



ENERGY EFFICIENCY STANDARDS FOR WATER HEATERS IN PAKISTAN

By
National Energy Efficiency and Conservation Authority
October-2021

PRESENTATION OVERVIEW

ENERCON TO NEECA JOURNEY
NEECA AS AUTHORITY



NEECA Introduction

SECTORS AND FUNCTIONS AS PER
NEECA ACT



NEECA Mandate

NEECA STRATEGIC PLAN
BRESEL PROJECT
IMPLEMENTATION TIMELINES



S & L Projects

Depleting Gas Resources
Domestic Sector gas Consumption



Pakistan Energy Sector

Water Heater Gas Saving Potential



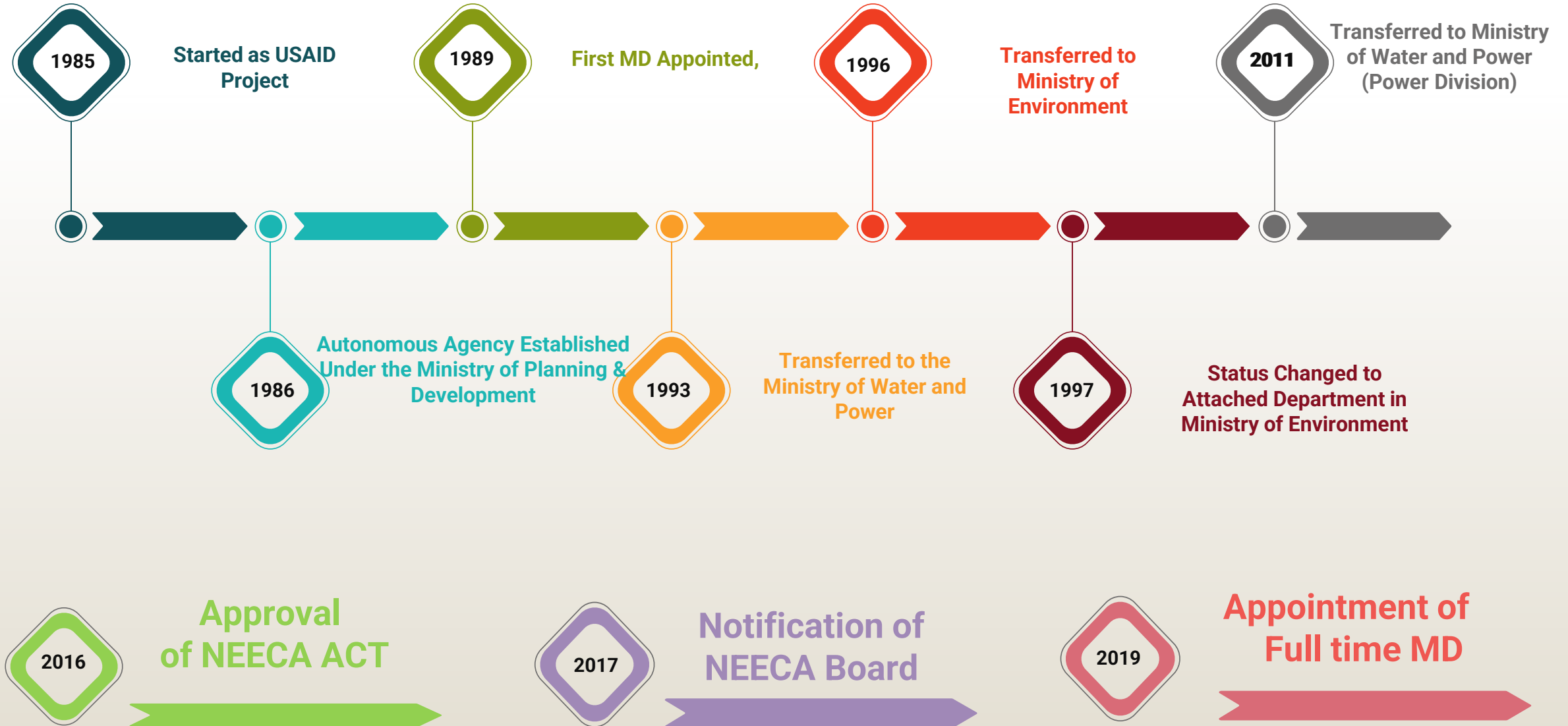
GAS Saving Other Initiatives



NEECA



INTRODUCTION: ENERCON TO NEECA JOURNEY





NEECA: THE AUTHORITY



- The National Energy Efficiency & Conservation Authority (NEECA) established under the Ministry of Energy (Power Division) on 1st July 2016.
- NEECA serves as a federal focal agency mandated for
 - Initiating,
 - Catalyzing and
 - Coordinating

all Energy Efficiency and Conservation activities in different sectors of economy.



NEECA'S FIVE SECTORAL PILLARS



Power Sector

- Generation,
- Transmission &
- Distribution system of electricity.



Transport Sector

- Road transport,
- Railways
- Aviation &
- Any other means of transportation.



Buildings Sector

- Private,
- Domestic household,
- Commercial,
- Industrial,
- Public &
- community buildings.



Industrial Sector

- Small, medium and large industries



Agriculture Sector

- Agriculture irrigation,
- Livestock farming,
- Food processing,
- Post harvest output management.
- Forest Management



NEECA'S FUNCTIONS AS PER ACT



NEECA



POLICY FORMULATION

PREPARE &
UPDATE
NEEC POLICY

DEVELOP POLICY
IMPLEMENTATION
FRAMEWORK



LEGAL & FINANCIAL

PRESCRIBE
PENALTIES
FOR INEFFICIENT
PRACTICES

ESTABLISH ENERGY
CONSERVATION
FUND

ESTABLISH ENERGY
