ORDINARY MEETING – LATE REPORT
27 MAY 2009

OIL PALMS - PORT DOUGLAS ROAD – DIVISION 10 (LATE AGENDA ITEM)

Pieter Taylor: 15/28/1: #2059023

RECOMMENDATION:

That Council:

a) advise Ergon Energy that it will allocate funding in the 2010 / 2011 financial year to recompense Ergon Energy to undertake works to underground power on Port Douglas Road;
b) allocate funding in the 2010/2011 operational budget to fund this commitment.

INTRODUCTION:

Ergon Energy have advised (See attachment 1 – Letter of notification) that 27 African Oil Palms along Port Douglas Road, forming part of the significant avenue of palms along this road are interfering with nearby overhead powerlines and need to be removed. (See Attachments 2 & 3, indicating the location of the Powerlines and Oil Palms)

Ergon recognise that the palms form part of the significant avenue of oil palms along the Port Douglas intake road and have significant cultural, historical and aesthetic value. Ergon has therefore refrained from removing the palms and have trimmed the fronds as a temporary measure until a solution can be discussed between Ergon Energy and Cairns Regional Council.

BACKGROUND:

In the 1980's, developers transplanted the avenue of Oil Palms (Elaeis guineensis) along Port Douglas Road, from Cape Tribulation. This avenue of palms is now considered to be iconic to Port Douglas and an asset in terms of visitor numbers to the area.

The section of above ground powerlines adjacent to the palms is located from Barrier Street roundabout to Langley Road. These are the only above ground powerlines left along Port Douglas Road. Other sections have been undergrounded as a condition of adjacent redevelopment. Currently there has been no application submitted with council for the combined redevelopment of the properties between Langley Road and Barrier Street, Port Douglas.
As part of Ergon Energy’s directive to supply safe and uninterrupted electricity, that company’s vegetation management teams have indicated that these palms are now considered to be an unacceptable risk to the power supply. The height of the palms, combined with the spread of the fronds and their proximity to the powerlines, could cause a bridging of the lines and subsequent outage of power, as well as potential damage to the lines themselves in high winds or cyclones, should any of these palms fall over.

Ergon has indicated that these palms need to be removed, but has agreed to temporarily maintain the fronds until such time as council can find a solution to the problem.

Continuing discussions with Ergon Energy have explored the feasibility of a number of options. Ergon have provided a cost estimate totalling $258,387 to underground the subject powerlines and have indicated that design and implementation of the works could be undertaken within a six (6) month timeframe. A preliminary enquiry has been made with Ergon Energy’s Community Powerline Projects (CPP) Committee to establish the likelihood of financial assistance to underground the power and the Committee has advised that the project does not meet CPP criteria and therefore that assistance would not be available.

**COMMENT:**

Several discussions with Ergon have taken place regarding this issue and both parties have considered the following options:

1. **Aerial Bundled Cabling**

   Ergon Energy has informed Council officers that Aerial Bundled Cabling is not currently possible with High Voltage Powerlines.

2. **Removal of the Palms**

   Removal of the palms would protect the electricity supply and keep the public and property safe from injury of damage should the palms cause an outage through bridging of the lines or failure of the palms. This is not the preferred option for the following reasons:

   o Community response to the removal of the palms would be extremely negative for both Council and Ergon.
   o Removal of this section of the mature palms along Port Douglas Road would seriously compromise the integrity and impact of these plants as a gateway feature to Port Douglas.
   o Any replacement plantings would, in due course cause the same problem as the palms
3. **Transplanting of the palms**

Transplanting is not a viable option in this case, for the following reasons:

- There is no suitable land available to achieve the required clearance from the powerlines and still maintain the road reserve.
- Moving the palms would destroy the avenue effect for which the palms were planted in the first place.
- The palms would go through a period of shock and some may not recover, creating a need to buy in and replant even more palms from elsewhere.
- Transplanting is a time consuming and expensive operation with potentially heavy mortality rates, requiring further expense to replace dead plants. The price quoted to Douglas Shire Council in April 2005, to replace mature palms was $32,000 per palm. For 27 palms this would amount to $864,000.
- Moving the palms would do nothing to address the aesthetic impact of the remaining length of overhead powerlines.

