

## O&M TRAINING FOR SUPPORT AGENCY STAFF

Since October 2007, Bushlight has delivered five courses in basic RE system operation and maintenance (O&M) for staff from 12 resource agencies from Central Australia, the Top End, and North Queensland. The course, which runs for two days and covers in detail all of the key tasks associated with the day-to-day maintenance of Bushlight RE systems through a step-by-step, hands-on process was attended by a total of 29 staff. The course also covers safety, tools required, record keeping, and where appropriate, basic electrical concepts, system components, and managing energy use.



RAPS trainer Lindsay Winters (far right) and course participants, Alice Springs, October 2007

The course addresses a continuing demand for support and capacity building from the resource agencies that own and maintain both Bushlight & non-Bushlight RE systems. Delivered by Mr Lindsay Winters, an experienced RE trainer, the courses were well received. The following is an excerpt from a report by the trainer on the course run at Maningrida:

*"...this was a most valuable two days. The student body consisted of six non Indigenous tradesmen (electrical, plumbing and other trades) and two young Indigenous trainees. The motivation of the group combined with valuable resources from working system spares made Day 1 a huge success. Day 2 was spent in remote communities where, as well as a Bushlight community system, several older, pre-existing systems of various makes and types were investigated. We were able to clear up many of the problems previously encountered by maintenance staff."*

Bushlight's experience in running these courses (over 32 courses have now been delivered in total) has shown that there continues to be a high demand for such training. In response to this demand a number of different initiatives are being developed by the Centre for Appropriate Technology (CAT). These include the development of an accredited Certificate II in Remote Area Power Supply (RAPS) system O&M by CAT's training department (Technical Skills Group, TSG) and the establishment of a permanent position within CAT to conduct the training courses and mentor course attendees into positions within the RE industry. It is anticipated that this will not only lead to direct employment opportunities but also help meet the skills shortage in remote areas. (For more information, contact TSG group manager, Karin Berschl on 08 8951 4350).

## 2007 ENGINEERING TECHNOLOGIST OF THE YEAR

Bushlight's Group Manager, Grant Behrendorff, was recently awarded the prestigious "Engineering Technologist of the Year" award by Engineers Australia. Grant has led the Bushlight project since 2002, and is also Chair of the Alice Springs Solar Cities consortium.

Grant's achievement follows Bushlight receiving 2006 Northern Division and National Engineering Excellence Awards. The award night's MC, Jean Kitson, described the award as recognition not only of Grant's contribution to Bushlight and the RE industry generally, but importantly his work at the interface of high quality engineering and community-based responses.

Grant's response to the award was modest: "I've received this award in recognition of my recent achievements. Of course I wouldn't have any recent achievements without all of the great work that Bushlight staff do every day, week in, week out. So I'd like to dedicate the award to the whole Bushlight team, for their ongoing support and commitment to the project".



Grant Behrendorff with his award.

