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snowyhydro

NEWS



In this edition:

- *Update from CEO, Paul Broad - Winter is on its way*
- *More than just the Snowy Scheme - our multi-fuel assets*
- *Ready for winter 2016 - long range forecast update*
- *Murray 1 Power Station overhaul*
- *Preparing our young drivers - Young Driver Training*



Winter is on its way...



Winter is coming and Snowy Hydro is painting the ski fields Red (Energy) again for another snow season. **CEO, Paul Broad, explains...**

Winter is almost upon us and that means the Snowy Mountains region is gearing up for the peak tourism season where tens of thousands of visitors come to the region to enjoy the snow, as well as the hospitality and scenery that locals get to enjoy all year round.

Snowy Hydro, through our retail energy company Red Energy, will once again sponsor the ski fields this year so keep your eyes and ears out for our Red Energy signs and sounds on local radio stations at Thredbo, Perisher and Charlottes Pass. As a local company employing hundreds of people in the region, we're proud to back the Snowy Mountains and get the message out about our 100 per cent

Australian owned and operated energy brand - Red Energy - which is backed by the mighty Snowy Hydro.

Red Energy has been a major sponsor of festivals and events across the region throughout the year, including the very successful Back to Cooma Festival over the Easter long weekend and the more recent Festival of the Falling Leaf in Tumut. Our enthusiastic staff are always happy to chat to potential customers about the benefits of switching to Red Energy and we have been working with businesses across the region in the past few months, spruiking the benefits of Red Energy which is an industry leader in customer service.

With the arrival of winter, locals and visitors alike are keen to know all about the predictions for snowfall. Accurately predicting the weather is a tough business. Snowy Hydro is incredibly lucky to have a talented team of climate scientists who work with us to read and interpret climate indicators to give us as in-depth a view as possible about predicted rainfall, snowpack and inflows to the Snowy Mountains Scheme.

You can read an informed summary of predictions from our Atmospheric Scientist, Dr Thomas Chubb, on page 5. But broadly, we are looking to move out of El Niño with a high chance of La Niña meaning the next few months are looking to be wetter than average, but also warmer. This is good news for predicted inflows into the Snowy Scheme and means we will have healthy water levels to sustain higher levels of generation across the Scheme this year and to deliver downstream to town water supplies, the environment and irrigators.

On the generation front, we have just completed major upgrade works at our Tumut 1 Power Station at Cabramurra and will be moving our major works team to Khancoban to start major works on our Murray 1 Power Station. This is good news for the Khancoban community as, at its peak, we can expect around 80 additional staff working in the region with around 40 staff there permanently for the predicted works over at least a six month period. We understand how important it is to invest in and support our local communities to ensure they remain healthy and vibrant for our workforce and their families.

Lastly, an important reminder about safety. At Snowy Hydro, the safety of our employees and the people that live around and interact with the Snowy Scheme, is our highest priority.

We have noticed in recent times an alarming increase in the number of near misses on the roads around the Snowy Mountains. We drill into our staff the importance of safe driving and the majority of our Snowy Hydro car fleet has speed monitors installed which alert us when drivers are driving over the speed limit. Country roads have their own challenges - wildlife including kangaroos and brumbies, snow, rain and visibility challenges, as well as large trucks and caravans.

Please take care on the roads in and around the regions. Adjust your speed to suit the conditions and keep a watch for other drivers who may be doing the wrong thing. Thankfully, none of our near misses has resulted in serious injury to our staff. But you can never be too careful with your life. It's critically important that everyone goes home in the same shape, or better, each and every day. Take care when you're out there.



