Electric Vehicle Charging Stations in the PHILIPPINES

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Scenario in the Transport Sector

49%

Use of Oil

Oil products

Its consumption went up by 3.4 percent, from last year's level of 16.3 MTOE to 16.9 MTOE in 2018.

36%

Fuel Consumption

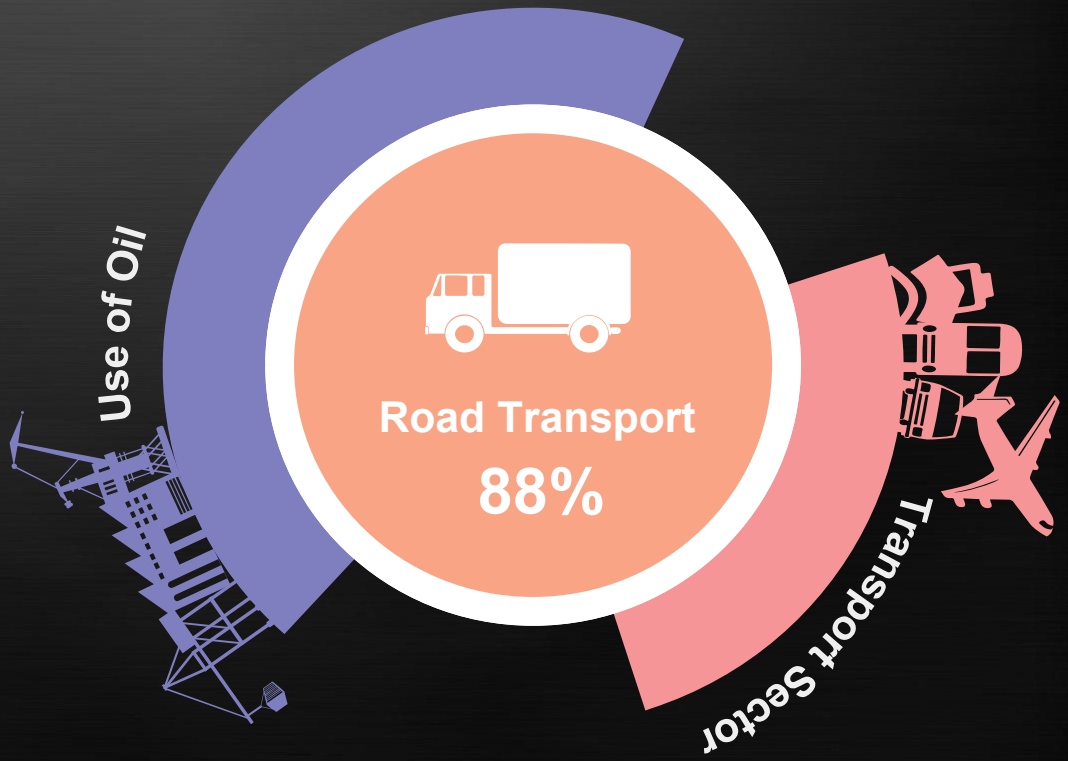
Transport Sector

Its aggregate energy demand reached 12.2 MTOE, 3.5 percent higher than its 2017 level due to increased utilization of gasoline and diesel.

28%

Greenhouse gas emission

Total greenhouse gas (GHG) emissions from energy-related activities increased by 4.1 percent from 2017.



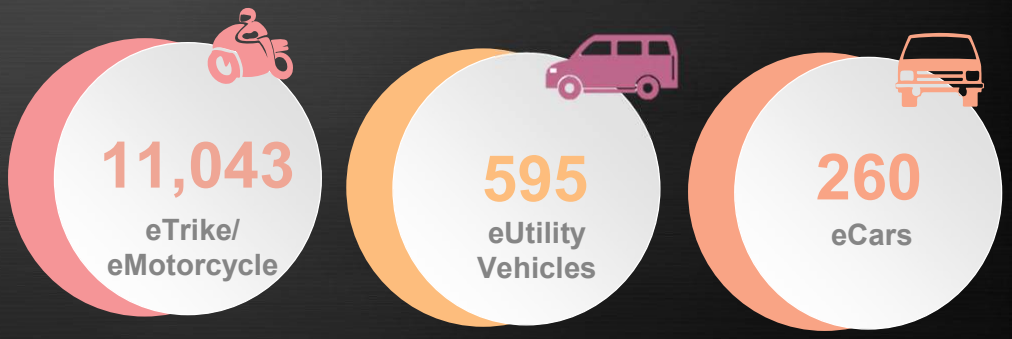
Scenario

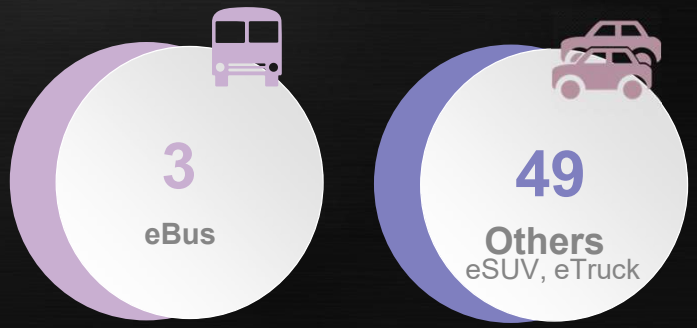
11,950

Electric Vehicles (0.09%)

