

ATTACHMENTS



FINANCE & POLICY COMMITTEE MEETING AGENDA

THURSDAY 12 FEBRUARY 2015

~ REFERENCE TO ATTACHMENTS ~

Notice of Motion – Economic Development 15-27

PART B – INFORMATION

Report 2B – Rates Reconciliation Report as at 31 January 2015 28-29

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Renewed carbon

BioHubs – A Concept to Value Add Primary Production

Processing Biomass for Supplementary or Replacement Products (& energy) in a Carbon Constrained Economy!

A catalyst for sustainable regional growth and development

**Mark Glover – Principal, Renewed Carbon
OCP Meeting – Dubbo – 21 January, 2015**

www.renewedcarbon.com.au

Biomass Products – so much more than firewood and compost – important as they are

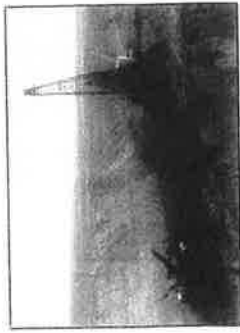
1. Biochar (and compost) products to augment /supplement fertilizer products and services and stimulate optimised soil productivity;
2. Provision of carbon sequestration outcomes where carbon is incorporated into both soils and fixed infrastructure for >100 yrs;
3. Charcoal products to supplement /replace existing coke/coal products in industry;
4. Provision of bioenergy in solid, liquid and gaseous forms;
5. Provision of “drop in” bio-crude to supply traditional oil refineries;
6. Provision of platform chemicals to supply the broader petrochemical sector; and
7. Provision of finished fine chemicals, both to supplement/replace existing fossil sourced products and to supply entirely new products.



Context – Extractive Vs. Agricultural

Products & Markets

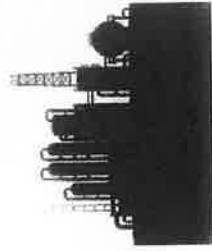
Extractive:



COAL POWER STATION



Power



Fuels & chemicals

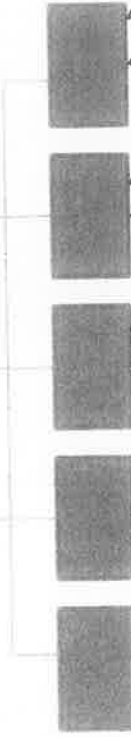
Agricultural:

Possibly 2-4 finished product bio-refineries



Refined fuels & chemicals

Possibly 10 biocrude refineries



Interim Biocrudes

250 BioHubs nationally



Reductants, biochar & energy

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Renewed carbon



How Biomass Presents as a Feedstock

Biomass currently presents as 5 generic sources (defined by commercial circumstances at point of presentation):

- 1. Forestry and Agricultural harvest residues** – Characteristics: seasonal or campaign availability but homogeneous by-product of core activity.
- 2. Forestry and Agricultural processing residues** – Characteristics: regularly available, homogenous and geographically concentrated but a supply pushed by-product.
- 3. Urban waste streams** – Characteristics: end of (first) life arisings to be recovered as reliable, but heterogeneous flows via streaming/cascading systems.
- 4. Land Management & Development Arisings** – Characteristics: one off or irregular arisings of potentially high value homogeneous biomass.
- 5. Specially grown or generated biomass** – Characteristics: highest quality, reliably available but most expensive as primary production costs to be recovered in sale of materials. Needs cost effective outlet for by-products.



And Biomass is so much more than firewood!

