



Dean Moor Solar Farm

Environmental Statement: Appendix 9.10 – Total Cloud Cover Anomaly

on behalf of **FVS Dean Moor Limited**

March 2025
Prepared by: Stantec UK Ltd
PINS Ref: EN010155
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Revision: 1



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**DEAN MOOR SOLAR FARM
ENVIRONMENTAL STATEMENT
APPENDIX 9.10 – TOTAL CLOUD COVER ANOMALY
PLANNING INSPECTORATE REFERENCE EN010155
PREPARED ON BEHALF OF FVS DEAN MOOR LIMITED**

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations
2009, Regulation 5(2)(a)**

Project Ref:	EN010155/ES/Appendix 9.10: Total Cloud Cover Anomaly
Status	Final
Issue/ Rev:	1
Date:	March 2025

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1 Total Cloud Cover Anomaly Data

- Area: 312500.0512500.0
- Baseline: 1981-2000
- Data Source: land probabilistic projections
- Data type: cdf
- Scenario: RCP 8.5
- Show labels: TRUE
- Software version: WPS-2.10.0-DP-2.10.0-CV-1.0.10
- Spatial representation: 25km grid
- Temporal average type: annual
- Time period: annual
- Time slice type: 1-year time slices
- Variable: total cloud anomaly (%)
- Year maximum: 2077
- Year minimum: 2024

Date	Total cloud anomaly (%) (5 th Percentile)	Total cloud anomaly (%) (10 th Percentile)	Total cloud anomaly (%) (25 th Percentile)	Total cloud anomaly (%) (50 th Percentile)	Total cloud anomaly (%) (75 th Percentile)	Total cloud anomaly (%) (90 th Percentile)	Total cloud anomaly (%) (95 th Percentile)
01/06/2024	-7.9725647	-6.1746697	-3.420463	-0.26444203	2.8451424	5.303114	6.6480613
01/06/2025	-8.025838	-6.221181	-3.453463	-0.29279816	2.8124144	5.2848287	6.6368246
01/06/2026	-8.082463	-6.269727	-3.4869916	-0.32191187	2.7791169	5.265942	6.6252847
01/06/2027	-8.142537	-6.3204083	-3.521088	-0.35173523	2.745414	5.24669	6.613712
01/06/2028	-8.206019	-6.3732347	-3.5557637	-0.3822072	2.7114658	5.2273135	6.602394
01/06/2029	-8.272735	-6.4281282	-3.5910041	-0.41325253	2.677431	5.2080593	6.591636
01/06/2030	-8.342387	-6.4849286	-3.6267707	-0.44478157	2.6434684	5.1891766	6.5817547

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01/06/2031	-8.414578	-6.5434084	-3.6630065	-0.47669235	2.6097398	5.1709185	6.5730762
01/06/2032	-8.4888315	-6.603287	-3.6996448	-0.50887364	2.5764115	5.1535387	6.5659313
01/06/2033	-8.564618	-6.664254	-3.7366195	-0.5412102	2.5436537	5.137289	6.5606503
01/06/2034	-8.641392	-6.7259903	-3.7738767	-0.5735892	2.5116403	5.122415	6.5575533
01/06/2035	-8.718616	-6.788192	-3.811386	-0.6059079	2.4805431	5.109151	6.5569434
01/06/2036	-8.795795	-6.850591	-3.8491523	-0.63808244	2.4505281	5.097712	6.5590944
01/06/2037	-8.872503	-6.912979	-3.8872247	-0.6700563	2.4217474	5.0882854	6.5642405
01/06/2038	-8.948402	-6.975221	-3.9257045	-0.70180887	2.3943303	5.081021	6.5725613
01/06/2039	-9.023268	-7.03727	-3.9647496	-0.73336273	2.3683748	5.076021	6.584172
01/06/2040	-9.096994	-7.0991726	-4.0045753	-0.76478875	2.3439376	5.0733323	6.5991096
01/06/2041	-9.169607	-7.161075	-4.0454526	-0.79620934	2.3210268	5.0729356	6.617325
01/06/2042	-9.241263	-7.2232184	-4.087701	-0.8277982	2.299596	5.0747423	6.6386743
01/06/2043	-9.312246	-7.285932	-4.1316805	-0.85977805	2.2795396	5.0785894	6.662916
01/06/2044	-9.382958	-7.349622	-4.1777787	-0.89241457	2.2606921	5.084239	6.689713
01/06/2045	-9.453903	-7.4147544	-4.2263975	-0.9260083	2.2428312	5.091383	6.718633
01/06/2046	-9.525673	-7.48184	-4.277936	-0.9608839	2.2256804	5.099646	6.7491612
01/06/2047	-9.598926	-7.551413	-4.3327765	-0.99737823	2.2089171	5.108595	6.7807083
01/06/2048	-9.674363	-7.6240134	-4.3912673	-1.0358264	2.1921837	5.117751	6.8126283
01/06/2049	-9.75271	-7.700165	-4.4537106	-1.0765492	2.1750965	5.1266	6.8442354
01/06/2050	-9.834691	-7.7803607	-4.520349	-1.1198391	2.15726	5.134609	6.874822

