September 2013

September 2013 Showy hydrogenese NEWS

Meet new CEO Paul Broad

snowyhydro

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Paul Broadjoins



Paul Broad has joined Snowy Hydro as the new Managing Director and CEO. In his own words, **CEO Paul Broad** outlines his background and excitement with his new role...

In many ways, joining Snowy Hydro as CEO feels a bit like coming home, a unique opportunity to combine my two great professional loves – water and energy!

I have been extensively involved with some of Australia's largest electricity and water organisations throughout my career, it's in my blood. I have a deep understanding of the value of water and importance of a reliable energy system to our communities and our economy.

Let me tell you a bit about where I have come from. My first CEO role was with Hunter Water in my hometown of Newcastle from 1989-1993. Under my leadership, Hunter Water was the first government business to be corporatised. I also introduced a 'user-pays' system of water usage, successfully changing the way people respect water. I achieved this same success during my time as CEO of Sydney Water from 1993-1997, introducing a user-pays system, corporatising the business and successfully increasing productivity by 60%.

I 'switched' to electricity in 1997, taking over as CEO of Energy Australia until 2004. I expanded the business into new energy retail during my tenure and also established a small telco, PowerTel. In 2004, I left Energy Australia to head up PowerTel. My next stop was as CEO of AAPT, from 2007-2011 and, most recently, I was the inaugural CEO of Infrastructure NSW.

During my time as CEO of Infrastructure NSW, I was responsible for delivering the first Infrastructure Plan in NSW, a 20-year horizon strategy underpinning productivity growth in the State.

Under my leadership, Snowy Hydro will remain committed to supporting our local regions...

During my tenure, I successfully took politics out of infrastructure and challenged 'the way we do things' – quite a task, let me tell you! Then in June this year, I joined Snowy Hydro.

Right up front I must say that Snowy Hydro has, and will maintain under my leadership, the highest standards of safety. I believe everyone has the right to come to work and go home safe, I cannot emphasise that enough. We have an excellent safety record and safety will continue to be our number one priority.

My priority has been to meet with my Executive team and as many Snowy Hydro employees as possible. I have also met with local council Mayors and General Managers to gain a deeper understanding of our communities. A highlight has also been the opportunity to meet with the Snowy Hydro SouthCare Rescue Helicopter Service team including their Chairman, CEO, pilots and paramedics.

I am a very strong supporter of Snowy Hydro's partnership with our regions rescue helicopter service. So much so, that I will be joining the Board of Snowy Hydro SouthCare so that I can personally provide my support and assistance to increasing awareness of Snowy Hydro SouthCare, and raising additional funds to further improve the service.

I am constantly impressed by the relationships Snowy Hydro has with local communities within which we operate. I look forward to getting to know the communities in which our employees and their families live. We are already looking at new ways to make sure communities understand our business and to keep you up to date with what is happening around our business.

Community support for a successful Snowy Hydro is very important.

Snowy Hydro operates in a highly regulated environment. If we are not considered as part of the bigger picture during government decision-making, we risk decisions being made which could negatively impact our operations. I will be very proactive in managing the way we interact with and respond to regulatory matters to protect and advance the interests of Snowy Hydro.

I have a tremendous amount of respect for the Snowy Mountains Scheme and its history. Those who built the Scheme and the story of the construction era is an undeniable page in the history of our country.

In November this year, I will be meeting with former Snowy Scheme workers at our annual briefing and note that next year marks the 65th year since construction of the Snowy Scheme started, and the 40th year since its completion.

Over the last 10 years the company has spent roughly one billion dollars on maintaining and upgrading the plant and it is in excellent shape.

Under my leadership, Snowy Hydro will remain committed to supporting our local region through initiatives that have wide appeal to the community, such as Snowy Hydro SouthCare and supporting local festival and events.

You will be hearing more from us too – not only through this community newsletter but also through local print and radio media.





Effective maintenance is essential to ensure maximum plant reliability and availability, and it is our ability to have reliable and available plant ready to meet the needs of a dynamic market which underpins the success of Snowy Hydro. Investment in maintenance will remain critically important under my leadership.

