

East Park Energy Development Consent Order (EN010141): Hearings on 18th March 2026 - Traffic movement and use of BMV Land

Shaun Woodward, local resident, living in Brook End, Keysoe [REDACTED]

Dear Mr Sword

Sir, due to time limitations, you requested I submit my comments in writing to you instead of speaking at the hearing on 18th March. I have included a fuller version of my speech with the tables and calculations which were originally planned for submission after the hearing for your consideration. I would be grateful if you would give consideration to the points raised. Thank you in anticipation.

Shaun Woodward

Understated traffic movements and diesel usage leading to incorrect data on the applicants submission for road congestion, GHG and Carbon calculations and 'green' credentials for the EPE solar scheme

I would like to bring the inspectors attention to what I believe are omissions and significant discrepancies in the applicant's documentation for transport movements, and therefore important related calculations. The applicant uses traffic movement statistics primarily to calculate pressure on the road network across the construction period only, but traffic movement figures must also contribute to GHG and carbon calculations. I believe the stated figures to be demonstrably inaccurate and unacceptably vague for the life of the 40 year scheme. Movements alone do not recognise distance travelled, therefore fuel usage, or fuel burned by vehicles purely on site or in all stages of the project. These should be detailed for analysis by the inspector and the wider public.

To provide figures for traffic movement, and fuel usage the applicant must transparently demonstrate accurate usage figures for individual vehicle types using mileage and diesel consumption modelled across the whole 40 year project. Diesel use may be calculated for some vehicles (such as excavators) using gallons per hour rather than mileage. Calculations and therefore justifications for the project should be based on current technologies and not pushed vaguely into the future expecting new science to solve the problems of a project being created now.

With respect to vehicles An accurate breakdown would include movements and total mileage to establish accuracy in the fulfilment of this complete project for diesel usage for:-

- **Pre Statutory Phase** - All fuel used by the applicant in locating and visiting to establish this site for their scheme, including travel to other alternative sites, management meetings, investor meetings, planning meetings, transport for presentations to villagers and creation and distribution of all presentation materials.
- **Consultants** - All fuel and movements for consultants employed by the applicant for consult with landowners photography, traffic analysis, scheme designers, soil grade analysis, glare consultants, biodiversity consultants, and the many trips to and to survey the land for sight lines and screening design.
- **Archaeology phase** - All HGV and LDV and Commuter vehicle movements in the Archaeological dig phase. With over 1000 trenches dug by multiple excavators over months this is significant.

- **The full Construction phase** - Including movement of plant to site, construction of on site roads, modifications to existing roads, BESS and transformer bases and compounds. Delivery of all materials and equipment to site, delivery of worker facilities and compounds, and storage facilities. I note transformers are filled with cooling oil. The 2 x 400Kv transmission transformers alone could hold up to 50,000 litres of oil each. Oil usage across the site and within equipment will be considerable and should be clearly noted and accounted for in GHG / Carbon calculations both during construction and operational phases.
- **Irregular load vehicles** - such as the cranes, and the two trips by WYNNS transport to deliver 2 x 120 tonne transformers to the site, each total rig weighing approx. 330 tonnes.
- **Planting & Fencing** - All transport movement associated with removal of hedges where stated, planting and fencing. Include 10 years maintenance of all screen planting and vehicle movements to maintain vegetation under solar arrays and across the 1900 acre site. This is significant over 40 years. (See spreadsheet below)
- **20 year refit** - All HGV and LDV movements associated with 20 year removal and replacement and recycling of all panels, transformers, inverters, cabling and fencing.
- **40 year decommissioning** - All HGV and LDV movements associated with 40 year removal and replacement and recycling of all panels, transformers, inverters, cabling and fencing.
- **Panel breakages** - All HGV and LDV movements associated with removal and replacement of the 10% expected breakages, and failures of individual panels and equipment over 40 years in addition to refit at 20 years. The applicant has proposed 10% of panels which is 69,576 panels. This is significant in terms of required traffic movement and diesel use.
- **Maintenance** – General maintenance and disposal of general waste across the site over 40 years.

Any understated figures in the above will reduce claimed GHG and carbon payback calculations, enhancing the 'green' credentials and therefore the overall 'green' viability of the scheme, so it is important all fuel, oils and transport movement are correctly accounted for.

Please refer to spreadsheet on pages 6 and 7. My simple calculations on the spreadsheet relate to 40 years (+ 2 for decommissioning), but only cover :-

- 1/. HGV movement
- 2/. LDV movement
- 3/. Construction worker commuting

Note: On site vehicle works and diesel use are harder to calculate and have been omitted but will add considerably to the GHG and carbon figures.

