

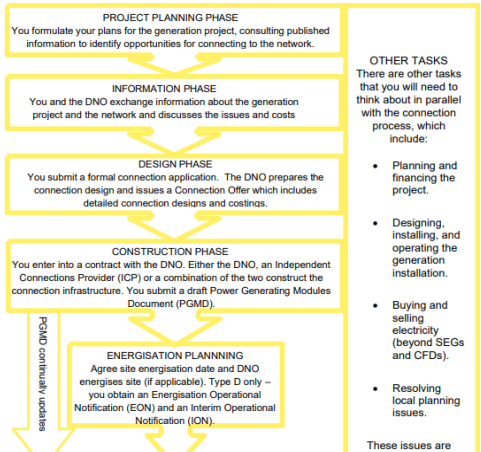
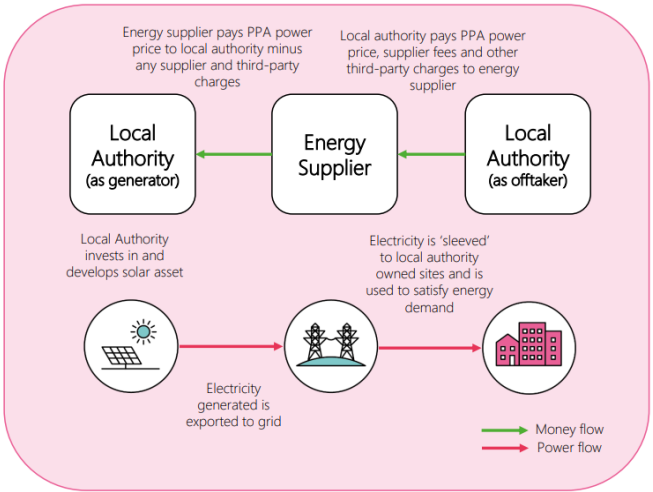
Component	Section	Current Assumptions / Sources	Certainty RAG Rating	Notes on Certainty and Next Steps to Mitigate Risk	Project Risk RAG Rating	Notes on Risk to Project
Lifetime	Cashflow	<p>25 yrs - used as a baseline, conservative approach for the solar project lifetime.</p> <p>https://ratedpower.com/blog/lifecycle-analysis-pv-plant/#:~:text=The%20useful%20life%20of%20a%20PV%20system%20is,equipment%20through%20to%20the%20disposal%20of%20the%20panels.</p>	Amber	<p>Typical solar project lifetime between 25-40 years. Further details and engagement with developers required to gain certainty on lifetime. The model can be updated when informed by further details. Lifetimes greater than 30 years will require a REPEX cost</p> <p>Performing sensitivity on lifetime currently from 25-35 years</p> <p>At the moment plan is that after 25 years, sweating asset with no additional REPEX Reached out to suppliers to confirm lifetime range - 22/05/25</p> <p>REPEX is the expenditure related to replacement of capital assets on completion of their useful life that is not covered under the Repairs and Maintenance expenses/contracts</p>	Amber	<p>Longer lifetime represents greater returns, however the asset will require repx costs. Our current assumption is conservative and will be altered for sensitivity.</p>
CAPEX	Cashflow	Assumed that the solar arrays are installed using a ballast approach using an industry average figure based on Arcadis' experience and published literature	Amber	<p>Costs reduce as the scale of array increases. Zero for 100% debt scenarios, instead represented in Principal Amount</p> <p>CAPEX estimates will depend on ground investigation results</p> <p>Sensitivity being performed of 700 - 1100 £/kWp. Baseline used 850</p> <p>Spoken to three solar providers to test our assumptions - current responses demonstrate our assumptions are in right ballpark at this stage of development - all remains subject to mounting systems feasible (ground investigation). The developers engaged have made solar on landfill work before, and provided confidence on our assumptions</p>	Red	CAPEX must be >£5m to get access to NWF loan
OPEX	Cashflow	<p>14,304 £/MWp/annum - industry average figure based on Arcadis' experience and published literature.</p> <p>https://assets.publishing.service.gov.uk/media/6556027d046ed400148b99fe/electricity-generation-costs-2023.pdf</p> <p>https://www.solarpowerportal.co.uk/uk_solar_costs_plummeting_beyond_forecasts_asCheap_as_40_mwh_by_2030/</p> <p>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1150221/onshore-wind-and-solar-pv-costs-review.pdf</p> <p>CPI inflation (%/yr) set at 4% - Inflation and price indices - Office for National Statistics</p>	Amber	<p>OPEX includes insurance, inventory, maintenance, marketing, payroll, security and equipment used for less than a year.</p> <p>Current costs assumed based on Arcadis benchmarking and experience. Engagement with suppliers, certainty of type of mounting solution will inform OPEX value further.</p> <p>O&M contract required for lifetime of the array; to maintain equipment, area - needs to align with yorwaste site operation on timing, ground conditions , output specification - aim is to maintain performance within set parameters</p>	Amber	<p>OPEX not expected to be a critical risk to project viability, and are expected to decrease over the next decade.</p>
Export Revenue	Cashflow	<p>Options are PPA or SEG for the 5 MW solar arrays: 7.565p/kWh (£0.076/kWh) without REGO. Sourced from PPA forecasts. Assumes CYC will use a sleeved PPA to directly sell energy from HW to CYC.</p> <p>Export PPA rate received from engagement with Good Energy: 7.77p/kWh (£0.078/kWh)- from May 2025</p> <p>1- https://www.statista.com/statistics/1482367/solar-pv-price-ppas-european-countries-forecast/</p> <p>2- go.leveltenenergy.com/I/816793/2020-02-19/2p83/816793/5044/LevelTen_Energy_Q4_2018_PPA_Price_Index_1.pdf</p> <p>3- https://www.solarpowerportal.co.uk/solar-ppa-prices-stable-after-extended-european-decline/</p>	Red	<p>Retail Electricity Price Inflation (%/yr) set at 2% - ONS.</p> <p>Annual output informed by solar degradation of 0.4% as per PV Module datasheet</p> <p>Retail Electricity Price Inflation: https://www.ons.gov.uk/economy/inflationandpriceindices/timeseries/czcz</p>	Red	<p>High risk until PPA offer received.