TALKING POINTS

ACT Large-scale Solar Auction regular stream announcement, 19 August 2013

Origins of ACT Large-scale Solar Auction

- The Solar Auction is the result of a 2008 Labor election commitment to make Canberra Australia's solar capital. Following its re-election, the ACT Government released a call for Expressions of Interest for projects, based on a $30 million capital grant. The feedback from industry highlighted a strong preference for a feed-in tariff (FiT) over a grant. It also highlighted industry's appetite to compete on price, with interest demonstrated by a number of national and overseas project developers.

Design of the Solar Auction

- In November 2011, the Government passed the *Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011*, which provides for the grant of a FiT entitlement to large-scale renewable energy developers in the Territory and surrounding region.

- In January 2012 Minister Corbell released a *Request for Proposals* which set the rules for the Solar Auction – a competitive process through which companies bid for the right to FiT support for the construction of large-scale solar facilities in the ACT.

- Under the *Request for Proposals*, 40 megawatts of generating capacity was offered, with up to 20 megawatts available in a 'fast-track stream' (awarded September 2012) and a further 20 megawatts offered in a 'regular stream' (awarded August 2013).

- 40 megawatts is equivalent to around 20,000 two kilowatt roof-top installations.

- All proposals submitted in the Solar Auction were assessed on the basis of value for money. This included an assessment of both price and project risk.

- The evaluation was conducted by an *independent Advisory Panel* chaired by Mr Ross Bunyon AM, a respected energy and infrastructure investment expert and former chair of Railcorp, Pacific Power and Eraring Energy.

- The decision to award FiT entitlements was made by Minister Corbell on advice from the Advisory Panel.

- The renewable energy produced by the facilities will be accredited GreenPower which will be surrendered on behalf of the whole ACT community. This means it is additional to the national 20% renewable energy target and will result in greenhouse gas abatement above and beyond national pollution caps (around 1.4 million tonnes over 20 years).

- Each of the facilities is subject to normal development approval and environmental clearance processes.

- No payments are made to the project developers until they start generating electricity.

The winner of the fast-track stream (announced September 2012)

- The Royalla Solar Farm will be constructed by Fotowatio Renewable Ventures (FRV) in the Royalla District south of Canberra on the Monaro Hwy. FRV received development approval in July 2013 and construction is due to commence around October 2013. It will be completed in the first half of 2014.

- When constructed, the FRV solar plant will be the largest photovoltaic solar plant in Australia.

The winners of the regular stream

Mugga Lane Solar Park

- The Zhenfa solar park at the corner of Mugga Lane and the Monaro Hwy is due for completion in October 2014 and features some 53,000 solar panels. The majority of the installation will comprise fixed tilt arrays, however a key feature of this proposal is that at least half a megawatt will be comprised of ground-mounted, single axis tracking devices as a demonstration of this innovative technology. Trackers increase solar output by following the sun over the course of a day.
- Zhenfa's FiT price was a very competitive $178 per megawatt hour.
- Zhenfa is a Chinese-based company, specializing in photovoltaic system designs, supply of materials, contracting and project finance and has over 1,000 megawatts of installed capacity in China under management. This is Zhenfa's first major investment in the Australian market.

OneSun Capital Solar Farm

- The OneSun proposal will be a fixed tilt installation, comprised of around 26,000 solar panels. Of note in this proposal is the use of a mono-pile frame system that will minimize disturbance to the landscape, allow for easy assembly and disassembly and provide for the continued use of the site for sheep grazing.
- OneSun's FiT price was also very competitive at $186 per megawatt hour – the same as was granted to FRV last year in the fast-track stream.
- Elementus Energy Pty Ltd, the project developer for the OneSun proposal, is an Australian renewable energy company with global experience in project development, construction and operation, particularly in Spain and Italy.
- The OneSun Solar Farm will be located in the Coree district west of Canberra adjacent to Uriarra Village.

Cost and benefits of the three large-scale solar farms

- The three large-scale solar farms will generate around 77,000 megawatt-hours of electricity per year; enough to power around 10,000 households.