In reflecting on the past, I also see how far Snowy Hydro has come since corporatisation. We are maximising our hydro generation capability through the Scheme Modernisation program. We have grown our asset base through the acquisition and construction of gas-fired power stations. We own energy retailer Red Energy. All this achieved without the access to equity enjoyed by our private sector competitors. Our portfolio of assets makes us ideally suited to respond to the needs of our customers and critical demand periods in the National Electricity Market.

We are, in essence, the quiet achiever sitting at the very heart of our energy system, competing against larger and stronger players.

Snowy Hydro is an impressive company with a very promising future. I look forward to leading Snowy Hydro with a strong focus on safety, achievement and continuing to remain a proud partner with the communities in which we operate.

Your continued support for our success is, as always, valued and very much appreciated.



Investment in maintenance will remain critically important under my leadership...



Howmuch water is there really in Show?









One of the common questions we get at Snowy Hydro is whether the snow melt from a good winter season will fill the lakes of the Scheme. This is not the case, and Water Resources Advisor, **Shane Bilish**, explains why...

Lots of snow must mean lots of water, right? It's not necessarily the case! Understanding the water content of snow, and what it means for spring inflows into the Snowy Scheme, is really important in understanding water.

To better demonstrate the facts about water content of snow we have done a simple visual experiment showing how much water is actually in a jar of snow (see the pictures opposite that show the jar of snow, and then what it melted to).

While it is often said that 1mm of rain equals 1cm of snow, this rule of thumb applies more to the conditions experienced in the colder climates of North America and Japan.

In the Snowy Mountains, the density (or water content) of freshly fallen snow is about 20-25%: 1mm of rain equals about 5mm (0.5cm) of snow. Fresh snow has a relatively low water content, and as the winter season progresses, the average density of snow on the ground tends to increase as it compresses. Throughout the season, the density of the snowpack in the Snowy Mountains generally ranges from as little as 25% to up to 50%. So, if there is a two metre snowpack, that would be the equivalent of between 50 and 100cm of water sitting on the mountain at that point.

How much of this water makes it into the reservoirs when the snow melts is another matter. Snowmelt is strongly impacted by the weather conditions experienced during late winter and spring, and small changes in the weather can lead to vastly different outcomes for inflows. For example:

- Heavy rain falling on a dense snowpack melts the snow quickly and maximises runoff.
- Hot northerly winds help to melt the snow but when the air is dry, much of the water can evaporate rather than run off into the streams or rivers.

So, an above average snowpack at the start of the season may not provide much water for the storages if spring is dry, but average snowfall during winter can lead to high spring runoff if the ideal rainfall events are received.

Other catchment conditions can also impact runoff yield. For example, bushfires can change the vegetation cover and soil properties and may affect the amount of water absorbed into the ground for many years. The flora that reshoots after a bushfire will also draw more moisture from the ground.

We can expect to receive around 50% of our inflows from snowmelt and rain during spring, so a bad snow season can have a significant impact on the total inflows for the year.

The Snowy Scheme was designed to cope with large variability in flows. In the last 101 years of data, inflows have ranged from 683GL seen in 2006/07 during the worst drought on record, to 5761GL almost a century ago in 1917. The average is around 2800GL.

Finally, it is important to remember that the total volume of our storages is massive and it will take a number of consecutive years of above average inflows to return our total storage volumes, particularly Lake Eucumbene, to above average levels.

I hope this helps you understand some of the facts about snow, water and runoff. We have an expert team of hydrographers, scientists and environmental advisors who provide the data on all these realities so we can manage the Scheme to cope with anything that the seasons provide.

...the water content of the snowpack in the Snowy Mountains generally ranges from as little as 25% to up to 50%.

Introducing our Directors...



With Paul Broad commencing as CEO of Snowy Hydro and joining the Board as Managing Director, Chairman, **Bruce Hogan**, introduces the Board of Directors at Snowy Hydro...

The process to find a replacement for outgoing CEO Terry Charlton was rigorous and took some months. We are very pleased that a person of the calibre and experience of Paul Broad has now joined the team at Snowy Hydro. As CEO, Paul Broad also joins the Snowy Hydro Board as Managing Director.

