



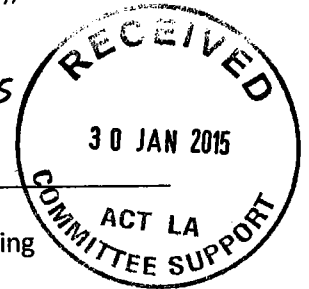
LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

STANDING COMMITTEE ON PLANNING, ENVIRONMENT AND TERRITORY AND MUNICIPAL SERVICES

Ms Yvette Berry MLA (Chair), Mr Alistair Coe MLA (Deputy Chair),
Dr Chris Bourke MLA, Mr Andrew Wall MLA

**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**

25



Asked by Dr Bourke on 16 December 2014: Minister Corbell took on notice the following question(s):

Ref: Hansard Transcript 16 December 2014 PAGE 132

In relation to EEIS – How are Fridges tested/criteria:

DR BOURKE: How are fridges assessed for their energy efficiency, minister?

Mr Corbell: In terms of old fridges?

DR BOURKE: Yes.

Mr Corbell: There are criteria. I could not provide those to you immediately, but I am happy to make those available to you.

MINISTER CORBELL: The answer to the Member's question is as follows:–

The purpose of this EEIS activity is to encourage consumers to consolidate their secondary refrigerators and/or update their primary fridge sooner. Old refrigerators are not assessed for their energy efficiency; however, as manufacturing processes and national energy efficiency standards have improved over the years, newer fridges are much more efficient than older fridges. Therefore the age of the fridge is a good guide to its energy efficiency.

The EEIS relies on the obligated parties to assess whether a fridge is an older one or not. Currently there is a requirement for the decommissioned refrigerator to be manufactured prior to 1996. Difficulties in determining the date of manufacture of older fridges and the fact that other jurisdictions have since removed this requirement has lead to a proposal to remove this specific requirement from the EEIS. This will align the EEIS with the practice in other jurisdictions.

Approved for circulation to the Standing Committee on Planning, Environment and Territory and Municipal Services

Signature:

27.1.15

Date:

By the Minister for the Environment, Simon Corbell MLA



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ANSWER TO QUESTION TAKEN ON NOTICE 26
DURING PUBLIC HEARINGS



Asked by Mr Coe on 16 December 2014: Minister Corbell took on notice the following question(s):

Ref: Hansard Transcript 16 December 2014 PAGE 133

In relation to EEIS – complete list of eligible goods:

MR COE: Would you be able to provide to the committee a complete list of the goods that are able to be replaced or are a part of the incentive scheme?

Mr Corbell: A complete list of eligible measures under the scheme is either a notifiable or a disallowable instrument and is a public document. So I direct you to that document.

MR COE: Therefore, you would be able to provide it.

Mr Corbell: Happy to provide it, but it is, of course, available online in the legislation register.

MINISTER CORBELL: The answer to the Member's question is as follows:–

Eligible activities, as outlined in the *Energy Efficiency (Cost of Living) Improvement (Eligible Activities) Determination 2013 (No 1)* – Notifiable Instrument NI2013-300, are as follows:

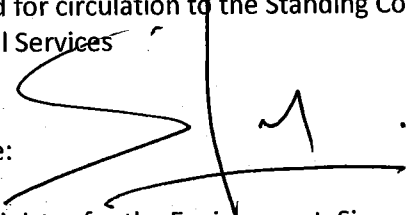
- Building sealing activities
- Exhaust fan sealing activities
- Ventilation opening sealing activities
- Install a thermally efficient window
- Retrofit thermally efficient glazing
- Install thermally efficient window coverings
- Retrofit thermally efficient glazing
- Install thermally efficient window coverings
- Install window pelmets
- Replacing a ducted gas space heater with a high efficiency ducted gas space heater
- Decommission a central electric space heater and install a high efficiency ducted gas heater
- Install a gas or liquid petroleum gas space heater
- Install a high efficiency ducted gas heater in a new residential premises
- Install insulated gas heating ductwork
- Decommission and replace electric resistance water heater
- Decommission a gas or liquefied petroleum gas water heater and install a gas or liquefied petroleum gas boosted solar water heater

- Replace an existing shower fixture outlet with a low flow shower fixture outlet
- Hot water tap improvements
- Lighting activities
- Decommissioning and disposal of (pre-1996) refrigerator or freezer
- Purchase of high efficiency refrigerator or freezer
- Installation of high efficiency gas clothes dryer
- Purchase of high efficiency electric clothes dryer
- Install a standby power controller
- Purchase of a high efficiency television
- Install a high efficiency swimming pool pump

Please note that while the Minister determines the eligible activities and the annual target that the obligated parties (currently only ActewAGL Retail) have to meet, the obligated parties decide how they will meet their target, and which eligible activities they will undertake in any given compliance year.