I calculate total lifetime traffic movements just for the above to be over **724,000 movements**, much more than the **13,146** declared. It's notable that the only traffic movements specifically detailed in the application are for the construction phase only.

It has been generously assumed for the calculations that only 50% of the initial workforce are used over 24 months at both the 20 year 'rebuild', and 40 year 'decommissioning' stages. The spreadsheet below contains all the application document references, calculations, and minor use of ChatGPT (to locate a few indicative material specifications from manufacturers for the inspectors review).

To qualify the calculations;

1/. All major hardware, panels, batteries, inverters, and transformers are manufactured and shipped 23,000km from China, but there is no breakdown for road, rail and sea transport. The 2.6 million metres of cabling and metal piling supports are manufactured and transported from Poland. Coal is the major source of energy for making steel and glass in these countries (Poland 58%). I wish to confirm EPE have taken accurate account of the transport movements and the 'dirtier' manufacturing for their GHG/carbon calculations for these elements?

2/. From the application's documentation for plant, equipment and materials inventory for construction, and material quantities; Gravel (60,000CuM = 96,000 t), Concrete (26,400 t), and Sand-cement (17,500t), it's possible to calculate the number of movements required to deliver that quantity of material using the maximum load capacities of the specified construction vehicles. (EPE table referenced in Index).

The movements required for other materials can also be calculated.

3/. The Canadian solar panels spec sheet supplied by the applicant includes shipping details. Using the best case 'Hi cube' containers, the panels alone would require 1171 articulated container deliveries, 2,342 movements for construction delivery.

4/. With further research using indicative manufacturer specifications it was possible to closely calculate the weight per metre for the three grades of cabling specified and the galvanised 'table' supports for the solar panels, BESS batteries, inverters and transformers (and also the 40 miles of metal deer fencing with associated post supports), to translate these into delivery transport movements. These may not be perfectly accurate, but I believe them to be very close and need to be included in traffic movements and GHG/carbon calculations.

5/. More importantly, what is not detailed in the application are 'whole life' transport movements for all solar panels, transformers, inverters, fencing, and cabling, firstly being replaced after 20 years, and then at the decommissioning stage after 40 years; some as hazardous waste delivered to suitable recycling plants or landfill. The applicant is vague about the nature of the recycling, where it will be completed (it could feasibly be abroad with associated transport movements. Transport movements for removing all the fencing, aggregate, concrete, cable runs and associated channelling, the estimated 250,000+ steel pilings, or the potentially contaminated cement base from the BESS site appeared undefined.

6/. There appears to be no reference to traffic movements for replacing the BESS units up to 3 times over 40 years which should be detailed, or for the stated additional 10% of solar panels to be replaced through damage or general failure, (in addition to those used in the initial construction and the replacement at 20 years), a significant further 69,564 panels requiring 117 artic deliveries.

7/. Adding the additional construction worker transportation associated with these works further adds to significant blocks of traffic movements and inconvenience to residents over the life of the scheme which are not defined.

8/. There are no itemised GHG carbon figures, or diesel use for the movements of the two 400kv transformers weighing 120 tonnes each, from China through Felixstowe to site on a 16 axle trailer with two 45 tonne push and pull ballast tractors (gross weight 330 tonnes). I calculate this rig will use 1500 litres of fuel alone to deliver them from Felixstowe to site. This does not include the fuel and movements of the escort vehicles. Please see spreadsheet.

9/. There appears to be no traffic movements or GHG carbon figures specifically for road sign removal and replacement or any damage to roads from the passage of these two massive vehicles, or for the vehicles and works on site to create the new substantial site entrance road and paddock, and modifications to existing roads required to facilitate the passage of HGV's.

10/. All movements stated above should be included from the statutory, pre-construction, construction, maintenance, renewal, decommissioning and operational stages of the project, along with calculation for realistic distances for vehicles to travel for disposal, landfill and recycling points to accurately reflect diesel use and requisite emissions calculations.

11/. The design of the BESS compound is not defined in the application, this will require a considerable number of vehicle movements to construct, along with manufacture and installation of any fire suppression systems, control equipment, lighting, CCTV manufacture and installation, on site staff/welfare compounds and other ancillaries. This will also impact on GHG /carbon calculations and should be defined.

