

**THEY  
KNOW  
THE  
DRILL**



Travis Murray, General Foreman



Unforgiving terrain is no match for Hawkeye Construction on the Juniper Canyon Wind Farm in Klickitat County, WA

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**Klickitat County** in southern Washington is known as having one of the best wind resource areas in the Northwest, as well as a business climate that strongly supports renewable energy. Evidence of this support is certain when visiting the area and viewing the sprawling terrain and vistas dotted with hundreds

of turbines - proof that renewable energy is alive and well in the Pacific Northwest. Several more wind projects slated for the area are in various stages of planning and construction.

The wind farms have protected Klickitat County and neighboring counties from the fallout of recession, providing jobs, financial benefits to landowners and tax dollars to local schools

and county governments. Although the area is well-known for its arid climate and scenic beauty, the topography of the rolling, desert plains makes it difficult to farm or build much of anything, so landowners have been extremely strong advocates for wind farm development.

One example is the 151MW Juniper Canyon Wind Farm, developed by Iberdrola Renewables,

the world's leading provider of wind energy. In May of 2010, Iberdrola awarded Hawkeye Construction, a subsidiary of MYR Group Inc., a contract to construct 20.4 miles of 230kV transmission line between an existing BPA (Bonneville Power Administration) substation and a new 230kV BPA substation, to support increased transmission capacity generated by the Juniper Canyon project.



Hawkeye was also supported by MYR Renewables, a division of MYR Group that fosters relationships with best-in-class alternative energy developers. Also, the division assists MYR Group subsidiaries on wind and solar projects by sharing Company resources and collective knowledge to pass on lessons learned and develop management resources and processes for specific client and project requirements.

## CHALLENGES AT THE START

Already armed with extensive construction experience in the region,

Jeff Serocki (Project Manager) and Travis Murray (General Foreman) knew what they were in for when it came to digging the structure foundations in ground consisting primarily of solid rock.

The team encountered an additional challenge when they had to shorten the initial project schedule by two weeks after learning that Iberdrola and Mitsubishi (turbine manufacturer) required a 30-day “burn cycle” - meaning the line needed to be energized in order to provide power to the wind turbines for a 30 day balancing and calibrating period that was necessary before commissioning them. Because the project was



**BROTHERHOOD** - Travis Murray, General Foreman (L) and Todd Mills, Foreman (R) have extensive experience working together on projects such as the Juniper Canyon Wind Farm.

scheduled to complete in early to late fall, BPA needed adequate time to perform the balancing and calibrating prior to winter’s arrival. Otherwise, this process would need to be delayed until spring, jeopardizing the end of 2010 in-service date for the wind farm.

“Getting through the rock can be extremely time-consuming, and we have no time to lose given the new schedule constraints,” said Murray. “Short of some mechanical issues, our drilling equipment works very well, but we’re also trying a bigger, faster drill (HD400) on this project to make the larger holes needed for our steel 3-pole angle structures.” Wood H-frame structures were used for the remaining structures along the new route.

Mechanical issues contributed to the need to perform a variety of work types on any given day. Rather than having the ability to generally

sequence the project in the order of construction activity (drilling foundations, constructing poles, setting poles and pulling-conductor) crews were utilized in all phases of construction most days. The project team could not afford to endure any downtime in order to entirely complete one task before moving crews on to another, but did an outstanding job of managing a variety of workscopes at any given time.

Hawkeye contracted with Air2 Helicopters to aid in stringing the conductor across the deep canyons and valleys along the new transmission line route. Using this method the team averaged about 5 miles of conductor pulled per week.

## LIKE A ROCK

Working to everyone’s advantage was the fact that the project team primarily consisted of a core set of individuals experienced in working



**IT’S COMING TOGETHER** - Flanked by steel poles of an angle structure along the new 230kV route, crew members observe construction of a wind turbine that is part of the Juniper Canyon Wind Farm.



together on past projects. "This is a strong group," said General Foreman Travis Murray, "We already know each other's nuances and have developed a good system that works for us. "We save a

lot of time this way because everyone is already ahead of the learning curve, and there are no surprises."

Crews maintained their commitment to safety and

schedule by meeting the target completion date, working rigorous 12 to 13 hour days, 7 days a week with no recordables or lost time incidents.

*Paula Frisina*

*One exception to the core team was Assistant Project Manager Chris Lenahan, a recent recruit with aspirations of growing a career path towards project management. Chris already excels at maintaining budgets and project schedules, and has been gaining valuable field experience on a handful of projects. He is an excellent example of the Company's commitment to mentoring promising young professionals for career advancement.*



**NOT YOUR AVERAGE BIT** - *One of the enormous bits used on the HD400 driller.*



**BEAUTY IS ONLY SKIN-DEEP** - *Although numerous gorges and canyons throughout the landscape make for breathtaking views, they pose a host of challenges while constructing transmission lines throughout the area. Here, crews are assembling steel poles that make up an angle structure. The power of wind in this region is evidenced by the turbines in the background.*