

GREENING THE PISTE

Historically the U.S. skiing industry has not been known for its environmental leadership. However, some organizations in the industry are placing environmental policy at the core of how they do business and renewable energy is playing a key role. Perhaps the number one player in this regard is the Aspen Ski Company based in Colorado, USA. Don C. Smith, Refocus U.S. Correspondent, considered Aspen's leadership role with Auden Schendler, Director of Environmental Affairs.

No industry faces more potential for business failure from environmental disruption generally and global climate change in particular than the skiing industry. Several years ago, the National Ski Area Association, an industry advocacy group, said, "Given the ski industry's dependence on weather, climate changes that produce weather patterns of warmer temperatures or decreased snowfall could significantly impact the industry." More recently, a report presented to the International Olympic Committee predicted that the snow line will climb about 100 meters with every degree the temperature rises. Put succinctly, adequate snowfall on one hand and warmer weather on the other are simply not a winning combination for the skiing industry. Consequently, environmental protection especially as it involves slowing global climate change is imperative if the skiing industry is to survive much less prosper.

The skiing industry's fundamental need for slowing global climate change however must be weighed against its resource intensive underpinning. The industry depends on

vast amounts of electricity to run ski lifts, pump water for snow making, and power lighting and heating skiing facilities, all of which in turn generates millions of tons of carbon emissions. How to address this challenge while at the same time participating in a successful business venture is what Auden Schendler focuses on. Mr. Schendler is responsible for greening the Colorado-based Aspen Ski Company (ASC) by concentrating on reducing natural resource consumption and associated greenhouse gas emissions. Previously having served as a research associate in corporate sustainability at the well-known Rocky Mountain Institute in Aspen, Mr. Schendler is widely regarded as having taken environmental issues in the skiing industry to a new level.

"This position is unique," Mr. Schendler says, "in that it is not a public relations position. If it were, we might focus more on recycling and other visible, though lower impact, actions. As it is, we focus on abstruse issues like climate, energy, and building design."

The leadership within ASC, which owns four ski resorts, Aspen Ski Mountain, Aspen Highlands, Buttermilk, and Snowmass as well as the Snowmass Lodge and Golf Course and the Little Nell Hotel in Aspen, comes directly from Pat O'Donnell, president and CEO of ASC. Mr. O'Donnell has said, "At [ASC], we depend on a healthy

Environmental leadership in the Skiing industry



environment - clean air, stable climate, and a healthy ecosystem - for our continued success. Our ultimate goal is sustainability, which means we do not degrade the environment, enabling us to stay in business forever." A member of the first American attempt to climb Annapurna range in Nepal, Mr. O'Donnell has hiked the 200 plus mile John Muir trail alone without a tent or sleeping bag. According to Mr. Schendler, Mr. O'Donnell has the full support of ASC's owners, the Crown family of Chicago.

While Mr. Schendler says ASC has been proactive because "it's the right thing to do," he acknowledges that there are major business benefits as well. Among the benefits are: savings from reduced energy consumption; better building and mechanical system performance through green building and commissioning programs; enhanced reputation through positive news coverage; the widely-held perception that Aspen is the "greenest ski resort" in the industry; and reduced risk in knowing that they are in no danger of being fined for hazardous waste since ASC has nearly eliminated it. Mr. Schendler also points to the benefits of cutting their own carbon emissions since "Climate [change] threatens our whole business."

About the author

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Supporting climate change legislation

Addressing climate change is the "organizing principle around all work" Mr. Schendler says. In this regard, ASC has publicly supported the McCain-Lieberman Climate Stewardship Act, which calls for large firms to reduce emissions to year 2000 levels by 2010 and to 1990 levels by 2020. In addition, ASC supports establishment of a national renewable energy portfolio standard and has lobbied Colorado Gov. Bill Owens and the State Legislature to enact a state renewable energy portfolio standard.

