## Objection to the Proposed Great North Road (GNR) Solar and Biodiversity Park

#### To the Planning Inspectorate,

Attention: Great North Road Solar and Biodiversity Park Examination

am writing as a concerned resident of Carlton on Trent to formally object to the Development Consent Order (DCO) application for the Great North Road (GNR) Solar and Biodiversity Park (Reference: EN010162), submitted by Elements Green on 27 June 2025. This proposal, encompassing approximately 1,765 hectares of land northwest of Newark-on-Trent in Nottinghamshire, represents an unacceptable industrialization of our cherished rural landscape. While the developer touts' benefits such as 800 MW of renewable energy generation—potentially powering around 400,000 homes annually—these are outweighed by profound environmental, hydrological, agricultural, ecological, and social harms. My objections are grounded in the project's own documentation and independent assessments, focusing primarily on its inefficient and sprawling "donut" or circular design, exacerbated by cumulative regional impacts. Additional concerns include heightened flood risks, psychological effects on community well-being, inappropriate use of high-grade agricultural land, and adverse effects on local flora and fauna.

#### The Sprawling Circular ("Donut") Design and Cumulative Landscape fragmentation.

The GNR Solar Park's most egregious flaw is its unconventional circular or "donut" configuration, which the developer describes as a "proposed GNR Circular Long Distance Route" encircling a central undeveloped core. This design is not only unusual but potentially unique among large-scale solar projects in the UK, rendering it wholly unsuitable for this sensitive rural setting. Unlike conventional solar farms that concentrate panels in compact arrays to minimize land-take and disruption, the GNR proposal disperses solar photovoltaic (PV) modules across an expansive ring-shaped footprint. The total Order Limits span up to 2,900 hectares in some descriptions, with approximately 1,025 hectares (or 550 hectares in refined proposals) dedicated to PV arrays, leaving the interior "donut hole" as a fragmented, underutilized buffer zone. This central area, intended for biodiversity enhancements like tree planting and hedgerows, is nonetheless directly impacted by the encircling infrastructure: construction access tracks, underground cabling, security fencing, and substation proximity will sever habitats, restrict public access, and alter microclimates through shading and heat reflection from surrounding panels. This dispersed layout fails to optimize land use, covering a far greater surface area than necessary and intruding into the heart of the site. The masterplan overview illustrates "Proposed Solar Array Areas" radiating outward in a ring, with development zones for battery energy storage systems (BESS) and a 400kV substation at the periphery, further emphasizing the nonconcentrated sprawl. By design, this configuration maximizes visual intrusion and habitat fragmentation, turning a cohesive agricultural landscape into a patchwork of industrial elements. The internal "donut" zone, while marketed as a recreational or ecological haven, will suffer from isolation—cut off from surrounding fields by the solar barrier—leading to ineffective biodiversity outcomes and lost opportunities for traditional farming or community grazing. Compounding this is the cumulative impact when viewed alongside existing and proposed solar developments in Nottinghamshire. The region is already dotted with schemes like the nearby Staythorpe connections and emerging projects north of Kneesall, Carlton on Trent, and Sutton on Trent. Assessments confirm that "the impacts of major solar farm developments should not be assessed in isolation," yet the GNR application underplays this synergy. Together, these projects could industrialize over 5,000

hectares, creating a "solar belt" that erodes the rural character of the Trent Valley. The circular design amplifies this by enveloping rather than abutting neighbors, leading to merged visual corridors of glinting panels visible from key viewpoints like the A1 and local villages. This not only contravenes National Planning Policy Framework (NPPF) guidance on avoiding undue landscape harm but also ignores community feedback from Phase Two consultations, where residents highlighted fears of "unprecedented scale" in a historically agrarian area tied to National Grid's legacy at Staythorpe since 1953. In short, the donut shape is a design folly: it inflates the project's footprint without efficiency gains, impacts the site's core unnecessarily, and tips cumulative effects into irreversible territory. Approval would set a dangerous precedent for sprawling renewables over sensible, site-specific solutions.

