

Dungeness B monthly report

End of year 2018

Introduction

The double-reactor outage continues to progress at Dungeness B along with work on corrosion and steam-pipework remediation. This is one of the busiest maintenance programmes at the station for many years and underlines major investment by EDF Energy into Dungeness B in support of the station's increasingly positive performance.

In 2018 the station's operational performance achieved some major milestones:

- 5 Refuelling outages delivered safely to plan and ahead of schedule
- Lowest losses in the EDF Energy fleet January – September
- Significant improvements in Dungeness B's Operational Focus, Equipment Reliability, Fire Safety Focus and Fuel Route Performance
- The station was 1TWh ahead of its output plan going in to the outage – and has achieved its second best-ever output in an outage year
- The station generated enough low-carbon electricity to power more than 5 million homes
- Dungeness B achieved very positive results in EDF Energy safety and employee surveys
- EDF Energy has invested significant sums into underpinning the station's continued improvement - and its aspirations to generate beyond 2028.

Unit 21's return date is now 24 February, and 28 February, for Unit 22, which remains unchanged. We have notified the regulator of the change to Reactor 21's return to service date. Further work to optimise future performance will include remediation work on both Units.

During 2018, EDF Energy has been carrying out enhanced inspection and remediation of back-up systems susceptible to the effects of environmental corrosion. As previously communicated via these reports, during this accelerated inspection and remediation programme, corrosion was discovered in conventional, safety-related pipework required to provide feed water to the boilers in the remote possibility of an earthquake or seismic event.

In addition to the corrosion identified on the feed system, other plant areas were also identified, and have been rectified by EDF engineers and contract maintenance staff under an extensive programme of pipework replacement and equipment remediation during the latter part of 2018.



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The Office For Nuclear Regulation (ONR) has been closely monitoring this work through an extensive inspection regime.

While the issue is not a nuclear reportable event, EDF Energy has rated the corrosion issue as level 2 on the International Nuclear and Radiological Event Scale (INES), in relation to the potential for earthquake resistant deficiencies.

An INES Level 2 rating can describe a radiological issue – but in this case it relates solely to an incident of deficiency in back-up safety provision – namely systems needed in case of seismic and other external hazards occurring (there was no direct impact or harm from this shortfall).

Safety

We measure our safety performance against Industry top tier indicators, including nuclear reportable events, environmental events, and staff and contract-partner recordable injuries. There were no lost time events recorded at Dungeness in November & December

Environmental Safety

There were no environmental issues or events in November & December

Plant Update

Both reactors remain shut-down for our scheduled maintenance and refuelling outage.

Dungeness B News

The Visitor Centre already has more than 2000 people booked on tour for 2019.

Other events over the past few weeks included our first science show at Dungeness B Visitor Centre – we welcomed over 200 children from Lydd, Brookland, New Romney, and Dymchurch Primary schools to enjoy activities featuring four science zones based on learning how to build bridges, engage with robots, make electricity and exploring chemistry in action.



Dungeness B also hosted its popular Christmas raffle with the support from a wide range of local business and suppliers - raising over £2k for our charity partner, Breast Cancer Now. We welcomed the Haywardians Choir to sing and enjoy a fish and chip lunch on the raffle draw day.

The Visitor Centre team took Zingy on a specially-crafted Sleigh to join the Christmas procession "Light Up New Romney" parade.



Dungeness B has welcomed 18 young people for work experience during 2018 - inspiring the next generation of power station workers. Our picture below shows Amy Welsh, a trainee teacher who worked at the Visitor Centre as part of her University degree work experience.



Company News

EDF Renewables UK has received consent from the Scottish Government for an improved design for the Neart na Gaoithe (NnG) offshore wind farm.

The wind farm will generate 450MW output of renewable energy – equivalent to the annual electricity consumption of around 375,000 Scottish homes.

The design will feature a maximum of 54 turbines with a maximum of 208 metres tip height above sea level which means the project will use the latest advances in offshore wind technology, with wind farm is expected to be operational by 2023 at a cost of around £1.8 billion.

Matthias Haag, EDF Renewables UK NnG Project Director, said: “This is great news and we are excited to move forward delivering this milestone project for Scotland which will provide low carbon energy for decades to come.”

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Glossary of terms

Term	Definition
Nuclear reportable event or incident	Nuclear reportable events are events reported to the Office for Nuclear Regulation (ONR) in compliance with EDF Energy's nuclear site licences.
Total Recordable Injury Rate events (TRIR)	The number of lost time injuries and restricted work injuries and medical treatments.
Statutory Outage	A period during which a reactor is shut down. The periodic shutdown of a reactor including for maintenance, inspection and testing or, in some cases for refuelling is known as a planned outage. In the UK, some planned outages are known as statutory outages and are required by the conditions attached to the nuclear site licence needed to operate the station. Unscheduled shutdown of a reactor for a period is known as an unplanned outage.
Double Reactor Outage (DRO)	A planned period of maintenance of plant on one reactor and shutdown of our second reactor to allow refuelling activities.
TWh	1 TWh = 1000 GWh
Lost time injury (LTI)	Lost Time Injury is an absence of one day or more resulting from an injury incurred during an accident - generally in UK industry a less stringent three day or more criteria is used.
Environmental event or incident	Environmental events arise from wastes or discharges above permitted levels or breaches of permitted conditions.
International Event Scale rating (INES)	International Event Scale - Events are classified at seven levels: Levels 1–3 are “incidents” and Levels 4–7 “accidents”. These levels consider three areas of impact: people and the environment, radiological barriers and control, and defence in depth. The scale is designed so that the severity of an event is about ten times greater for each increase in level on the scale. Events without safety significance are called “deviations” and are classified Below Scale/Level 0. Level 1 is an anomaly.