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Municipal Services

Signature:

A handwritten signature in black ink, appearing to be 'S. Corbell', written over a horizontal line.

Date: 27.1.15

By the Minister for the Environment, Simon Corbell MLA

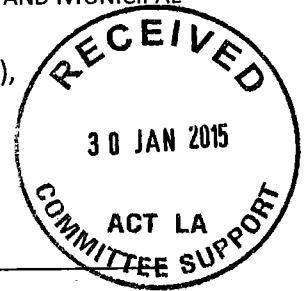


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ANSWER TO QUESTION TAKEN ON NOTICE 27
DURING PUBLIC HEARINGS



Asked by Mr Coe on 16 December 2014: Minister Corbell took on notice the following question(s):

Ref: Hansard Transcript 16 December 2014 PAGE 134

In relation to the EEIS - aggregate cost passed through to consumers:

MR COE: Sure. What is the total outlay for the scheme, then?

Mr Corbell: The total pass-through cost is reflected in the determinations of the ICRC. I would have to take the specific dollar figure on notice.

MR COE: Yes. Just, say, that the average energy prices have gone up by \$10 to accommodate for this scheme. Does that mean that we can simply say that the cost of the scheme is the number of households and the number of electricity accounts times \$10?

Mr Corbell: No, because it is a consumption-based charge. Obviously if you use more electricity you pay a greater proportion than an electricity user that uses less electricity. That is reflected in the ICRC determination. The important point to make is that the government has tabled a detailed cost-benefit analysis of the application of this scheme both to the household sector and to the small and medium business sector. Both of those analyses confirm that, overall, there is a significant benefit to households and saving to households who participate in the scheme and that that well and truly outweighs the pass-through cost that comes through the scheme. This is a scheme that saves people money as well as reducing people's greenhouse gas emissions.

MR COE: Minister, just to clarify that, I will tell you what I am requesting: the aggregate of the scheme which the ICRC has factored into the cost recovery charged through energy consumption.

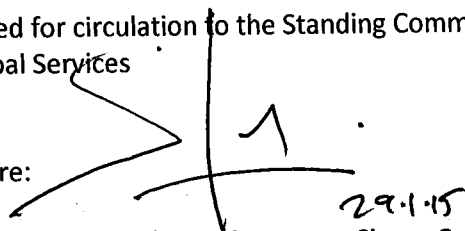
Mr Corbell: I am happy to make that available. It is already a public figure insofar as it is in the public determinations made by the regulator, but I am happy to provide that on notice to the committee.

MINISTER CORBELL: The answer to the Member's question is as follows:–

On page 54 of the ICRC's final report, *Standing offer prices for the supply of electricity to small customers – 1 July 2014 to 30 June 2017*, it states: the Commission is satisfied that ActewAGL Retail's forecast expenditure on the EEIS is prudent and efficient. The Commission has therefore granted an EEIS cost allowance of \$4.92 per MWh for 2014-2015. This is 31 per cent more than the allowance of \$3.75 per MWh granted for 2013-14.

Approved for circulation to the Standing Committee on Planning, Environment and Territory and
Municipal Services

Signature:

A handwritten signature in black ink, consisting of a stylized 'S' followed by a vertical line and a horizontal line, with a small '1' above the horizontal line.

Date:

29.1.15

By the Minister for the Environment, Simon Corbell MLA

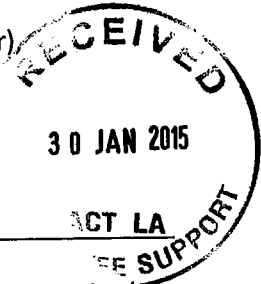


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ANSWER TO QUESTION TAKEN ON NOTICE 28
DURING PUBLIC HEARINGS



Asked by Mr Wall on 16 December 2014: Minister Corbell took on notice the following question(s):

Ref: Hansard Transcript 16 December 2014 PAGE 136

In relation to rooftop solar:

MR WALL: With respect to all the rooftop solar installations that have occurred in the territory, what does that equate to?

Mr Corbell: Approximately 40 megawatts, but I am happy to get an exact figure.

MINISTER CORBELL: The answer to the Member's question is as follows:—

According to ActewAGL's Distribution most recent available data, there was 43.76 megawatts of installed solar generation capacity in the ACT at the end of September 2014. This excludes the large-scale 20 megawatt Royalla solar farm.

