PROPOSAL APPLICATION NUMBER 201600038; BLOCK 11, SECTION 21, 36 COURANGA CRESCENT, HUME - FOY GROUP PLASTIC TO LIQUID FUEL FACILITY

Dear Sir/Madam,

This letter raises the questions about the draft EIS and objections I have to the project “Landfill Diversion Facility” proposed by FOY Group for 36 Couranga St, Hume, ACT.

Please note that I am a resident of Isaacs, near to the proposed site and I have a full time career and am raising two children. I care about our current and their future environment as we chose to live in Canberra due its lack of heavy industry and my son’s asthma which was getting worse in Sydney. I am not a professional in analyzing what the proponents proudly state is a 974 page draft EIS that has already been accepted by the ACT EPA:
http://www.asx.com.au/asx/statistics/displayAnnouncement.do?display=pdf&idsId=01777184

I find the whole process confusing when the scope for the draft EIS issued as legislation by the ACT Government called for a plain English, easy to understand document that could be understood by us all. At the only consultation meeting I am aware of happening (30 August 2016 at Rose Cottage) that I heard about third-hand had an incomprehensible slide presentation due to obstruction of view of the project and projection screen. I was told at that meeting that this project was originated around April 2016 and I was now being given approximately 2 weeks to interpret a draft EIS that mentioned cancer risks, reproductive systems issues and even organ malfunction and failures. This scares me a lot, what the hell are we doing here? Manufacturing cheap fuel for a company to make a quick buck and prop up their overseas mining operations at Amazon Bay, Papua New Guinea. Where’s the social equity? Is there a health fund with their ongoing monetary contribution to treat the symptoms we will inevitably suffer from as opposed to

burdening ACT Health and ourselves as taxpayers? Is there an environment fund for clean up in the case of accidents or bail-out and clean up of the entire facility if the project fails? I saw no evidence of anything other than investor-driven profits and an assumption this is a done deal with the ACT Government being a major customer, purchasing diesel for ACTION's buses (draft EIS page 31 and community presentation slide deck, slide 7). The diesel generated is only EURO4 compliant with a bad emissions profile. No sign of EURO5 and EURO6 compliance as our transport must move to imminently.

The proponents refer to a facility they built at Berkeley Vale, NSW. This facility is not comparable – it processes co-mingled fuels in a liquid form and separates them in to different fuel types. It processes 50 tonnes per day. It does not liquefy and vaporize shredded plastics and therefore, it is an experimental prototype. Statements were made by former director Mike Palmer (4 August 2015) that it would process plastic as now proposed for Hume, but it never did and the current directors have distanced themselves from his comments to the Australian Stock Exchange: http://igenergy.com.au/wp-content/uploads/ASX-Feedstock-Agreements-040815.pdf
In their accompanying presentation, they also claim to process plastic to fuel and include an IFGT (Indirectly Fired Gas Turbine) to generate electricity by using exhaust gases: http://igenergy.com.au/wp-content/uploads/Investor-Presentation-280715.pdf
This is not detailed at all in the draft EIS. The existence of an IFGT would mean other exhaust gas outputs not yet understood or modeled. Where are the plans headed beyond what's in this initial draft EIS and the "foot is in the door"? We know they may expand to take up the entire site and neighbouring sites, building new prototype experimental kilns as they set up their manufacturing facilities as well as the processing facility and adding to the overall emissions.

As to sound and how sound is measured or experienced by neighbours (including existing traders within Hume as well as neighbouring suburbs), sound pressure is not just additive but exponential. The difference at night of just a few decibels is disruptive to sleep patterns. What time do the trucks servicing the site arrive and depart when the plant is proposed to operate 24

hours a day and 7 days a week? What is the sound output in its proposed form and at later stages if modifications are made?

The proposal we are seeing in this draft EIS is for a fuel factory 4 times the scale with 4 kilns and 4 “cyclonic combustion chambers”. This will have a combined processing capacity of 200 tonnes per day and will ingest shredded plastics (mixed bales). As a result, all motherly statements with assumptions and aspects of trust are null and void with no evidence in the draft EIS being trustworthy.

While on the subject of trust, the proponents began a media campaign and convinced the ABC News that there was NO fuel storage on site. This is the messaging going out to the public (12 Sep 2016) :
http://www.abc.net.au/news/2016-09-12/plastic-to-fuel-facility-planned-in-canberra/7835234
While focusing on their messaging via ABC news, let’s also look back to their messaging around Berkeley Vale (22 May 2015) :
http://www.abc.net.au/news/2015-05-21/plastic-fuel/6484004
What has happened to Berkeley Vale?
With announcements to the ASX (28 July 2015) :
http://igenergy.com.au/investor-presentation/
as well as the initiation of community consultation:
http://igenergy.com.au/community-consultation/
Of course it’s possible they’re confused about how much fuel they’re going to hold on site, as they couldn’t add up their storage tank capacities in the EIS, claiming they’d store 1.84 million (it is actually 1.89 million) litres. On top of this, the ACT has draft guidelines around what’s a recommended distance for separation from residential. For a 2 million litre storage, the distance is 1.5km. Calculating that 1.89 million litres is 94.5% of 2 million litres, the comparative distance would be 94.5% of 1.5km, or 1.42km. The distance between this proposed fuel storage and existing (and future new residential areas in Tralee) is well below this distance and is unsafe.