Using renewable energy

ASC has been particularly active in two areas: using renewable energy and increasing its efficiency while using energy. Currently ASC buys 5 percent renewable energy from its electricity utility Holy Cross Energy. The premium for this energy amounts to about \$25,000 annually. In addition, since the power produced by Holy Cross already contains a 7 percent renewable component, Aspen is effectively deriving about 12 percent of its electricity from renewables. In addition, ASC has developed a way to use its snowmaking infrastructure to power the ski industry's first 115 kilowatt micro-hydro plant during the spring runoff, thus gener-

ating clean power in a way that can be copied by any ski resort with a snowmaking system. In effect, melting snow during the spring and summer seasons will be channeled into a series of pipes that will deliver water to a Pelton turbine. The electricity generated will be sold to a local utility. "The [return on investment] is better than PV or wind," Mr. Schendler says adding, "We have the project up and running and next spring we think we'll make 250,000 kilowatt hours of clean energy." Finally, ASC uses B20, a domestic biodiesel fuel, for its snowcats. Over the course of a winter, ASC will use 260,000 gallons of B20 at a cost of \$50,000. "It's more expensive, but it keeps the air clean, helps get the U.S. off foreign oil, and sets a standard the rest of the industry is already following," Mr. Schendler says.

Increasing energy efficiency

On the energy efficiency front, ASC has undertaken an extensive lighting retrofit, including a three-story garage and the entire "back of the house" at the Little Nell, a five-star hotel, where guests don't go but where lights are on all the time. By converting from metal halide to T8 bulbs in the garage, and from four-bulb T12 fixtures to three-

bulb T-8s, ASC saves about 450,000 pounds in carbon dioxide emissions annually while also enjoying a 50 percent return on investment. "The beauty of this project is that we showed you can save money in a hotel dedicated to guest service, where energy use is secondary to service, and where there's a perception that good service requires lots of energy use," Mr. Schendler says. A new energy management system has also been installed at the hotel, thus allowing other major efficiencies including running fewer boilers and operating garage fans with carbon monoxide monitors instead of having the fans running constantly. Energy efficiency has also improved on the ski slopes with the installation of new snowmaking compressors that are 30 to 40 percent more efficient than the old ones. This step alone has translated into the elimination of 1.3 million pounds annually of carbon dioxide emissions. In addition, ASC estimates that the electricity savings associated with the compressors amounts to nearly \$50,000. Finally by making snowmaking half pipes (a half pipe is a ski hill feature that is shaped like a trough that snowboarders ride up and down along) out of dirt instead of snow, ASC saves \$30,000 in electricity and 7 million gallons of water annually.

Keeping Winter Cool

The National Ski Areas Association (NSAA), a skiing industry trade association made up of 62 ski areas in Canada and the U.S., has teamed up with the National Resources Defense Council (NRDC), one of the leading U.S. environmental campaigning groups, in an effort to address global warming.

According to the two groups "global warming is a bottom line issue for the \$3 billion ski industry and its employees, as well as a key environmental concern. Protecting the winter climate is also crucial for more than 11.5 million U.S. skiers and snowboarders." A 2004 review by NRDC of climate science in mountain environments noted that one forecast by the U.S. Global Change Research Project indicated that skiing could be entirely eliminated from the Rocky Mountain/Great Basin region by 2070. In addition, the review pointed out that 2002 was a terrible year for fires, particularly in Colorado and Oregon. Across the western U.S., more than 7 million acres burned.

Geraldine Link, public policy director for NSAA, has said, "Winter is short enough already. We want to start fixing the global warming problem now." Similarly, Daniel Lashof, science director of the NRDC Climate Change Center, has noted, "Winter climates are where global warming hits first, which is why it is a major concern

for anyone spending time on the slopes. The good news is that global warming is a problem we can fix. The problem is pollution from burning fossil fuels."

NSAA and NRDC have combined efforts to establish a program "Keep Winter Cool" aiming to fight climate change by raising visibility and public understanding of global warming and spot-lighting opportunities that exist now to start addressing the problem. The program has highlighted ski areas that are leading by example:

- Mt. Hood Meadows Ski Resort in Oregon purchased enough renewable energy to run one express chair lift during the 2003-2004 season, thus avoiding 234 tons of carbon emissions;
- Vail Mountain in Colorado purchases 300,000 kilowatt hours per year of wind energy to power an express lift and, as a consequence, reduces carbon emissions by 300 tons;
- Jackson Hole Mountain Resort in Wyoming powers two of its chairlifts with wind power.

