



The Desk and Derrick Journal

Greater Knowledge - Greater Service

Association of
Desk and Derrick
Clubs

3rd/4th Quarter 2009

Volume 58, Issue 2



Inside this Issue:

Editor's Corner	4
Notes from ADO	5
Words from Your 2009 Officers	9
Bataan Memorial Death March	10
Greenhouse Gas Emissions: A Global Issue	13
Grand Canyon: Journey of a Lifetime	14
Wind Power 101	16

The Association of Desk and Derrick Clubs

The Association of Desk and Derrick Clubs (ADDC) is an international educational organization made up of individuals employed in or affiliated with the petroleum, energy, and allied industries.

Mission Statement

To enhance and foster a positive image to the global community by promoting the contribution of the petroleum, energy, and allied industries through education by using all resources.

Purpose

The purpose of the Association shall be to promote the education and professional development of individuals employed in or affiliated with the petroleum, energy, and allied industries.

Cover Photo

Photo was taken by Christine Wolfe, Buckeye Club, during the September 2009 Calgary Convention.



2009 Association Board Of Directors

The Desk and Derrick
Journal

Contact Information

Nell Lindenmeyer—Editor
nell@apluswell.com

Mailing address for
Correspondence:

Association of
Desk and Derrick Clubs
5153 E. 51st Street, Suite 107
Tulsa, OK 74135-7442

The Desk and Derrick Journal (DDJ) is the official publication of the Association of Desk and Derrick Clubs, an international energy education organization.

The *DDJ* is published by the Association of Desk and Derrick Clubs with offices at 5153 E. 51st Street, Suite 107, Tulsa, OK 74135-7442 to provide news of ADDC and the allied industries to its members.

Byline and credited articles represent the views of the authors. Publications in the *DDJ* neither implies approval of the opinions nor accuracy of the facts stated.

Bulk mailing rate postage paid at Tulsa, OK.

Association Board of Directors

Reginia Garner, President Silver Oak Drilling, LLC	Christine Wolfe, Region I Director Marathon Oil Company LLC
Donna Siburt, President-Elect Dominion East Ohio	Marsha Bundy, Region II Director Marathon Pipeline Company
Angelia Duplessis, Vice President ConocoPhillips	Elaine Lesnak, Region III Director M-I SWACO
Judi Adams, Secretary Shell Exploration	Lois Roberts, Region IV Director Edward Jones
Ruby Redington, Treasurer ConocoPhillips	Linda Clark, Region V Director A-Plus Well Service
Sheryl Minear, Immediate Past President WolfePak Software	Linda Gau, Region VI Director Continental Resources
	Brian Carter, Region VII Director FortisAlberta Inc

Assisting the Board

Misty Hendricks, Executive Assistant Hendricks Consulting	Nell Lindenmeyer, Parliamentarian A-Plus Well Service
--	--

Andre' Martin, Manager
Association Distribution Office

Editor's Corner

Dear Fellow Members,

As I write this Editor's Letter for only the second time I am grateful that Reginia and the board approved to publish only two (2) Journals this year. It has nothing to do with the Journal per se...it's the fact that I don't think my body at 51 could/should take anymore surgery in one year, lol. The first journal was delayed due to major surgery in April. The second journal was delayed due to knee surgery in December. Talk about taking one for the team or in this case two for the team.

Anyway – once more I must extend my heart felt thanks, appreciation, kudos etc to Christine Wolfe for being willing and enthusiastic in getting this Journal to you. Next time you see her at a Regional or Convention tell her you appreciate her!

Thanks also to Kieron Corr-Wright and Christine for use of many of the photographs from convention. And while you are at it congratulate and thank each other for your commitment and camaraderie to this organization.

This has been an amazing year. It has been a privilege to serve the Association as Parliamentarian. I have been honored to work with Reginia Garner, both as a friend I've known for many years and as the Association President. What an awesome job you did Reginia. I may have been remiss in telling you this but you created a solid link in the Association for the next few years. Kudos and I'm proud of you.

I also appreciated the opportunity to present a seminar with Barbara Rollinson, 1989 ADDC President and all around awesome person and inspiration. To those of you who are new members or maybe members just looking to be involved you don't need to look any further than the Barbara Rollinsons of the Association for role models. And to deliver the keynote speech at the Membership Recognition Luncheon will be a highlight of my years in Desk and Derrick. At my first convention in 1977 I never imagined that would be something I would attain in my membership.

I have often said that when I look back on my years in Desk and Derrick it won't be the awards won, the offices held or presentations achieved that will be my fondest memories. It will be the fellow members who became cherished lifelong friends, fellow members who inspired me to achieve and be all I never imagined and more, and friends who are no more who showed me uncountable gifts of unselfishness. Each memory has been woven into a part of my life and career from 17 to 51. Thanks for the ride and the gift of friendships. The greater knowledge and greater service that has taken me to places I never imagined both personally and professionally. And thank you for the many opportunities afforded me to pay back the membership for the years of unselfish commitment each of you made to this organization. It was an honor to represent the BEST two Regions (VII and V) and clubs (Denver and Farmington) in leadership roles. And it was an amazing privilege to serve as 2003 ADDC President.