12/. In 20 years, and again in 40 years all 695,760 panels will be removed. Currently there isn't recycling capacity for such volumes in the UK. Applicant claims of 90% recycling are based on what plan? With other UK NSIP's shedding old panels simultaneously in around 20 and 40 years, the panel waste will run to tens of millions. There should be a demonstrably secure plan in place for recycling to support claims of 90% recycle at end of life for panels, with accurate associated GHG and carbon figures included before the scheme is accepted. Without this reassurance in place 100% landfill should be stated. We are looking to build this scheme alongside many others without new technologies or capacity to resolve this serious problem which is irresponsible and cannot be omitted from calculations.

13/. Finally, the application states materials and equipment are to be stored in compounds across the site. There is no allowance for 'double movement' for storage of any materials 'off site' until needed. For example solar panel shipments. The 695,760 panels for first construction require 1142 containers/articulated truck loads for delivery. If these arrive in blocks of hundreds of containers at the docks on a number of sea shipments, it is unrealistic to think each block will all be transported together immediately for storage on site. More likely they will be stored off site and delivered as required for the build. Any secondary handling will add traffic movements, add to the carbon footprint and should be included in traffic calculations. Any future plan to store significant numbers (100's) of containers on site, should be included now in the application with specific storage points identified, along with associated traffic movements.

In view of my findings I respectfully ask for detailed transport movements and associated greenhouse gas calculations to be requested of the applicant by the inspector, as even small omissions and discrepancies will impact on the carbon breakeven and overall viability of the scheme.

Examination and comparison of EPE Data - Traffic movements for workforce and materials brought to site

Notations show where Chat GPT has been used to locate some indicative specifications and indicative manufacturers of inventory eg cables to obtain and weights for materials where not specified.