Approved for circulation to the Standing Committee on Planning, Environment and Territory and Municipal Services

Signature:

Date:

By the Minister for the Environment, Simon Corbell MLA

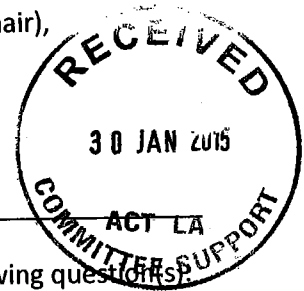


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ANSWER TO QUESTION TAKEN ON NOTICE 29
DURING PUBLIC HEARINGS



Asked by Mr Wall on 16 December 2014: Minister Corbell took on notice the following question(s):

Ref: Hansard Transcript 16 December 2014 PAGE 137

In relation to Green Power usage:

MR WALL: What portion of energy usage in the ACT is currently—I missed the terminology you used when an end user opts to buy renewable power with their supplier.

Mr Sibley: The green choice?

MR WALL: The green choice. What component of energy use in the ACT falls under the green choice category?

Mr Sibley: It is a relatively small percentage. I do not have the number available. It is under five per cent.

MR WALL: In megawatt usage terms, we would be talking five per cent of that 490?

Mr Sibley: The 490 is the additional large-scale investment that is needed to take the total renewable energy usage up to 90 per cent renewables. So the 490 is the gap, if you like, between what is expected under business as usual conditions with the large-scale RET and the rooftop solar and the 90 per cent target.

Mr Corbell: If you want a more specific breakdown, we can obtain that, Mr Wall; I am happy to take that on notice.

MINISTER CORBELL: The answer to the Member's question is as follows:—

According to the latest GreenPower Annual Compliance Audit which covered the 2013 calendar year, the ACT purchased 92,820 megawatt hours of GreenPower, equal to around 3.3 per cent of all the electricity consumed in the Territory in that year.

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27.1.15

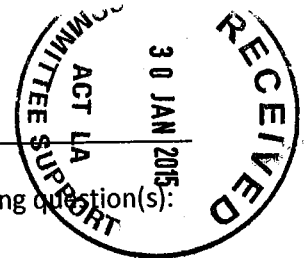


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ANSWER TO QUESTION TAKEN ON NOTICE 30
DURING PUBLIC HEARINGS



Asked by Mr Coe on 16 December 2014: Minister Corbell took on notice the following question(s):

Ref: Hansard Transcript 16 December 2014 PAGE 138

In relation to Feed-in tariff requirements – cost to the taxpayer:

Mr Corbell: Thereabouts. So for those households that were eligible and installed rooftop solar and claimed while they could access the various iterations of the rooftop solar feed-in tariff scheme, they continue to receive payments under that scheme for the 20-year term as is set out in the legislation.

What we have seen, since the rooftop solar feed-in tariff scheme was closed, is that people have continued to install solar. There have been approximately another 10 megawatts installed since the household FIT closed. So people have continued to install solar. I can check that figure but certainly many megawatts of rooftop solar have been installed since FIT closed because the price of rooftop solar has continued to significantly decline; therefore it has made it more financially attractive and available to households to install, even without a FIT payment. So there are two types of households. The cost as such to the community is only in the cost that is mandated under legislation for the payment of the FIT scheme for those households that are eligible.

MR COE: You can take that on notice?

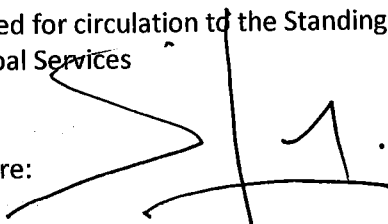
Mr Corbell: Yes. I should say that those figures are publicly available. The ICRC reports on those figures annually and the report is on their website.

MINISTER CORBELL: The answer to the Member's question is as follows:—

According to the most recent report by the ICRC on the ACT Electricity Feed-in Tariff Scheme, in 2013-14 total premiums of \$16.85m were paid to the owners of rooftop solar panels installed under this scheme. This cost is spread across all electricity users in the ACT. However this cost included an imputed wholesale cost of electricity ('normal cost of electricity') of 7.5c/kWh that is not passed on to ACT electricity consumers. If that cost is excluded, the total cost to ACT electricity consumers was \$14.2m, estimated to have contributed approximately 2.5% to the annual electricity bill paid by a typical Canberra household.