I have also said that when I no longer had the drive or commitment or dedication that this organization deserves from me (or any member for that matter) that I would no longer be just a name on the roster to achieve 35 years or 40 years or even the golden number of 50. It's never been my nature that you should feel honored that I renewed my membership for another year. I have always been honored in my membership and to be a part of this dynamic and vital organization. SO I wish each of you well and know that I walk away after 34 years knowing this organization is in great hands for the future. ♦



Welcome 2010 ADDC Officers

Donna Siburt, President
Tuscarawas Valley Club

Angie Duplessis, President-Elect
Westbank Club

Judi Adams, Vice President
Houston Club

Marilyn Carter, Secretary
Alberta Foothills Club

Linda Clark, Treasurer
Artesia Club

Reginia Garner, Immediate Past President
Artesia Club

Brenda Snow, Executive Assistant
Tuscarawas Valley Club

Sheryl Minear, Parliamentarian
Abilene Club

Notes from ADO

What a fantastic year 2009 has been!!!

Here we are getting ready to begin another decade . . . it just seems like yesterday that we were preparing for all the uncertainty and craziness we thought would happen when the clocks turned to the year 2000. However, life and time moved forward . . . no major “glitches”, and we were fine.

At the end of this year I’ve been reflecting on the things that were AND the things that will be. I want to thank the 2009 Board of Directors for their leadership under the direction of Reginia Garner. It was great working with and serving as your ADO. A special thanks to the GAC and Region VII for hosting such an incredible convention in Calgary, AB. What a delightful and inspiring event in such a beautiful setting. To all the 2009 Club Presidents, I hope that you were able to access the forms and supplies you needed this year either via the ADO or website. ET and the Foundation – thank you for your important work and service to the energy community.

Now as we come to 2010, I’m excited to work with a new President, Donna Siburt, a new Board of Directors and new Club Presidents.

Helpful Reminders: Please use the forms found on the website. I would say that we are at about 90% having all the Forms and Manuals updated on the ADDC website. There is so much work to do for this project. If you are looking for a Form that either is not available or is not accessible, please contact ADO. With this said, please discard all older forms if they have been replaced with new forms. This will keep all records consistent throughout all of the Clubs as well as here at ADO.

Also, if any Club has videos or items that need to be returned to ADO, please do so. In going through the VHS/DVD list I realize that some items are missing. If you’ve had a problem with a VHS/DVD please return it or contact ADO so I can mark it off of our list that’s posted on the website. Thank you.

May everyone have a safe end of 2009 and an incredible 2010!!!

André



Regions of the Association of Desk and Derrick



REGIONAL INFORMATION

2009 Regional Directors ... Job Well Done!

Christine Wolfe, Region I Director
Marathon Oil Company LLC

Marsha Bundy, Region II Director
Marathon Pipeline Company

Elaine Lesnak, Region III Director
M-I SWACO

Lois Roberts, Region IV Director
Edward Jones

Linda Clark, Region V Director
A-Plus Well Service

Linda Gau, Region VI Director
Continental Resources

Brian Carter, Region VII Director
FortisAlberta Inc

Welcome 2010 Regional Directors

Jennifer Smith, Region I Director
Penn-York Oil/Gas Afflt. Club

Kathy Deshaiser, Region II Director
Bay Area Club

Keith Atkins, Region III Director
El Dorado, Arkansas Club

Star Hasse, Region IV Director
Dallas Club

Cheri Rogers, Region V Director
Roswell Club

Andrea Conner, Region VI Director
Oklahoma City Club

Lynne Dunstan, Region VII Director
Edmonton Club

The Desk and Derrick Journal

ADVERTISING RATES

(Ad copy sizes stated in columnar widths, based on a 2-column page.)

SIZE	WIDTH	HGT	Members/ Clubs	Member/ Clubs	Non-Memb Business
Vertical Sizes					
1/2 Pg	3 ¼"	9"	\$100.00	\$130.00	\$175.00
1/4 Pg	3 ¼"	5"	\$ 50.00	\$ 70.00	\$ 90.00
Horizontal Sizes					
1/2 Pg	7 ¼"	4 ¾"	\$100.00	\$130.00	\$175.00
1/3 Pg	7 ¼"	2 ½"	\$ 70.00	\$ 95.00	\$120.00
Horizontal Sizes Outside Back Cover Only					
1/2 Pg	7 ¼"	4 ¾"	\$100.00	\$150.00	\$200.00
Other					
Full Pg	7 ¼"	9"	\$200.00	\$275.00	\$350.00
Column (4 issues)			\$200.00	\$250.00	\$300.00
Business Card	3"	2"	\$ 25.00	\$ 35.00	\$ 60.00
Patron Saint (one line)				\$10.00	

NAPE EXPO



FEBRUARY 10-12
HOUSTON

NAPE IS
ALL BUSINESS



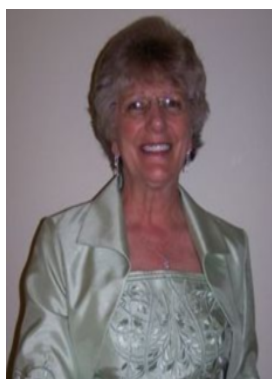
The World's Largest Prospect & Property Expo

Register at: www.napeexpo.com

Words From Your 2009 Officers

And so here comes Ruby, last!