	Item	QTY used in scheme	Source	Delivery Vehicle	Quantity per load	Number of deliveries	Number of movements	Replace after 20 years?	Remove after 40 years?	TOTAL LIFE Deliveries + Removals	TOTAL LIFE All movements
1	PV panels - Qty	695,760	Panel spec from Canadian Solar spec sheet supplied by EPE - HC container = 594 to 495 pcs per container. Panel size 1300mm x 2384mm - Use 594 = best case for EPE	Assume 40Ft Articulated Truck - (HC container)	594	1171	2343	Yes (See note1)	Yes	9371	18741
2	PV panels for normal ongoing repairs - Application states 10% replaced over life of scheme in addition to full 20 year replacement.	69,576	Panel spec from Canadian Solar spec sheet supplied by EPE - HC container = 594 to 495 pcs per container. Panel size 1300mm x 2384mm - Use 594 = best case for EPE	Assume 40Ft Articulated Truck - (HC container)	594	117	234	Yes	Yes	937	1874
3	Concrete - Tonnes	26,000	From EN010141-000168-6.2 ES Vol 2 Appendix 15-1 Greenhouse Gas Emissions Assessment P01	Assume 32 Tonne tipper (Load capacity 20 Tonnes)	20	1300	2600	No	No* (see note 2)	1300	2600
4	Aggregate (60,000CuM x 1.6 for loose in tonnes)	96,000	as above...	Assume 32 Tonne tipper (Load capacity 20 Tonnes)	20	4800	9600	No	No* (see note 2)	4800	9600
5	Cement bound sand	17,500	as above...	Assume 32 Tonne tipper (Load capacity 20 Tonnes)	20	875	1750	No	No* (see note 2)	875	1750
6	Fencing - BESS 3M steel paladin and gates for compound - No split given between types of fencing so all treated as Deer fencing below, but will actually be heavier	Unspecified So included with 60Km deer fencing	EN010141-000075-7.1 Design Parameters and Principles Statement P01	N/a				Yes	Yes	N/a	N/a
7	Timber posts for 60km Deer fencing (1M max into ground) - (Calc: 100mm x 2.7M - Wooden post every 3M and approx 15kg each. Qty = 60,000/3 = 20,000 posts needed x 0.015t = 300 tonnes weight. 28 tonne artic can take 28t div by 0.015t = 1860 posts max if they will fit. Chat gpt states 1600 as a realistic load figure	20,000	POSTS - EN010141-000075-7.1 Design Parameters and Principles Statement P01 table 6	Assume Articulated truck 24 - 28 tonne load	1600	13	25	Yes	Yes	100	200
8	Deer fencing 2.1M tall/2.5mm wire - 50M rolls wt 70kg's. Weight per metre = 1.4kg. (Calc 60,000M x 1.4kg = 84 tonnes. 28t load = 3 articulated trucks or similar.	60,000	FENCING - EN010141-000075-7.1 Design Parameters and Principles Statement P01 table 6 - Other data from websites	Assume Articulated truck 24 - 28 tonne load	Calc'd by weight	3	6	Yes	Yes	24	48
9	Solar Table supports - 695,760 panels on 23,192 table structures listed = 30 panels per structure. Rated at 250kgs per unit. In kit form that's 23192 x 0.25t = 5798t total weight. Div by 28t for capacity of 40ft artic = 207 deliveries. (See note 3 below). 23,192 x 700kg = 26,234 tonnes. Div by max 28 tonne load = 580 loads	23,192	EN010141-000075-7.1 Design Parameters and Principles Statement P01 table 6 - Other data from websites. Please See under references on the right side of this sheet.	Assume Articulated truck 24 - 28 tonne load	Calc'd by weight (** See note 2).	580	1160	No	Yes* (...but see note 3)	2320	4640
10	BESS Batteries from China assume 20 ft x 96 units typically one per 40ft trailer due to weight. Max weight could be 19t to 36t for a 20ft cabinet. NOTE Likely to need replacing every 8 to 13 yrs. Used three replacements for this calculation.	96		Assume Articulated truck 24 - 28 tonne load	1	96	192	Yes	Yes	576	1152
11	Cables - Extra High voltage Prysmian sourced 1000mm 2 1Kv 2 core = 11.4 Kg/m (if 1 core = 26.2Kg per/m) Could be an error as I am not sure they make a single core in this weight - Which is it?)	18,000		Assume Articulated truck 24 - 28 tonne load	Calc by weight - 18,000 x 11.4kg/m = 205.2 t div by 28	7	14	No	Yes* (...but see note 4)	14	28
12	Cables - High voltage Prysmian sourced 1x500mm 2 1Kv 2single core weight 5.9Kg/m	423,000		Assume Articulated truck 24 - 28 tonne load	Calc by weight - 423,000 x 5.9kg/m = 2495t div by 28	89	178	Yes	Yes* (but see note 4)	356	712
13	Cables - Low voltage - Prysmian sourced 2 x 2.5mm 2 core 1Kv single core weight 0.37Kg/m	2,146,000		Assume Articulated truck 24 - 28 tonne load	Calc by weight - 2,146,000 x 0.37kg/m = 794t div 28	28	56	Yes	Yes* (but see note 4)	112	224
14	Transformers - Typically Lv- 33Kv = 12 tonnes?	52		Assume Flat bed/step frame truck	52	52	104	Yes	Yes	416	832
15	Central Inverters - Typically 10 - 55 tonnes?	52		Assume Low loader	52	52	104	Yes	Yes	416	832
16	Transformers 400KV - Typically around 150 tonnes each? Brought to site on 56M long 330 tonne laden weight rig. WYNNs transport.	2	From China - see transport document showing this and the details. EN010141-000078 - "7.4 Outline Construction Traffic Management Plan (P01)"	WYNNs 16 axle girder trailer with 2 x 45T ballast trucks. Serious Specialist heavy Low loader	2	1	2	Yes	Yes	8	16
17	String inverters - typ 90kgs 28t load can hold 28 div 0.09 t = 31	1,375		Assume Articulated truck 24 - 28 tonne container load	1375	31	62	Yes	Yes	248	496
						9215	18430			21873	
						HGV MOVEMENTS					43745

Continued/....