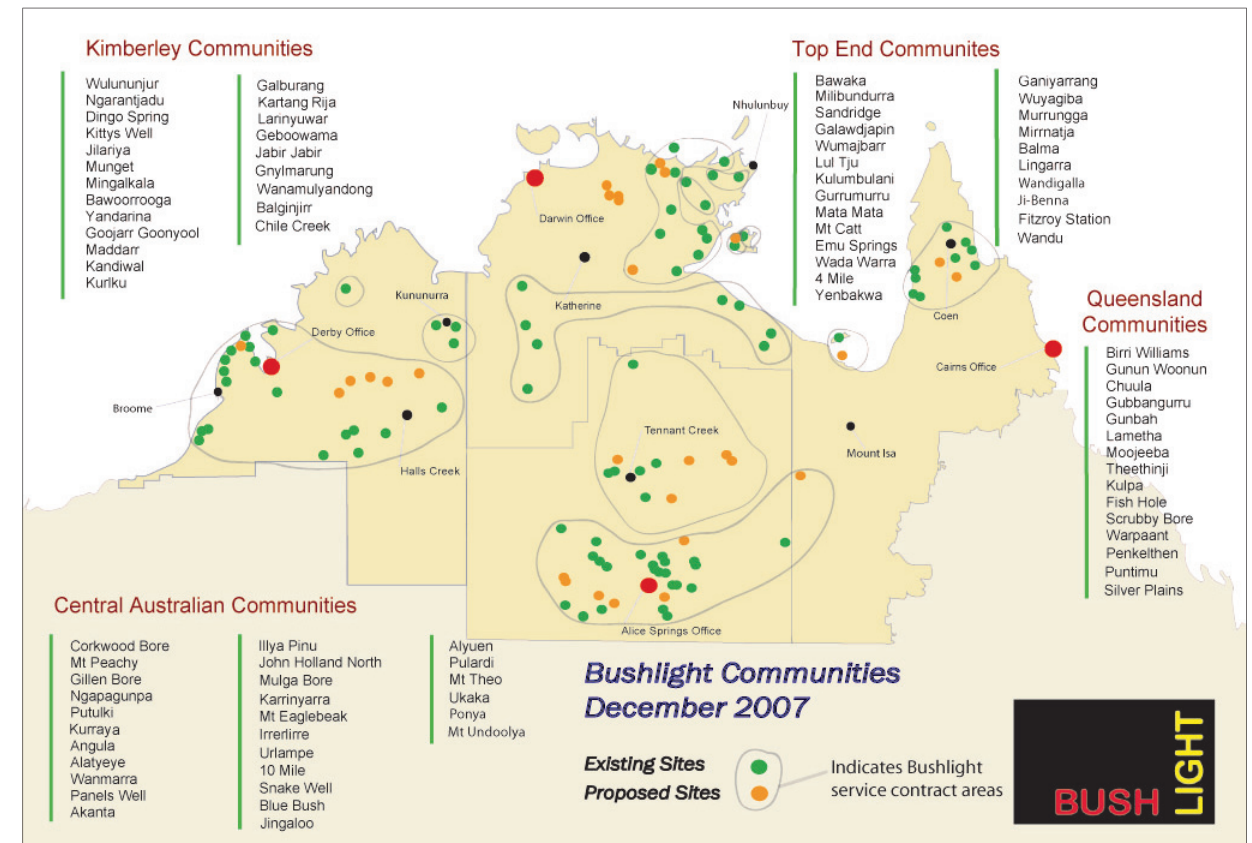
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## 2007 - YEAR IN REVIEW

Since the Project's inception in 2002, Bushlight has worked with 90 small remote Indigenous communities to install more than 105 renewable energy (RE) systems. As in previous years, 2007 proved to be a busy year for Bushlight, with Community Energy Planning completed or underway in 28 communities and 20 new RE systems installed across northern and central Australia. Another 18 installations are expected to be completed in the first half of 2008.

During the past 12 months Bushlight's communication and information management strategies have been greatly improved with the development of our new website ([www.bushlight.org.au](http://www.bushlight.org.au)) and significant redevelopment of both our capital works and community databases. The new website, featured in Newsletter 15, now contains up to date information about the work that Bushlight does and the regions we work in; opportunities for working with Bushlight; products and services on offer; project outcomes (case studies and system fact sheets); and our full suite of technical and community energy planning resources, free for download. The improvements made to our information management systems and related impact assessment procedures, allow us to better assess and track the effectiveness of our work in building livelihood opportunities in remote communities, both from a technical and a community capacity perspective.

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Also of note in 2007 was the further roll out of the Bushlight RE system maintenance program. Under the program, all Bushlight systems nominated by their owners receive a comprehensive annual maintenance visit by a trained and qualified RE maintenance specialist. This maintenance service provider is also available at all times throughout the year to quickly and efficiently address any breakdowns or technical issues that may arise. The maintenance program is increasingly important as more and more Bushlight RE systems emerge from their contractual 12 month liability period (in 2007 more than 30 Bushlight systems did so).

The maintenance program has also begun to incorporate non-Bushlight RE systems into the scheduled maintenance runs. The Bushlight maintenance team has been liaising with Resource Agencies and other system owners to discuss the provision of maintenance services at these sites. To date more than 100 non-Bushlight RE systems have been nominated for inclusion in the program, with more systems currently under consideration.



Non-Bushlight systems in the Kimberley being reviewed for inclusion in the Maintenance program.