- The combined investment of the three solar plants will be $106m, comprised of $17m from OneSun, $29m from Zhenfa and $60m from FRV.
- When Minister Corbell originally launched the solar auction process it was estimated that the average annual cost per household would be in the order of $1 per week. The cost is now expected to peak at around 45 cents per week per household in 2016, dropping to around 27 cents by 2021.
- The three facilities will supply enough zero-emissions renewable energy to reduce emissions by around 1.4 million tonnes over the next 20 years.
- The three proposals are expected to create some 165 jobs in the construction phase and 16 upon completion. Having three of the largest and most innovative solar installations in Australia will consolidate Canberra's reputation as a renewable energy investment hub for the region and deliver on the Government's commitment to make the Canberra Australia's solar capital.
- The projects directly support the Government's Climate Change Action Plan 2 which sets out a strategy to reduce the Territory's emissions by 40 per cent reduction from 1990 levels by 2020. Further investments in large-scale renewables will be considered by the Government after an independent review of the Solar Auction is completed.

Solar farm impacts on neighbours and current users

- Normal development and construction approval processes apply to each of the Solar Farms. Being awarded a FiT entitlement is not a guarantee that proposals will be granted Development Approval.
- Each of the solar facilities will take about 8 months to construct. There may be minor noise during the construction phase, during allowed times of the day, as would be normal during a construction process. Any potential for dust will also be managed within normal regulations.
- The Mugga Lane Solar Park is expected to be visible only from Mugga Lane and the Monaro Highway.
- The Mugga Lane Solar Park is currently used for horse agistment. The ACT Government is actively investigating suitable alternative arrangements for these horse owners. Construction of the solar farm is not due to commence until the first half of 2014, which should provide sufficient time to resolve this matter.
- Some Uriarra Village residents may have a view of the OneSun solar facility. The possible visual impact on residents will be considered through the Development Approval process. All reasonable strategies will be considered to mitigate visual impacts, including, for example, increased vegetation on the southern boundary of the site.

How does the size of the solar farms being built in the ACT compare to others in Australia?	When built, the 20 megawatt solar farm being built at Royalla will be the largest photovoltaic solar farm in Australia.
Once the solar farms are built, how much solar generating capacity will the ACT have?	Once all three solar farms are operating in 2016 they will have a combined generating capacity of 40MW and produce enough energy to power around 10,000 homes. Combined with rooftop systems, the ACT's solar generating capacity will be around 88MW, generating enough to power around 19,000 homes.
Will I be able to see the solar farm from my house in Fadden or Macarthur?	No, the Mugga Lane Solar Park is expected to be visible only from Mugga Lane and the Monaro Highway.
Will I be able to see the solar farm from my house in Uriarra Village?	Some Uriarra Village residents may have a view of the OneSun solar facility. The possible visual impact on residents will be considered through the Development Approval process. All reasonable strategies will be considered to mitigate visual impacts, including, for example, increased vegetation on the southern boundary of the site.
What is the physical size of the solar farms?	The Mugga Lane Solar Park will occupy 32ha and the OneSun Capital Solar Farm will occupy 40ha. The Royalla Solar Farm will occupy 50ha.
What does it mean for my household in terms of energy?	Once the three solar farms are completed, around three per cent of ACT household power generation will be delivered from local large-scale solar energy generation. This is in addition to that delivered by roof-top solar.
How much will this cost per household?	The peak cost of the three solar farms will be around 45c per household per week in 2016 dropping down to around 27c per week in 2021. On average this is equal to the cost of half a cup of coffee per household per month.
Does the solar farm produce any noise like a wind farm?	The OneSun Capital and Royalla Solar Farms will have fixed tilt panels with no moving parts. A small proportion of the Mugga Lane Solar Park will include ground mounted tracking systems that will tilt with the sun over the course of the day. This is not expected to be audible to someone standing outside the boundaries of the facility.
Will the solar farm affect my health?	No, there are no emissions or pollution from solar energy generators and no known health impacts.
Can I visit the solar farms and take a look? Will they be accessible to the public?	While it will be possible to get a view of the solar farms from public areas adjacent to the facilities, the solar farms will be privately managed and permission from the owners will be needed prior to entry. The ACT Government intends to have open days where the public is invited to inspect the facilities first hand and receive an education tour.
Is there a security plan for the solar farm?	Yes, each solar facility will have security monitoring, including by on-site personnel.