CONSERVATION
TRIBUNAL

RECOMMEND
FISCAL
INCENTIVES

PROHIBIT
MANUFACTURING
,
SALE/IMPORT OF
INEFFICIENT
PRODUCTS

ESTABLISH RULES
& REGULATIONS



PROGRAM DEVELOPMENT

**ENERGY
STANDARDS &
LABELLING
REGIME**

CARRYOUT
ENERGY
AUDITS

ENERGY SAVING
CERTIFICATES
SCHEMES

DEVELOP &
IMPLEMENT
BUILDING
ENERGY CODE

DESIGNATED
ENERGY
AUDITORS &
MANAGERS

DEMONSTRATI
ON R&D

**RECOMMEND
NATIONAL EE
STANDARDS**

ESTABLISH
SYSTEM OF
DESIGNATED
CONSUMERS

PROGRAM
DEVELOPMENT
FOR EE
PROMOTION



AWARENESS CAMPAIGN

DISSEMINATE
INFORMATION
ON EE&C

CREATE
AWARENESS
ON ENERGY
EFFICIENCY



STRATEGIC PLAN 2020-23 : SAVING 3 MTOE GOAL



- Launching of mandatory Appliance labeling schemes
- Carrying out Building Energy Audits



0.5 MTOE

- Implementation of building codes
- Developing of Building Energy Management Systems

- Developing vehicles examination system and Regulations
- Regulating vehicle tune-up centers



0.5 MTOE

- Implementation of electric vehicle policy-2019
- Introducing fuel economy standards

- Implementation of Energy Management systems
- Introducing Energy Saving Certificates and EE Financing Mechanisms



1.3 MTOE

- Developing Thermal Utilities Optimization Program
- Improving EE in Electrical Systems

- Replacing inefficient Tube-wells
- Establishment of tractor tune up centers



0.3 MTOE

- Introducing new EE Technologies in Agri-food systems
- MEPS Irrigation Assistant Program

- Transformer and LT capacitor Program
- Peak Shaving Programs



0.4 MTOE

- Implementing Power Factor improvement programs
- Adoption of PBS Standardized Industrial Classification Codes



NEECA STANDARDS AND LABELLING REGIME



- NEECA initiated work on Energy Standards and Labelling through UNDP support under project titled;