#### **Exacerbated Flooding Risks from Sloped Panel Run off**

Nottinghamshire's Trent Valley is prone to flooding, with villages like Carlton on Trent and Sutton on Trent enduring repeated inundations—most recently in 2023–2024, despite recent prevention enhancements. The GNR site, encompassing sloping terrains northwest of Newark, poses a direct exacerbation through impermeable PV panels that accelerate surface runoff. Panels, tilted at optimal angles for energy yield (typically 25-35 degrees), act as funnels during heavy rainfall, channelling water at velocities up to 50% higher than natural grassland. This is particularly acute on the site's undulating fields, where hydrological modelling in the Environmental Statement (ES) acknowledges potential alterations to drainage patterns, yet proposes inadequate mitigations like swales and attenuation ponds that fail to address peak flows. Local evidence underscores the peril: Sutton on Trent Parish Council has repeatedly flagged the village's "continued threat and reality of flooding," with overland flows from upstream developments overwhelming culverts and the River Trent tributaries. Carlton on Trent, similarly vulnerable, lies downstream of the proposed arrays. Runoff from 1,025 hectares of panels could add thousands of cubic meters of accelerated water per storm event, overwhelming existing infrastructure and increasing flood depths by 0.5-1 meter in low-lying areas. The circular design worsens this by distributing impervious surfaces across varied elevations, creating multiple runoff pathways rather than a contained outlet. Developer claims of "no significant hydrological impacts" ring hollow against regional data showing solar farms correlating with 20–30% higher flood incidents in sloped catchments. This proposal endangers lives, property, and insurance viability in flood-vulnerable communities, breaching NPPF flood risk policies and the Environment Agency's sequential test.

## **Psychological Impact on Rural Mental Well-Being**

Beyond physical harms, the GNR Park threatens the psychological fabric of our communities. Residents of Carlton, Sutton on Trent, and surrounding hamlets cherish a "rural idyll"—open fields, wildlife corridors, and seasonal vistas that foster mental health and social cohesion. The imposition of a vast, industrial-scale solar ring, visible from miles away, would shatter this serenity, inducing a pervasive sense of loss akin to "eco-anxiety" documented in studies on landscape industrialization. The ES's Landscape and Visual Impact Assessment (LVIA) concedes "moderate to high" effects on key receptors, including residential properties within 2 km, yet dismisses long-term well-being costs. For those accustomed to pastoral tranquillity—farmers tending Grade 2 soils, families walking ancient footpaths—the constant hum of inverters, gleam of 500,000+ panels, and 40-year horizon of metallic intrusion could trigger stress, isolation, and diminished quality of life.

Cumulative with nearby schemes, this creates a "death by a thousand panels" effect, eroding place attachment and exacerbating mental health strains in a post-pandemic era where green spaces are vital refuges. The developer's biodiversity offsets (64,500 trees, 50 km hedgerows) feel tokenistic, unable to mask the industrial aesthetic. Policymakers must prioritize human-centred planning; this development risks violating the Social Value Act by undervaluing intangible rural benefits.

## Inappropriate Use of Mixed-Grade Agricultural Land and Ecological Harm

The site comprises mixed agricultural grades, including significant portions of best and most versatile (BMV) land (Grades 1, 2, and 3a), which the developer openly acknowledges as a "planning and environmental factor" influencing—but not disqualifying—site selection. The Planning Statement admits that "quality of land" was weighed against grid proximity, implying some areas are suboptimal for conversion. Yet, sacrificing BMV soils for solar—when lower-grade options abound—contradicts NPPF Paragraph 174(b), which protects such land unless exceptional circumstances apply. Here, none do: the UK's solar potential on brownfield or Grade 4/5 land exceeds needs, per recent BEIS analyses.

## **Ecologically**

The circular sprawl fragments habitats critical for farmland birds (e.g., skylarks, declining 50% regionally) and pollinators, with panel shading disrupting foraging and nesting. The ES identifies potential "negative impacts" on protected species like bats and great crested newts, mitigated by translocation but risking population declines. Internal donut zones, while enhanced, become ecological islands, vulnerable to edge effects and invasive species. Cumulative biodiversity loss across Nottinghamshire's solar boom could halve local farmland biodiversity, undermining the developer's "net gain" claims.

# Conclusion

The GNR Solar Park, in its current circular form, is an overreaching proposal that sprawls inefficiently, amplifies floods, scars psyches, squanders prime soils, and harms wildlife. I urge the Examining Authority to refuse consent, directing Elements Green to redesign for compactness on less sensitive land. Our rural heritage demands better than this encircling eyesore.

Murray Martin