key words in our transformation.

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Feature

## For Sustainable Growth

# Responding Effectively to a Changing Business Environment

Market needs have changed significantly since the start of the twenty-first century with the combined effects of shifts in the social structure and advances in technology. These changes have given rise to new industries, along with potential new challenges. The azbil Group views these changes as opportunities for growth, and is working alongside its customers to solve the new challenges they face on site.

### Growing with Our Customers by Responding to Changes in Market Needs

The azbil Group provides comprehensive support throughout the equipment life cycle based on an evolutionary approach for customers who want to maintain and enhance their competitiveness using existing facilities. At the same time, we offer innovative products and applications that customers need in newer industrial fields that have advanced with shifts in the social structure – industries such as production of carbon fiber and other highly functional materials, as well as semiconductors and fuel cells. Our detailed service, including participation in projects from the specification design stage, helps create new value.

Two features of the azbil Group make this possible: a structure that allows us to provide integrated services from consulting, system design and engineering to maintenance, and our commitment to understanding and solving customer problems on-site rather than just selling products. To that end, we draw on our many years of human resources development and the specialized technologies and knowledge we have accumulated. Our extensive record of results

attests to the success of this approach.

The azbil Group will continue to provide powerful support to customers who are working to develop new products and services adapted to shifts in the social structure and market needs. We will also innovate ourselves to achieve sustained growth together with our customers.

### Providing Solutions for One of the World's Largest Semiconductor Production Equipment Manufacturers

One example of this approach is the temperature control solution we provided for a major electronics and semiconductor production equipment manufacturer in North America.

The company is a leading global supplier of innovative devices and related services and software used in the manufacture of products requiring advanced technology, including semiconductors and flat panel displays. Its technologies help make smartphones, flat-screen televisions, and other products higher performing, more compact, and more affordable for users.

## With product development geared precisely to customer

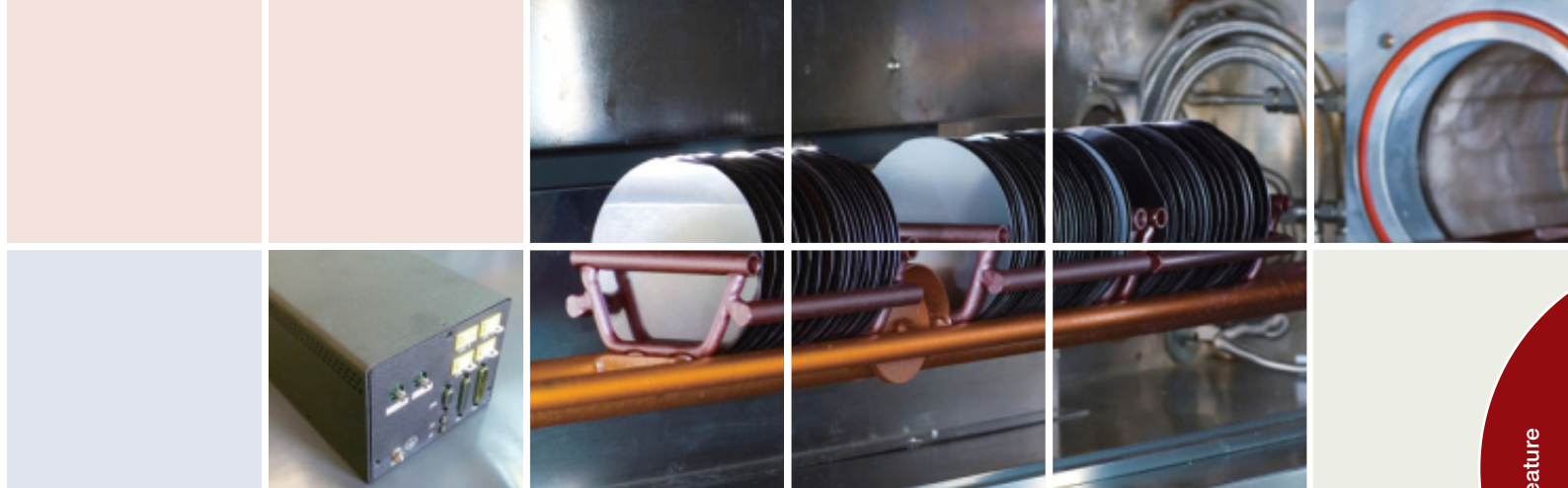


### Case Study

#### Initiatives at Azbil North America

We participated in designing this unit instrumentation for the world's largest semiconductor production equipment manufacturer from the review of the customer's outline specifications, and cooperated in drafting the actual specifications. Having the azbil Group – with its extensive track record of results from front-end to back-end processes for Japanese semiconductor production equipment manufacturers – participating from the specification review stage and solving problems together as temperature control instrumentation professionals gave the customer high expectations and peace of mind.