Biomass – the Sustainable Competitive Advantage

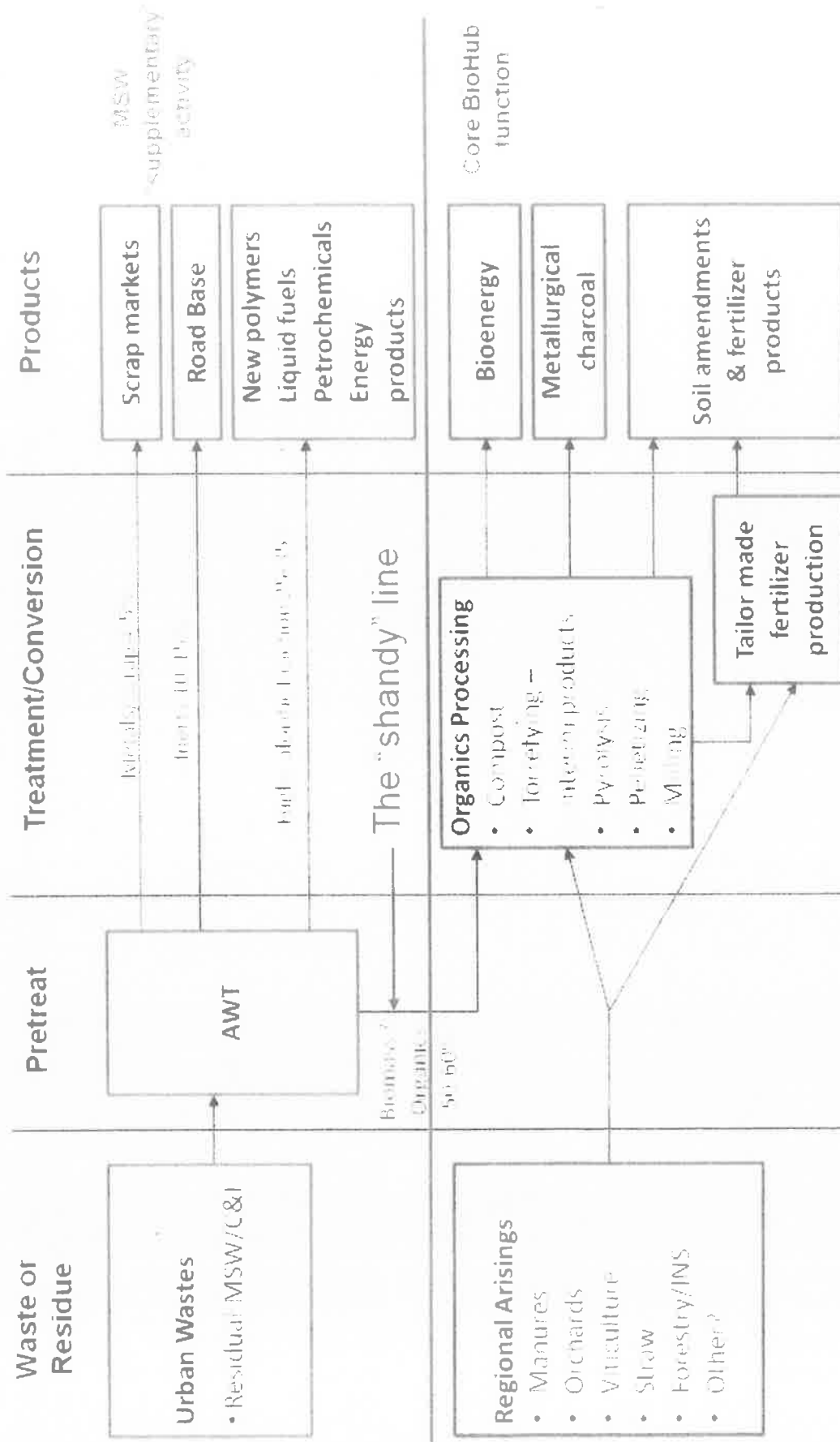
Table 1: Comparison of benefits and properties of non fossil sources

	Features/Properties									
	A	B	C	D	E	F	G	H	I	
Low carbon energy sources	Renewable	On demand supply	Heat	Power	Gas	Oil	Char	PetroChem industry manufacturing precursors	Potential to be Carbon negative	
Fossil fuels with sequestration		✓	✓	✓						
Hydro	✓	✓		✓						
Wind	✓			✓						
Solar – thermal	✓		✓	✓						
Solar – PV	✓			✓						
Geothermal	✓	✓	✓	✓						
Wave/Tidal	✓			✓						
Nuclear		✓	✓	✓						
Biomass	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Whilst <100yrs biomass can be converted to fulfil all the roles currently provided by fossil resources – there is nowhere near enough – so should be applied to highest and best uses – bioenergy as a by-product.