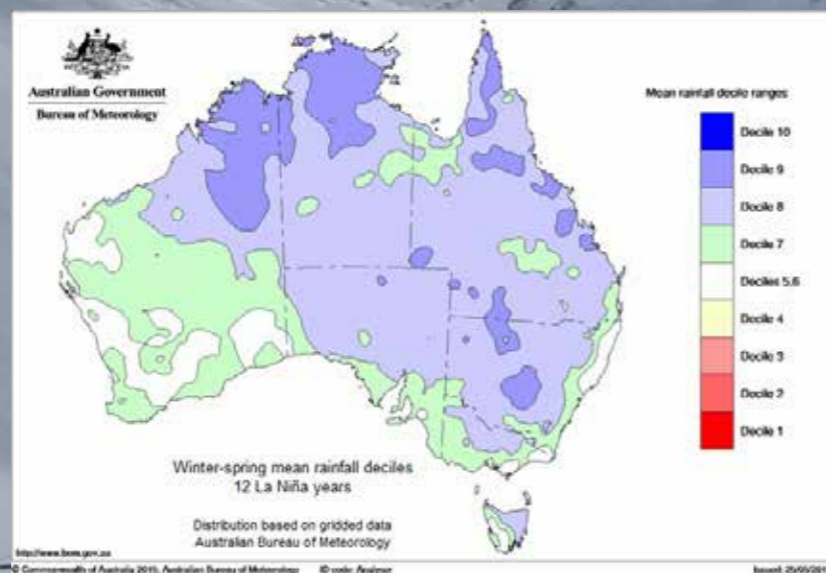
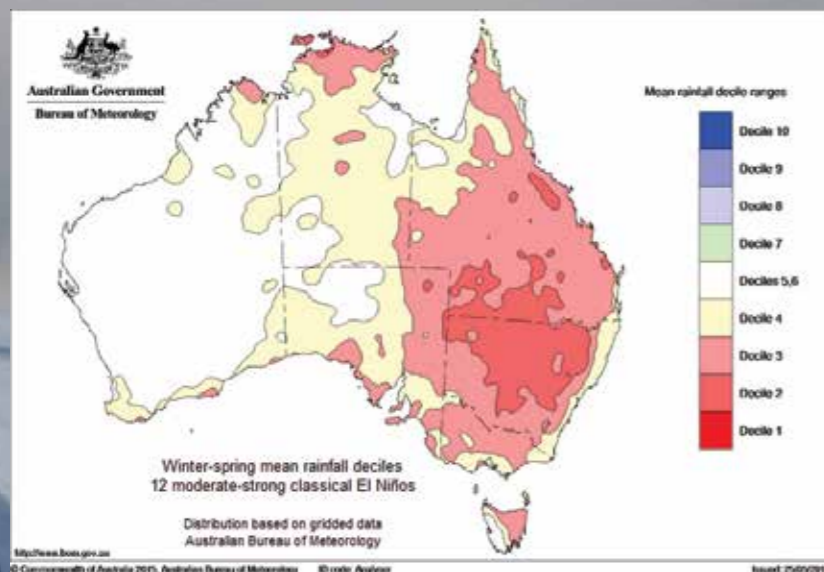
Some of the 2016 Major Works team once the main inlet valve was removed from Unit 4 at Tumut 1 Power Station.

“Please take care on the roads in and around the regions. Adjust your speed to suit the conditions and keep a watch for other drivers who may be doing the wrong thing.”

Ready for winter 2016 - our long range forecast...



Snowy Hydro has a team of weather specialists who are constantly monitoring and forecasting the weather over the Snowy Mountains. Our **Atmospheric Scientist, Dr Thomas Chubb**, outlines what to expect in the coming months...



The Weather and Water team at Snowy Hydro are a group of scientists and engineers who work on a diverse set of projects related to the water cycle. The team looks at the short and long term weather forecasts over the Snowy Mountains and use these to model the inflows expected into the Snowy Scheme. This information is used by Snowy Hydro to manage the use of the water in the Scheme safely, efficiently and responsibly.

The Snowy Mountains experienced an extremely dry and warm spring in 2015, with the warm temperatures continuing through the summer and early autumn months. These conditions can be largely attributed to the recent and highly publicised El Niño event, which was one of the strongest on record and had influences on climate around the globe.

El Niño/Southern Oscillation, or ENSO, is an ocean-atmosphere interaction in the Pacific Ocean. Warmer than average ocean surface temperatures and weak trade winds in the tropics characterise the 'El Niño' phase, while cooler ocean temperatures with stronger trade winds form the counterpart, termed 'La Niña'. In south-eastern Australia, El Niño is typically associated with drier and hotter conditions than normal, whereas La Niña brings wetter, and often cooler, conditions.