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Signature:



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Date:

29.1.15



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ANSWER TO QUESTION TAKEN ON NOTICE 37
DURING PUBLIC HEARINGS



Asked by Mr Coe on 16 December 2014: Minister Corbell took on notice the following question

Ref: Hansard Transcript 16 December 2014 PAGE 138

In relation to solar panel installations:

Mr Corbell: Thereabouts. So for those households that were eligible and installed rooftop solar and claimed while they could access the various iterations of the rooftop solar feed-in tariff scheme, they continue to receive payments under that scheme for the 20-year term as is set out in the legislation.

What we have seen, since the rooftop solar feed-in tariff scheme was closed, is that people have continued to install solar. There have been approximately another 10 megawatts installed since the household FIT closed. So people have continued to install solar. I can check that figure but certainly many megawatts of rooftop solar have been installed since FIT closed because the price of rooftop solar has continued to significantly decline; therefore it has made it more financially attractive and available to households to install, even without a FIT payment. So there are two types of households. The cost as such to the community is only in the cost that is mandated under legislation for the payment of the FIT scheme for those households that are eligible.

MR COE: You can take that on notice?

Mr Corbell: Yes. I should say that those figures are publicly available. The ICRC reports on those figures annually and the report is on their website.

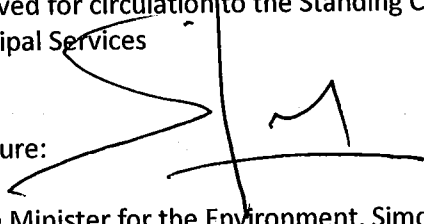
MINISTER CORBELL: The answer to the Member's question is as follows:—

According to ActewAGL's Distribution most recent available data, there was 43.76 megawatts of installed solar generation capacity in the ACT at the end of September 2014. This excludes the large-scale 20 megawatt Royalla solar farm.

There have been approximately 5,000 installations added to the network equating to 18 megawatts of capacity since the closure of the scheme in 2011. The majority of this additional capacity was installed under voluntary retailer schemes and as such does not impose any cost impact on ACT electricity consumers.

Approved for circulation to the Standing Committee on Planning, Environment and Territory and Municipal Services

Signature:

A handwritten signature in black ink, appearing to be 'S. Corbell', written over a horizontal line.

Date: 27.1.15

By the Minister for the Environment, Simon Corbell MLA



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ANSWER TO QUESTION TAKEN ON NOTICE 32
DURING PUBLIC HEARINGS



Asked by Ms Lawder on 16 December 2014: Dr Kitchin took on notice the following question(s):

Ref: Hansard Transcript 16 December 2014 PAGE 145

In relation to low dissolved oxygen levels in urban ponds:

MS LAWDER: I think my question was: what leads to low oxygen levels? What can cause that to happen?

Dr Kitchin: I would have to take that on notice exactly. It can be a temperature thing; it can be a change in the amount of water that is going into the pond. But if you want specifics of the ecology of dissolved oxygen and how it evolves, I will take that on notice.

MINISTER CORBELL: The answer to the Member's question is as follows:—

Organisms that live in water require dissolved oxygen (DO) to survive, just like organisms that live on the land. Understanding what causes low DO is complex and is affected by many processes which are interlinked. There are both sources and sinks for DO in a water body.

Oxygen sources: the atmosphere, turbulence (eg from wind, waves), water inflows, aquatic plant and algae photosynthesis during daylight.

Oxygen sinks: respiration of aquatic organisms (plants, fish, etc), bacterial breakdown of organic material, some chemical processes.

Interactions that affect DO levels:

- *Plants and algae* living in the water both produce oxygen through photosynthesis during day time and use oxygen through respiration which occurs 24 hours a day. Too many plants or algae in a water body can have the effect of causing an oxygen slump just before daylight after they have respired and used oxygen all night.
- *Temperature.* Colder water temperatures allow the water to hold more oxygen. Warmer water holds less oxygen. Warmer water temperatures also speed up organic decomposition, which uses DO.
- *Depth.* Water closer to the surface generally contains higher DO levels as it is closer to the atmosphere and also where water plants photosynthesise. Water in the lower levels of a water body usually contains less DO because low light limits plant photosynthesis and this is usually where most organic decomposition takes place (a process which uses oxygen).

- *Stratification.* In some lakes where the water is deep enough and turbulence relatively low, distinct layers of water temperature can occur. When the lake is not mixed, water near the bottom of a lake is usually cold with low DO, while water in the top layer is warmer with higher DO.
- *Short term runoff of flotsam or turbid runoff:* Intense periods of runoff can result in mats of floating debris (generally vegetation, wood chips, animal droppings or leaves) covering the water surface. The debris prevents oxygen transfer and inhibits photosynthesis of water plants.
- *Nutrient inputs.* Nutrients getting into a water body also affect DO, usually causing a decrease. Nutrient inputs to a water body include lawn clippings, animal droppings, fertilizers, die off of aquatic plants. Increased nutrients affect DO by increasing plant, algae and bacterial growth. Larger numbers of plants and algae not only produce oxygen through photosynthesis, but also use oxygen through respiration and decomposition. If this is coupled with high bacterial decomposition processes (of dead organic matter), which use DO, a significant slump in DO can occur.