4. **Relocation of the overhead powerlines**

- In order to relocate the powerlines and allow for enough clearance, the lines would have to be moved across the footpath and access road, onto the curb in front of the houses.
- Moving the lines to the aforementioned position would result in the removal and excessive pruning of other established trees, would have the same order of cost associated with it as undergrounding and would not address the aesthetic impact of overhead powerlines.

5. **Replacement with young palms**

- This action would be a temporary fix to the problem and will only delay the need for undergrounding.
- The future cost of the operation would be well beyond the current quote.

6. **Continued maintenance of palms until such time as the fronds no longer pose a risk**

- Due to the way in which palms grow, the long term and regular cutting of the fronds may cause issues with the growth of the stems at the trunk-crown collar and may create defects/deformities within the trunk of the palms. This will not only compromise the health of the palms, but could increase the risk of the whole crown breaking out in high wind.
- The current height of the palms, combined with the full size of the canopy would require unreasonable levels of maintenance in terms of frequency and cost of service, as well as the health and aesthetics of the palms over a long period of time.
7. Undergrounding of the power lines

To preserve the existing palms, this would appear to be the only feasible option:

- This is the most desirable option as far as aesthetics as well as amenity and tourism values are concerned.
- This option allows for the retention of the palms with no risk of interaction between the palms and the powerlines.
- Risk to the public and property is minimised by relocating infrastructure that may be damaged by storm and cyclone conditions.
- The cost estimate received from Ergon Energy is at $258,397, including connection to adjacent private properties.

The scope of works for this project would include:

- Installation of new cables.
- Removal of old infrastructure.
- Construction of a padmount for a transformer.
- Conversion of overhead service lines into private property to underground mains, by contractor.

CONSIDERATIONS:

Corporate and Operational Plans:

This Report links to:

1. Corporate plan
   Key goal No. 6, Health Safety and Community Development (See 6.2)

2. Corporate Plan
   Key Goal No. 10, Governance See (See 10.2.1)

Statutory:

Section 148 of the Electrical Safety Regulation 2002, puts the onus on Ergon Energy to ensure trees and other vegetation are trimmed, and other measures taken, to prevent contact with an overhead electric line, hence the letter of notification.

Ergon Energy has indicated that failure by council to supply funding approval for the undergrounding of the powerlines will result in the removal of the palms.

Policy:

An informal arrangement is in place for the Ergon Energy line clearance maintenance contractor to inform Council of intended tree removals under powerlines. This allows for Council officers to investigate any trees that may be of special significance and to establish an alternative treatment where possible to preserve such trees.
Financial and Risk:

Ergon has provided a cost estimate of $258,397 to remove overhead powerlines and poles and provide an underground supply. It is proposed that this would be funded from the 2010/2011 operational budget.

Sustainability:

The significance of the palms would be established as an iconic entrance to one of the region’s major visitor destinations, helping to encourage tourism and supporting the retention and creation of jobs within the community, in the long term.

CONSULTATION:

No formal consultation has taken place but there has been approaches by several private residents about these issues and a number of articles in the press evidencing a level of interest in the community.

Discussions with Ergon have established that the matter needs to be brought to resolution, as the retention of the palms as well as the above ground powerlines is not possible because of safety concerns.

OPTIONS:

It has been established that retention of both the palms and the overhead powerlines, on their current alignment, is not possible.

There is therefore two possible options:

Option 1: Remove the palms and retain the overhead powerlines

Option 2: Retain the palms and underground the powerlines.

CONCLUSION:

This is an important project to residents, businesses and visitors of Port Douglas.

Preserving the palms would confirm Council’s commitment to maintaining assets that enhance the urban forest for the multiple benefits it provides, including the tourism and job retention values associated with such an avenue as the gateway to a holiday destination like Port Douglas.

Protecting the palms will provide valuable positive publicity for both Cairns Regional Council and Ergon Energy as entities preserving iconic community values of Port Douglas and the wider region.