Given this change in leadership of the Company, I thought it was timely to also introduce you to the rest of the Board here at Snowy Hydro. All the Directors bring with them a wealth of experience, skills and personal qualities that provide guidance, advice and direction to the CEO and Management team to ensure the ongoing success of Snowy Hydro.



I would like to introduce you to Kathy Hirschfeld. Kathy has had a remarkable career including being a Refinery Manager of BP's joint venture refinery in southern Turkey - quite an achievement in a usually male dominated job and in a country not used to women in senior leadership. As a retired Major of the Australian Army Reserves, and a chemical engineer with almost 20 years in leadership and executive roles with BP in Australia, the UK and Turkey, Kathy brings unique experience to the Board. Kathy is also a Director of ASC Pty Limited, Toxfree Solutions Limited and a Senator of the University of Queensland. Kathy is a keen supporter of Rugby Union and, as a Queenslander, her beloved Reds.



David Klingberg AO, has been on the Board of Snowy Hydro for almost 10 years and is our longest serving Director. Wise and blessed with so much experience from his varied and successful career, David is an ideal source of guidance.

David has a strong background in engineering which brings an invaluable perspective to the Board. A resident of Adelaide and a devoted Crows supporter in the AFL, David is a former chief executive of the engineering firm, Kinhill Limited, a Director of Barossa Infrastructure Ltd, Codan Limited, and E&A Limited. He is Chairman of Centrex Metals Limited and the South Australian Premier's Climate Change Council, as well as a Board Member of Renewables SA. David has also previously been Chancellor of the University of South Australia.



Peter Lowe has been a Director of Snowy Hydro since 2006 and has extensive experience in infrastructure businesses - a handy background for a capital intensive business like Snowy Hydro. He is currently on the Boards of Aurora Energy Pty Ltd, Western Australia

Network Holdings Pty Ltd, Citywide Services Pty Ltd, Norfolk Group Limited and is Chairman of Meridian Wind Macarthur Pty Ltd, United Energy Distribution Holdings Pty Ltd and Multinet Group Holdings Pty Ltd. He is a former director of Southern Hydro Pty Ltd and GasNet Limited. Mr Lowe's executive experience includes positions as CFO of Australian and United States publicly listed utilities and Managing Director of Utilicorp Australasia. From Victoria, Peter loves his AFL and is a one-eyed supporter of the Geelong Cats.

The latest additions to the Snowy Hydro Board are Michael Ihlein, Joycelyn Morton and Noel Cornish who were all appointed in August 2012.



Mike is a non-executive Director and Chair of the Audit & Risk Committee of CSR Limited, Risk & Audit Committee of Westfield Retail Trust and the Murray Goulburn Cooperative.

Mike has previously spent six years at Brambles Limited as an Executive Director in the roles of CEO and CFO. Prior to that, he had a 26-year career with Coca-Cola Amatil Limited including seven years as CFO and Executive Director. Given Mike's exceptional executive career in leading Australian companies it is not surprising that he is also proving to be an exceptional non-executive director. He is also Chair of the Australian Theatre for Young People and actively involved in helping to relieve poverty and build capacity in villages and regions in less developed countries like Ghana. Mike is a keen and very experienced scuba diver and loves skiing.



With accomplished women in high demand we are most fortunate to have Joycelyn Morton on our board as well as Kathy.

Following a highly successful career as a senior executive at Woolworths Limited, The Shell

Company of Australia, Shell International BV and Coopers and Lybrand (now Price Waterhouse Coopers), Joycelyn was invited to join the board of Crane Group Limited and Count Financial Limited. Today she is a non-executive director of Argo Investments Limited, Thorn Group Limited and Chairman of Noni-B Limited. She is also a member of the Business School Divisional Board of the University of Sydney and former president of CPA Australia.

Born in Zambia of missionary parents in the Salvation Army, Joycelyn's breadth of experience across a range of industries, and her executive experience both here and overseas, makes her an invaluable member of the Snowy Board. Joycelyn is a keen follower of sport, especially cricket and tennis, and a passionate supporter of the Rabbitohs and the Sydney Swans.