I could talk for a long time about D&D and the many opportunities that I have had. D&D members are the best support group anyone could ask for. I have shared with my club many times that I never did anything wrong. We all know that is not really a true statement, but in the hearts of D&D members, as we are learning we are not doing anything wrong. In our own hearts, we know when we have used a word incorrectly, or talked too fast---we are in fact, our own critics. I appreciate so much the opportunities that I have been given within the organization. It has truly made me a stronger person.
--thank you. ♦



And, now a word from Judi:

It seems like forever and it seems like only yesterday - but exactly 20 years ago, I got my first taste of Desk and Derrick working with my sister-in-law Theresa Adams on a Cajun Christmas presentation to be made at the Westbank Club's December meeting. From there, I started helping at volunteer events and attending social activities; I was not eligible to join at that time because I was working contract jobs on a short-term basis. I was hired full-time by Shell in June 1990 and attended my first "real" D&D meeting in September - I was eligible to join as I had three months permanent employment by then. Well, my membership application and check for dues for the remainder of the year were handed in and I was nominated to the office of Secretary for the upcoming year that night . At the October meeting, I was elected - and I'm pretty sure my dues check had not even cleared the bank yet!

Over the course of my 17 years as a member of the Westbank Club, I was privileged to hold every office - some more than once - and to work on each committee. I transferred my membership to the Houston Club in late 2007, having lived here for almost two years by then and missing the monthly meetings that had been such a part of my life before moving to Houston in mid-2005. Since transferring, I've served on the Board of Directors and chaired several committees.

I attended all but one convention (1991) and one region meeting (1998) during that time and served as Executive Assistant in 2000 and Region III Director in 2004, as well as on numerous ADDC committees as Region Rep or Chairman. The opportunities and experiences over this time helped me to understand the structure and functions of Desk and Derrick and to meet many wonderful D&D friends throughout the Association. (But, there's still a lot to be learned and many more friends to meet.)

I am looking forward to the next few years - especially next year serving as Vice President and working closely with ADDC President Donna Siburt and Convention GAC Pat Cook on the convention here in Houston in September. Your friendship and support over the past 20 years have helped me through the deaths of my mother and two brothers, a divorce, numerous job assignment changes, and the big move from LA to TX. I don't know how I would have gotten through it without D&D. ♦



Bataan Memorial Death March

By: Molly Limpus and Kate Ediger
Roswell Club

Part 2 of 2

On March 29th 2009 I find myself standing in the dark in the Desert of the White Sands Missile Range in New Mexico with over 5,300 participants from every state, territory, and many countries around the world, waiting for dawn and the start of my very first marathon (or race of any kind). Molly, my friend and training partner from D&D, had a death in the family and was unable to attend.



The opening ceremonies were held under a giant American Flag waving proudly in the early morning breeze. Staff Lt. David H. Huntoon, Jr. set the perfect stage for what the day would be about. He said, "This march is an uncommon marathon because it speaks to all of us about the things that truly matter...This march is about the selfless service today of our Armed Forces and our allies, who stand a collective watch around the world for the principles of freedom, protecting our right to assemble

here in this peaceful place by their presence in the dangerous places. Finally, this march speaks most importantly to the courage and the sacrifice of the brave Americans and Filipinos, who suffered a terrible ordeal of the Bataan Death March in April, 1942." Just before the start of the march there was a flyover of F-22 Raptors, a stirring rendition of the National Anthem, and roll call honoring the 13 Bataan survivors who were in attendance along with the 24 Wounded Warriors participating in the march. I had the privilege of meeting and shaking hands with the Bataan survivors and other WWII veterans. I said "Thank you for your service," to one gentleman and he replied, "Thank you for honoring me here today." That was all the motivation I needed to get through the day: knowing that one man who had made such huge sacrifices for me, was honored by this event. The race began. I turned up the music on my iPod and set out. Most of the marathon is on desert roads. They are a mixture of dirt, sand, and loose gravel. Every two miles there were volunteers handing out water, Gatorade, oranges, and bananas. You definitely need the energy from these rest stops because at mile 8 you begin going uphill and continue uphill for the next 5 miles until you reach the halfway point of the race, which is also the backside of the small mountain you have to go up and around. Mile 12 was my hardest of the entire day. It took everything I had to keep my feet moving. I finally made it to mile thirteen – halfway!

I stopped along with a group of soldiers to rest, change socks, have a snack, and try to talk myself into some confidence. I asked one of the soldiers to take my picture, at least I would have proof I had made it halfway. I got back on the trail. Much to my surprise, I felt great! Mile thirteen starts the downhill part of the mountain, but it's not all downhill – it's up and down, up and down. But I was feeling good again and ready for the second half.