The customer appreciated the azbil Group's quick response to various customer requests, including on-site evaluations and problems in the field, starting from the creation of specifications. This was the first time we had worked with them, but we could sense the project manager's strong enthusiasm when he said,



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The azbil Group's solutions are applied in the manufacturer's highly intelligent and productive silicon etching systems for mass production of cutting-edge memory and logic chips, chemical vapor deposition (CVD) systems required in thin film formation, chemical mechanical planarization required for wafer surface preparation, and other systems. The temperature control solution azbil proposed was indispensable for the completion of these systems, which raise the yield of increasingly complex semiconductors and reduce energy consumption, thus preserving the environment and lowering operating costs. But this project involved more than just providing high-quality heaters, temperature sensors, and digital indicating controllers. It also required in-depth knowledge of the digital communications that link these devices and precise engineering capabilities to put them together in unit instrumentation as a turnkey system solution that conformed to the stringent specifications identified by the customer as target performance objectives leading to the improvement of their product offering to the end user. With U.S. subsidiary Azbil North America serving as the communication contact and supplier coordinator, and cooperation between the

marketing and development divisions of Yamatake in Japan, the azbil Group met this difficult challenge. We used Yamatake's DMC10 digital indicating controller as the core, and directed the design of and procured the necessary heaters, sensors and other components from strategic partnerships made with specific sub-tier suppliers globally from the U.S., Japan, and other countries in order to provide a dynamic total thermal control solution manufactured as unit instrumentation, resulting in an excellent evaluation from the customer. The temperature control solution developed by azbil is now built into the customer's semiconductor production equipment, contributing to the production of advanced semiconductors in factories around the world.

### Expanding Globally with Our Customers

The azbil Group will augment development and the customization of functions in regions around the world to deliver precise product development and solutions tailored to various customer needs in each area. By doing so, we will advance and grow with our globally expanding customers worldwide.

## needs, the azbil Group grows together with its customers.

"I want to create global state-of-the-art equipment." We also gained their trust as a partner, which made it a worthwhile project, even though it was a difficult job. In addition to the azbil Group's product development and technical expertise, our relationship of trust with the customer and our mutual enthusiastic commitment to creating the best system possible were vital in the successful completion of the temperature control solution.

Going forward, we are now leveraging our success in this customer's initial opportunities to expand our capabilities and product development portfolio in order to broaden our scope of solutions to other applications for semiconductor production equipment such as CVD, ion implant, MOCVD, FEP and exhaust gas abatement. In parallel, we strive to invest additional resources in servicing the end users of such equipment, giving Azbil North America full-circle industry understanding that ties back to our product development on the equipment manufacturing side, thereby leading to our goal of being the global leader in our focus market.



**Bill O'Banion**, Business Development Manager (left)  
**Nobuyuki Onishi**, Engineering Manager (right)  
 Azbil North America, Inc.

## On Behalf of the Environment and Local Communities

# Contributing to Environmental Preservation and Society through Our Business Operations

The azbil Group emphasizes “proactive CSR” in order to contribute to its stakeholders through its business operations. Based on its HVAC control systems and other energy-saving technologies and its expertise in emissions trading, the azbil Group is contributing to the community while leading the way toward a low-carbon society.

### Smart Cities and Smart Communities: An Emerging Trend

Measures to reduce CO<sub>2</sub> emissions are being implemented in countries around the world to solve the problem of global warming. Smart cities and smart communities are local initiatives to help realize a low-carbon society through effective use of electricity and integrated local management of energy, including heat and unused energy, along with various combinations of measures at the community level such as transformation of transport systems and people’s lifestyles. Similar changes are also starting to gain momentum in Japan. Concrete measures include smart grids that use advanced information technology for optimal control of storage batteries in dispersed power sources such as solar, wind and biomass and other types of renewable energy, and fuel cells. Intangible measures include optimal operation of electric vehicles and sharing of energy between business sites. In addition, frameworks are being created for energy management in communities.

### The azbil Group – Contributing to Environmental Preservation through Energy Management and Control Technology

The increase in energy consumption in recent years has been especially prominent in the residential and commercial sectors. In the commercial sector in particular, HVAC systems in offices and other buildings are driving a sharp rise in consumption. Building energy management systems (BEMS) are at the core of energy management and control in such buildings. At the same time, the expertise to properly run those systems is a key factor. The azbil Group is the leading provider of BEMS in Japan as well as one of the top-ranked groups globally, and has a strong presence based on its extensive installation experience and other accumulated knowledge.