TOTAL OF LDV JOURNEYS		Delivery Vehicle	Number of trips	Number of movements	Replacement of infrastructure after 20 years?	Dismantle and remove from site after 40 years?	TOTAL LIFE - Trips to site	TOTAL LIFE - All 'too' and 'from' movements
Application states ONLY 790 journeys = 1520 movements for LDV's over 36mths. This equates Less than one LDV per working day which is unrealistic. Simply bringing food and drinks for 854 people per day at peak would require more capacity than this. How many movements would be required simply to install the 40 miles of fencing? Over 40 years this movement would be considerably more.		LIGHT Vans -	790	1580	ESTIMATE 50% of original workforce. Calc Pro-rata for 24mths instead of 30 mths	ESTIMATE 50% of original workforce. Calc Pro-rata for 24mths instead of 30 mths	1896	3792
			790	1580			1896	3792
LDV MOVEMENTS								3792
TOTAL OF COMMUTING JOURNEYS CONSTRUCTION PHASE		Delivery Vehicle	Number of trips	Number of movements	Replacement of infrastructure after 20 years?	Dismantle and remove from site after 40 years?	TOTAL LIFE - Trips to site	TOTAL LIFE - All 'too' and 'from' movements
Total number of man days Workers on site = 14866 (From EPE figures) If Car share in ratio 1.4	10,618	Sharing private car in ratio 14866 divide by 1.4 = 10618 journeys	10618	21236	ESTIMATE Yes (est 50% of original workforce) Pro rata for 24mths instead of 30 mths	ESTIMATE Yes (est 50% of original workforce) Pro rata for 24mths instead of 30 mths	21236	42472
			10618	21236			21236	42472
TOTAL OF COMMUTING JOURNEYS REPLACEMENT OF PANELS AT 20yrs		Delivery Vehicle	Number of trips	Number of movements	Replacement of infrastructure after 20 years?	Dismantle and remove from site after 40 years?	TOTAL LIFE - Trips to site	TOTAL LIFE - All 'too' and 'from' movements
ESTIMATE 50% of original workforce for this stage Pro rata for 24mths instead of 30 mths = 7433 man days x 24/30 = 5946 div x car share 1.4 =	4,247	Sharing private car in pairs. Say 50% staff will be needed to dismantle site at end of life. 50% staff also be needed to replace after 20 years? 2 years stated for dismantling	4247	8494	ESTIMATE 50% of original workforce. Calc Pro-rata for 24mths instead of 30 mths	ESTIMATE 50% of original workforce. Calc Pro-rata for 24mths instead of 30 mths	8494	16988
			4247	8494			8494	16988
TOTAL OF COMMUTING JOURNEYS DECOMMISSIONING PHASE AT 40 yrs		Delivery Vehicle	Number of trips	Number of movements	Replacement of infrastructure after 20 years?	Dismantle and remove from site after 40 years?	TOTAL LIFE - Trips to site	TOTAL LIFE - All 'too' and 'from' movements
ESTIMATE 50% of original workforce for this stage Pro rata for 24mths instead of 30 mths = 7433 man days x 24/30 = 5946 divide by car share 1.4 =	4,247	Sharing private car in pairs. Say 50% staff will be needed to dismantle site at end of life. 50% staff also be needed to replace after 20 years? 2 years stated for dismantling	4247	8494	ESTIMATE 50% of original workforce. Calc Pro-rata for 24mths instead of 30 mths	ESTIMATE 50% of original workforce. Calc Pro-rata for 24mths instead of 30 mths	8494	16988
			4247	8494			8494	16988
TOTAL OF COMMUTING JOURNEYS OPERATIONAL PHASE		Delivery Vehicle	Number of trips	Number of movements	Replacement of infrastructure after 20 years?	Dismantle and remove from site after 40 years?	TOTAL LIFE - Trips to site	TOTAL LIFE - All 'too' and 'from' movements
20 persons quoted in FTE. 5 admin + 15 on site x 250 working days per annum = 3750 man days pa x 40yrs = 150,000 days using individual cars	150,000	Individual cars - Commuting only.	150000	300000	N/a	N/a	300000	600000
			150000	300000			300000	600000
WORKFORCE COMMUTER MOVEMENTS								676448
TOTAL OF OPERATIONAL PHASE MOVEMENTS - CLEANING SOLAR PANELS TWICE Per yr		Delivery Vehicle	Number of trips	Number of movements	Replacement of infrastructure after 20 years?	Dismantle and remove from site after 40 years?	TOTAL LIFE - Trips to site	TOTAL LIFE - All 'too' and 'from' movements
12 people quoted for maintenance + 3 as Groundsmen. If the panels are cleaned by maintenance team every 6 months will require a minimum journey of ~ 695,760 panels (if 2 stacked portrait) = 347,880 x width of panel = 1.3M = 452,244M = a 452km journey per clean. Over 40 years = 2 per year x 452km = 452 x 80 cleans = 36,160km reqd for panel cleaning.	Unknown	Application is vague about panels needing much cleaning which is unrealistic according to the internet. Movement of cleaning vehicles will be largely onsite movements, but will still be using the sections of road from Site D to access C,B and A. Where are the traffic movements and diesel allowance for this activity in GHG carbon calcs?	Mileage of 36,160km+ uses how much diesel and adds how many road movements?	?????	N/a	N/a	?????	?????
				?????			0	?????
CLEANING MOVEMENTS								?????
TOTAL OF OPERATIONAL PHASE - GRASS CUTTING BETWEEN PANELS TWICE Per yr		Delivery Vehicle	Number of trips	Number of movements	Replacement of infrastructure after 20 years?	Dismantle and remove from site after 40 years?	TOTAL LIFE - Trips to site	TOTAL LIFE - All 'too' and 'from' movements
The indicative panel Engineering drawing in PEIR Figure 2-3 show a minimum gap of 3m between panels arrays. If as claimed, the rows are cut once per year (even with a single pass 3m wide mower) will require a MINIMUM journey of 452km per cut, not including under the arrays and not including strimmer maintenance around 250,000+ array support legs which could more than double this. Over 40 years this equates to a MINIMUM of 18,080km of mowing and a lot of petrol and diesel usage. The claims of sheep grazing to avoid mowing are unrealistic and unlikely. See Note ****5 below.	Unknown	Movement of mowing vehicles will be largely onsite movements, but will still be using the sections of road from Site D to access C,B and A even if by trailer. There are no traffic movements and diesel allowance for this activity in GHG carbon calcs?	Mileage of 18,080km ++ uses how much diesel and adds how many road movements?	?????	N/a	N/a	?????	?????
				?????			0	?????
MOWING MOVEMENTS								?????
TOTAL TRAFFIC MOVEMENTS								723985