At the rest area at mile fifteen, I was honored to have my picture taken with Cpl. Lloyd R. Hackenberg. Lloyd was awarded the Bronze Star and Purple Heart along with more medals than I could count during his service in WWII. He even gave me his address and we have now exchanged a few cards and letters and I sent him a copy of the picture we took together that day. He sent me a patch from the unit he served in during WWII. He was part of Merrill's Marauders.

Back to my own march...I had a couple of small blisters that I applied moleskin over. Around mile nineteen, the combination of moleskin and swelling feet had made my shoes feel tight and I was getting several more blisters. Each new piece of moleskin seemed to make a new blister somewhere else.



I was still feeling good though, despite the blisters. Then I hit mile twenty: close to one mile of deep sand! It's a dry arroyo (or riverbed if you aren't from NM) with ankle deep, rocky sand. I had heard about the deep sand, but I didn't know what an energy killer it would be. I didn't know how to train for this, and I'm not sure if any training I would have done would have prepared me. I had such a difficult time. No exercise can make your legs burn like this sand did. After the sand, the blisters were really starting to hurt and my legs were on fire. Each step took a conscious effort.

Continued on Page 17

Continued from Page 16



Words from the opening ceremonies kept ringing in my head. Army Brig. Gen. David L. Mann called this event “a living history lesson that will not just test your endurance, but make you think.” From mile twenty-one to the end I did a lot of thinking. I thought about how hard the day was, but how little it actually compared to the unbearable six days that the Bataan POWs were forced to walk 100 miles while

being deprived of food, water, restroom breaks and medical care - all at the threat of being shot or bayoneted for falling behind. Imagining what they went through, along with the sense of accomplishment and fatigue, made me quite emotional the last few miles. The tears ran down my dust and sweat covered face.



competing in the march every year for as long as I am physically able. Currently, I am on week 3 of training for the 2010 march and have already registered and reserved a space for my RV so I can be there, ready to go, at the break of dawn. Pinned directly over my heart will be my Merrill’s Marauders patch and I cannot wait to wear it proudly!



With about a tenth of a mile to go I could finally see the finish line! I ran that last part and was so glad to see my family and friends cheering for me. I finished in 8:18:06.

Another quote from Brig. Gen. Mann rang true at the end of the day. He said, “Whatever your reason for participating, you will leave here a changed person.” I still have a hard time believing just how true this quote proved to be. Those emotional last five miles have not left me even almost a year later as I update his article. I cannot talk about my experience at the Bataan Memorial Death March without tearing up. The change I experienced is very hard to put into words, but I can put it into steps. The thousands of steps I will take training and

Want to join me or maybe just learn more about it? Please visit www.bataanmarch.com and www.marauder.org. ♦



PHOTOS FROM CALGARY CONVENTION



Greenhouse Gas Emissions: A Global Issue

**By: Natalie McClelland
Buckeye Club**



Tom Barney, Marathon Oil Corporation Chief Economist, presented a seminar entitled, “Climate Policy Choices: Cap and Trade” to members and guests of the Buckeye Desk and Derrick Club on Friday, May 8, 2009, at Marathon’s Findlay Office Complex. Tom began his presentation by noting that greenhouse gas (GHG) emissions are a global problem requiring a global solution.

The media has warned of four alternating global warming and cooling periods since 1895. Although many people think humans are largely responsible, the largest source of GHGs is water vapor (95.00 percent) followed by ocean biologic activity, volcanoes, decaying plants, animal activity, etc.(4.72 percent). The smallest contributor (0.28 percent) is considered human additions.

Tom noted that many graphs depict rising carbon dioxide (CO2) levels, and he showed us one such graph. However, the relative size of the increase is often greatly exaggerated by magnifying a small segment of the value axis. He also noted that global CO2 levels will continue to increase as energy needs rise with population increases. Even if we reduce emissions in the U.S. sharply through the proposed cap and trade legislation, the net world balance of emissions will increase, unless developing countries impose similar constraints.

The reality is that fossil fuels will be needed for generations as emerging technologies are developed and made commercial. The U.S. Department of Energy projects that hydrocarbon fuels will still comprise 79 percent of total US energy use through the year 2030. Most people today strongly support alternative energy sources, including nuclear and wind power, but don’t want it in their back yard. Additionally, getting any project approved takes years, if approved.

We have several choices regarding climate change. We can do nothing and simply try to adapt to temperature changes if/when they occur. We also can continue to improve energy efficiency standards and make investments in new technologies. Or we can impose a GHG tax on manufacturers. House Energy and Commerce Committee Chair Henry Waxman (D-CA) and Energy & Environment Subcommittee Chair Edward Markey (D-MA) recently proposed a climate change and energy legislation bill referred to as cap-and-trade. The bill would impose a limit on carbon dioxide emissions in the U.S. and require businesses to purchase “allowances” for excess emissions.