By using BEMS and other building automation technologies to coordinate multiple building energy management systems and by promoting community energy management systems (CEMS) that use BEMS over a wide area, the azbil Group is contributing to the creation of smart cities and smart communities and, by extension, to the realization of a low-carbon society.

## Pursuing a Variety of Approaches



**Toru Kaneko**  
Hokkaido Branch  
Building Systems Company  
Yamatake Corporation

### Case Study

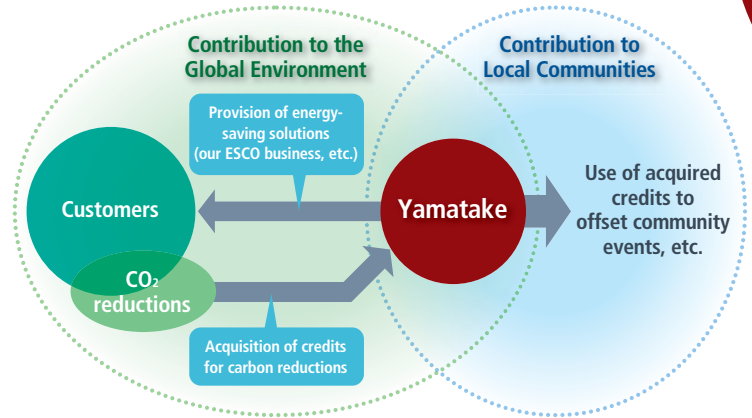
#### Sapporo Factory

Sapporo Factory, which opened in 1993 in Sapporo, Hokkaido, is a commercial complex that includes approximately 160 shops and facilities. Because of its considerable energy requirements during the frigid Sapporo winters, the complex has implemented large-scale energy-saving measures three times in the past. Thereafter, repeated operational measures failed to have any significant effect. To achieve further energy savings, the facility adopted a proposal from the azbil Group. Using our support service for installation of highly efficient house/building energy management systems to minimize the financial burden, the complex added inverters to the air handling unit (AHU) fans and hot water pumps to achieve optimal control of air volume and flow. As a result, it surpassed its targets for energy savings and reduction of CO<sub>2</sub> emissions by a wide margin.



## The azbil Group's Contributions Using the Domestic Credit System

The azbil Group is also contributing to local communities. We acquire credits for the carbon emissions reduced through the use of BEMS and other air-conditioning management and control technologies and use them to offset local events such as marathons. The azbil Group was the first in the private sector in Japan to make use of emissions trading in this way, and is a leader in this area, providing one-stop services from consulting for successful emissions trading to practical support and advice on utilizing purchased domestic credits. We will continue to promote CO<sub>2</sub> reduction with effective use of the domestic credit system, and will continue to use the credits we acquire for offsets. With these and other initiatives, the azbil Group is leading the way toward realization of a low-carbon society through its business operations.



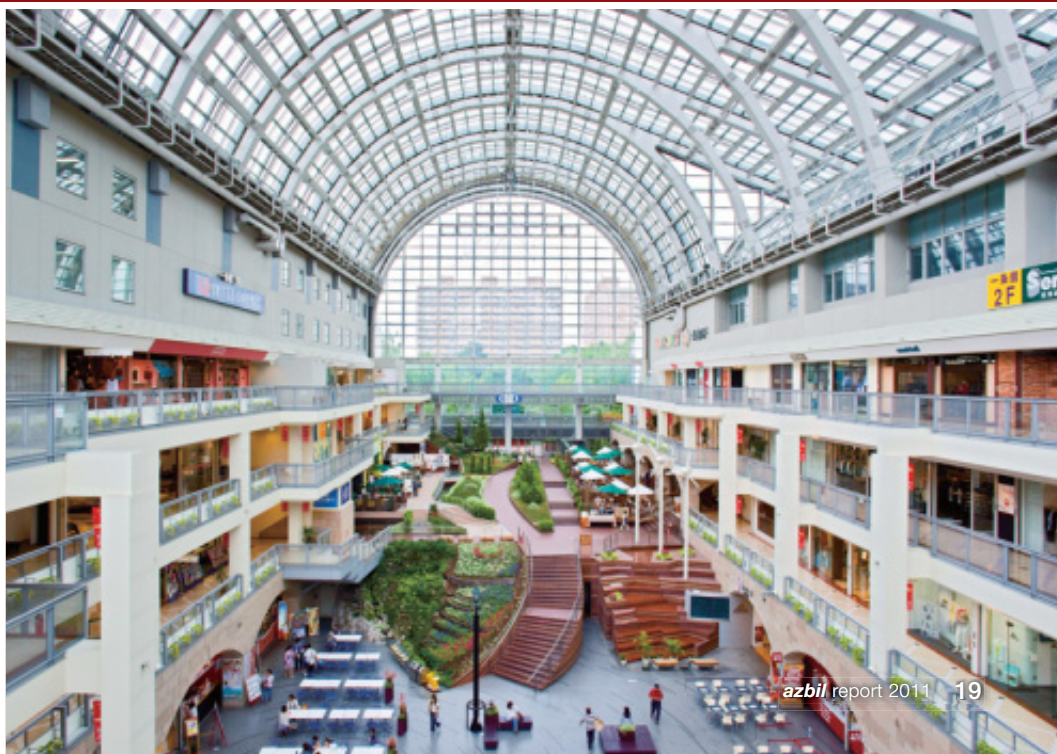
### Assisting Post-Earthquake Reconstruction through Our Core Businesses