How BioHubs Work



“First point of receipt”, “receiver of last resort”

www.renewedcarbon.com.au

Renewed carbon



Andrew Hutchinson
Director
Agriculture Methodologies Section | Carbon Farming Policy Branch
Department of the Environment

18 December 2014

Re: Orana Carbon Project

Dear Andrew,

Further to our discussion in relation to a visit to Dubbo in the New Year 2015. I have condensed the Orana Carbon Project below to assist your preparations and our discussions.

The Orana Carbon Project (OCP) is progressing and welcomes the opportunity to work with the Commonwealth and the many other already committed stakeholders in this project, to establish a case study in the Orana region that aligns with the ERF and other relevant and complimentary government initiatives to develop a fully comprehensive project with significant environmental and economic impact that could have applicability as a template for other regional and possibly national approaches.

The OCP has been developed from the ground up as a broad based, community supported project led by RDA Orana, M2100, Carbon Farmers of Australia and Renewed Carbon. There are a further 25+ secondary stakeholder bodies of growers, businesses and organisations involved ranging from State government, transport and logistics operators, agriculturalists, Aboriginal Land Councils and private business. It includes the full spectrum of ERF approved/emerging methodologies and practices with farmers, transport, mining, manufacturing and commercial buildings in the region.

The OCP is an integration of the Dubbo BioHub project; the iHemp industry project; agricultural risk mitigation project with carbon farming to develop an aggregated bid to the ERF on behalf of the Orana region.

The Orana BioHub project involves a network (in time, State or nation-wide) of regional facilities, established to receive and process regionally generated biomass materials for highest net resource value for local, regional and network based markets. It is a "first point of receipt" system and infrastructure response to enable many up and down stream opportunities and initiatives. End markets have already been sourced from organic fertilizer proven trials to carbon-lite steel manufacture using these secondary products. This includes the processing of Council urban waste as well as green waste and agricultural residues and bi-products. It is at full pre-feasibility point with shared input costs covered by a range of stakeholders including Councils,

agriculturalists and government with a full report with costings on logistics, viability of the project and quantifiable mass due by April 2015.

The iHemp project aims to enhance the development of an iHemp industry in the Macquarie Valley, for fibre and food, minimising interruption to existing operations and providing opportunity for in region downstream value-add operations. The plant has remarkable carbon qualities and weed and pest management properties as well as improving soil quality and productivity.

The purpose of the Dubbo visit will be to:

- fully understand OCP as an integrated regional Carbon response, and relate to Commonwealth policy objectives across jurisdictions and programs from a highly collaborative, aggregated standpoint.
- Identify areas of mutual interest and benefit and further develop the project
- Scope and quantify specific action items
- Determine the range of required data and outreach, extension, research required for the project (hectares of irrigated cotton; grazing; livestock numbers; cropping; woody weed and PVPs) quantify tonnages of BioMass; impact on industry

The outcomes:

- Sustainably reducing Carbon emissions/tonne of product across various industry sectors and downstream destinations;
- Provide a Rural and Regional Template for engagement with the ERF/Direct Action Policy to achieve high range emissions reductions across sectors to meet the emission reduction goals
- Provide a framework to enable early engagement with the ERF/DA Policy to deliver cross sector projects by the first rounds of the ERF
- Sustainably sequestering Carbon for the long term;
- Generating strong investment opportunities throughout the region and nationally;
- Generating long term training and employment creation;
- Create the opportunity for small independent entrepreneurial start-up businesses including Indigenous enterprises
- Making agriculture and forestry more efficient, cost effective and sustainable;
- Drought proofing, mitigation of climate volatility risk for agriculture and agrifoods industry;
- Building on the region's sustainable competitive advantages in:
 - Food/agriculture;
 - Advanced technologies; and
 - Next generation, fossil fuel replacement.

Whole of government:

The Department of Industry is well versed in the BioHub project and we propose if possible a representative be invited to join the Canberra delegation to aid the integration of policy and program initiatives. Additionally the Department of Infrastructure and Regional Development would have interest in the whole of government whole of region approach to a policy initiative that can drive regional economic growth. We can invite their participation.