The increased cost of compliance would then be passed on to consumers in the form of higher energy costs. This type of cap-and-trade “scheme” is much more aggressive than what was proposed in 2008, and gives our government unprecedented power to redirect income and jobs as they determine who deserves the privilege of using hydrocarbon fuels.

Tom demonstrated the consequences of cap-and-trade by distributing slips of paper to members of the audience. Each slip of paper had something different written on it, such as: *“You are a U.S. manufacturer. You are required to buy allowances equivalent to the CO2 emission equivalents of the fuels you consume. You can reduce your purchase allowance requirements by investing in greater efficiency or by moving your production offshore to an unregulated country. You have to raise the prices of the products you sell to reflect the cost of the allowances.”* Other members of the audience received the following: *“You are a developing country manufacturer. You are not required to buy allowances equivalent to the CO2 emission equivalents of the fuels you consume. Because your energy costs are lower, you can increase your business by exporting your products to countries that have capped greenhouse gas emissions. You might even be able to raise prices and profit margins for the products you sell, expand capacity, and offer more jobs to potential employees hoping for a higher standard of living.”*

The cap-and-trade proposal also imposes premature constraints on the use of hydrocarbon fuels, which will reduce our economic competitiveness; increase domestic job losses to overseas entities; and result in higher emissions as manufacturing is sent offshore to countries with lower or no environmental standards. There are several important questions to ask regarding the cap-and-trade proposal:

- Is it an effective global solution?
- Are the costs transparent to consumers and suppliers?
- Is it sustainable with economic and energy security concerns?
- Should markets or politicians pick winners and losers?

Tom again noted that GHGs are a global problem requiring a global solution, and suggested technology first as the solution. Better technology and true lower cost energy alternatives is a model that developing countries would have to follow. Rationing and reducing U.S. competitiveness is unlikely to spur the developing countries to follow. ◆

Grand Canyon: A Journey of a Lifetime

By: Nell Lindemeyer
Farmington Club



I stood at the rim of the Kaibab Trail in the Grand Canyon, on Halloween 2009 and peered below as far as I could see. And almost like the kid's song I thought "all that I could see...was the other side of the next canyon". I never saw the bottom

from where we stood that day. Dressed in silly costumes for Halloween my friends and I played tourist that afternoon scoping out all the rims of the South Grand Canyon that we could as if we were just one of the 5 million people, that visit the Grand Canyon yearly. The difference was that the next day we would join the ranks of the less than 1% of the 5 million tourists that visit the north and south rim annually and backpack to the bottom of the Grand Canyon.

I can not capture this entire experience in words, pages or photos. Two months later it is still a surreal experience. This was my first backpack experience. It was also my first time to see the Grand Canyon. In some ways it would be 5 days that would change my life.

It was a dream backpacking trip that a couple of us had planned for over a year. My goal was to be in shape when the permit was approved and be ready to take the challenge. While the desire to do the physical aspect of the trip was strong...I was excited that when I reached bottom I would touch a part of our earth that was 1.84 billion years old. I would walk and sleep and play for a couple of days where history was pre-historic and the world was what many fictional movies of pre-historic times are about.

When I stood at the South Kaibab trailhead and lifted on my backpack I knew it was real. My pack at 35lbs was one of the lightest and consisted of my freeze dried food and clothing for the 5 days as well as my sleeping bag, sleep pad, tent AND enough water (for me 3 gallons) for the hike down since no water is available on this particular trailhead after October. Because we chose to go down in late fall weather was a concern as snow is common that time of year at the Canyon. However, we lucked out and it was absolutely beautiful for the 7.1 mile hike to Bright Angel Campground. As we started down the trail a sign was posted "Going down is optional. Coming up is mandatory". That is the first clue to the degree of difficulty for the trail. It is breathtaking, it is stunning, it is invigorating and it is challenging. It is Mother Nature at her best and worst. What I did not realize was that to prevent erosion of the trails they are stair stepped all the way down, except for maybe ½ mile of trail that is flat and smoothed. I also learned on my way down that for every step you take going down the Canyon you go back 2000 years in time. I was