Can animals graze at a solar farm and is it safe?	Yes, sheep are an ideal tenant for a solar farm, helping with weed and fire management while enjoying the shade provided by the panels on hot days.
What arrangements are being made for horse owners that currently keep their horses on the Mugga Lane solar farm site?	The ACT Government is actively investigating suitable alternative arrangements for these horse owners. Since construction of the solar farm is not due to commence until the first half of 2014, this should provide sufficient time to work out a new arrangement.
During the construction phase, will residents be affected?	There may be minor noise during the construction phase during allowed times of the day, as would be normal during a construction process. Any potential for dust will also be managed within normal regulations.
Is there a fire risk?	Proponents are required to maintain bushfire plans and provisions will be included through the Development Approval process to ensure appropriate fire boundaries are in place and maintained. Normal standards under the Utilities Act 2000 and Electrical Safety Act 1971 will be in place.
How long will construction take?	Each of the solar facilities will take about 8 months to construct.
Will the solar farms have a life expectancy and if so, when will they get decommissioned?	Each of the solar farms can be expected to generate for a period of around 20 to 30 years. Proponents are required to provide a Safety, Health and Environment Plan to the Territory, including the methods and controls planned for final disposal of the generation equipment. Decommissioning of the facility would be addressed in a development approval decision and also in any land use lease arrangements.
How many short and long-term jobs will be created by the solar farms?	During construction, the three solar farms will create around 165 jobs. Upon completion they will create around 16 ongoing jobs.
Are we sourcing local materials to construct the solar farm?	Some local construction materials and labour, including excavators, are likely to be used in the construction of the solar farms, however panels and major electrical equipment are likely to be imported.
How will this help our local economy?	Having three of the largest solar power facilities in Australia will underpin Canberra's emergence as a renewable energy investment hub and support the continuing growth of our clean technology industries. The use of local materials and labour will create a direct benefit to the ACT's economy.

ACT Government
Environment and Sustainable Development

How Canberra is becoming the solar capital of Australia

Zhenfa's Mugga Lane Solar Park

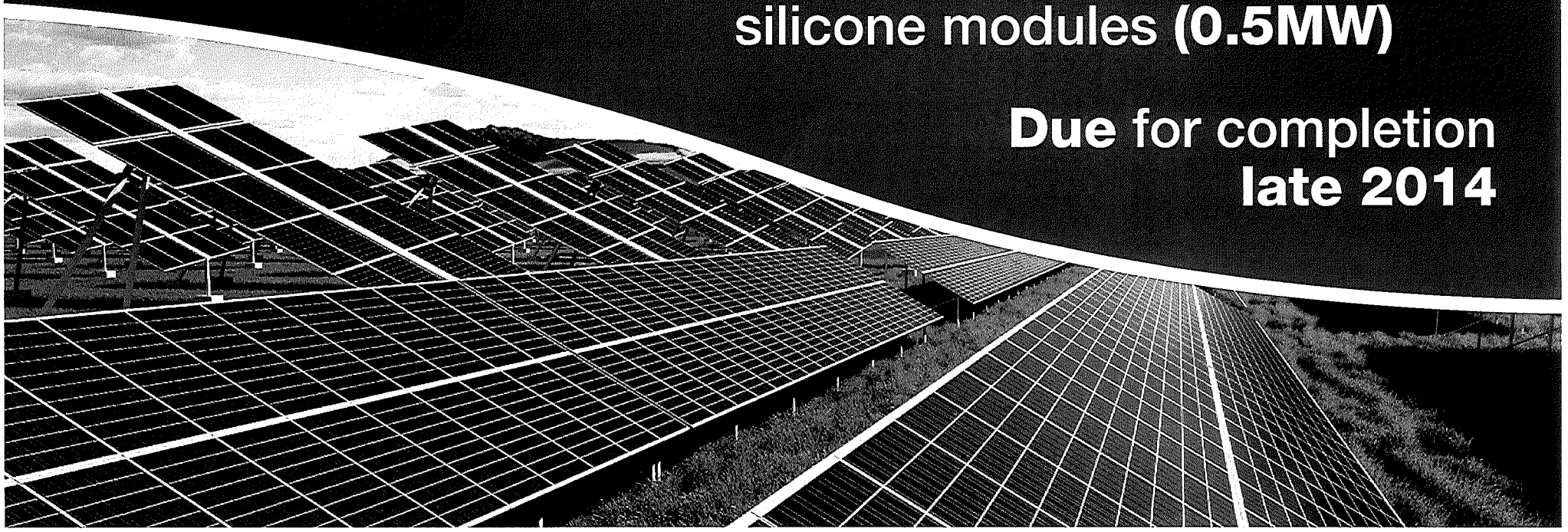
13MW total **capacity**

FiT price of **$178 per MWh**

51,000 fixed polycrystalline silicone modules **(12.5MW)**

2,000 tracking polycrystalline silicone modules **(0.5MW)**

Due for completion **late 2014**



OneSun Capital Solar Farm

7MW total **capacity** (as part of a larger 10MW project)

FiT price of **$186 per MWh**

26,100 fixed polycrystalline silicone modules

Due for completion **early 2015**

Big Solar

Big Solar is a key part of the government strategy for renewable energy with 40 megawatts of large-scale solar renewable energy generating capacity coming online by mid 2015.