The Board with Snowy Hydro SouthCare



Noel Cornish is a most accomplished Australian full of inspirational stories and experiences from his impressive career culminating as Chief Executive of BlueScope Steel Limited's Australian and New Zealand Steel Manufacturing

Businesses. He has extensive overseas experience and is the former President of Northstar BHP LLC in Ohio USA.

Noel is currently a Director of IMB Limited, NorthStar BSL LLC, TataBSL Limited and member of the Council of the University of Wollongong, President NSW Council and National Vice President of the Australian Industry Group. An interesting former role includes Group General Manager of the Whyalla Steelworks in South Australia.

There is very little about operating and maintaining large plant and health and safety that Noel does not know and appreciate. Noel is a Wollongong man, an accomplished sailor having competed in many Sydney to Hobart races and devoted to his family.

It is a privilege and honour to lead a Board with such impressive experience but it is also humbling. Each of my colleagues bring exceptional skillsets but it is the collective skills and experiences combined as a united team that is critical to the ongoing success of Snowy Hydro.



In terms of my own corporate experience, my executive career was in the finance sector culminating as Joint Managing Director of the investment bank Bankers Trust Australia Limited till 1994. I have been a Director of many companies in different

industries including Energy Australia, Coles Myer Limited and GIO Australia Limited to name a few. One of my most rewarding directorships is my current Chairmanship of Primary Ethics Limited, a not-for-profit charity providing the opportunity of ethics lessons for children in NSW public primary schools.

My interests include competitive sailing, skiing, golf and tennis and with a close family connection to the Sydney Swans, I am a keen AFL supporter.

An important role of the Board at Snowy Hydro is to support the CEO in setting the direction of the company long term. The Directors also chair the many governance committees such as risk and safety. We are an independent board that must always act in the best interests of the company, in fact directors are legally bound to do so.

We meet monthly across the breadth that is now Snowy Hydro with Board meetings in Cooma, Sydney and Melbourne where our Red Energy operations are based, that by the way now, have more than 300 staff along with our critical gas-fired generating plant. We also meet twice a year around the Snowy region and next month we will be holding our Board meeting in Cabramurra.

As part of our meetings in and around the Snowies, the Snowy Hydro Board and Executive take the opportunity to meet with key community leaders and some of our key stakeholders. This way we get the opportunity to hear from the community directly as to your views locally and always value our time in and around the heart of the company, that is the Snowy Scheme.

In closing, I again welcome new CEO Paul Broad to the team. I am sure many in our local community will get the chance to meet Paul as he makes his way around the Scheme and the local communities.

We meet monthly across the breadth that is now Snowy Hydro with Board meetings in Cooma, Sydney and Melbourne...

2013 Snowy River Flushing Flows

The Snowy River Flushing Flow will occur again in 2013. Our Environmental Scientist, **Lizzie Pope**, outlines when and where you can see the releases...



The NSW Office of Water has confirmed that the 2013 Snowy River Flushing Flow will commence in early October. During the coming Spring, 96.6GL will be released into the Snowy River below Jindabyne.

A new release pattern is being trialled over the 2013/14 water year and is designed to better mimic the natural flow characteristics that are seen in Snowy Montane rivers. This includes a higher degree of daily and seasonal flow variability, but still maintaining the need to ensure flood events occur in the Snowy. Over the course of this water year, 190.6GL will be delivered to the Snowy River below Jindabyne. The release regime will differ from previous years, with several high flow events scheduled during spring and early summer. Five of these events, including the Flushing Flow, will involve an 8-hour peak through the day that will cause the river level downstream to fluctuate substantially - much like a natural high flow event in an un-regulated catchment.

The change in release pattern also means that the Jindabyne Spillway gates are only expected to be opened for one day when the peak flow target exceeds the capacity of the cone valves. That day is currently scheduled for Tuesday 8 October 2013. The remaining releases will occur through the cone values and other infrastructure below the spillway.

Snowy Hydro is committed to ensuring the safety of those wishing to view these releases.