immediately humbled and awed with that understanding. I later calculated that based on the campground being at 1.84 billion years old that we walked 914,000 footsteps (almost all stairs) to the bottom that day. I also learned that it will take its toll on you. I was physically in great shape as far as I knew. However, I had a knee alignment issue that I did not know about until I was about 45 minutes from the bottom of the Canyon going down when it gave out on me. I've learned a long time ago that there is no room for sympathy when it's you against nature on a hike. This was definitely no different. I continued down and hoped to rest my knee without anyone knowing I was injured. The problem was as the sign said coming up is mandatory. I did have a chance to rest and thought maybe the knee will hold up. On flat ground and around the campsite it was pretty good. The bad news was that the hike out of the Canyon was 9.1 miles straight up. The good news was we planned to camp at Indian Springs campsite half way up and split the climb out into 2 days. The bad news, going up hill is stair stepped as well. By the time I got to Indian Springs I knew the next day was going to be tough and I wasn't sure how to tell my fellow hikers I was struggling. Like I said before...backpacking isn't for the faint of heart and coming out of the Grand Canyon everyone is at full steam just to get themselves out. And our first aid kit had everything but an ace bandage. Fortunately I was talking to a fellow climber from St. Louis who had an ace bandage he gave me. I hoped to see him again to get an address for a thank you note and a bottle of wine perhaps but our paths didn't cross again. I wrapped the bandage tightly around my knee and 'fessed up to my friend that I was injured. The next day out was to be a challenge as my knee was more and more damaged with each step. I was able to make it about 4 miles up without much help but stopping every couple of switchbacks to rest it. But at the last stop for water and rest my friend had to take my tent, sleeping bag and pad along with snacks etc leaving my pack as light as possible. The struggle was harder. This is the time you test what you're made of and you realize that there are angels on earth. She was already carrying a 38 to 40lb pack before adding my items. I had worried that my asthma would be my problem on this trip but there I had no issue. While I was disheartened, that I couldn't walk out with full pack and both knees on my own accord, it was a test to the mettle of who you are and who you're friends are to climb out with an injury. At the time we had no idea what the problem was and assumed it was injured by the hike down. . As it turned out it was a misalignment of the left knee that I've probably had all my life and didn't know about.



Continued on Page 16

PHOTOS FROM CALGARY CONVENTION



Continued from Page 15



It would have given out eventually, the hike down just speeded up the time process. The first week of December I had knee surgery for a lateral release of the patella and a tear in my meniscus caused by the knee injury. I'm already back lifting weights and snowshoeing and planning our next Grand Canyon backpacking trip. ♦

*The Grand Canyon will never be conquered.
It will continue to stand as the bar for which we will test our mettle, man and woman against nature. Until we realize it is enough to just stand in awe and give thanks to God for the gift....*

I will return! Nell Lindenmeyer, November 2009

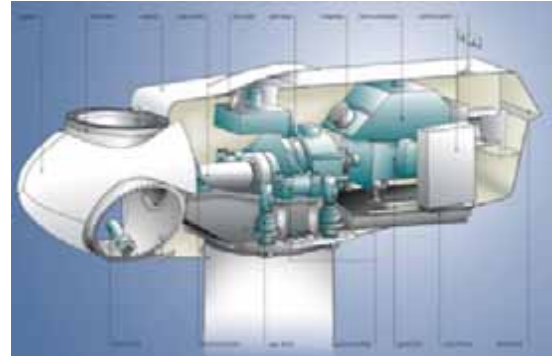


Wind Power 101

**By: Sharon McClare
Alberta Foothills Club**

Jason Edworthy from TransAlta Wind presented this seminar at our ADDC Convention in Calgary. I have added additional facts and details to augment this seminar.

TransAlta is a highly contracted power generation and wholesale marketing company with 4-9 facilities owned and operated, producing 10,773 MW gross and 8,444 MW net capacities. TransAlta Wind, a branch of TransAlta, builds, owns and operates wind electric power plants. Their activities include wind prospecting, exploration, development, production and operating. Currently, TransAlta Wind owns and operates 253 wind turbines, with a capacity of 288 MW and generates



greater than 859,000 MWh/year which is the equivalent energy for more than 110,000 homes.

TransAlta has wind farms at Castle River, McBride Lake, Summerview, Blue Trail, Ardenville, and various other areas in Alberta as well as the Kent Hills in New Brunswick. They use Vesta turbines using horizontal position, which has proved most effective in Alberta. They are simply constructed and easily maintained.

Wind power is the conversion of wind energy into a useful form of energy, such as electricity, using wind turbines. As of May 2009, eighty countries around the world are using wind power on a commercial basis. Wind Energy is a result of solar energy that has daily and seasonal variations and is affected by topography. The resource measurement is similar to seismic exploration. Of the basic wind turbines in use, the horizontal axis type is the most common commercially.

Large-scale wind farms are connected to the electric power transmission network; smaller facilities are used to provide electricity to isolated locations. Utility companies increasingly buy back surplus electricity produced by small domestic turbines. Wind energy as a power source is attractive as an alternative to fossil fuels, because it is plentiful, renewable, widely distributed, clean, and produces no greenhouse gas emissions. However, the construction of wind farms is not universally welcomed because of their visual impact and other assumed effects on the environment.

Wind power is non-dispatchable, meaning that for economic operation, all of the available output must be taken when it is available. Other resources, such as hydropower, and standard load management techniques must be used to match supply with demand. The intermittency of wind seldom creates problems when using wind power to supply a low proportion of total demand. Where wind is to be used for a moderate fraction of demand such as 40% additional costs for compensation of intermittency are considered modest.

Continued on Page 17

Continued from Page 16

Good selection of a wind turbine site is critical to economic development of wind power. Aside from the availability of wind itself, other factors include the availability of transmission lines, value of energy to be produced, cost of land acquisition, land use considerations, and environmental impact of construction and operations. Wind farm designers use specialized wind energy software applications to evaluate the impact of these issues on a given wind farm design.

