Improving Distribution Infrastructure

Electricity poles are a common feature of the St. Lucian landscape. They are an important part of LUCELEC's distribution infrastructure that gets electricity from the substations to our neighbourhoods. In some areas, these tall wooden poles need to be supported with sturdy metal cables, called stays, to help keep them upright and to maintain the tension on the electricity lines. But it has not always been easy or possible to find sufficient space or suitable soil conditions to anchor the stays, and in some areas the stays become an additional obstruction where they are anchored.

LUCELEC has been looking for alternatives to using stays, which would still meet the requirements of ensuring that poles remain upright and the electricity lines retain the appropriate tension. The answer came in the form of concrete poles, which were introduced following their successful use by the EDF, the electric utility in Martinique.

The concrete poles, as erected by LUCELEC, are self supporting. That is, they stand firmly in the ground on their own foundation and do not need to be held upright or supported by stays. This allows them to be planted in areas where it is impossible to get sufficient space or suitable areas to plant wooden poles and support them adequately. For example, in areas where there is very little space on the road shoulder to facilitate the pole and anchoring the stays, or where there is a sheer drop immediately off the edge of the road in the vicinity of the pole location.

LUCELEC tested the concrete poles extensively before beginning to deploy them on the system. The first concrete pole was planted at the Sir Arthur Lewis Community College compound about fifteen months ago, and after encouraging results there, another pole was tested along Chaussee Road in Castries. To date, the results have been excellent, with the poles maintaining their structural form and the electricity lines attached to them retaining the appropriate tension.

Since Hurricane Tomas and the major land slippage it caused in several areas, LUCELEC has been using concrete poles to rebuild the distribution lines in some of the affected areas, such as the Barre d'Isle and along parts of the Morne Road. The concrete poles are ideally suited for these areas where much of the soil has been washed away.

Consideration is being given to the use of concrete poles (with 'insulated' overhead conductors) in the city centre as well, as an alternative to going underground. In the coming weeks, LUCELEC expects to make a decision on whether or not to replace some wooden poles on Jeremie Street and Chaussee Road with the concrete poles. This will alleviate the need for stays in those areas and eliminate any possible inconvenience to pedestrians.

The concrete poles are being manufactured locally to LUCELEC's rigorous standards by a French contractor based in Vieux Fort.

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