

# Case Histories

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## Viessmann Heats The Arctic North

Hundreds of miles above the Arctic Circle is North America's northern-most municipality — North Slope Borough at Alaska's upper tip. The climate can be frigid with temperatures dipping as low as -60 degrees F during the long winter. Not surprisingly, for the 7,000 residents of North Slope Borough, heating systems are serious business.

In Barrow, seat of the North Slope Borough, and surrounding communities, the existing home heating systems — many between 20 and 30 years old — had become increasingly unreliable and expensive to operate. Their mix of high-mass cast-iron single-pass boilers and forced-air heating systems urgently needed replacement.

The Tagiugmiullu Nunamiullu Housing Authority (TNHA) in Barrow provides housing assistance services to the North Slope villages. In 2004, the TNHA decided to retrofit heating systems in seven of the North Slope communities — a total of 77 heating systems. Bob Danner, project manager for the TNHA, had a big decision to make.

"There are no roads to most of our communities out here, the boilers needed to be flown in. They are not easily replaced, so we had to make sure we chose a reliable system. Heat is a primary life-health-safety issue up here. If you don't have heat, you're close to death — it's as simple as that."

Bob attended a Viessmann Academy training seminar in Langley, British Columbia, before the TNHA started the retrofitting project. "We talked to some contractors in Fairbanks — their weather is about as harsh as ours — and



they have been having really good luck with Viessmann heating systems. Everything I learned in the Viessmann training seminars verified what these guys told us about the reliability and fuel efficiency of the products.

"At the Viessmann training I met guys from all over Canada and the U.S. Being able to talk to actual contractors who had been working with Viessmann convinced me, then I had to convince my boss.

"I told him that putting in one of these less-expensive boilers was like buying a Chevy Chevette; putting in a Viessmann was like buying a Mercedes-Benz. Some of these other models might not last 10 years but a Viessmann could last up to five times that long if taken care of properly."

In all, 57 of the 77 homes were retrofitted with Vitola 200 oil-fired heating boilers, the flagship of the Viessmann line. Equipped with cast-

iron and steel double-wall heat exchangers, these boilers can operate at much lower temperatures than conventional boilers, cutting energy waste and standby losses dramatically. The boilers were installed with Vitotronic outdoor reset controls to modulate the boiler water temperature to outdoor weather conditions. For additional savings and added comfort, indirect-fired Viessmann Vitocell stainless-steel domestic hot water storage tanks were installed.

"We have seen considerable cost savings in the villages already and people are pleased. One of the homeowners in Wainwright was going through 55 gallons of fuel oil every week. Now he's down to 35-40 gallons a week. When he saw the savings he was grinning ear to ear!"

Says Bob, "These Viessmann heating systems have really helped these people."

As seen in *PM*

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