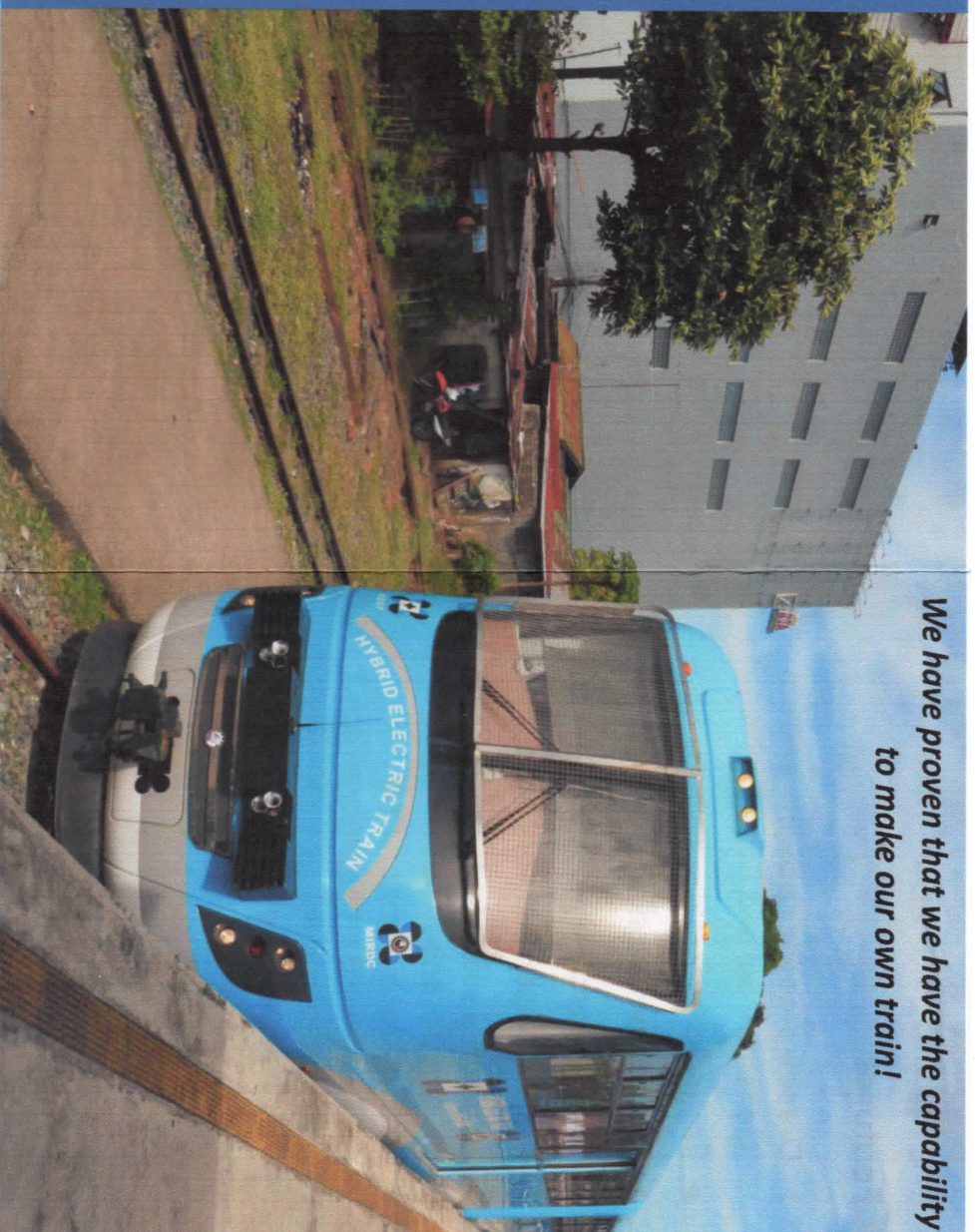


With the milestones of the HET and our partnership with the PNR, we aim to utilize and maximize the capabilities of the local industries in the fields of metals and engineering, enabling our manufacturers to produce our own technologies to address our needs in the area of mass transportation.



*We have proven that we have the capability to make our own train!*

for more information, please write, fax, call, or email:



**DEPARTMENT OF SCIENCE AND TECHNOLOGY  
METALS INDUSTRY RESEARCH AND DEVELOPMENT CENTER**

MIRDC Compound, Gen. Santos Avenue, Bicutan, Taguig City, 1631 Metro Manila  
P.O. Box 2449 Makati, 1229 Metro Manila, Philippines  
Telephone Nos.: (632) 8837-0431 to 38 (connecting all departments)  
Fax Nos.: (632) 8837-0613 and 8837-0479  
Website: <http://www.mircd.dost.gov.ph>  
E-mail: [mircd@mircd.dost.gov.ph](mailto:mircd@mircd.dost.gov.ph)

**HYBRID  
ELECTRIC  
TRAIN**



**DEPARTMENT OF SCIENCE AND TECHNOLOGY  
METALS INDUSTRY RESEARCH AND DEVELOPMENT CENTER**



Features

- Diesel-electric power system (Generator Set and Battery)
- Regenerative braking system
- Wide automatic sliding doors
- Fully air-conditioned cabins
- CC-Link Open Network System
- Additional safety features:
  - Dead man's switch
  - Control buttons on HMI
  - Hardwired emergency switch
  - Door interlocks
  - Air pressure interlocks



Passenger coaches have perimeter seats and safety hand rails

Hybrid Electric Train Specifications Table

TECHNICAL SPECIFICATIONS	HYBRID ELECTRIC TRAIN
Operational Speed	60 kph
Capacity per coach	175 (design load) 220 (crush load)
Gross weight per coach	25.5 tons
Coach Dimension	(L x W x H) 12m x 2.85m x 4.432m
Battery	650 VDC
Generator Set	500 kVa
Number of Coaches	5 (1 pilot, 1 power, 3 passengers)
Maximum Track Grade	1.2%
Minimum Turning Radius	50m
Gear Ration	1:4
Developmental Cost	P120M



HET coaches have wide automatic sliding doors.

Recent Accomplishments

- Passed the 5000-km reliability, availability, maintainability, and safety (RAMS) testing;
- Passed the 150-hour validity testing (free ride offered to the public via the Calamba Alabang-Calamba routes;
- Conducted the inaugural run
- Conducted the turnover ceremonies to the Philippine National Railways (PNR).