The undergrounding of power also serves to manage risk to the public in terms of potential damage in stormy or cyclone conditions.
ATTACHMENTS:

Attachment 1: Copy of Correspondence from Ergon Energy regarding the issue of the palms.

Attachment 2: Arial photo showing location of palms.

Attachment 3: Street view photos of the position of the palms in relation to the overhead powerlines.

Pieter Taylor
Arborist - Infrastructure Management

Stephen Tyter
Manager Infrastructure Management

John Hawkes
General Manager Works and Services
Attachment 1

Ref: FN010/1100/0001-04:(FN09/002869)

1 May 2009

Attention: Noel Briggs
Chief Executive Officer
Cairns Regional Council
PO Box 359
CAIRNS QLD 4870

Dear Noel,

LOCATION OF OIL PALMS – PORT DOUGLAS ROAD BETWEEN BARRIER STREET AND LANGLEY ROAD – PORT DOUGLAS

I refer to our recent discussions regarding the management of a number of established Oil Palms that border Port Douglas Road between Barrier Street and Langley Road. These palms are located adjacent to 22,000 volt overhead powerlines and regularly encroach safe clearances to the powerlines. In the interests of public safety a permanent solution to the current conflict is necessary.

Background:

Under Section 146 of the Electrical Safety Regulation 2002, Ergon Energy has an obligation to ensure trees and other vegetation are trimmed, and other measures taken to prevent contact with an overhead electric line forming part of our works that is likely to cause injury from electric shock to any person or damage to property.

To comply with the Electrical Safety Act, Ergon Energy conducts an annual program of tree-trimming in urban areas to keep trees away from power lines. This was last done in Port Douglas in July 2008 with a significant number of trees trimmed and many removed in negotiation with owners. Around 80 per cent of those removed were palm trees. Ergon Energy completed vegetation removal works in Port Douglas in September/October 2008 with the exception of the Oil Palms which were identified as a significant asset for the Port Douglas Community and hence warranted further discussion with Cairns Regional Council to determine an appropriate future management strategy.

Palm trees can not be satisfactorily managed on an annual trimming program as fronds rapidly regrow and safe clearance can not be maintained for any length of time once trimmed.

Fronds from the Oil Palms are growing into the powerlines and burning. This clearly poses an immediate danger to the public and the power supply. Ergon Energy recently undertook an emergency shutdown of power in the Port Douglas area to safely trim Oil Palm fronds away from the power lines at this location and experience indicates that trimming every 2 to 3 months would be necessary to prevent contact with the powerlines. However even at this rate, fronds will grow back into the required exclusion zone.

Only appropriately authorised contractors may undertake vegetation management works on trees and palms that lie within 3 metres of the energised 22,000 volt powerlines in order to comply with the requirements of the Electrical Safety Act.

Ergon Energy does not accept responsibility for ownership of the vegetation – this is a Council responsibility.

Ergon Energy has spent more than $1 million in recent years to underground power lines in Port Douglas.

Options available:

Council has a number of options for consideration including:

- Removing the Oil Palms from this section of Port Douglas Road to remove the conflict with the powerlines and ensure compliance with Electrical Safety Legislation. Feedback provided to Ergon Energy during previous vegetation management programs indicates that the community would not support this option. Should Council determine that this is the preferred approach then Ergon Energy would request Council take full responsibility for the decision and the associated removal work.

Ergon Energy Corporation Limited ABN 50 087 646 062
• Implement a regular pruning program. This option is impractical due to the requirement to have appropriately authorised and electrically qualified staff perform this work given its close proximity to the high voltage powerlines. Based on our observations, to effectively manage the vegetation would require pruning on a minimum 2 monthly basis. In some cases the heads of the palms are within the recommended clearance zones and they would require removal. Ergon Energy is unable to provide a regular pruning service to Council due to other work commitments.

• Replace the existing overhead powerlines with underground cables. With this option the vegetation can be retained in its current location and the threat of contact with the overhead powerlines is eliminated.