The ACT Solar Auction

The ACT's Solar Auction has proved a simple and effective way of attracting large solar projects to the Territory. It runs like a tender process whereby companies compete for the right to a feed-in tariff (FiT), with proposals evaluated in terms of their overall value-for-money. The two-stream process has been completed with FRV awarded a grant of entitlement in the fast-track stream and Zhenfa and OneSun joint winners in the regular stream.

Costs and benefits of Big Solar

The ACT's Big Solar facilities will produce GreenPower™ meaning real emission reductions above and beyond national pollution targets. In fact, enough GreenPower™ will be produced to supply around 10,000 Canberra houses, reducing greenhouse gas emissions by 1,400,000 tonnes over 20 years.

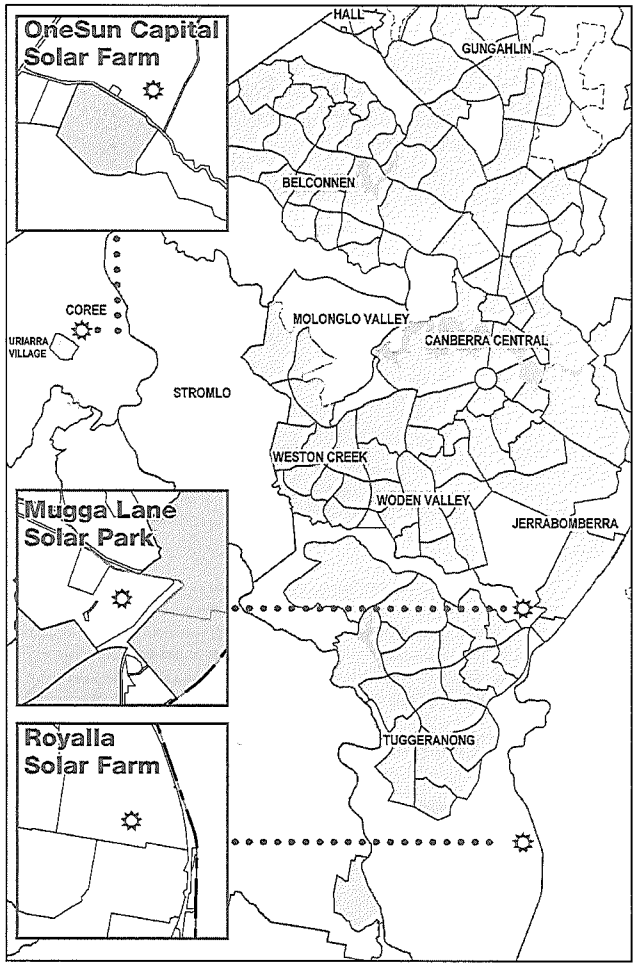
Having three of the largest solar power facilities in Australia will underpin Canberra's emergence as a renewable energy investment hub and support the continuing growth of our clean technology industries.

The Solar Auction process has delivered solar power at the lowest possible cost. The average FiT price is around $183 per megawatt hour with the Territory paying the difference between this price and prevailing wholesale electricity prices. Importantly the FiT rate is fixed over 20 years, so it declines in real terms and as wholesale energy prices rise over time.

Costs to households are expected to peak in 2016 at around $0.45 per week and decline to around $0.27 per week in 2021. This decline will continue over time.

A big future for rooftop solar

ACT homes and businesses continue to install roof-top solar, supported by falling solar costs and attractive discounts on energy bills offered by electricity retailers. As of 30 June 2013 there were 13,224 solar systems installed in the ACT. Roof-top solar is forecast to continue to grow to 2020.