We have highlighted this visit to the NSW State Government and invited their input. As you know the NSW Deputy Premier the Hon Troy Grant is our local member who continues to be fully briefed on this project.

You might be aware of the existence of a NSW government Department of Primary Industries Agricultural research station at Trangie in the Macquarie Valley. We propose to utilise the facility to conduct research and development to support this integrated project. It may be possible to visit the 10,000 acre facility during your visit.

We would propose a 2 day visit to Dubbo for working up this project involving the lead agencies outlined above, any time after 12 January and using RDA Orana facilities and resources.

We look forward to confirming a time and Agenda and involving other Federal partners.

Kind Regards

A handwritten signature in black ink, appearing to read 'F. Edwards'.

Felicity Taylor-Edwards

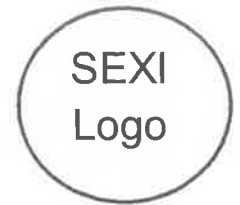
CEO

Regional Development - Orana



Issue 8

January
2015



<http://sexisolar.net/>

The newsletter of the
Solar Energy eXchange Initiative
(SEXI) Group of Councils

The SEXI Group Newsletter

Welcome to the eighth SEXI Group Newsletter.

With the establishment of the SEXI Proposal website, much of the content of previous newsletters is permanently available on the website. This means the newsletter can now concentrate on news!

Meeting with ARENA to discuss the SEXI Proposal

On 12th December 2014 a meeting was held in Sydney between ARENA (the Australian Renewable Energy Agency) and the SEXI Group. A number of Councils attended by phone.

Results

Concerning the SEXI Proposal itself, as it is presented on the website, my personal impression was that ARENA's position was

- The SEXI Proposal was not regarded particularly favourably
- It did not appear to fit neatly within ARENA's current program guidelines
- The SEXI Proposal would not be likely to be successful in obtain funds from ARENA

Philosophy of ARENA/ Philosophy of the SEXI Group

There seems to be a difference in philosophy between ARENA and the SEXI Group. My personal impressions are -

ARENA	SEXI Group
<p>Most projects that are funded by ARENA get a 20% to 50% funding grant (of the total project cost). The SEXI Group is seeking 100% of \$200M. ARENA doesn't fund projects at 100%. It's not in the guidelines.</p> <p>For large projects, ARENA operates similar to a venture capital organisation.</p>	<p>Over the last decade, many funding offers have been made by governments for industrial (MW scale) solar proposals. But few of these, and especially very few CSP projects, have ever been built. Part of the reason for the lack of construction is the partial funding model that is used.</p> <p>As a consequence, and because it is a nascent industry without established ways of doing things¹, it is difficult to get government budgeted funds spent; and works done.</p>

If there aren't satisfactory projects that get a commercial return for all involved parties, then ARENA doesn't invest.
It can wait until suitable projects turn up.

Under Part 5 Section 64 Item 2 of the ARENA Act, unspent funds are able to be carried over from one financial year to the next.

If the Councils are collectively interested in buying renewable generated electricity as customers, then there are groups seeking customers as part of proposed power purchase agreements.

ARENA spent about 50% of its capital works budget in each of its first two years of operation. There were significant budgeted but unspent funds in each year ².

There is legal protection to carry over unspent funds.
The funds were unspent.
Then Treasury cut funding to ARENA's program.
Firstly in MYEFO (\$40M - December 2013).
Then a proposed \$1.3B funding cut (2014 to 2022) was announced in the May 2014 Federal Budget - but it has not been enacted (ie the abolition of ARENA).
And as a part of this, there was a \$435 M funding cut, and a deferral of \$370M to later years, as part of the carbon tax repeal legislation (July 2014).

"Don't put all your eggs in one basket" is an investment axiom. Because of difficulties in getting projects up, an additional investment strategy could be utilised (a Plan B).
The current funding guidelines could be altered to allow for the 100% funding of works done by public organisations. Where only about half of budgeted funds were being spent, this new investment strategy could be applied to say 10% to 20% of the total budgeted funds.