</p> <p>Options for Harewood Whin include BTM use onsite, private wire to local offtaker (currently not modelled), utility PPA to export to grid, and sleeved PPA to CYC. In the sleeved option, the DNO would deliver the electricity generated by the solar farm to the council's point of consumption, and the council would pay the utility for the service, in addition to the strike price agreed with the generator (also CYC)</p> <p>Sleeved PPAs are agreements where an offtaker agrees to purchase electricity directly from a renewable energy generator under a PPA. Instead of the energy being delivered directly to the offtaker, the electricity purchased by the offtaker under PPA 1 is then sold by the offtaker to a licensed supplier at the point of distribution on the National Grid under a second PPA (PPA 2). The offtaker and the licensed supplier then enter into a separate supply agreement. The supply agreement contains sleeving arrangement terms, whereby the licensed supplier acts as an intermediary company (in HW's case the DNO) to 'sleeve' the power through the grid to the offtaker. In our case, CYC is both generator and offtaker, but the process remains the same.</p>
Annual Interest	Cashflow	Modelled at 5.4% following preliminary conversations with National Wealth Fund, which offers 20 year Loan Tenure for up to 100% capital outlay at 5.4%	Amber	<p>Rate is indicative and subject to change until a contract is signed. Impacted by world events.</p> <p>The review of the Public Works Loan Board's offer of 4.9% (lower than the NWF value used in model) revealed that it was not flexible enough for project/length of loan - estimates for HW loan are currently: 25 years - 6.4% 30 years - 6.42%</p>	Red	High risk until contract offer received. National Wealth Fund and Public Works Loan Board both engaged to estimate rates.
Principal Amount	Cashflow	Includes construction (etc.) capex costs and connection costs at ~£1 – 2 million to Gale Lane 11kV, and ~£7 – 8 million to Poppleton 33kV. Costs taken from previous grid connection offer made by npower, dated May 2023. Using Arcadis benchmarks with % increase to account for ballast system	Red	Assumed that this cost is not linear with capacity. Further applications will be made at the next stage of this assessment to understand sensitivity to scale	Green	Option to borrow amounts over £5m, subject to interest rate changes, through NWF - looking into public works loans
Cash Flow	Cashflow	Calculated by balancing the above inflows and outflows each year. Uses inflation at 4% - sourced from "Inflation and price indices - Office for National Statistics"	Red	N/A	Red	Cashflow is positive for 5MW scenario over 25 years - changes to other components can impact this for better or worse
SEG	Electricity	<p>PPA Forecasts - Tariff provided for export below 5MW ~£108.10/MWh = 10.8p/kWh</p> <p>https://solarenergyuk.org/resource/smart-export-guarantee/</p>	Red	<p>Retail Electricity Price Inflation (%/yr) set at 2% - ONS.</p> <p>Next steps are to research SEG opportunity further and set up calls with SEG Licensees.</p> <p>Large variability found in SEG rates offered, engaging with suppliers to increase certainty.</p> <p>Currently modelling sensitivity of 0.01 to 0.2 £/kWh</p> <p>Have now reached out to SEG licensees to get more realistic range of rates; it's a risk that some providers won't provide higher SEG rates for large developments as the SEG licensees lose out, so they typically reserve higher rates for smaller (~15kW) developments</p> <p>Key step at appropriate time (when array is constructed) is to make an application to a SEG licensee and having this approved - and comparing this to PPA rates to decide way forward</p>	Red	<p>Key to viability of 5MW scenario - must be firm'd up with supplier and rates vary drastically from 1p/kWh to 20p/kWh</p> <p>We have engaged suppliers to get a broad range of market rates, however larger developments could have difficulty getting access to the higher rates, as the mandated limit is >0p/kWh for SEG Licensees currently.</p> <p>Another key risk is feasibility of two 4.99MW SEG developments adjacent onsite - these would need to be separate developments with their own MPANs, areas etc. which would add cost to be explored further to reduce risk to project finances.</p> <p>SEG licensees need to be engaged further prior to gauge forecasted rates and plan next steps.</p> <p>To apply to SEG we'll need to have the site energised and have a smart meter (high risk, as this means there's no guarantee until the CAPEX is spent and array constructed) engage a SEG licensee (an electricity supplier that offers SEG tariffs) directly and provide information about the renewable energy, smart meter, and MPAN. Installation must be certified under the Microgeneration Certification Scheme (MCS) or an equivalent scheme.</p>