The Australian Bureau of Meteorology and other climate prediction centres are currently forecasting a 50-75% chance of La Niña occurring by the end of 2016, which is about double the long-term average. Furthermore, the current predictions for the Indian Ocean are for warmer than average conditions to the north-west of Australia, which is favourable for increased precipitation in the south-east of Australia.

The next few months are looking to be wetter than average, but also warmer. The Australian Bureau of Meteorology forecast a 70% chance of exceeding median rainfall from May to July in the Snowy Mountains. How this will translate into snow depth is less certain however, as the above average temperatures are expected to persist into mid-winter. This could mean that snow will be less likely to fall at lower elevations and will melt more quickly once on the ground.

The Cloud Seeding Program is operational and ready to go for 2016, so Snowy Hydro will be doing all it can to improve snowfall this year despite the subdued outlook. Snowy Hydro's atmospheric scientists are monitoring the weather forecasts closely for the first cold westerlies to come over the mountains.

The Cloud Seeding Program, which began as a trial in 2004, helps to increase snowfall over the Snowy Mountains in a targeted area of 2100km². A robust, independent evaluation of the trial was conducted in 2009 and found cloud seeding increased precipitation by an average of 14 percent and that there were no adverse impacts on the environment or rainfall downwind of the target area. Cloud seeding moved from a trial to an operational program in the winter of 2013.

Every year, Snowy Hydro provide a report on the cloud seeding operations to the Environmental Protection Agency (EPA) and the relevant Ministers. This report includes details on the compliance with the Environmental Management Plan and details of research monitoring the impact of cloud seeding on the environment. Snowy Hydro also provides a public operations report which is available on the Snowy Hydro website.



More than just the Snowy Mountains Scheme



Snowy Hydro now has multi-fuel generation capability across NSW, Victoria and South Australia, and a dedicated team ensuring the assets are reliable and available. **Chief Operating Officer, Roger Whitby,** gives an overview of our plant...

Snowy Hydro has evolved from an electricity generator managing risk in the National Electricity Market (NEM) to an integrated energy business - generating energy, providing price risk management products for wholesale customers and delivering energy to homes and businesses across Australia through our retail energy companies - Red Energy and Lumo Energy.

We are now the fourth pillar in the NEM; our 16 power stations generate 4500 gigawatt hours on average each year, and we have more than 5500 megawatts (MW) of generating capacity available across New South Wales, Victoria and South Australia. Of course, the reliable and fast-start Snowy Mountains Scheme continues to be the heart of our business and the jewel in our generation asset portfolio.

As the custodians of the Snowy Scheme, we take the responsibility of managing these iconic assets and the water that they capture and store, very seriously. It is not without its challenges to maintain plant that can be more than 60 years old. As such, we seek out and embrace technology and innovation to ensure our operations are always at the forefront of engineering excellence. In that way, we continue the great traditions of the engineers who envisaged and built the Scheme.

We are continuing to upgrade and maintain our hydro generation assets in the Snowy Mountains Region, and have employees based in our facilities across towns including Cooma, Jindabyne, Khancoban, Cabramurra and Talbingo. These employees work on long-term maintenance and upgrade plans for our assets, ensuring that they perform well when we need them.

Snowy Hydro also owns and controls 1,287MW of gas-fired peaking power stations - Valley Power and Laverton North in Victoria and Colongra in NSW. These fast-response, open-cycle gas plants are a perfect addition to Snowy Hydro's portfolio of hydro-electric assets. Together they provide fuel diversification and transmission risk reduction benefits, in addition to their role in supporting Snowy Hydro's risk management function in the NEM.

We acquired Valley Power in 2005 and we built Laverton North, completing construction in 2006. Colongra Power Station - located on the Central Coast in NSW - we acquired in late 2014. Colongra is the largest gas-fired power plant in NSW with a generating capacity of 667MW and delivers fuel diversification and transmission risk reduction benefits to Snowy Hydro.

Snowy Hydro's competitive edge now comes from our diverse range of multi-fuel assets across the eastern side of Australia

When we acquired Lumo Energy in late 2014, we also acquired 135MW of diesel peaking generation assets spread across three small diesel power station sites located at Angaston and Lonsdale in South Australia. Angaston Power Station has a capacity of 50MW and is located in the Barossa Valley to the North east of Adelaide. Port Stanvac (65MW) and Lonsdale (20MW) Power Stations are both located in the southern Adelaide suburb of Lonsdale and sit side by side. Our gas and diesel assets are maintained by employees in each of the centres, and all are remotely operated from our Snowy Mountains Control Centre in Cooma.