Following the Great East Japan Earthquake, we received many requests from our building and factory customers for consultation on operating methods and implementation of controls to quickly conserve energy and cut peak power usage. In addition, our various services helped to quickly restart factories and plants, while our city gas and LP gas business and water meter business played a role in the restoration of social infrastructure. Immediately after the disaster, our emergency alert response service also acted as a consultation desk and confirmed the safety of people in the affected areas, for which many of our customers expressed their gratitude.

# to Achieve a Low-Carbon Society

Furthermore, the azbil Group acquired credits generated by this project, and used the carbon offsets against the 57 tons of CO<sub>2</sub> emitted by the staging of the 5th Shonan International Marathon, which was co-sponsored by the azbil Group and in which many azbil Group employees participated.

This series of projects is a prime example of how we not only help customers achieve CO<sub>2</sub> reductions through our business operations, but contribute to local communities using the domestic carbon credit system.



## Providing Peace of Mind and Safety to More People

# Accelerating Overseas Expansion in the Infrastructure Field

Stable and safe supplies of energy and water are essential to a nation's growth. Infrastructure build-out in fast-growing Asian countries is creating major business opportunities, and azbil Group company Kimmon Manufacturing is leveraging its quality and track record in Japan to expand its presence internationally.

### A Track Record of 100 Years of Peace of Mind and Safety

Kimmon Manufacturing researches, develops, manufactures and sells measurement and metering equipment such as gas and water meters as well as instrumentation systems, and also performs installation and maintenance service. It accounts for the bulk of sales in the Life Automation business. Kimmon Manufacturing was the first in Japan to develop the gas meter in 1904 and to manufacture the water meter in 1913. In other words, it has contributed behind the scenes to the stable supply of water and energy in Japan for more than a century. From the standpoint of safety, in 1981 it developed Japan's first intelligent gas meter with safety functions that prevent secondary disasters by automatically shutting off the gas during emergencies such as earthquakes. Stable supplies of gas and water are now taken for granted in Japan, but establishment of such safe and secure infrastructure is an urgent issue in countries in Asia and other regions that are experiencing rapid economic growth and population expansion.

### Targeting Global Expansion Starting in Taiwan

Installation of security functions on gas meters became legally required in Taiwan in January 2011. This is projected to generate new demand for some 300,000 units per year. Kimmon Manufacturing has been selling intelligent gas meters in Taiwan since 1995, but will use the enactment of the new law to rapidly scale up its presence in this market. In May 2011, it partnered with a Taiwanese company to establish a local joint venture, Azbil Kimmon Technology. Through this new company, Kimmon Manufacturing will be able to respond quickly to local market needs in line with the new law, while also leveraging the "Japan brand," its excellent reputation for safety.

There is also potential for expanding sales of intelligent gas meters with safety functions in China, Singapore and other Asian countries. The azbil Group plans to build on its experience and track record in Taiwan to aggressively expand globally in the Life Automation business field.

## Providing Peace of Mind and Safety Globally

### Case Study

### Full-Scale Entry into Taiwan

We will deliver peace of mind and safety to the people of Taiwan by selling intelligent gas meters with safety functions, an area in which we have an excellent track record in Japan. Kimmon Manufacturing will likely face various challenges as it expands overseas for the first time, but we will solve these with our joint venture company. We are also looking to expand further into high-value-added businesses in the future to offer even greater peace of mind and safety.

#### Masahiro Uenishi

Chairman  
Azbil Kimmon Technology Corporation