Key for: Certainty RAG Status:

- Red: Assumed based on industry experience
- Amber: Indicative numbers provided by a strong source or stakeholder
- Green: Certain (e.g. a solid offer of a price)

Key for Risk RAG Status:

- Red: Significant issues with this component or high risk
- Amber: Components with potential issues or moderate risks
- Green: On track and performing well



REGO	Electricity	Assumed £5/MWh - subject to change this week as values are separated within model and refined - 1) https://c-zeromarkets.com/monthly-report-december-2024	Red	stated in report: 1.25 p/kWh (£12.50/kWh) paid by CYC currently - this is higher than is currently seen on the market, therefore we are exploring sensisitivity around lower prices Researching REGO opportunity and requirements, setting up meetings to explore exact values include 1.25p/kWh in sensitivities	Red	Necessary for profitable solar farm - discussion with REGO suppliers planned
Grid Connection	Electricity	Model assumes grid connection to Gale Lane under 5MW and to Poppleton over 5MW, with costs obtained from now outdated communication and connection offer. Assumed connection is possible in 18-24 months from acceptance of the quotation following engagement with NPG	Red	Prices and timelines used are now outdated, and the grid is going through a volatile period (covered in Grid Policy section). Currently progressing with budget quotation at £840.00 + VAT. Firm quotation cost is £5,050.00 + VAT with 90-day validation period. Neil actioning this 13/05/25 Ofgem's changes to statement of works process would allow NPG to connect immediately subject to local connection conditions, likely 18-24 months for a new Circuit Breaker and cable installation, assuming no upstream reinforcement to the EHV network is required. NPG stated that "for 5MW we would install a 300 Aluminium Triplex cable which is capable of 8.5MW." Budget application to be made to increase certainty 18-24 months from acceptance of the quotation is a more optimistic response than the view at the start of the project, but is not a firm offer.	Red	Key aspect of project viability. Grid constrained area and changeable grid regulations Option of funding larger more expensive cable at initial installation (8.5MW) and using an interim customer subject to a second comer payment to CYC for using connection Possibility to use IDNO, engaging during May to assess - next step is to confirm size of point of connection onsite - Vattenfall can only be involved if this is >22kV, which would only apply if connection was made to Poppleton (33kV). Potential to stall project significantly if grid reform slows/area becomes more congested. Grid is in a perid where grid reform has been approved with particular focus on the connection queue, with future queueing streamlined for projects with funding - need to explore the criteria for this. Ofgem's approval a modification to the Connection and Use of System Code (CUSC) that raises the capacity threshold which determines when a Transmission Impact Assessment (TIA) is required from 1 MW to 5 MW.
Solar2	Electricity	Solar 2 has confirmed it has a Feed in Tariff of 32 MW with a strike price of £74/MW	Red	Further engagement with solar2 required to gain certainty. Meeting set for 23/05/25 to catch up on progress	Green	No risk to 5 MW scenario High risk to scenarios utilising solar2 connection. Risk reduced by signing contract
Ground Conditions	Planning and Environmental	Environmental picture of site through desktop study. Model assumes ballast approach is preferable onsite	Red	Environmental investigation being progressed to inform best method for solar installation onsite. Currently no certainty that solar can feasibly be installed onsite	Amber	Investigation planned in June to assess viability of solar onsite and inform the mounting approach, construction etc.
Planning	Planning and Environmental	Planning approved with conditions - it is assumed that Yorwaste will begin construction within 3 years, and that they will include the 5MW scenario in any submitted responses to conditions	Amber	Yorwaste agreed on 08/05/2025 to include CYC in planning condition requirements, and to create plan in next 3 months for development of 0.5MW	Red	Primary risk from planning is if Yorwaste don't break ground within 3 years, the approval is void. Need to keep in touch with Yorwaste and manage this risk.
Council Electricity	Benefits	Baseline report: The Council's annual electricity demand in 22/23 was 10,344,485 kWh. The council spent £3.6m on electricity in this period, with an average unit price of 0.31 £/kWh, increasing to 0.40 £/kWh for the 23/24 period.	Amber	Greater certainty will inform the savings the scheme makes and therefore increase certainty of benefit to the council. Bills provided by CYC show an average rate of £/kWh	Amber	Risk to project depends on the benefits case - the 5MW will not offset the total CYC demand

Summary of bills shared by Phil:
0.244 lights, £/kWh
0.254 housing, £/kWh
0.246 west offices, £/kWh
0.248 avg without VAT

Grid Policy Context	Assumed connection is possible in 18-24 months from acceptance of the quotation following engagement with npower	Amber	18-24 months from acceptance of the quotation is a more optimistic response than the view at the start of the project	Red	Potential to stall project significantly if grid reform slows/area becomes
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