“BARRIER REMOVAL TO THE COST EFFECTIVE DEVELOPMENT AND IMPLEMENTATION OF ENERGY EFFICIENCY STANDARDS & LABELING (BRESL)
(2013-2017)”
- Project objective was focused on formulating policies and laws, building Institutional capacity, Manufacturer Support, Consumer awareness and **regional Cooperation on ES & L program**.
- The project successfully developed the drafts of the following target appliances in December 2014;
 - Air-Conditioners
 - Refrigerators
 - Motors
 - Fans
 - Ballasts
 - CFLs





NEECA TIMELINE : ELECTRICAL AND GAS APPLIANCES S & L REGIME IMPLEMENTATION



July 2016

Fans

- Minimum Energy Performance Standards Developed & Launched
- Voluntarily Labelling Regime Launched
- Mandatory Labelling Regime coming Soon



October 2020

Motors

- Minimum Energy Performance Standards Developed
- Voluntarily /mandatory Labelling Regime under formulation



January 2021

LED

- Minimum Energy Performance Standards developed & Launched
- Mandatory Labelling Regime under formulation

December 2021

Water Heaters

- Minimum Energy Performance Standards under Development initiated



July 2021

Air Condition

- Minimum Energy Performance Standards Developed
- Mandatory Labelling Regime under formulation



June 2021

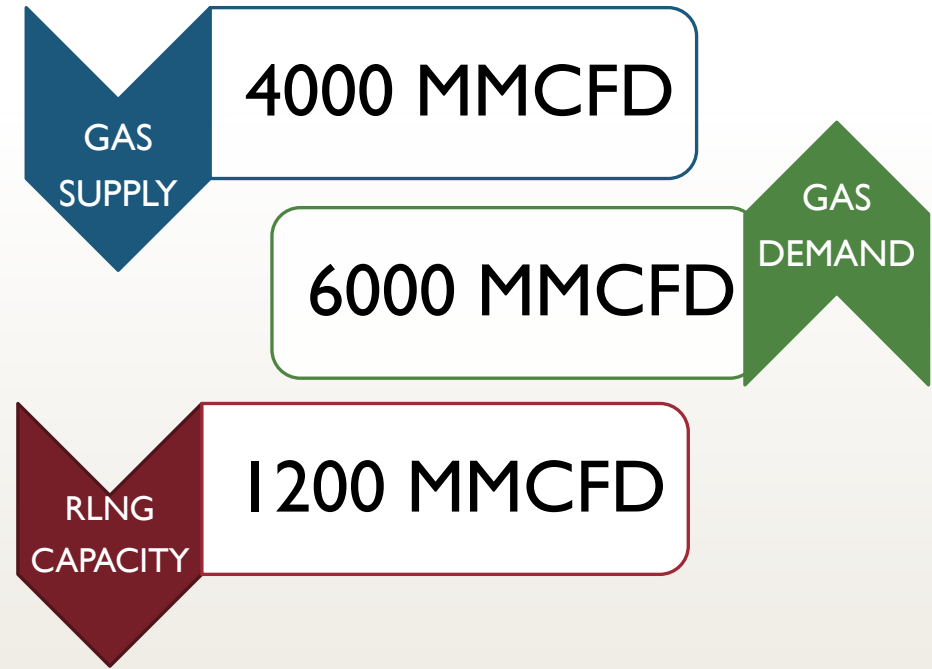
Refrigerators

- Minimum Energy Performance Standards Developed
- Mandatory Labelling Regime under formulation





Gas Supply & Demand Analysis



Accordingly RLNG is being imported to mitigate gas demand-supply shortfall.





NEECA Other Initiatives in-line with Government to save Natural gas



- Cabinet committee on Energy has mandated NEECA to carried out validation of gas based captive co-generation power plants. Gas will be disconnected to al other captives power plants.
- To encourage the consumer for switching from gas to electricity in winters Government has already announced flat rate of 12.99 per Kwh for incremental increase in electricity consumption
- NEECA has also planned to hold Energy Efficiency competition for space heaters to improve the efficiency of electric water/space heaters
- To discourage Gas consumption Government has increase gas prices for peak winter season



Thank You!