Putting it all together: why the cod were probably affected by a low DO event in Yerrabi Pond.

The October 2014 fish kill was reportedly preceded by a severe storm event in Gungahlin and then unseasonal warm temperatures. These occurrences are likely to have had the effect of increasing nutrient inputs to Yerrabi Pond and then the warmer temperatures increasing plant production and bacterial decomposition, which can reduce lake DO levels, especially pre-dawn.

Yerrabi pond also has very clear water, which (in addition to nutrient inputs) has lead to very high levels of filamentous algae growth across the lake. As mentioned above, algae produce oxygen during the day but use it at night.

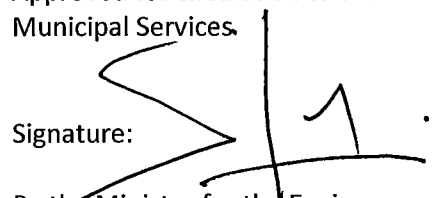
When the fish kill occurred, Murray Cod would have been trying to spawn. When in spawning season fish bodies are under increased stress. Murray Cod males also have a behavioural characteristic of trying to 'guard a nest'. Whilst guarding a nest fish are less likely to want to move to avoid low DO conditions. Also, most of the fish killed were large; larger fish are more susceptible to low DO levels.

Other possible causes of the fish kill that were tested and all found to be negative were:

- fish viruses (EHN and Gourami Iridovirus)
- pesticides and herbicides
- other water quality parameters

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27.1.15

Date:

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ANSWER TO QUESTION TAKEN ON NOTICE 33
DURING PUBLIC HEARINGS



Asked by Mr Wall on 16 December 2014: Dr Kitchin took on notice the following question(s):

Ref: Hansard Transcript 16 December 2014 PAGE 147

In relation to the breakdown of funding for fish stocking:

MR WALL: You mentioned that the Canberra anglers society or club makes a contribution to the program?

Dr Kitchin: Yes.

MR WALL: What is the value of their contribution in proportion to the cost to government?

Dr Kitchin: I do not know exactly. I would have to get back to you on exactly the amount.

MINISTER CORBELL: The answer to the Member's question is as follows:—

Over the last five years the ACT Government has provided \$15,000 p.a. in funding towards native fish stocking in Canberra's urban lakes. Of the five main fishing clubs in the ACT, only Canberra Fisherman's Club (CFC) provides funds to the ACT Government stocking program. CFC has provided the following support to the ACT Government stocking program. The amount available varies as determined by their fund raising efforts from raffles and an annual Carp fishing event.

Year	ACT Government Fish Stocking Funding	Canberra Fishermans Club Contribution	Total	Canberra Fisherman's Club as Percentage of Total
2014/15	\$15,000	\$4,500	\$19,500	23%
2013/14	\$15,000	\$5,000	\$20,000	25%
2012/13	\$15,000	\$3,000	\$18,000	17%
2011/12	\$15,000	0	\$15,000	0
2010/11	\$15,000	0	\$15,000	0

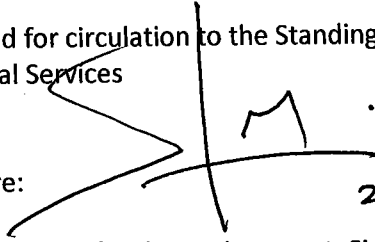
In 2012/13, and in the two years prior, CFC also funded the stocking of two smaller ponds that are not in the ACT Government's fish stocking program with amounts up to \$2,000. Additionally, CFC occasionally supplements the National Capital Authority funded periodic stocking of Lake Burley Griffin.

The four urban lakes that are stocked by the ACT Government are only stocked in two out of every three years in order to achieve the minimum stocking density that is considered adequate for a viable adult population of native fish from the available funds. Additional funds provided by the CFC help to ensure successful stocking outcomes for their members and other recreational anglers.

Conservation Research, within the Environment Division of the Environment and Planning Directorate, monitors the fish populations in each urban lake on a biennial basis to determine the status of fish populations and the success of the stocking program.

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Signature:



27.11.15

Date:

By the Minister for the Environment, Simon Corbell MLA