

## HYBRID ELECTRIC TRAIN (HET)

### 1. Specification of the vehicle (Passenger Capacity, features, design)

Below is the general technical specifications of the train:

TECHNICAL SPECIFICATIONS	TRAIN SET
Maximum speed (kph)	80 (computed)
Capacity per coach (passenger)	175 (design load) 220 (crush load)
Supply voltage (Vdc)	650
Track gauge (narrow, m)	1.067
Gross weight per coach (tons)	25.5
Coach dimension (LxWxH) (m)	12 x 2.85 x 4.432
No. of coaches	5 (1 pilot, 1 power, 3 passenger) (power coach is not rideable)
No. of bogies per coach	2
No. of powered bogie per coach	2
Maximum track grade (%)	1.2
Minimum turning radius (m)	50
Motor rating (hp)	125
Gear ratio	1:4

### 2. Maintenance of the Train

The maintenance activities focus mainly on the following train subsystems:

- Bogie Assembly
- Coach
- Chassis
- Generator Set
- Air Conditioning Unit (ACU) System
- Air Compressor

Maintenance manuals were developed as guide. The activities can be subdivided into daily, weekly, monthly, and yearly schedule.

### **3. Cost of making the Train**

The developmental costs of HET is Php 120 Million.

### **4. Are you looking forward for the mass production of these units for our railway systems?**

The prototype of the Hybrid Electric Train (HET) shall be donated by DOST-MIRDC to the Philippine National Railways (PNR) to augment their need for additional trains. We are looking forward that the Department of Transportation (DOTr) and PNR would consider ordering more of DOST's mass transport technologies such as the HET and the AGT.