No risks in relation to public safety can or will be taken, and with this in mind, a temporary viewing area will again be established by Snowy Hydro downstream of the dam wall that will be accessible via the Council landfill road. The temporary viewing area will open from 10am to 4pm daily from 5-10 October 2013 with further details and location map to be advertised in the local newspapers. Snowy Hydro would also like to advise that safety fencing will be maintained along Kosciuszko Road on the dam wall.

The NSW Office of Water will again be responsible for advising downstream landholders and other stakeholders of the Flushing Flow details and river heights.

If you want more information about this Flushing Flow and the new release regime, email the NSW Office of Water at information@water.nsw.gov.au or go to the NSW Office of Water website and follow the link to the Snowy River at www.water.nsw.gov.au

Note: Dates of releases are subject to change depending on lake levels, river levels and weather forecasts. Please regularly check with the NSW Office of Water for the latest at www.water.nsw.gov.au

The operation of Tantangara.

Snowy Hydro receives enquiries from the public wanting to understand why Tantangara is generally kept at low levels. Manager, Water & Environment, **Andrew Nolan**, explains why...



The reason why Tantangara Reservoir is generally kept at low levels is that, essentially, Tantangara Dam is on permanent diversion to Lake Eucumbene via Providence Portal.

Tantangara is a small reservoir being only 1/18 the size of Lake Eucumbene. The reason for the normally consistent diversion to Eucumbene is that Tantangara Reservoir is relatively shallow and in a high wind area. This means that the longer water stays in the storage, the more water is lost to evaporation. Therefore, the sooner water can be transferred to Lake Eucumbene, the losses to evaporation can be reduced.

You may have noticed that Tantangara reservoir has seen higher levels in the last few years. This is due to an increase in allocations to the Snowy Montane Rivers Increased Flows Program, an environmental flow program delivered by Snowy Hydro that is specified in the Snowy Water Licence.

Most years, Snowy Hydro is tasked to make environmental releases from Tantangara reservoir to the Murrumbidgee River. In order to ensure security of supply for these releases, in future we will generally hold the lake high enough so that we could still deliver the required releases during two low inflow years in a row. This means that in future, the storage level of Tantangara will usually be sitting around 20% full in comparison to the previous average of just over 10%.

Once levels in Tantangara reach 20-25% diversions to Lake Eucumbene will recommence.



Snowy Hydro Water Report 12/13 coming soon



Did you know that Snowy Hydro produces an annual water operations report? Executive Officer, Production, Water & Environment, **David Harris**, explains why you should grab a copy...

Snowy Hydro has been producing an annual Water Operations Report for the past five years to improve community, lake user and stakeholder understanding of the complex and onerous obligations Snowy Hydro has in terms of the water operations of the Snowy Scheme.

While these reports have improved understanding, our community survey results tell us that there are still some misconceptions around water ownership, release regimes and the incorrect view that Snowy Hydro is involved with the allocation of water to irrigators.

To further improve understanding we are changing the format of our annual Water Operations Report to provide a broader context around the many inter-related aspects of the Snowy Scheme water operations. This new format will follow the cycle of water in the Scheme, from when we receive inflows as rain and snow, to how it is stored, and then released including environmental releases. The report, which is due for release later this month, will include analysis and facts that we are confident will further improve community and stakeholder understanding.

So please keep an eye out later in the month for the report, or if you would like to receive a copy in the mail please email your details to:

communityfeedback@snowyhydro.com.au

I would encourage you, especially those who may have seen this report in previous years, to take some time to go through this new format and give us some feedback as to whether we have been able to better explain and improve understanding of the facts, obligations and realities of water operations of the Snowy Scheme.

Fast track your career...

Applications open on 16 September for our 2014 Traineeship and Apprenticeship Programs! Snowy Hydro's Resourcing Manager, **Glen Brennan**, outlines who we are looking for...



Snowy Hydro are seeking well-rounded Year 12 school leavers for our 2014 Office Administration Traineeships and Electrical & Mechanical Apprenticeships! If you have strong communication and interpersonal skills, are motivated by the chance to learn, and have a demonstrated ability to work in teams we want to hear from you.

