

1    **Q.    B-25, Replace Emergency Diesel Generator, \$611,400**

2           Please provide a comparison of the advantages and disadvantages, other than  
3           capital cost, from the experience of Hydro and from other utilities, of the purchase  
4           of a containerized unit versus the purchase of a diesel genset and the construction  
5           of a new building to house it.

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8    **A.**    This is Hydro’s first project related to a hydro generation plant whereby a black  
9           start diesel genset is being replaced with a larger unit requiring a larger room to  
10          accommodate it. However, Hydro has had experience with replacing diesel gensets  
11          with containerized larger units in its rural operations diesel generating plants  
12          serving prime power to isolated communities.

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14          An advantage of a containerized system is that it offers a short site construction  
15          period. It also allows the new diesel plant to be witness tested before it leaves the  
16          manufacturing facility thereby providing opportunity to ensure it has no  
17          deficiencies before it is delivered to the Bay d’Espoir site. In addition, a  
18          containerized unit also offers the flexibility of relocating the diesel plant to another  
19          location, if desired in the future, at a much lower cost than the new building  
20          alternative. An advantage of a new building alternative is that it allows greater  
21          flexibility in a customized design for increasing floor spacing and ceiling clearances  
22          inside the building. However, Hydro is satisfied that a containerized plant can be  
23          provided meeting requirements for proper floor spacing and ceiling clearances.

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25          Hydro is a member of a Hydraulic Plant Life Interest Group, along with many utilities  
26          in Canada and the United States. Hydro has issued a request to this group  
27          regarding their experience in completing similar projects whereby containerized

1 plant and new building plant alternatives were considered. Hydro has not received  
2 any information to its request.

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4 A containerized diesel genset was initially considered for Bay d'Espoir due to the  
5 availability of a suitable location. Due to the layout of the plant site, the closest  
6 location near the powerhouse to place a new building was at the far end of the  
7 powerhouse from the Station Service Panel. At that location, an existing storage  
8 building would have to be relocated (more practically demolished and rebuilt  
9 elsewhere). The smaller containerized unit can be located beside the cliff in the  
10 foreground of the picture below. This is the closest possible location to station  
11 service and the control room.