Wind power density (WPD) is a calculation of the effective power of the wind at a particular location. A map showing the distribution of wind power density is a first step in identifying possible locations for wind turbines.

Wind Power Usage

Installed wind power capacity (MW)		
#	Nation	2008
1	United States	25,170
2	Germany	23,903
3	Spain	16,740
4	China	12,210
5	India	9,587
6	Italy	3,736
7	France	3,426
8	United Kingdom	3,288
9	Denmark	3,164
10	Portugal	2,862
11	Canada	2,369
World total (MW)		121,188

There are now thousands of wind turbines operating, with a total capacity of 121,188 MWp. By 2010, the World Wind Energy Association expects 160GW of capacity to be installed worldwide, up from 73.9GW at the end of 2006, implying an anticipated net growth rate of more than 21% per year.

The average output of one MW of wind power is equivalent to the average electricity consumption of about 250 households. Wind resources over and around the Great Lakes, recoverable with currently available technology, could by itself provide 80% as much power as the U.S. and Canada currently generate from non-renewable resources.

Canada experienced rapid growth of wind capacity between 2000 and 2006, with total installed capacity increasing from 137 MW to 1,451 MW, and showing an annual growth rate of 38%. Particularly rapid growth was seen in 2006, with total capacity doubling from 684 MW at end-2005. This growth was fed by measures including installation targets, economic incentives and political support.

Small-scale wind power

Small-scale wind power is the name given to wind generation systems with the capacity to produce up to 50 kW of electrical power. Isolated communities may use wind turbines to displace diesel fuel consumption. Individuals may purchase these systems to reduce or eliminate their dependence on grid electricity for economic or other reasons, or to reduce their carbon footprint. Wind turbines have been used for household electricity generation in conjunction with battery storage over many decades in remote areas.

Grid-connected wind turbines may use grid energy storage, displacing purchased energy with local production when available. Off-grid system users can adapt either to intermittent power, batteries, photovoltaic or diesel systems to supplement the wind turbine. In urban locations, where it is difficult to obtain predictable or large amounts of wind energy, smaller systems may still be used to run low-power equipment. Equipment such as parking meters or wireless Internet gateways may be powered by a wind turbine that charges a small battery, replacing the need for a connection to the power grid.

Distributed generation from renewable resources is increasing because of the increased awareness of climate change.



Growth and cost trends

Wind and hydroelectric power generation have negligible fuel costs and relatively low maintenance costs. Wind power has a low marginal cost and a high proportion of capital cost. The estimated average cost per unit incorporates the cost of construction of the turbine and transmission facilities, borrowed

Continued on Page 18

Continued from Page 17

funds, return to investors (including cost of risk), estimated annual production, and other components, averaged over the projected useful life of the equipment, which may be in excess of twenty years. Energy cost estimates are highly dependent on these assumptions so published cost figures can differ substantially.

Although the wind power industry was impacted by the global financial crisis in 2009, five year forecasts up to 2013 projects substantial growth. Over the past five years, the average growth in new installations has been 27.6 percent each year.

Many potential sites for wind farms are far from demand centers, requiring substantially more money to construct new transmission lines and substations. The win, which was historically a nuisance, is now becoming a valuable resource, but it may be far from large populations, which developed in more sheltered areas.

The commercial viability of wind power also depends on the price paid to power producers. Electricity prices are highly regulated worldwide, and in many locations may not reflect the full cost of production, let alone indirect subsidies or negative externalities. Customers may enter into long-term pricing contracts for wind to reduce the risk of future pricing changes, thereby ensuring more stable returns for projects at the development stage. These may take the form of standard offer contracts, whereby the system operator undertakes to purchase power from wind at a fixed price for a certain period; these prices may be different from purchase prices from other sources, and even incorporate a subsidy.

Wind energy in many jurisdictions receives some financial or other support to encourage its development. It benefits from subsidies in many jurisdictions, either to increase its attractiveness, or to compensate for subsidies received by other forms of production, which have significant negative externalities.

Secondary market forces also provide incentives for businesses to use wind-generated power, even if there is a premium price for the electricity. For example, socially responsible manufacturers pay utility companies a premium that goes to subsidize and build new wind power infrastructure. Companies use wind-generated power, and in return they can claim that they are making a “green” effort.

Environmental Effects



Livestock ignore wind turbines and continue to graze as they did before wind turbines were installed.

Compared to the environmental effect of traditional energy sources, the environmental effects of wind power are relatively minor. Wind power consumes no fuel, and emits no air pollution, unlike fossil fuel power sources. The energy consumed to manufacture and transport the materials used to build a wind power plant is equal to the new energy produced by the plant within a few months of operation.

Danger to birds and bats has been a concern in some locations. However, studies show new wind farms have very low collision rate with birds. TransAlta studies show that between 10 to 30 birds per wind farm die each year, which is low compared to other human activities, and especially the environmental impacts of using non-clean power sources. Fossil fuel generation kills around twenty times as many birds per unit of energy produced than wind-farms. Bats are a newer concern, and species appear to be at risk during key movement periods. Research is ongoing to study more about bat migration and flight behavior. While a wind farm may cover a large area of land, many land uses such as agriculture are compatible, with only small areas of turbine foundations and infrastructure made unavailable for use.