Traineeship Program

Our Snowy Hydro Traineeship Program offers local school leavers the opportunity to gain valuable experience working in a corporate environment in Snowy Hydro's Cooma Office for 12 months. Throughout the year trainees will:

- Obtain valuable employment experience working alongside business professionals who will act as coaches and mentors.
- Be supported in completing a Certificate III and IV in Business Administration.
- Advance their computer skills, acquiring additional knowledge in Microsoft Office.
- Be provided the opportunity to learn valuable skills that will benefit future career choices.

Apprenticeship Program

Snowy Hydro provide an opportunity for school leavers to commence a four year mechanical or electrical apprenticeship. The program is run in conjunction with Wagga Wagga TAFE, and apprentices rotate through the Snowy Scheme operating and maintenance centres in Talbingo, Cabramurra, Khancoban and Jindabyne.

Throughout the program apprentices will:

- Learn and develop within the business
- Work alongside technical experts in a complex and highly technical environment
- Build a successful career whilst maintaining a regional lifestyle

Applications open 16 September 2013! Visit our website at www.snowyhydrocareers.com.au

Applications will open on 16 September 2013 with interviews to be held in November 2013. To apply online, please visit www.snowyhydrocareers.com.au and remember to attach your cover letter, resume and most recent school report card.



Former Workers Annual Briefing



CEO, **Paul Broad**, invites former workers to attend Snowy Hydro's Annual Briefing and update. Manager Corporate Communications, **Danielle Venables**, outlines the details...

Former Snowy Scheme Workers are invited to attend the annual briefing at the Snowy Hydro Discovery Centre in Cooma on 22 November 2013.

This forum is a great opportunity for those who helped build the Scheme to hear about Snowy Hydro today, and how we are growing and changing to meet the needs of the increasingly competitive National Electricity Market.

At the briefing, our engineering experts and senior business leaders will provide former workers with information about our Scheme Modernisation Program and the work being done to maintain, upgrade and care for our assets. CEO, Paul Broad, will present an update on the business. There will also be time for questions and further discussion with the team.

This briefing is a great opportunity for former workers to catch up with past colleagues. If you would like to attend and join us for lunch, please RSVP by contacting Brianna von der Burg on:

*

02 6453 2210

communityfeedback@snowyhydro.com.au

Former Snowy Scheme Workers Annual Briefing:

- When: Friday 22 November 2013
- Where: Snowy Hydro Discovery Centre Yulin Ave, Cooma

Briefing Schedule:

12:30pm	Luncheon
1:30pm	Snowy Hydro Update
2:00pm	Scheme Modernisation Update
2:30pm	Questions & open discussion
3:00pm	Briefing concludes



Snowy Hydro's Executive Officer Ken Lister and CEO Paul Broad with the Snowy Scheme Association's President, Wally Mills.

What's on in the region...

Snowy Hydro NEWS includes a calendar of local events to help promote upcoming community initiatives and activities.

If you have an activity or event that you would like included, email us a short outline of what is happening and the date to communityfeedback@snowyhydro.com.au

October

	5-10 October	Temporary Viewing Area Open, Jindabyne Dam - Snowy River Flushing Flows
ATE	5 October	Upper Murray Challenge, Khancoban - www.uppermurraychallenge.com.au
	19 October	Batlow Apple Blossom Festival, Batlow - www.visitbatlow.com.au
	19 October	Batlow Apple Blossom Festival, Batlow - www.visitbatlow.com.au

November

	2 November	Snowy Ride 2013, Snowy Mountains Region - www.snowyride.org.au
DATE	2 November	Cooma Motorfest, Cooma Showground - www.coomacarclub.com.au/motorfest
	16 November	Bombala Bike Show, Bombala - www.bombalabikeshow.com.au

December



RESERVE THIS NIGHT: SNOWY HYDRO SOUTHCARE CHRISTMAS GALA 2013

Saturday 7 December, 2013 Individual: \$220 | Table (ten): \$2200

To register phone 02 6207 9923 or email info@snowyhydrosouthcare.com.au

Remember - if you would like your community event advertised for free in "What's on in the region" email the details to: communityfeedback@snowyhydro.com.au

diali-ti-aiti@fffte



To give us your feedback email communityfeedback@snowyhydro.com.au or for more information go to www.snowyhydro.com.au

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