Option 3 has been investigated by Ergon Energy as the most feasible long term solution.

We have been advised by local Ergon Energy staff based in Mossman that during previous excavation work for installation of sewerage mains in this area, underground electrical conduits were installed along the eastern boundary of the road reserve. This occurred several years ago and has potentially reduced the overall cost of current required works to install underground cables by more than $100,000. Ergon Energy is currently confirming the existence of these conduits as they are not recorded in our network database.

The current cost of installing cables in existing conduits and removing the overhead poles and wires is $258,397 plus GST.

An amount of $60,000 has been included in this price for the conversion of overhead service lines into private property to underground mains (i.e. the connection between the front property boundary and the existing switchboard). This work is normally contracted out by Ergon Energy to a licensed electrical contractor and could be managed as a direct contract to Council if preferred. If this option is taken up, the revised price for the cabling works would be $198,397 plus GST. However Council would be responsible for ensuring that the contract works are completed satisfactorily and in a timely fashion to ensure reconnection of premises to the new underground mains located in the road reserve.

Ergon Energy has considered whether the project costs could be shared following a preliminary submission to the Ergon Energy Community Powerline Projects Fund Committee by Mr Pieter Taylor of Council. Unfortunately this preliminary submission was unsuccessful as the Committee did not believe it satisfied all the eligibility criteria for funding, and therefore the costs would be fully chargeable to Council. A copy of the CPP scheme documentation and previous correspondence sent to Pieter Taylor is attached for your reference.

Should Council agree to proceed with this underground supply option it is anticipated that it will take in the order of 6 months to finalise designs, approvals and complete works. On this basis Ergon Energy would agree to meet the interim costs of any pruning that would be necessary in the short term to ensure the electrical safety of the Oil Palms in this location.

Given the potential public safety risks presented by the current location of the Oil Palms adjacent to the overhead powerlines, Ergon Energy is seeking Council’s urgent consideration of the options with a view to progressing the installation of underground cables as the most appropriate solution.

Should you agree to fund this work, Ergon Energy would formalise the offer on the basis of a firm quote for the works and Council would be invoiced for the relevant amount as outlined above. It would be necessary to revise costs if the conduits are not in situ, although this is considered an unlikely scenario.

Thankyou for your consideration. Please do not hesitate to contact me should you require any further information regarding this matter.

Yours faithfully

Geoff Bowes
Manager Regional Services Northern

Enc: Ergon Energy Community Powerline Projects (CPP) Document
Copy of Email sent to Pieter Taylor 02/04/2009
COMMUNITY POWERLINE PROJECTS FUND

2nd April 2009

The Chief Executive Officer
Cairns Regional Council
PO Box 359
CAIRNS QLD 4870

Attention: Pieter Taylor

Dear Sir,

RE: PRELIMINARY ENQUIRY FOR COMMUNITY POWERLINE PROJECT SUBSIDY – PORT DOUGLAS.

In response to your preliminary enquiry to the CPP Committee for the likelihood of financial assistance towards the cost of the abovementioned project, the Committee must unfortunately advise you that, in this case, the application does not meet the CPP funding criteria.

The committee looks for important criteria such as:
- Areas of high pedestrian activity
- Areas of high environmental or cultural value
- Projects that benefit the community as a whole
- Projects that are part of a strategic development plan for the area.

Ergon Energy recognizes the significance of this work to Council in regard to the potential impact on the Oil Palms that were planted along Port Douglas Road adjacent to the overhead powerline in this area. Accordingly I have asked our Manager Regional Services, Mr Geoff Bowes, to contact you directly to review options for this location.

I thank you for your enquiry and trust that CPP funding may be available for other Cairns Regional Council projects in the future.

Yours faithfully,

Paul Ryan
General Manager Operations Northern Region

CPP Co-ordinator Contact Details e-mail: graham.harvey@ergon.com.au
Address: PO Box 308, Rockhampton Qld, 4700.
Attachment 2 – Aerial view of position of African Oil Palms in relation to the overhead powerlines.
Attachment 3 – Street view of location of palms in proximity to overhead powerlines.