

SIZEWELL C CONSTRUCTION - TRAFFIC ISSUES AFFECTING YOXFORD

Sizewell C is a proposed new nuclear power station that would be built to the north of Sizewell B on the Suffolk coast. It would have two reactors capable of generating enough electricity to supply around five million homes. Following the preparation of the site for construction, Sizewell C would take seven to nine years to build and at peak of construction would require around 5,600 jobs on-site. Some temporary associated developments such as park and ride sites and an accommodation campus in the local area would be needed during the construction phase.

EDF propose to use the B1122 as the only access road for all construction and ancillary traffic during construction of the power station. Traffic from the North, South and West will all converge on an 80 metre stretch of the A12 between the A1120 and B1122 junctions. This is likely to comprise: 600 heavy goods vehicles, a similar number of light goods vehicle and 2600 workers using private cars or park and ride busses. It is very likely that a large number of workers will use the A1120 road to reach the Darsham park and ride site or the construction site direct. It is evident that Yoxford will therefore experience a considerable increase in traffic at the critical A1120 and B1122 junctions especially at peak times. In order to minimise delay to their own construction traffic EDF are proposing to build a roundabout at the A12/B1122 junction. This however, will have the disadvantage that it will disrupt the free flow of traffic using the A12.

Under normal conditions Yoxford manages to cope with current traffic levels as the majority of vehicles use the A12, albeit that congestion can occur at peak times, as well as during the holiday season. Generally northbound vehicles can flow freely without delay whilst southbound traffic only suffer short delays when having to wait for vehicles turning onto the A1120. However a study of the traffic flows in Yoxford shows that traffic is not uniform but tends to flow in columns or strings which can be very long especially at peak times. This effect occurs because opportunities for overtaking are very limited for many miles in each direction and a single slower vehicle can therefore cause a considerable tailback. Whilst a roundabout at the B1122 junction would probably cope with a uniform flow of traffic, long strings of vehicles having to slow if not stop would suffer disruption to their free flow leading to the formation of queues.

Queues form if the arrival rate of vehicles exceeds the rate at which they can pass an obstruction. Furthermore, queues will always get longer until this condition is reversed. Once a queue has formed it clogs the system and is difficult to clear. Thus, the formation of queues is critically dependant on instantaneous flow rate and if the critical level is exceeded a queue can form quickly and can be hard to disperse.

Northbound strings of vehicles having to slow for a roundabout will form a queue and for those strings that are typical of those found passing through Yoxford will cause a queue long enough to block the A1120 junction some 80 metres away. This will prevent southbound traffic turning into the A1120 causing another queue in the other direction which also will be difficult to disperse. It is therefore concluded that complete logjams and its resulting chaos will become a common feature in Yoxford. Published estimates of predicted general traffic levels show an increase of 30% over the Sizewell construction phase and this added to considerable level of construction and associated traffic will make the situation intolerable.

Not only will there be a direct impact on the free and safe flow of traffic through the village, but the environmental impact of increased noise and poor air quality associated with slow, idling or queuing traffic at this sensitive location surrounded by residential properties, will place an unacceptable burden on the community.

A possible solution to this problem, which might be suggested by EDF, is to widen the A12/A1120 junction enabling a filter for southbound vehicles turning into the village to be accommodated. It should be noted that this junction is within the Yoxford conservation zone and contains historic buildings such as The Kings Head and Bank House. Also situated at this junction is the Jubilee Seat (1935) and the Prince Edward Oak which was planted to commemorate the wedding of Prince Edward, later to become King Edward VII. This junction is narrow and it is not possible to widen it sufficiently without destroying part of our history and heritage. Any proposal to alter this junction in any way would be wholly unacceptable on heritage and conservation grounds.

EDF are proposing to use mathematical modelling techniques to justify their actions. We have been informed that the ARCADY computer model will be used to simulate the roundabout at the A12/B1122 junction. This model has been developed to optimise the design of roundabouts in order to maximise flow rates. It is not clear whether this program is capable of accurately predicting the lengths of queue that will occur and further methods may be required. These types of model, which have to take account of random events such as the arrival of individual vehicles, are not capable of giving absolute results and normally only provide average values. As a result their results are sensitive to the assumptions made and the input data used. In traffic analysis averaged vehicle arrival rates will give vastly different results to the case where vehicle strings, as found on the A12, are accurately simulated. If EDF use the average vehicle flow rates, as provided by traffic surveys, it is probable that any proposed roundabout could be seen to cope adequately. However, if the particular patterns of traffic found passing through Yoxford were used, the results would be quite different and would show that any new roundabout would cause severe congestion.

EDF have insisted on a confidentiality agreement with SCC officers. This even prevents them from passing details of communications with the Councillors for whom they work. It will not be possible for any Parish Councillor or their representatives to be party to any examination of detailed modelling results which will have to be approved by SCC highways officials. Yoxford will have to rely on people who may not be fully aware of the particular problems facing us to fight our case.