## Power Sector Solutions Brief - 5

- 2. Encourage Investment, Build Confidence of IPPs, Educate Consumer, Inculcate Learning, Ensure Regular Revision of PPAs, Transparency of Contracts and Take Corrective Measures Along the Way
- IPP Bashing Needs to STOP
- a. Repeating ad nauseam misinformation and half cooked facts by detractors is confusing and is not providing a way out or suggesting practical solutions
- b. Electricity sector of Pakistan is still primarily state owned, and power sector model of the country in its present configuration of installed base, energy mix, capacity payments to IPPs, and unchallenged power pilferage is not sustainable.
- c. Independent Power Producers are the same around the globe.
  - Even the (PPA) Power Purchase Agreements and IA Implementation Agreements are the same.
  - o Pakistan was pioneer in 1994. KSA and BD copied in 1997 and 1999.
  - The upfront tariff regime started during Musharraf regime has benefitted local industrialists and lobbied against competitive biding over the years
  - Post loan payment, tariff is reduced and being 30 year plus PPA, upfront loan payment is justifiable
- d. DISCOs, PPIB, NEPRA, CPPA-G
  - Improved energy mix has changed from gas and Furnace Oil/HSD to Nuclear, Thar Coal and Hydel, thereby reducing our dependence on imported fuel.
- e. Fiscal Deficit has had a major impact and Pakistan has seen significant impact on consumer price due to devaluation of Rs 183 in 6 years; Rs 130 in last 3 years
  - 1 US\$ was Rs 104 in 2017, 157.66 Rs in 2021, 1 US\$ to 204.85 Rs in 2022 and 1 US\$ to Rs 287.50 in 2023
  - FX rate was Rs 65.95 vs USD and reference tariffs were 7.2883 cents for first 10 years and 6.0482 cents for the next 20 years in case of Hubco Narowal. Today FX is Rs 280 and tariff has increased from Rs 3.989 to Rs 16.93 per unit
  - FX rate was Rs 97.1 vs USD and reference tariffs were 10.7608 cents for first 10 years and 8.7567 cents for the next 20 years for China Hub Power. At Rs 280 tariff has increased from Rs10.44 to Rs 29.25 per unit

- f. Behind circular debt of Rs 5.4 trillion
  - Is inability to recover charges, pass actual cost of generation and transmission or provision of matching funds to cover subsidies, years of mis-governance facilitated by changes of CEOs, BOD, lack of capacity building and with NEPRA hopium based target setting for losses and recovery without performance accountability.
  - o Start phasing out by reducing PSDP by Rs 400bn pa
- g. Undertake Analysis
  - Present utilization factor, identify reasons and limitations, measures to increase utilization factor
  - Determine alternate measures as capacity payments around Rs 18/kwh are small compared to taxes in the bill becoming massive circular debt portion, rising T&D losses, thefts, system/grid inefficiencies have been added to the electricity bill today.
  - Whether China has in fact stopped charging interest cost since FY23 till FY25, while NEPRA is still making it part of the tariff?
  - Quantum of benefit to GOP as it has more than 50% direct stake in IPPs, especially under CPEC, and is recipient of most of the capacity payments review changes made by it in PPAs and plug expenses
    - Power sector annual revenue requirement is Rs 4 tr (generation Rs 3.3 tr, transmission Rs 175 bn, 10 Discos Rs 500 bn)
    - Almost 80% of investments and assets in power sector are of GoP's owned entities
- h. The level of power distribution companies' losses and pilferage is not sustainable and requires enforcement of writ, charging actual cost based tariff and giving targeted subsidies to establish RE units in areas with high losses and resulting in revenue based load shedding.
  - In May 2024, boards of nine power distribution companies, other than two operating in Sindh with Rs 112 billion losses, were sacked. The government has attributed the Rs 589 billion losses this fiscal year of all 12 DISCOs, to independent directors
  - However, bureaucrats from the energy and finance Ministries also served on these boards, remaining unaffected. They will return as exofficio members.
    - The Government has also decided to enlist the services of the military and intelligence agencies to enhance governance in these power distribution companies, invoking Article 245 of the Constitution and the Anti-Terrorism Act and approved the establishment of the Distribution Companies Support Unit (DSU) to mitigate losses in the future.
    - The first DSU will be set up in the Multan Electric Power Company (MEPCO), as per the decision

- NEPRA has granted license to Provincial Grid Companies authorized to engage in transmission of electric power within the territorial limits of the Province.
  - Sindh one has started developing off take infrastructure for solar projects and connecting with KE. Other Provinces are limited as CPPA-G is not a credit worthy buyer as is KE
  - They need to develop off take infrastructure within the timelines specified in PPAs for REs and other generation projects needs as a reliable subcontractor of PPIB
  - Human capital and project management skills needed to timely execute transmission and distribution projects needs development.
  - Such licenses would promote competition in the transmission sector, generally considered as a monopoly function.
- j. Increasing export revenue requires forward looking measures by industry including steps to improve supply chain efficiency
  - Bangladesh has implemented a 50% cut from July 1, 2024 in cash incentives for exports across 43 products in a country where a substantial 65% of the cash incentives primarily benefit the garments and textiles industry. This is part of plan to prepare the private sector for LDC graduation in 2026.
    - As per the WTO Rules, these cash incentives are considered as subsidies contingent upon Export Performance as according to the Agreement on Subsidies and Countervailing Measures (ASCM), no subsidy/cash incentives will be allowed after graduation from the LDC status
- 2. Facilitate EV Infrastructure Development for Electric Demand Creation
- Vision
  - GOP Facilitate Development of Infrastructure and EV Deployment
- Strategy
  - Deregulated Sector with Competitive Environment
- o Focus
  - 2,3,4 wheeler manufacturing and assembly Battery Swap Eco System with Charging stations by OMCS, Hybrid and E Vehicle manufacturers and Independent operators