NOTES FOR WORK SHEET ABOVE:

* Note 1 : It is unrealistic to expect the same optimally packed clean containers (From China bringing replacement new panels) to also be used to pack and delivery the old damaged and failed panels for recycling/disposal. As such more movements will be required - 2 movements for initial delivery, 2 for removal for disposal at 20 years + 2 movements to reinstall + 2 movements to decommission = 8 movements total.

**** Note 2 :** The application is vague about what will be removed at the end of the 40 years period. It should be returned back to pre-construction state to unblemished agricultural land to claim to be TEMPORARY. This means removing all 26K tonnes of concrete and 96K tonnes of aggregates, 17.5 tonnes of cement etc. and removing internal track roads. The concrete from the BESS complex (which will be likely to be contaminated) should be removed. All steel work/pilings and concrete conduits and structures should also be removed for arable farming to continue afterwards.

***** Note 3 :** EPE state scheme uses 695,760 panels and 23,192 table mounts which means 30 panels per mount. According to Chat GPT AI these specific mount sizes don't exist, but could be custom made. EPE state 250kgs per mount. In kit form that's $23192 \times 0.25t = 5798t$ total weight. Div by 28t for max capacity of a 40ft articulated truck = minimum 207 deliveries.

Research (reference in index) shows that for a structure with pilings of this size to support 30 panels (supplied flat pack) typically would weigh 700Kgs (ChatGPT – see below) and 25 tables per truck load. This increases the transport figures as shown from 207 loads to 580 loads/1160 movements as used for this calculation. Note this is based on the max capacity of truck, (BUT In the real world, if palletised or in a 40ft container it would be less due to weight of empty container). $700kg \times 23192 = 16234$ tonnes. ChatGPT says only 25 tables per truck load = 17.5tonnes per load. $16,234 \text{ div by } 17.5 = 928$ loads.

******Note 4 :** Please note cabling is in three types. Cable trenches should not be left in the ground at decommissioning stage.

******* Note 5 :** EN010141 000081-7.7 Outline Landscape and Ecological Management Plan - 6.5.36 - The claims of sheep grazing to maintain grass across the solar fields is questionable. If grazing 24 to 36 weeks per annum, 5.5 to 8 sheep per hectare, effective grass maintenance would require around 4224 to 6144 sheep on this site according to the applicant's reference table. Research shows there are only around 20,000 sheep in the whole of Bedfordshire held by approximately 200 farms. The applicants claim of 6144 would be equivalent to a third of these. Such sheep numbers would require a considerable shift by landowners from arable to sheep farming with the associated facilities and husbandry. There is little sheep farming in this locality and definitely not on this scale. Managing sheep within the restrictions of a low laying solar field would be problematic, for example moving such numbers from one site to another through array obstructions. As with other grid scale solar schemes this agrivoltaics claim is very, very unlikely to be put into effect but does enhance the applicants 'green' claims. Should the application be granted, the inspector should include a mandatory condition that sheep are primarily to be used for grass management as the applicant has made these claims. I also suggest such numbers of sheep would affect and interfere with biodiversity claims made by the applicant, and effect patterns of natural wildlife, particularly with respect to ground nesting birds. Mowing is the most likely and practical option for grass management, not sheep as exemplified at the 10 year old Manor Farm Solar scheme which also claimed sheep for grass management in their application but none have ever been seen.

GENERAL NOTES

1/. When calculating by weight, calculations on this worksheet assume the 'optimal case', that goods will fit on the transporting vehicle to the max weight of 28 tonnes. In most cases the goods may be too bulky to allow the maximum weight, in which case more loads will be required.