Snowy Hydro's competitive edge now comes from our diverse range of multi-fuel assets across the eastern side of Australia - and the team that operate and maintain them. Our assets perform when we need them to and our staff in our Trading and Operations team work seamlessly together to get the most out of our business when it matters.

These generation assets help to power the performance and energy supplied by our two retail companies - Red Energy and Lumo Energy. Both are incredibly successful brands and ranked top of the industry for customer service in both electricity and gas.

The Snowy Mountains Scheme is what makes us special at Snowy Hydro and our customers appreciate that we are 100 per cent Australian owned. Our customers are across New South Wales, South Australia, Victoria and Queensland.

It's this powerful combination of our assets, our people and our energy that make us one of the leading companies in our dynamic market.



red energy LUMO
1,000,000
customer accounts



Murray 1 Overhaul

and temporary closure of Murray 1 Visitors Centre



Snowy Hydro's \$400million Scheme Modernisation Program is about to reach the Murray Region. Area Manager for Murray, Drew Twigg, explains...

More than a decade ago Snowy Hydro embarked on a multi-million dollar Scheme Modernisation program to maximise the performance and output of the Snowy Mountains Scheme hydro-generation assets. The upgrades will help us to ensure the reliability and availability of our assets and enable us to operate more efficiently and effectively.

The program commenced back in 2006 with the Tumut 3 Power Station upgrade in Talbingo and more recently at the Tumut 1 Power Station in Cabramurra. The next major station upgrade will take place at Murray 1, which is located on the Alpine Way just out of Khancoban.

Modernisation works have been ongoing at Murray 1 over the past eight years with circuit breaker replacements, transformer upgrades and enhancements to the controls and protection of the main units. The work about to begin will see the first of the major overhauls commence. This includes mechanical upgrades and replacement of the turbines which will result in improved water utilisation, efficiency and smoother operation of the plant. These improvement works will continue - unit by unit - until around 2024.

At the peak of works we expect to have around 80 personnel on-site for more than a month, however a team of around 40 staff will be there for the predicted works over at least a six month period. This will help to significantly boost the local population and support local business in the Khancoban region.

Safety is very important at Snowy Hydro, for both our employees and the communities we operate in.

During the major works, there will be a significant increase in truck, car and people movements at Murray 1. As a result, we will be temporarily closing the Murray 1 Visitors Centre (located at the far end of the station) from the June long weekend.

Access to the area needs to be limited to those involved with the works and who are appropriately inducted to the site. The refurbishment will also bring in heavy haulage, traffic congestion and heavy duty works on site - and we are not prepared to jeopardise the safety of our people, our assets or the general public.

We have been working hard to create an alternate visitor experience for our valued customers at our Murray 2 Power Station located at the end of Murray 2 Power Station Road. We hope this will be up and running as soon as possible. To keep up to date with the progress please call 1800 6263 776 to speak to one of our friendly customer service officers about more details on the experiences and services that will be on offer.

By the end of June 2016 we aim to be running Murray 2 Power Station Inspections at 11am and 2pm which will be hosted by one of our great customer service team. Visitors will be able to view informative displays, watch our short video on the business and the Scheme and view the power station from the inside viewing area.

We would like to thank the community and the visiting public for their patience while we endeavour to create a unique visitor experience at Murray 2 during the refurbishment works.



Preparing our young drivers for unique road conditions



Snowy Hydro's Young Driver Training Program is one of our long standing partnerships with the communities of the Snowy Mountains. **Luke Judd, Team Leader, Discovery Centre,** outlines the 2016 program...

One of Snowy Hydro's core values is safety and it doesn't end at the workplace. We actively seek opportunities within our local communities to extend our safety values beyond our offices, initiatives such as our longstanding Snowy Hydro Young Driver Training Program.

The Snowy Hydro Young Driver Training Program has been running in various formats since 2002 and over time has seen well over 1000 young drivers from the region participate. The program is now run in conjunction with a number of local high schools including Cooma, Jindabyne, Corryong, Tumut and Tumbarumba and in 2016 more than 200 students will complete the training. The five schools participating in the Young Driver Training are the only schools in Australia with the opportunity to experience this unique driver skill building course.