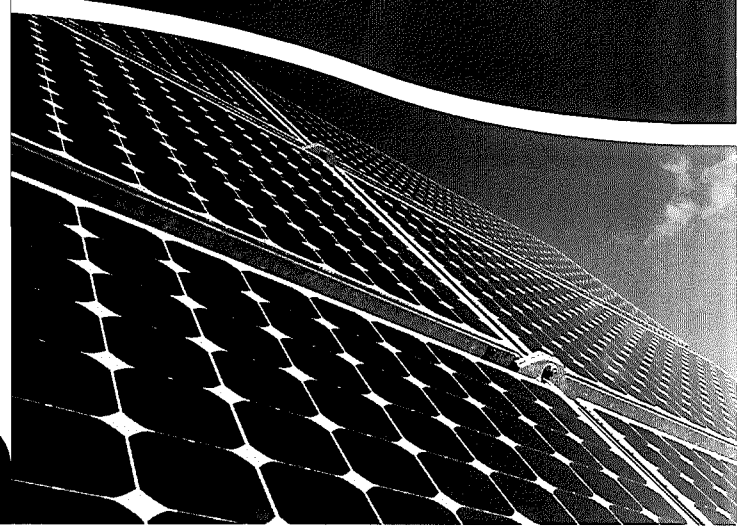
For more information

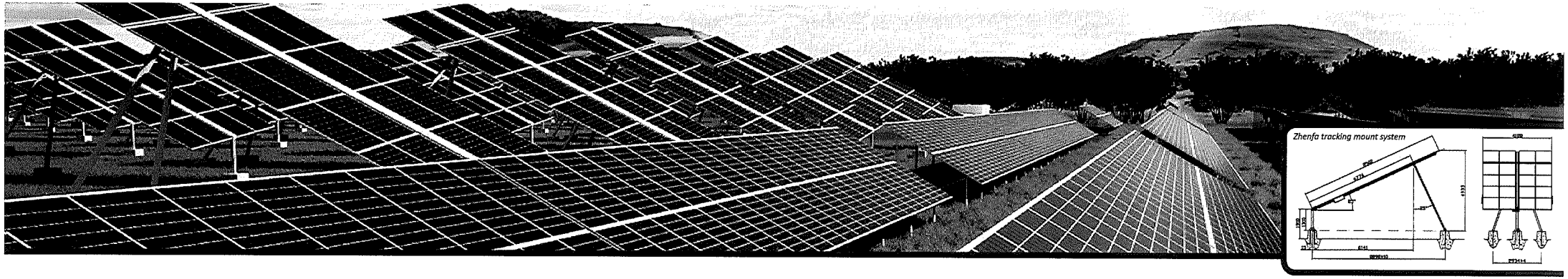
Visit: www.environment.act.gov.au/climate_change

ACT Government
Environment and Sustainable Development

How Canberra is becoming the solar capital of Australia

Canberra is on track to become the solar capital of Australia and the nation's most climate-friendly city. It's all part of the ACT's climate change strategy which seeks to reduce the Territory's greenhouse gas emissions by 40% by 2020.



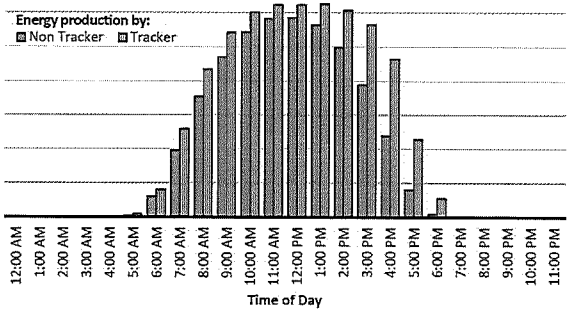


FRV's Royalla Solar Farm

When completed in mid 2014 the Royalla Solar Farm, at 20 megawatts, will be the largest photovoltaic power station in Australia, producing approximately 38,000 megawatt hours of zero-emission renewable energy each year. The 20 megawatt solar generator will comprise approximately 83,000 fixed photovoltaic modules. Fotowatio Renewable Ventures (FRV) is a European-based company specialising in the complete management of solar generation assets.