12,713,355

Conventional Vehicles (99.91%)





Projects and Initiatives

in the adoption of EVs and EV Charging Stations (EVCS)

Non-Project Grant Aid (NPGA) for the Introduction of Japanese Advanced Products and Its System (Next-Generation Vehicles Package)

Market Transformation through the Introduction of Energy Efficient Electric Vehicles (E-Trike) Project

Charging Stations for EV

1. Office of the President

2. Department of Energy

3. Department of Science and Technology

Other Programs

EV Chargers

Demonstration of Fast EV Chargers

Emergency Response

Development of Emergency Response Protocol for alternative fueled vehicles

Minimum Energy Performance

Certification protocol for the Minimum Energy Performance (MEP) for EVCS

Training Course Module

Development of TESDA-aligned Electric Vehicle Technician Course Module

Fuel celled vehicles

Research and Development of fuel cell powered vehicles

Promotional Activities

Information, Education and Communication Campaign

Energy Demand-Side and Production Targets

Philippine Energy Plan 2018-2040

10%

penetration rate for electric vehicles for road transport (motorcycles, cars, jeepneys) by 2040

5%

aggregate energy savings from oil and electricity by 2040

Alternative Fuel Vehicles

deploy applicable AFET for transport and non-transport sector

Image Source: pinterest

Policies and Issuances

1. **R.A 11285 – Energy Efficiency and Conservation Act**
   - *MEP level for electrical equipment, machinery, and transport vehicles*

2. **DOE DC 2019-11-0014 – Implementing Rules and Regulations of the R.A. 11285**
   - *Energy labeling for transport vehicles*
     - *Fuel economy rating scale*
     - *Fuel economy label*

3. **DOE DC 2020-10-0023 – Prescribing Policy Framework for the Development of the Fuel Economy Rating, Fuel Economy Performance and Related Energy Efficiency and Conservation Policies for the Transport Sector and Other Support Infrastructures**

4. **DOE DC2017-11-0011**
   - *Retail outlets may install electric vehicle charging facilities, provided that safety controls are in place for the operation of the EVCS.*

5. **DOE DC2020-02-0003**
   - *DUs may establish/facilitate the establishment of charging stations. Private and government instrumentalities can install charging stations under a non-regulatory pricing and market-based environment.*

6. **DOE DC2020-10-0023**
   - *Provides the development and operation of EV and EVCS to be structured for safe operation and adoption of this technology.*

Policies

Proposed Department Circular on Electric Vehicle Charging Stations

Scope: Covers activities related to the development, establishment, use, supply, distribution, and the operation of EVCS

- *EVCS classifications compliant to the requirements of PNS*
- *EVCS Dedicated Locations*
- *EVCS Energy Label and Marking Requirements*
- *Endorsement to the DTI-BOI for the availment of fiscal incentives as provided under EO 226*

Senate Bill 1382 and House Bill 4075

Proposed Electric Vehicle and Charging Stations Act

1. *Promote cleaner and more efficient mode of transportation system.*
2. *Accelerate the adoption and mainstreaming of electric vehicles (EVs) and EV support infrastructure.*
3. *Mandatory 5% EV share in Corporate and Government Fleets to be EV with a timeframe until the entire fleet be electrified.*
4. *Dedicated Parking Slots for EV in Private and Public Buildings and Establishments.*
5. *Open access installation of charging stations in gasoline stations.*

Incentives

for EV and EVCS related Projects

1

Tax Reform for Acceleration and Inclusion (TRAIN)

- *Excise Tax Incentives*

Pure Electric Vehicles (EV) shall be exempt from the excise tax on automobiles. Hybrid Vehicles shall be subject to fifty percent (50%) of the applicable excise tax rates on automobiles.

2

Omnibus Investment Code (Executive Order 226)

- *Manufacture of electric vehicles and parts & components, Operation of Charging/Refueling Stations for Alternative Energy Vehicles*
- *Income Tax Holiday of 3-6 Years*
- *Importation of Capital Equipment*

3

Memorandum Order No. 50 Series of 2020 (The 2020 Investment Priorities Plan)

- *Include Charging/Refueling Stations for Alternative Energy Vehicles*

Challenges and Opportunities

Challenges

- Slow EV uptake due to high initial cost vs equivalent ICE vehicles
- Lack of support infrastructures for EVs
- Monitoring, verification and evaluation of EVs
- Small number of investors for EV charging
- EV degraded battery recycling and disposal
- Interrupted operations of EVs

Challenges and Opportunities

Opportunities

- Research and Development on the parts and components.
- Construction of electric vehicle charging stations.
- Establishment of testing laboratories
- Adoption of single EV charging protocol
- Household/home solar storage batteries
- Establishment of service shops, training modules, and emergency response protocols for EVs

Thank You

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