The program, which is aimed at Year 12 students who are mainly on their red 'P' plates, focuses on the unique road conditions of the Snowy Mountains and includes both theory and practical sessions designed to improve the driving attitude and behaviours of young people in our local community.

The practical sessions are held with a specially designed 'skid car'. The skid car is a Subaru Forrester with a custom designed skid frame which allows students, under direction and control of expert driver trainer, to experience what causes a car to lose control in a simulated skid situation - demonstrating that you cannot correct a skid in real life circumstances and driving environments.

2016 sees the continuation of Snowy Hydro's partnership with Snowy Mountains Driving School which is owned and operated by Craig Williams. Craig has over 20 years experience in driver training working within the NSW Police Force, Roads & Traffic Authority and through the Snowy Mountains Driving School. Craig delivers both the theory and practical elements of the program using the skid car provided by Snowy Hydro.

"Seeing the students change their opinion from 'I don't need a driving lesson' to 'I learnt so much' within the space of an hour is quite remarkable. The practical sessions don't exceed 40km/hr but the students still get a surprised at how dangerous even slow speeds can be when the vehicle is out of control," Craig said.

Our local high schools should be congratulated for partnering with us and in sharing our vision of improving road safety through driver education for students. We are all too familiar with disturbing news headlines about young people killed or injured in car accidents. If our program saves a life or prevents one crash, then it is money well spent.

The success of the Young Driver Training Program is a direct result of Snowy Hydro's partnership with local schools and this high quality, professionally run program provides a tremendous outcome not only for participants and their families but also for our entire community.

...both theory and practical sessions are designed to improve the driving attitude and behaviours of young people in our local community...



Sentinel rescue for Snowy Hydro SouthCare



Snowy Hydro is proud of its long running partnership with the region's rescue helicopter service. **CEO of Snowy Hydro SouthCare, Chris Kimball, tells the story of a recent rescue at a local Snowy Mountains landmark...**

Patients often tell stories of just what it means, in moments of dire trauma, to hear the iconic sound of the Snowy Hydro SouthCare Bell 412 chopper coming to lend assistance. In March this year, that sound was a massive relief for bushwalker Brian Filby and his friends after an accident deep in the Snowy Mountains.

With its narrow ridgeline and spectacular rock formations, The Sentinel is one of the most iconic landmarks in the Kosciuszko National Park. It can also be one of the most isolated and difficult to access locations in moments of medical crisis.

Brian and his friends were returning from The Sentinel peak when he slipped and fell more than 30 metres down a steep slope. A rock brought a rapid halt to Brian's progress and left him with a badly broken and dislocated ankle.

He was half way down a steep slope with very limited potential to access ground based medical or emergency assistance. Fortunately, after a scramble to higher ground, Brian's friends were able to use their phones to call triple-zero and provided GPS coordinates for the Snowy Hydro SouthCare helicopter.

The helicopter pilot was able to hover precisely on the ridgeline and allowed the flight doctor and paramedic to disembark and make their way down the slope to lend assistance. Brian was treated, stabilised and transported to The Canberra Hospital. He's recovering from his injuries and recently visited the helicopter base (with the help of crutches) to say thank you to the Snowy Hydro SouthCare team.

"Our opinion of Snowy Hydro SouthCare could not be more positive. Please convey our thanks and appreciation to Simon (flight doctor) and Ian (paramedic) and to the pilot (Bryce) and air-crewman (Andrew) for their sterling actions on that day under very difficult and trying conditions," Brian said.

Snowy Hydro SouthCare has almost 6,500 stories like Brian's, of people in situations of dire need being provided critical medical assistance.

The helicopter will be a familiar sight over the Snowy Mountains during the coming ski season but it's the sheer diversity of the terrain the service covers that makes it truly unique - ranging from the snow to the sea, farmland and bush plus some of the busiest highways and holiday roads in the country.

Snowy Hydro SouthCare is on standby 24 hours a day, every day of the year. For more information please visit www.snowyhydrosouthcare.com.au



The Snowy Hydro SouthCare Doctor and Paramedics trying to reach Brian and transport him to the rescue helicopter.





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