**POWERING KAKADU**

Kakadu National Park in the Top End of the Northern Territory is widely known for its World Heritage Area listing and great natural beauty, however it is also home to a number of small to medium sized Indigenous homelands occupied by traditional land owners and their families. Currently, all of these homelands are dependant on large diesel generators for their domestic power supply. These generators run 24 hours a day, 365 days a year, resulting in high operating and maintenance costs.

In past years funding for diesel supply at these homelands was sourced from mining royalties, but the rising cost of diesel and changing service arrangements have meant that operating and maintenance costs have become prohibitive. Currently, a portion of costs are being recovered by Warnbi Aboriginal Association (the local Resource Agency), for energy provision through power card meters, but this is only capturing a small proportion of the cost of providing energy services to these communities. With a view to implementing a more sustainable and cost effective energy solution, the Commonwealth Government's Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) approached Bushlight in August 2007 with a request to commence Community Energy Planning (CEP) in four Kakadu homelands.

Since then, the Bushlight Top End team have commenced CEPs in three of the four nominated Kakadu homelands, and hope to have Bushlight RE systems installed in all four by the end of June 2008.

The relatively high level of energy consumption in these communities, has added an interesting element to this work for Bushlight and our Technical Services team is now looking at ways of adapting the existing Energy Management Unit to better address issues relating to hybrid system power supply. The new units will likely be applied in future sites where Bushlight hybrid systems are to be installed and will give residents more choice and flexibility in the way they use and manage their energy.



The Bushlight Top End regional team conducting a Community Energy Planning meeting with the residents of Spring Peak homeland, Kakadu

**SUSTAINABLE LIVELIHOOD OUTCOMES IN NORTH QUEENSLAND**

Living on country is a desire for many Indigenous people, and many small family-groups are already doing so by living on their outstations or homelands. In the Coen region of Cape York Peninsular, Far North Queensland, people are working to develop their outstations in ways that enable them to both maintain their unique cultural lifestyles and connections to country, as well as fostering economic livelihood opportunities. Tourism, cattle and natural resource management enterprises have been developed and enable these family groups to achieve these dual goals.

Bushlight has supported six key outstations in the Coen region through the installation of RE systems. These are Chuula, Kulpa, Theethinji, Moojeeba, Silver Plains (Marumba), and Puntimu. These communities are leading the way for their people in cultivating and maintaining sustainable livelihoods in the following ways:

In 2004, **Chuula** outstation on the Wenlock River became one of the first communities in Queensland to receive a Bushlight RE system. Chuula residents are very active in natural and cultural resource management on their traditional lands and 11 local graduates have finished a Certificate in Conservation and Land Management; delivered through hands-on training activities at the outstation. In addition, a regular tourist operation through the dry season sees people from all walks of life stop in for cultural talks and camping with Traditional Owners.



Talking about wetland management at Chuula

Residents of **Kulpa** outstation run a small cattle business on their country. The introduction of Bushlight RE power in 2005 also allowed for improvements in housing facilities with the construction of a 3 bedroom kit home. The outstation offers a strong place of learning for young people from the local Coen area in cultural knowledge as well as cattle station work.



Constructing the campsite toilet at Port Stewart

The Port Stewart communities of **Theethinji and Moojeeba**; work closely together with other members of the Lama Lama people at **Silver Plains (Marumba)**. Throughout the dry season residents are heavily involved in mustering and land management, and are working in partnership with a small tour operator to provide tourists with unique hunting and fishing experiences. They also manage campsites which target the self-guided tourist market.

Well-experienced in the benefits of RE through the use of a small RE Hybrid system prior to their Bushlight installation in December 2007, **Puntimu** residents are actively involved in the cattle industry. A goal for this community is to keep their outstation as a place where people can have a break from town life and enjoy a more peaceful bush lifestyle.

There is a strong will from the people of the Coen region to maintain their links to traditional lands and to pursue economic livelihood opportunities. Having access to reliable 24 hour power assists these outstation communities to achieve their goals. Reliable, affordable power can contribute to: health benefits including being able to store fresh foods and medicines; access to educational material and activities through information technology; economic savings through decreased diesel use; and the stability of being able to stay on their country year round, including over the wet season.

The Bushlight program has been very successful in this region offering people immediate and long-term benefits and we look forward to supporting the people of Coen in using and managing their RE systems into the future.



Branding cattle at Puntimu