Talking of safety, the first responder ACT Fire and Rescue site is at Calwell. This is under threat to going to part time staffing as the ACT Government cuts funding (refer http://actonfire.com.au) so for FOY Group to say that bushfire risks are mitigated and safety or emergency response is covered in conjunction with ACT Emergency Services isn’t true.

Now let's turn to environmental modeling, for example of emissions profiles taken from receptors at Berkeley Vale cannot be considered reliable due to the difference in elevation (sea level, vs. 630 metres above sea level at Hume), wind patterns dependent on dispersing the pollution (source wind patterns were taken from Tuggeranong deep in a valley and not representative of the site at Hume which is at an intersection of multiple valleys and ridges including Farrer Ridge, Isaacs Ridge, Woden Valley and Tuggeranong Valley).

Air quality modeling was performed using AUSPLUME which is based on a very coarse grid with respect to topology. During the analysis of the plume study of the proposed Gas Fired Power Station in 2008, it was acknowledged that modeling had to be done using CALPUFF to allow for the much smaller grid detail which would then encompass the ridges and valleys surrounding the site. With North-South valleys and East-West winds, eddies are created which literally drop pollution to ground level, as seen with the inversion layer in Tuggeranong in winter.

Another important factor is particulate matter. Both PM10 and PM2.5 needs to be modeled and minimized as this has a major impact on respiratory function and lung health. It is not satisfactory to concentrate on specific gases for example sodium and nitrogen, when the whole gamut of gases including greenhouse gases such as methane and carbon monoxide/dioxide needs to be fully understood. It is also another lie to compare the output to the same as a domestic wood fire in a house.

The proponents proudly declare that their process has been designed (and as yet untested in the proposed location) to treat exhaust gases to remove all fugitive particles. While claiming it is a closed system (it cannot be, hence the exhaust stacks) they do not account for fugitive particles that may not make it in to a gaseous state and hence will contaminate the fuel. Once this fuel is consumed through burning in an engine, these fugitive particles are then released wherever it is that they are burned. This will cause wide dispersion far from the source site.

With the 4 kilns operating at over 400 degrees centigrade and 4 accompanying "cyclonic combustion chambers" operating at over 1,400 degrees centigrade, this will take a large amount of energy. Some source gas is stated to come from the liquid petroleum gas

generated from the liquefied plastics. However, the proponents stated at the meeting 30 August 2016 that it takes 2 hours of natural gas from the grid to get the process going for each kiln. This is 8 hours of burning large amounts of natural gas. As a result, with at least 8 exhaust stacks (for venting of the emissions from spent gas burning; including Liquid Petroleum Gas and natural) this is not a closed system and is consuming grid energy.

There is embodied energy in the plant itself (manufacturing and install) and then in ongoing road transport, trucking 80% of the tonnage in from interstate. If any loads are rejected due to contamination, they are trucked back to source. Then further emissions in the burning of the fuel. This generates massive carbon emissions and greenhouse gas contribution and makes a farce of the ACT's targets in greenhouse gas emissions. It is better to bury the plastic in landfill where the carbon is in a stable state. If you want me to calculate it for you, I can't – as we don't know where the feedstock is sourced, the routes they're going to take including if they have to bypass due to their tanks exploding and shutting down the Monaro Highway. When Mitchell's emergency occurred, there were 10km exclusion zones and the main road affected was the Gungahlin Drive. This is not equivalent as an emergency will sever the Monaro Highway and the main link to rural and coastal communities.

The National Capital Authority also has guidelines on the approach roads to the Nation's Capital City (Canberra). It talks of gradual increase in the built form before approaching the city centre itself. Putting heavy industry projects at the edge of Canberra (i.e. in Hume) creates a thumping big wall of industry immediately after rolling countryside and bush and horse paddocks. It's not in keeping with Sir Walter Burley Griffin's vision of the garden city. Of course, the fact you then pass Hume itself and then the jail, we've obviously given up already.
See (with respect of neighbouring blocks where the solar power farm has been installed) :
http://www.nationalcapital.gov.au/index.php?option=com_content&view=article&id=2443:tuggeranong-part-blocks-1470-and-1471-monaro-highway&catid=91:approved-development-control-plans-list&Itemid=410
Specifically: "*'Development is to conform to Development Control Plans agreed by the Authority, which seek to enhance the surrounding predominantly rural character and landscape outside*

the urban areas. As the Approach Routes enter the built up area, the emphasis shall shift to a more formal character.""

In addition, the Jerrabomberra wetlands are close by and are internationally recognized and protected. As we saw with BP's oil spill in the gulf of mexico, accidents happen. When they do, as they will if this project ends up in its proposed location, there will be severe consequences that we can't know in advance. It is better to avoid the conflict of incompatible localities in the first instance.

With respect to finances, FOY's share price has tumbled and suffered as the promises made have been broken to investors. Just now, they are looking to raise funds to try to get this project going. If the finances collapse, who cleans up? I am an ACT taxpayer and do not want my fees being used to bail out a collapsed private company that do not have a solid business plan.

I support the submission of Canberrans for Power Station Relocation as they were also able to tackle other issues I am aware of, but I was unable to articulate. In summary I challenge on a number of areas with too many unknowns with respect to:

1) Financially sound (ASX broken promises)
2) Technology unknown (Berkeley Vale is not comparable)
3) Environmental impacts (greenhouse gas and Earth's emergency)
4) Consultation failure (notification, engagement, process)
5) Probity (Government & consultation company's biased pitch)
6) Health (none of the modeling can be relied upon)