Q. Does Mr. Bowman believe that interconnected system customers located closer to Holyrood should pay higher rates than customers located next to a hydraulic power source? Please explain your reasoning in detail.

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A. In a fully-regulated electricity market with a strongly meshed transmission system (i.e., no significant transmission constraints), Mr. Doug Bowman believes that provided the customers are served from the same transmission system and the hydraulic power source feeds into the same transmission system as Holyrood, the customers should pay the same wholesale rates (ignoring the costs of facilities built solely for the needs of the customers which should be specifically assigned). The costs of distribution may vary, thus prompting differences in retail rates. The reason wholesale rates should be the same for these two customers is that in a regulated market, generation and transmission have historically been constructed to serve all customers, so all customers should share in the costs. It is important to note that a transmission system functions as a network, so customers located next to Holyrood would not necessarily receive power from Holyrood. Network transmission flows follow the laws of physics. For this reason, in regulated markets, customer location relative to a power plant does not normally influence wholesale rates. If there were a significant transmission constraint between the customer next to Holyrood and the customer next to the hydro facility, there may be justification for different wholesale rates. When this situation arises in a competitive electricity market, the market is often split (i.e., market prices are determined on each side of the constraint), in which case the marginal cost of supply, or market price, for the customer next to Holyrood might be greater than that for the customer next to the hydro facility.