Date	Total cloud anomaly (%) (5 th Percentile)	Total cloud anomaly (%) (10 th Percentile)	Total cloud anomaly (%) (25 th Percentile)	Total cloud anomaly (%) (50 th Percentile)	Total cloud anomaly (%) (75 th Percentile)	Total cloud anomaly (%) (90 th Percentile)	Total cloud anomaly (%) (95 th Percentile)
01/06/2051	-9.921005	-7.865046	-4.5913577	-1.1659493	2.1382792	5.141242	6.9036827
01/06/2052	-10.012307	-7.9546037	-4.6668377	-1.2150842	2.1177733	5.145975	6.9301324
01/06/2053	-10.109185	-8.049344	-4.7468147	-1.2673926	2.0953865	5.148314	6.9535284
01/06/2054	-10.212143	-8.149495	-4.8312407	-1.3229653	2.070798	5.1478066	6.9732895
01/06/2055	-10.321584	-8.255201	-4.919999	-1.3818344	2.0437307	5.1440587	6.9889092
01/06/2056	-10.4378	-8.366517	-5.012914	-1.4439775	2.013956	5.1367426	6.9999733
01/06/2057	-10.560962	-8.48341	-5.109762	-1.5093244	1.9812956	5.125606	7.0061636
01/06/2058	-10.691116	-8.605764	-5.2102833	-1.5777649	1.9456233	5.1104755	7.0072665
01/06/2059	-10.828185	-8.733388	-5.314196	-1.6491587	1.906863	5.0912604	7.0031734
01/06/2060	-10.971965	-8.866018	-5.4212103	-1.7233462	1.864985	5.0679517	6.993879
01/06/2061	-11.122141	-9.003334	-5.5310383	-1.8001578	1.8200022	5.040616	6.9794765
01/06/2062	-11.278292	-9.14496	-5.643405	-1.8794235	1.7719638	5.0093937	6.960148
01/06/2063	-11.439902	-9.290485	-5.7580585	-1.960981	1.7209501	4.974486	6.936156
01/06/2064	-11.606382	-9.439467	-5.8747754	-2.0446825	1.6670651	4.936148	6.9078293
01/06/2065	-11.7770815	-9.59145	-5.9933634	-2.130399	1.6104312	4.894677	6.8755507
01/06/2066	-11.95131	-9.74597	-6.113666	-2.2180223	1.551183	4.8504	6.8397427
01/06/2067	-12.128356	-9.902571	-6.23556	-2.3074665	1.4894637	4.803663	6.800855
01/06/2068	-12.307504	-10.060806	-6.3589516	-2.3986642	1.4254224	4.7548223	6.759353
01/06/2069	-12.488051	-10.220255	-6.4837723	-2.4915643	1.359213	4.7042356	6.715709
01/06/2070	-12.669325	-10.380519	-6.6099715	-2.5861242	1.2909942	4.652257	6.6703954

Date	Total cloud anomaly (%) (5 th Percentile)	Total cloud anomaly (%) (10 th Percentile)	Total cloud anomaly (%) (25 th Percentile)	Total cloud anomaly (%) (50 th Percentile)	Total cloud anomaly (%) (75 th Percentile)	Total cloud anomaly (%) (90 th Percentile)	Total cloud anomaly (%) (95 th Percentile)
01/06/2071	-12.850689	-10.541232	-6.7375107	-2.6823053	1.2209314	4.5992312	6.6238804
01/06/2072	-13.031562	-10.702061	-6.866352	-2.7800655	1.1491985	4.545494	6.5766273
01/06/2073	-13.211421	-10.862705	-6.996455	-2.8793538	1.0759792	4.491368	6.52909
01/06/2074	-13.3898115	-11.022903	-7.1277695	-2.9801052	1.0014678	4.43716	6.4817133
01/06/2075	-13.566351	-11.182427	-7.2602305	-3.082238	0.92586815	4.383163	6.4349284
01/06/2076	-13.740735	-11.34109	-7.3937583	-3.1856537	0.84939194	4.3296485	6.389151
01/06/2077	-13.912739	-11.498743	-7.528257	-3.2902372	0.77225375	4.276866	6.3447742