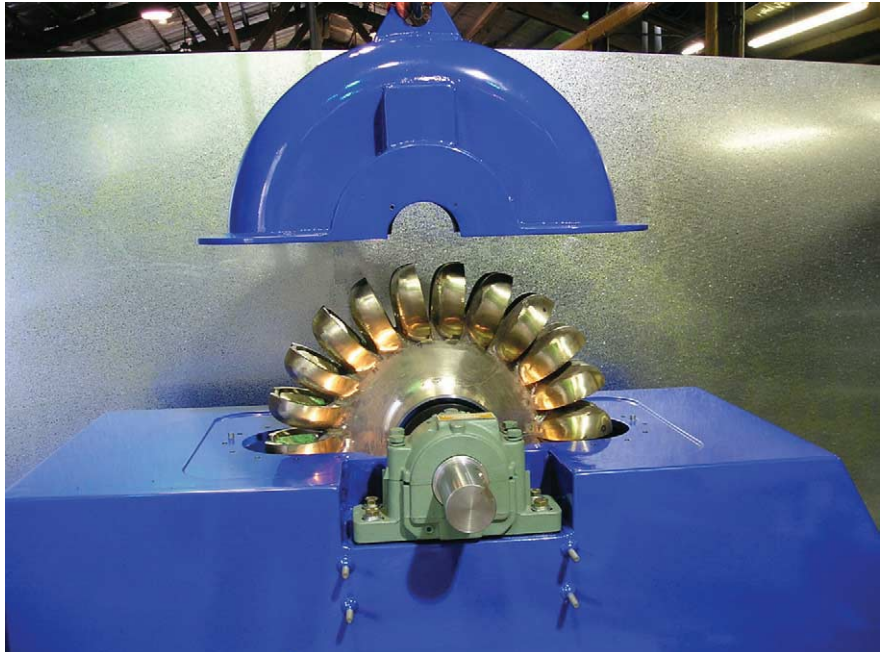
In addition, the program encourages skiers to contact their elected officials about the need for legislation addressing climate change and to consider joining NRDC, which has on-going legislative and legal efforts focusing on global warming.

Aspen Sustainability Associates

In addition to making improvements in ASC's business model, an ancillary business associated with the company's forward-looking approach has developed. Aspen Sustainability Associates (ASA) is ASC's green business consulting arm. It was created since Mr. Schendler was already spending considerable time providing advice to other businesses. Among other things, ASA provides support on green building and energy efficiency. "We look at ways that businesses can save money, protect the environment, improve their image by doing the right thing, and most important spread the word so others can follow," Mr. Schendler says. The market reaction to ASA has been "very good" according to Mr. Schendler, with the consultancy working on several projects and having submitted bids for a number of other large projects.

ASC's efforts recognized

ASC's environmental efforts have garnered the company high praise in the skiing industry. Earlier this year, Mountain Sports Media, publisher of SKI and SKIING maga-



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zines, awarded ASC the Golden Eagle award for overall environmental excellence. "The company holds itself to a high standard and resists resting on past achievements," Mountain Sports said. In addition, ASC's environmental record has been recognized by

the Ski Area Citizens' Coalition (SACC), a group working to ensure that ski area management decisions, either by the U.S. Forest Service, the ski companies, or local governments, "are responsive to the needs of real environmental protection, local communities, and the skiing public." As part of its effort, SACC has established a Ski Area Environmental Scorecard that rates more than 70 skiing areas across the western U.S. According to the SACC, "The...scorecard strives to differentiate between those ski areas that engage in environmentally sound practices on the ground versus those that merely claim to do so. While there will always be environmental impacts from creating and operating a ski resort, the intent of the scorecard is to rate resorts on the environmental performance of their current management, not on the impacts from the time of the creation of the resort."

According to the 2004/2005 scorecard, three of ASC's four skiing areas, Aspen Mountain Ski Resort, Aspen Highlands, and Buttermilk Ski Resort were awarded the grade of "A" and recognized as at the top of the list of most environmentally friendly ski resorts. ASC's fourth operation, Snowmass, received the grade of "C." ASC's performance relative to the scorecard earned the company recognition most recently in an editorial in The Denver Post, which suggested that while some ski areas were "faking it" Aspen was clearly not among them.



Aerial photograph of the Aspen Ski Company's Powerhouse, Colorado, USA