2/. I suggest there are no movements included with associated GHG/carbon calcs and diesel fuel use for all on site transport movements for setting approx. 20,000 wooden fence posts around the site and Paladin fences, and around BESS.

3/. Documents state no concrete is to be delivered to zones A, B and C so assume any additional concrete required for setting the fencing posts will also need to be accounted for in transport movements and on site GHG calc and diesel usage.

4/. There will be considerable movement around the site moving equipment from Zone D compound to sites A, B, and C including all panels plus loading/unloading, laying new roads on site etc. are these 'on site' vehicle movements accounted for in diesel and GHG calcs?

5/. No specific diesel fuel/movements for GHG calc taken for WYNNS transport in Eccleshall, of 330 Tonne trailer with ballast trucks. The 76M long truck rig is delivering each 400Kv Transformer from Felixstowe to site. 120m journey Felixstowe to Great Staughton with the Wynns rig will achieve around 1 to 3mpg according to Chat Gpt, and other internet sources. using 2mpg, this means it will consume 240 gallons delivering one transformer. Assuming an unloaded return journey to the docks for the second may use 5mpg. Allowing for the journey from the Wynns yard in Eccleshall (ST21 6BZ) is 196 miles plus return from Great Staughton to Eccleshall is 112 miles. Therefore, each rig is travelling $196+112+120=428$ miles unloaded at say 5mpg = 85.6gallons. Loaded trips $\times 2 = 120 + 120 = 240 \times 2 = 240$ gallons. Total 325.6 gallons / 1480 litres of diesel.

6/. There is no specific traffic movements recorded for delivery and planting the considerable quantity maybe 35 miles of screening? or for its removal after 40 years. For fields to operate for crops, much of the screening will need removing to open up the fields for economic harvesting.

7/. The applicant should provide an illustrative but accurate carbon and GHG calculation for worker travel to and from the UK, to cover if the final tender happens to be won by a Greek or Spanish company (reference Cleve Hill). The calculations should be modelled as options for the up to 854 workers travelling by air to and from the UK to home over the 30 month construction period. It is unfeasible that overseas workers will not return home multiple times probably by air during the build and this further adds significantly to the total tally of emissions.

Post 17th / 18th March hearing response to applicants presentation:-

1/. I was astonished and not reassured to find the applicants traffic consultant admitted had only driven the proposed route on the day of the hearing. As such he cannot have a thorough understanding of the local road structure with such a casual approach.

2/. I raised a point with the applicant about the contradiction of claiming increased biodiversity for the site, followed by wildlife disruption three times – At construction, and at 20 and 40 years at renewal and decommissioning stages. The applicant replied the planting would not be removed and would remain for the landowners to do as they wish. This is counter to the idea the site will return to its pre-solar state, and undermines the 'temporary' status of the project. Closer inspection of the plan reveals virtually every boundary on the site requires some form of screening, which also further underlines the unsuitability of this undulating land for solar. If the fields are to be returned to their pre-solar state much of the planting, specifically alongside the miles of rights of way would need to be removed to reintroduce arable farming again, and to return the landscape back to its original 'open rolling' landscape. This is a contradiction - working against nebulous round figure of 10% biodiversity claim and causing prolonged future disruption to wildlife populations at the 20 and 40 year points. I hope the inspector will give due consideration to the point.

3/. The applicant states that the solar panels will require irregular cleaning, perhaps every 5 years. Online research suggests this is unrealistic particularly in agricultural areas where cleaning up twice per year is required. Basic calculations on the referenced spread sheet below show that each clean will require a 452km journey between the panels by the EPE cleaners. Performed twice per annum, adds 3,616km to transport movement (the vehicles will accessing the public link roads between sites D, C, B and A.) This impacts on GHG and carbon figures and should be detailed.

4/. I can find no breakdown or details of distances to support the total diesel usage figure quoted. This should be defined thoroughly and transparently for inclusion so emissions and GHG calculations.

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6.2 Environmental Statement – Volume 2 – Chapter 9: Traffic and Transport (P01)

Reference table from EPE application

Table 9.14: Estimated Construction Traffic

Work Package	Number of Loads
Construction of PV Solar Arrays	
Site A	
- 16.5m Artic	393
- 30t Tipper	331
- Mixer Truck	0
Total	724
Site B	
- 16.5m Artic	1,070
- 30t Tipper	582
- Mixer Truck	0
Total	1,652
Site C	
- 16.5m Artic	306
- 30t Tipper	241
- Mixer Truck	0
Total	547
Site D	
- 16.5m Artic	271
- 30t Tipper	225
- Mixer Truck	257
Total	753
Construction of BESS / Substation	
- 16.5m Artic	164
- 30t Tipper	158
- Mixer Truck	758
Total	1,080
Grid Connection to Eaton Socon Substation	
- 16.5m Artic	57
- 30t Tipper	0
- Mixer Truck	465
Total	522
Other Misc. Deliveries (Welfare, Fuel, Water, Refuse) (LGVs)	
Total	790
Total HGVs	5,278
Total LGVs	790
TOTAL (one-way deliveries)	6,068
TOTAL (two-way vehicle movements)	12,136

