

The background of the page is a photograph of a solar farm. The solar panels are arranged in neat rows, stretching into the distance. The panels are a deep blue color with a grid of white lines. The surrounding area is a lush green field with some white flowers in the foreground. The sky is a pale, hazy blue.

CHAPTER 1 - INTRODUCTION

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EAST STOUR SOLAR FARM

Introduction

1.1 The East Stour Solar Farm proposal is for a fixed solar array, associated access tracks, inverter/transformer units, substation cabinets, welfare and storage cabinets/containers, boundary fencing with inward facing CCTV and ancillary infrastructure. In addition, a range of enhancement

measures are proposed as part of the proposed development.

- 1.2 The site is located on land south of the M20, to the west of Sellindge and north-east of Aldington. The location of the site is illustrated in **Figure 1.1** within **Volume 3** of this Environmental Statement.
- 1.3 The proposal additionally comprises a below-ground cable route from the northern, southern and eastern area substations to a central substation cabinet west of the Sellindge Converter Station. The grid connection will connect from this cabinet under Church Lane to the adjoining National Grid substation.
- 1.4 The total solar array would have a capacity of up to 49.9MW. The proposed operational lifetime of the project is 40 years.
- 1.5 The proposed development is adjacent to the operating Sellindge Solar Farm (10.6 MW).
- 1.6 For the purposes of the Environmental Impact Assessment and this Environmental Statement, assessments for impacts of the solar farm have been primarily based upon panel rows with a maximum height

of 3.0m, at a tilt of approximately 20° facing south.

Energy Production

- 1.7 'PV Syst Photovoltaic Software' Version V6.87 was used by the Applicant to predict that the solar farm will have a potential annual yield of approximately 69 600MWh (to 3 Significant Figures (3 S.F.)).
- 1.8 In terms of household electricity usage this would be sufficient to offset the equivalent annual energy needs of 16 900 (to 3 S.F.) average Ashford Borough homes' (based on average domestic consumption per household of 4 110kWh (DBEIS, 2021)).

Carbon Offset

- 1.9 From the displacement of electricity generated from fossil fuels powered generation, the proposed development would offset the emission of a significant quantity of pollutants, particularly carbon dioxide, into the atmosphere. This reduction in emissions would contribute to the national and international reductions required under the legally binding obligations of the Kyoto Protocol and

the more recent drive to Net Zero through the Climate Change Act 2008. At a more local level, it also assists Ashford Borough Council in reaching its commitment to net zero carbon emissions by 2030.

- 1.10 As discussed further in **Chapter 15 - Socio Economics and Sustainability Construction, Operation and Decommissioning**, on a conservative basis (DBEIS, 2021) the electricity produced by the East Stour Solar Farm will offset the equivalent of 14 800 000 kgCO₂ per annum (to 3 S.F.).
- 1.11 Hosting the East Stour Solar Farm would lead to a significant carbon dioxide emission reduction, helping to meet the National need.

The Applicant

- 1.12 East Stour Solar Farm is proposed by EDF Energy Renewables Limited. EDF Renewables is a joint venture between EDF Renewables Group (EDF's global renewable business) and EDF Energy (EDF's UK generation business).
- 1.13 EDF Energy Renewables (abbreviated to EDF-R in this Environmental Statement) operates in more than

20 countries around the world. The company develop, construct and operate wind farms, solar and battery storage projects, and have more than 25 years' experience in delivering renewable energy generation. In the UK EDF-R has almost 1GW of operational renewable projects and a substantial development portfolio of on and offshore wind, battery and solar projects approaching 2GW.

- 1.14 The renewable energy projects developed by EDF-R all follow a detailed site selection approach that assesses available landholdings against the constraints to potential solar farm development. Potential developments are considered against both environmental and technical parameters to determine their initial suitability for development.
- 1.15 The proposed solar farm site layout is shown at **Figure 1.2** and is overlaid on aerial imagery at **Figure 1.3** in **ES Volume 3**. Further information can be found at **Chapter 3 - Site Selection and Design**.

REFERENCES

Department for Business, Enterprise and Industrial Strategy (DBEIS), 2020, Sub-National Electricity Consumption Statistics, retrieved from: <https://www.gov.uk/government/collections/sub-national-electricity-consumption-data> [Accessed 03/11/21].

Department for Business, Enterprise and Industrial Strategy (DBEIS), 2021, UK Government GHG Conversion Factors for Company Reporting, HMSO, UK [Accessed 03/11/21].

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