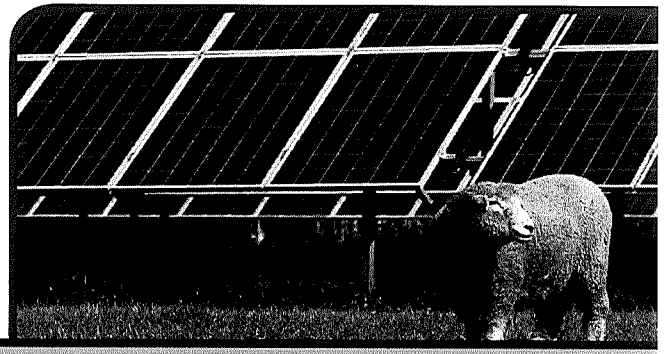
Zhenfa's Mugga Lane Solar Park

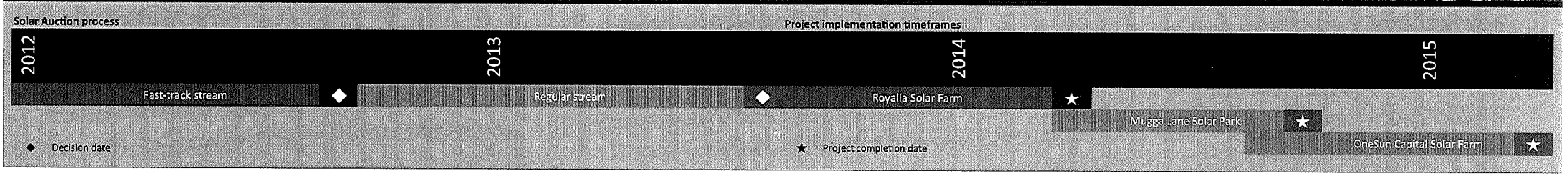
The Mugga Lane Solar Park, due to be completed in late 2014, is a 13 megawatt solar farm, including half a megawatt of panels attached to ground-mounted tracking units. The use of single axis trackers will demonstrate this innovative technology that increases electricity output by tracking the sun over the course of the day. Zhenfa is a Chinese-based company that specialises in photovoltaic system designs, supply of materials, contracting and project finance.



OneSun Capital Solar Farm

The OneSun Capital Solar Farm, due to be completed in mid 2015, is a 10 megawatt facility with 7 megawatts eligible for large-scale feed-in tariff support. The facility features a mono-pile frame system which will minimise disturbance to the landscape allowing for easy assembly and disassembly and allow the site's primary purpose, sheep grazing, to continue. The project will also fund the augmentation of the electricity network that runs from the Cotter Pump Station to Uriarra. Elementus Energy Pty Limited, the project developer, is an Australian-owned and operated company.





Attachment K

ARRANGEMENTS BRIEF FOR MINISTER CORBELL

FUNCTION:	Meeting with OneSun
VENUE:	Regatta Point
HOST:	Minister Corbell
HOST'S CONTACT NO.:	-
DAY:	Monday
DATE:	19 August 2013
TIME:	10.15am to 10.45am
TIME COMMITMENT:	30 minutes
DRESS:	Business
YOUR ROLE:	Meet with proponents
TRANSPORT ARRANGEMENTS:	Your own
WHERE TO PARK:	A car space will be reserved for you Immediately adjacent to Regatta Point Functions Centre
WHO WILL MEET YOU:	Ms Dorte Ekelund
GUESTS OF NOTE:	1. Mr Ashleigh Antflick - Managing Director, Elementus Energy Pty Ltd 2. Mr Oliver Yates - CEO, Clean Energy Finance Corporation, and immediate past Chairman of Elementus Energy Pty Ltd 3. Mr Michael Jansen - Local Business Unit Manager, Power Generation, ABB Australia 4. Ms Jo Metcalf - Manager ACT & Southern NSW, GHD Pty Ltd
DIRECTORATE REPRESENTATIVE:	ESDD Director-General, Ms Dorte Ekelund
MEDIA:	The media is not invited to attend.

OneSun meeting – 10.15am to 10.45am

Representatives

1. Mr Ashleigh Antflick - Managing Director, Elementus Energy Pty Ltd
2. Mr Oliver Yates - CEO, Clean Energy Finance Corporation, and immediate past Chairman of Elementus Energy Pty Ltd
3. Mr Michael Jansen - Local Business Unit Manager, Power Generation, ABB Australia
4. Ms Jo Metcalf - Manager ACT & Southern NSW, GHD Pty Ltd

ESDD representatives

1. Ms Dorte Ekelund
2. Mr Jon Sibley

Key aspects of proposal

- 7MW capacity, as part of a total 10MW installation (includes 3MW of proposed combined medium scale FiT entitlements).
- Approximately 26,100 fixed polycrystalline silicon photovoltaic modules relating to the 7MW proportion
- The project features a mono-pile frame system which will minimise landscape disturbance and allow for easy assembly and disassembly
- Commence construction September 2014
- Completion date 28 April 2015
- OneSun has also indicated an intention to provide for sheep grazing amongst the installation
- Location is directly opposite Uriarra Village and may prove contentious
- A sewerage treatment plant is presently located opposite Uriarra Village, in a corner of the same block of land OneSun will be using
- The landholder has some vegetation already planted on the Brindabella Road boundary of this land
- OneSun has recently held a pre-Development Application meeting with ESDD and it is understood the potential impact on local residents was discussed