Reference table included from EPE application

East Park Energy (EN010141)

Construction Material Quantities Summary

Source: ES Vol 2, Appendix 15-1 – Greenhouse Gas Emissions Assessment

Item	Description	Quantity	Unit	Notes
Extra High Voltage cables	400 kV export cable	18,000	m	Single export circuit; GHG assessment quantity
High Voltage cables	33 kV internal distribution	423,000	m	Inter-array and substation connections
Low Voltage cables	LV DC/AC array & auxiliary cabling	2,146,000	m	Panel-to-inverter and auxiliary systems
Solar PV modules	Photovoltaic panels	695,760	units	Total modules across scheme
Mounting structures	Ground-mounted PV support tables	23,192	units	Panel mounting frames
Transformers (general)	LV/HV and HV/HV transformers	52	units	Excludes 400 kV transformers
400 kV transformers	Grid interface transformers	2	units	Large power transformers
String inverters	Distributed PV inverters	1,375	units	Associated with PV arrays
Central inverters	Large inverters	52	units	Typically paired with transformers
Battery units	BESS containers	96	units	Battery energy storage system
Aggregates	Imported construction aggregate	60,000	m ³	Roads, hardstandings, foundations
Concrete	Structural concrete	26,400	tonnes	Bases, plinths, foundations
Cement-bound sand	Stabilised sand fill	17,500	tonnes	Cable trenches and

Question using ChatGPT to determine weights of indicative solar table mounts for calculations.

What is the weight and size of a typical flat pack table mount for 30 portrait solar panels size 2384 x 1300 in two rows of 15 including the piling posts driven into the ground to support them and all fixings and brackets. This is for large scale ground solar installation. How many units capable of supporting 30 panels can be transported on a 40ft articulated truck.

Thought for 1m 54s >

Short version: there isn't a single "standard" 30-module table, but using published steel-per-MW figures and m² weights, a 30-panel (2x15 portrait) ground-mount kit including posts, rails and fixings ends up in the ~0.5–0.9 tonne range per table, and you're looking at roughly 20–30 such tables per 40-ft artic, depending on how the manufacturer palletises it.

I'll show the working so you can sanity-check it against any specific supplier (Solarport / Corab etc.).

SUMMARY

I would like to bring the inspectors attention to what I believe are omissions and significant discrepancies in the applicant's documentation for transport movements, and therefore important related calculations. I believe the figures to be demonstrably inaccurate for the construction period and unacceptably vague for the life of the 40 year scheme with many omissions.

The applicant has failed to provide precise and accurate and transparent breakdown data for traffic movements, and associated fuel usage.

A truly accurate assessment covering the fulfilment of this project would require inclusion all 'cradle to grave' traffic movements and mileages for the following:-

- **Pre Statutory Phase.** All travel to identify and secure the site
- **Consultants travel and on site-** All fuel and movements for consultants employed by the applicant
- **Archaeology phase** - All HGV, LDV and Commuter vehicle movements in the Archaeological dig phase. With over 1000 trenches dug by multiple excavators over many months this is significant.
- **The full Construction phase –**
- **Abnormal load vehicles**
- **Planting & Fencing** - All associated transport movement across the 1900 acre site. This is significant over 40 years.
- **20 year refit** - All HGV and LDV movements associated with 20 year removal, replacement and recycling of all panels, transformers, inverters, cabling and fencing.
- **40 year decommissioning** – As above.
- **Panel breakages** - All HGV and LDV movements associated with removal and replacement of the 10% expected breakages, and failures of individual panels and equipment over 40 years, in addition to refit at 20 years.
- **Maintenance** – General maintenance across the site over 40 years.

Understated figures will impact claimed GHG and carbon payback calculations, enhancing the 'green' credentials and therefore the true viability of the scheme, so it is important all fuel, oils and transport movement are correctly accounted for.

I calculate total lifetime traffic movements just for the above, which is far from a complete analysis to be over **724,000**, much more than the **13,146** declared. The diesel usage figures need further breakdown for calculations.