There are misconceptions about sound from wind turbines unless one has had a direct experience listening to them. TransAlta’s goal is typically to be below 40 dBA at the closest receptors (sound in library reading room). The wind industry uses standardized models to predict sound levels at receptors. Post construction monitoring shows sound levels are less than predicted.

Visual and health impacts of wind energy have been criticized. However, the structures are built on typically open landscapes, using low reflectivity and neutral colors. Experience has indicated that there is a higher acceptance after a project is installed and has been operating. Recent claims by NIMBY groups of symptoms including sleeplessness, anxiety, and depression have not been proven in Alberta and some facilities have now been operating for over 12 years.

Wind and Turbine Facts

The modern wind turbine was built to adapt to all kinds of wind and weather conditions. Turbines can even be installed on water; they don’t need to be just on land.

Wind turbines generally consist of large blades mounted on tall towers attached to a horizontal shaft. As the wind blows, these blades cause the shaft to turn. The shaft is attached to a generator located inside the head, or “nacelle” of the turbine, which generates electricity. Cables carry this electrical current to transmission lines that then carry it to homes and businesses. Modern turbines rotate quite slowly, at an average

Continued on Page 19

Continued from Page 18

speed of 18 to 20 revolutions per minute.

Maintenance issues are also much smaller on a wind farm. At some conventional power plants, the entire plant may have to be shut down for repairs whereas at a wind farm, maintenance takes place one turbine at a time. This has led to availability factors (referring to the percent of time that a turbine is available to capture the wind) of 98% - much higher than conventional forms of energy production.

Benefits of Wind Power

Cleaner air is just one reason to increase the role wind power plays in Canada’s supply mix. Other reasons are:

1. Wind energy preserves water resources.
2. Wind energy is compatible with other land uses and can serve as a boost for rural economic development.
3. Wind energy does not produce any harmful waterborne emissions, or toxic solid waste.
4. Wind energy is renewable, highly reliable and very efficient.
5. Wind energy is one of the most economical sources of new large-scale electricity generation.
6. Wind energy is becoming even more economic to produce as economies of scale are reached and as electricity prices increase.
7. Wind energy is good for employment and job creation: it is estimated that the Canadian wind industry employed 3,785 people in 2006.
8. Wind energy supports economic growth: in 2006 the wind industry contributed \$1.6 billion to Canada Gross Domestic Product (GDP).
9. Wind energy generates tourism for local communities.
10. Wind energy creates alternative revenues for farmers who lease their land.
11. Wind energy offsets the emissions of other energy sources, thus reducing our contribution to global climate change.
12. Using wind to produce enough power for over 200 homes (2,000,000 kWh) instead of burning coal will leave 900,000 kilograms of coal in the ground and reduce annual greenhouse gas emissions by 2,000 tonnes. This has the same positive impact as taking 417 cars off the road or planting 10,000 trees.

Canada’s electricity system is at a crossroads. Demand is rising and many power plants are approaching retirement. We need more power, and concerns over climate change, air pollution and acid rain damage mean we have to look at cleaner ways to generate it.

Wind is an obvious part of the solution. Wind is quick to install and produces no air pollution or greenhouse gases that contribute to climate change. In fact, in light of the latest report from the Intergovernmental Panel on Climate Change,

which warns that in order to avoid the catastrophic impacts of climate change, we need to get global emissions to peak and start to decline before 2020, wind energy may well be the best solution right now. “In this critical period between now and the end of the next decade, we are really on the supply side and that is a pretty large responsibility,” says Steve Sawyer, the secretary-general of the Global Wind Energy Council.

What are our choices? Nuclear power has no emissions, but for the technology just to maintain its current market share, 150-180 new plants will need to be built between now and 2020. The complexities around getting those facilities permitted and constructed make it unlikely.

Clean coal is an option being pursued by power companies around the world, but commercialization of the technology is still years away. The Canadian Clean Power Coalition estimated that the earliest it can get a planned 500 MW demonstration plant operating is 2015.

New large hydro is a possibility but it faces long planning horizons and fierce public opposition to the environmental devastation caused by flooding huge tracts of land. Small run-of-river hydro facilities have fewer impacts, but are becoming increasingly difficult to access. Natural gas generating plants are easy to build, flexible to operate and produce fewer emissions than coal, but dwindling supplies and uncertainty over fuel prices make it a risky choice. Other renewable energy technologies, like solar power and ocean energy, are not yet mature enough to make a substantial contribution over the short term. ♦



**Association of
Desk and Derrick Clubs
5153 E. 51st Street, Suite 107
Tulsa, OK 74135**

PRSR STD
U.S. POSTAGE
PAID
TULSA, OK
PERMIT #2146



**Association of
Desk and Derrick
Clubs**

www.addc.org