Following this, individual projects within the SEXI Proposal could then be funded as a Slippage Remediation Measure. At the start of the financial year they would receive no funds / not be included in the proposed budget. The budget would proceed in the normal way.
In the 11th or 12th month of the financial year, if a large amount of slippage had occurred, and budgeted funds were not going to be spent that year, an individual SEXI Proposal project could then be funded; as an alternative to carrying over the unspent funds. This would minimise ARENA budget slippage in that financial year.
Cobar Shire Council can accept funds on behalf of the SEXI Group, as Trustee.
Project works would be undertaken when funds were secured.

1. We shouldn't underestimate the difficulties of working in a newer industry, where technology, and especially economics, can change rapidly. It is difficult.
2. ARENA is performing better than its predecessors, as it has achieved 50% expenditure. In comparison, the Solar Flagship Program got about 1% expenditure of program funds in the first half of its 6 year life.

The SEXI Proposal website

The SEXI Proposal website has been up and running for more than 4 months now. It operates as an information portal.

For clarity, a disclaimer has been added at the start of the website. It explains that the SEXI Proposal is a proposal - that it is seeking funding. When funding is available the works will be undertaken. If no funding is available, nothing will be done. With it now up and running, we want to undertake a review of the website, to see how well it performs.

The SEXI Group - Capital Works Funding Application

In addition to the conceptual information on the website, the SEXI Group submitted a draft application for capital works funding to ARENA. [The application is distinct from the conceptual information]. As noted by participants at the December meeting, the application itself was of fairly poor quality. A reasonable quality application would involve more investigation reports, concept studies etc, and probably cost about \$100K or so.

We'll keep an eye out for investigation funding, so that the reports can be prepared and a good quality application for capital works funding can then be made.

[In general, the December meeting was about the SEXI Proposal, not the application itself].

Looking Forward

Looking forward to 2015, there are a number of items on the agenda for the SEXI Group to work on. They are -

- A review of the website
- Seek funding for a formal application for capital works, and investigation reports, concept designs etc
- Seek a Senate motion of support
- Seek motions of support from the remaining 8 uncommitted Councils
- Further work on administration and organisation details (S355, or incorporated body etc).

Forming the SEXI Group of Councils - Support to Date

Here are the latest statistics. Full details are on the website.

NSW Parliament : Motion of Support - Legislative Council - October 2013.

Regional Organisations of Councils : 4 ROCs have passed motions of support

Councils : 24 Councils have passed motions of support

In number:	24 out of 32 Councils	=	75% of Councils
In population:	175,000 out of 275,000	=	63% of the SEXI Group population
In area:	468,000 out of 528,000	=	89% of the SEXI Group area



BACKGROUND

The SEXI Group is a proposed *voluntary* alliance of Councils.

The newsletter is for those Councils that support in principle, or who may be interested in supporting in principle, the SEXI Proposal.

As these Councils are spread across a large geographic range (2/3 of NSW) then a newsletter seems the ideal way of keeping everyone up to date on recent progress.

The Solar Energy eXchange Initiative

The proposed SEXI Group of Councils is a voluntary alliance of up to 31 Councils (and the Unincorporated Area) across inland NSW.

ARENA is the Australian Renewable Energy Agency. It is an independent Federal Government body, charged with improving the competitiveness of renewable energy technologies and increasing the supply of renewable energy in Australia.

The SEXI Proposal calls on ARENA to supply up to \$200M in Federal Government funding to the SEXI Group. The SEXI Group aims to construct six projects.

One project is to install \$1M of PV panels in each Council area; with the panels to be owned by the Council concerned.

The five other projects are to install 5 concentrating solar power plants - each costing \$20M to \$40M - sized at 3 to 6 MW - and capable of supplying most of the electricity for a typical country town. Each of the five projects would be a different solar technology.

