ESTIMATES COMMITTEE
Question Taken on Notice

Question Number: 10.7 **Output Number:**

Date: 19/06/2025

From: K McNamara **To:** Mr Peter Wilson

Portfolio: Essential Services **Agency:** Power and Water Corporation

Subject: Renewable versus gas levelised cost of electricity

QUESTION

I would like to know that current levelised cost of electricity (LCOE) for renewable generation versus gas generation for anything that Power and Water covers—any information you have.

ANSWER

Power and Water is unable to provide LCOE data comparing gas generation with renewable generation for the regulated power systems (Darwin/Katherine, Tennant Creek, and Alice Springs), as Power and Water operates solely as the transmission and distribution service provider in these areas and does not generate electricity for the regulated power systems. Power and Water does not have access to complete cost information for generation in those systems.

However, Power and Water is responsible for the full delivery of electricity services, including generation and distribution in remote communities across the Northern Territory. In these areas, diesel is the predominant fuel source for electricity generation.

To evaluate more cost-effective alternatives, Power and Water engaged an engineering consulting firm in 2023 to assess LCOE in selected Indigenous Essential Services (IES) communities. The study evaluated base-case LCOE at various sites:

Diesel-only communities: LCOE ranged from $0.37 to $0.86 per kWh

Hybrid (diesel and solar) communities: LCOE ranged from $0.33 to $0.40 per kWh

It's important to note that smaller communities such as Bulla, tend to have higher LCOE due to limited demand relative to infrastructure costs.

Separately, a 2025 assessment was conducted for Power and Water's operations in Elliott, the only community with an LCOE available which is fully supplied by gas generation. This study determined an LCOE of $0.28 per kWh. The cost-effectiveness of gas generation is closely tied to the availability of long-term gas supply contracts and the presence of existing gas infrastructure near the community.

Analysis indicates that integrating renewables into gas-based systems does not significantly lower LCOE, given the relatively low cost of gas. In contrast, incorporating renewables into diesel-based systems has a greater impact on reducing LCOE, due to the high cost of diesel fuel.