## https://imransenergyinsights.com

 Enabling Environment has started to deliver based on Auto Policy Incentives on EVs as reflected by presence of BYD, Sazgar and Vlektra and others

Policy: Ministry of Climate Control

Investment Incentives: Ministry of Industries thru EDB

Power: MoE through DISCOs NHA: Infrastructure Implementation Provinces: Facilitate Deployment of EVs

#### Measures

### MoE Power Division

#### Tariff

- MDI-Fixed
- TOU Tariff with Deregulated Retail Price
  - Options: Peak, mid peak, off peak, super off peak-variable
  - Based on August 14, 2024 Fuel Pricing
  - Midnight to 5 am: Rs 21(30%) below MOGAS per litre cost
  - 10 am to 1 pm: Rs 22 (25%) below MOGAS per litre cost
  - 3 pm-5pm: Rs 24 (20%) below MOGAS per litre cost
  - Revised monthly and in 5years convert to MOGAS equivalent

#### **DISCOs Facilitation**

- Digitalize process for installed connection in 45 days
  - Solarisation process similar to net metering
  - DISCOs monitor and rectify network constraints proactively

# MoFinance and Industries

- Funding of EVs
  - 750,000 EV 2s sold at market price (Rs 400k), PSDP pay equivalent cost of FFV (Rs 200K) to manufacturer
  - Buyer pays for charging station at residence and balance in instalments of Rs 7k pm over 5 years (collateralized by EV) to manufacturer
  - Exposure
    - 750kxRs200K= Rs 150bn over 5 years to Manufacturer from PSDP
  - 400,000 EV 3s sold at market price (Rs 750K), PSDP pay cost of FFV (Rs 450K) to manufacturer
  - Buyer pays for charging station at residence and balance in instalments Rs 15K pm over 5 years (collateralized by EV) to manufacturer
  - Exposure
    - Rs 300Kx400K=Rs 120 bn over 5 years to manufacturer from PSDP
- Extend tax credit for purchase on loan or lease of locally produced EV 4 wheelers including tractors starting FY 26

- Incentive only available to businesses registered as a firm with ST and having NTN
- Catalysing Innovation and Entrepreneurship
  - Royalty of 0.5% revenue of EV, battery manufacturer and importer revenue on lines of USF
    - Managed by NEPRA
    - Transparently made available for EV infrastructure, thinking skills development by technical institutes and engineering universities for EV, Battery/BESS solutions
    - Tied with BISP for 50 students in each Province and awarded Rs 50K per student per year on program qualification certification, pricing proposal and restricted to private sector institutes. The Rs100k fee loan will be recoverable by the institute over 2 years on behalf of BISP, after graduation

## **Provinces**

- Starting FY 26
  - Shift 100% own buses to EVs by FY 29
  - Retire 100% own (prior to 2015) FFV 2/3 wheelers by FY 30
- Bus depots offer charging facility for fee to private bus operators till FY28
- One-time registration fee on all EVs be waived off till FY30
- Stop registration renewal starting FY35 of all FFVs vehicles registered prior to 2015
- Introduce carbon tax be initiated on FFVs in FY26 and increasing every year
- Change in building laws to encourage charging station installations

Encourage Infrastructure and Services Provision by Manufacturers Importers and Entrepreneurs for Battery swapping, Charging station and Maintenance Workshops

Industry Lead Development of above at Commercial Buildings, Hospitals, Offices and Apartments in

- Urban areas
- Rural Districts and
- Motorways

# Role of all is to ensure ease of doing business *NHA*

 Facilitate at rest areas by auctioning facility sites to entrepreneurs with installation payment starting after 5 years of date of auction https://imransenergyinsights.com

#### District HQ

- Undertake similar facilitation initially at HQ level
- Not interfere in licencing or approvals
- Allocate space for charging infrastructure at parking spots

# Manufacture/ Importers

- Focus on Indigenous Development of Technology with self defined localization target over a 7 year period
- Performance to be reported in accounts published every year
- Export incentive of 1% of export revenue retained in local \$ account
- Non Compliance requires refund of incentives given to industry under Auto Policy since commissioning of facility or licence to import EVs
- Encourage and facilitate skills development at Technical Institutes DISCOs
- Expeditiously deliver power to site selected by developer and cost be recovered from bills but starting in 2 year with payment in quarterly instalments over 5 years

## OGRA and NEPRA

- Not interfere in licencing etc
- Charging stations not be considered as an electricity entity e.g. generation, distribution or transmission.

# Explosive Department

- No role nor provide any approvals
- Audit by DISCOs for a new connection and every year will be sufficient
- Infrastructure providers are to be allowed to set up a Shop Stop or Select or... including a rest area and facilities, food sale outlet, battery swap/sale and repair
- Ensure ease of doing business and timeliness of approval with DISCOs, expeditiously review requirement for addition of charging stations at OMCs, CNG and LPG retail outlets