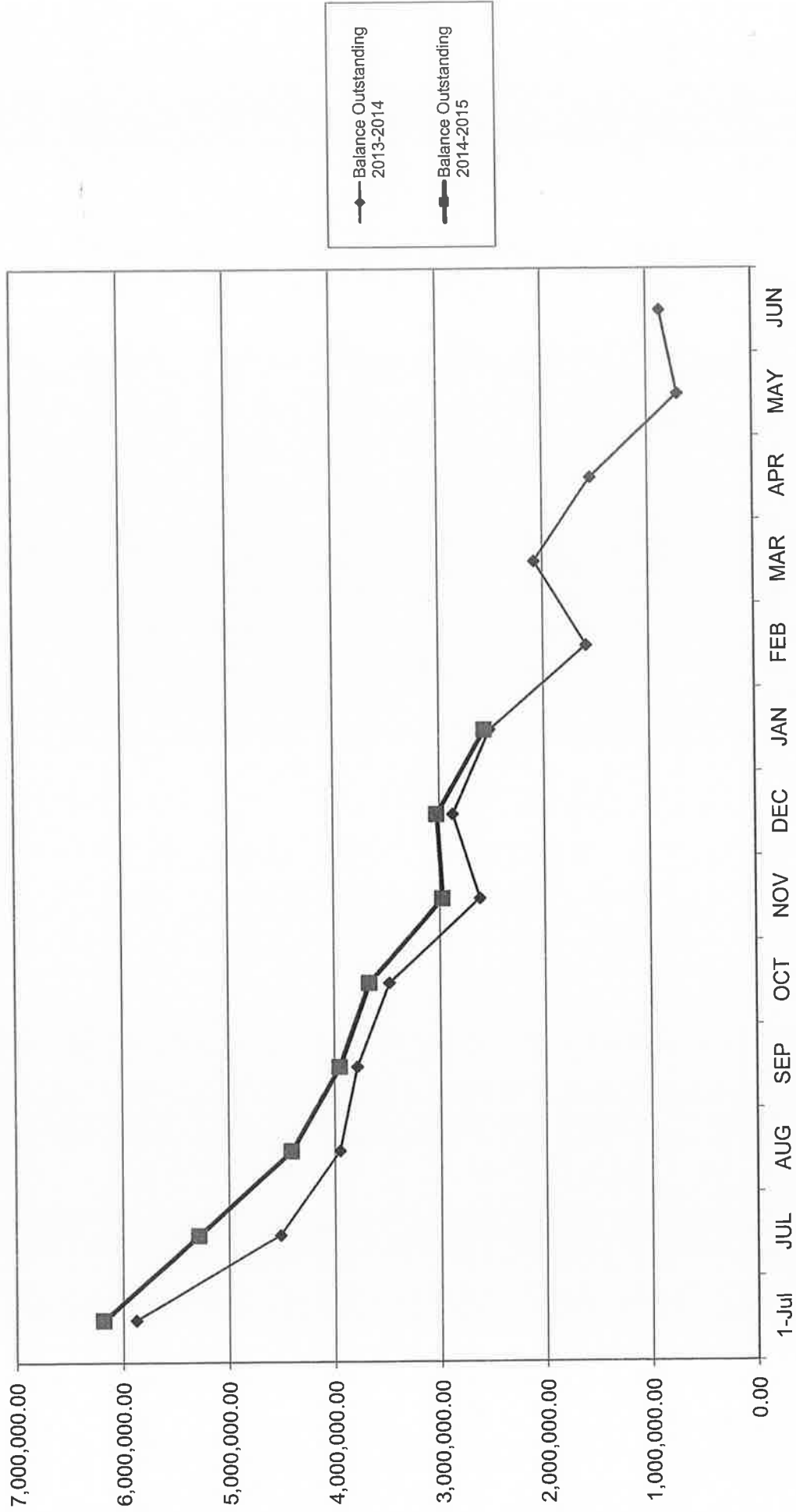
They would be demonstration plants for a future solar energy industry in western NSW, that would supply electricity to Sydney and Melbourne.

Matt Parmeter

Co-ordinator, the SEXI Group of Councils

matt.parmeter@bigpond.com

Total Rates Outstanding
General Rates, Water Access, Water Usage, Sewer Access, Domestic Waste, Legal Costs, Interest



Rate Arrears 2014-2015
General Rates, Water Access, Sewer, Domestic Waste, Interest & Legal Costs

