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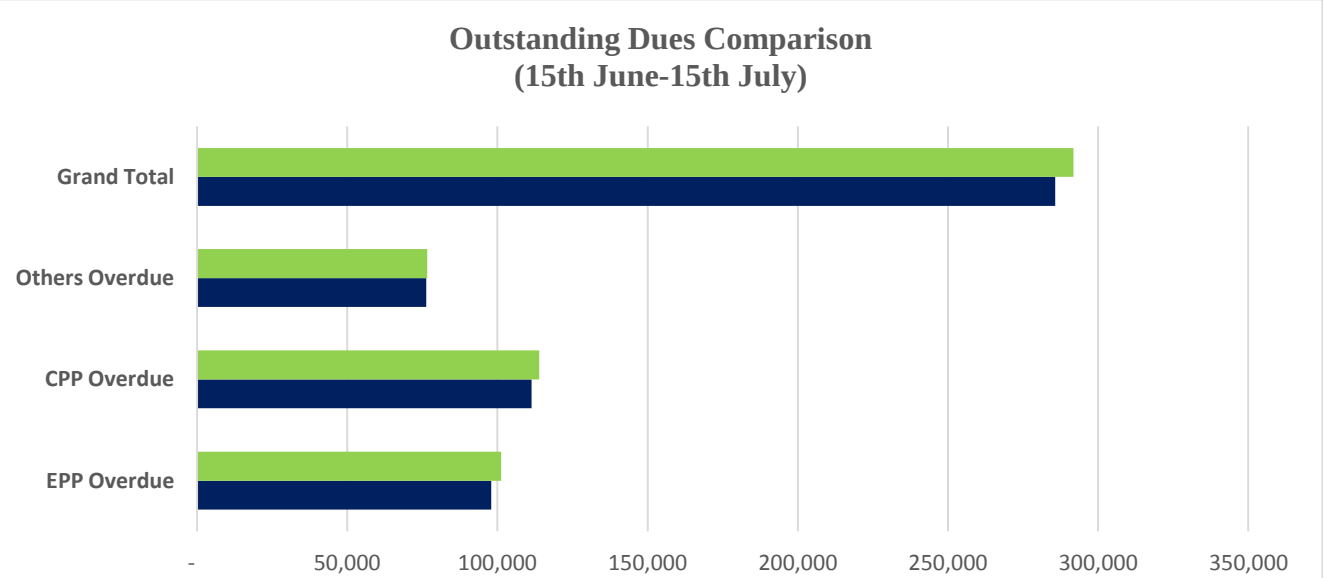
INDEPENDENT POWER PRODUCERS ASSOCIATION

MONTHLY NEWSLETTER

Welcome to the twenty-ninth edition of Independent Power Producers Association (IPPA) Newsletter. The newsletter is published on a monthly basis to ensure regular dissemination of information to Member IPPs and other stakeholders, and also to provide a platform to discuss issues pertinent to the energy sector of Pakistan. We would like you to send us your feedback and comments on how to improve the monthly newsletter.

Monthly Infographics

Outstanding Dues as of 15th July, 2019 in PKR Millions

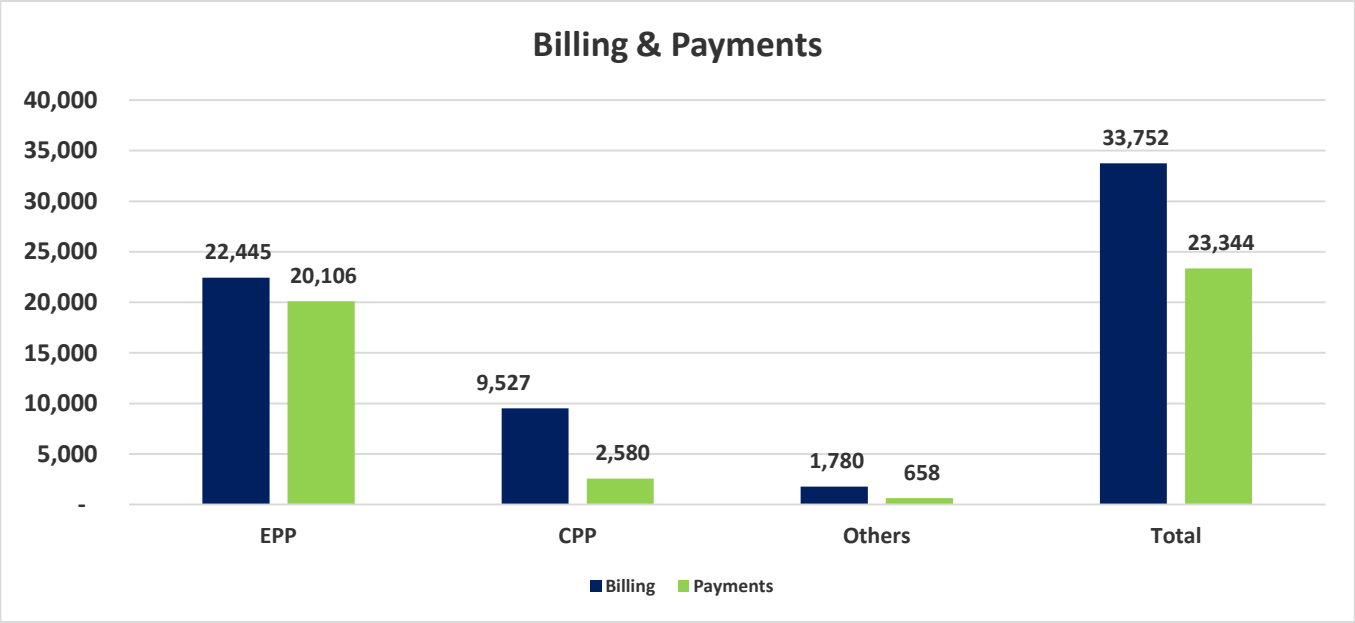


	EPP Overdue	CPP Overdue	Others Overdue	Grand Total
July	101,268	113,877	76,676	291,821
June	97,994	111,362	76,308	285,664

Source: Member and Subsidiary IPPs

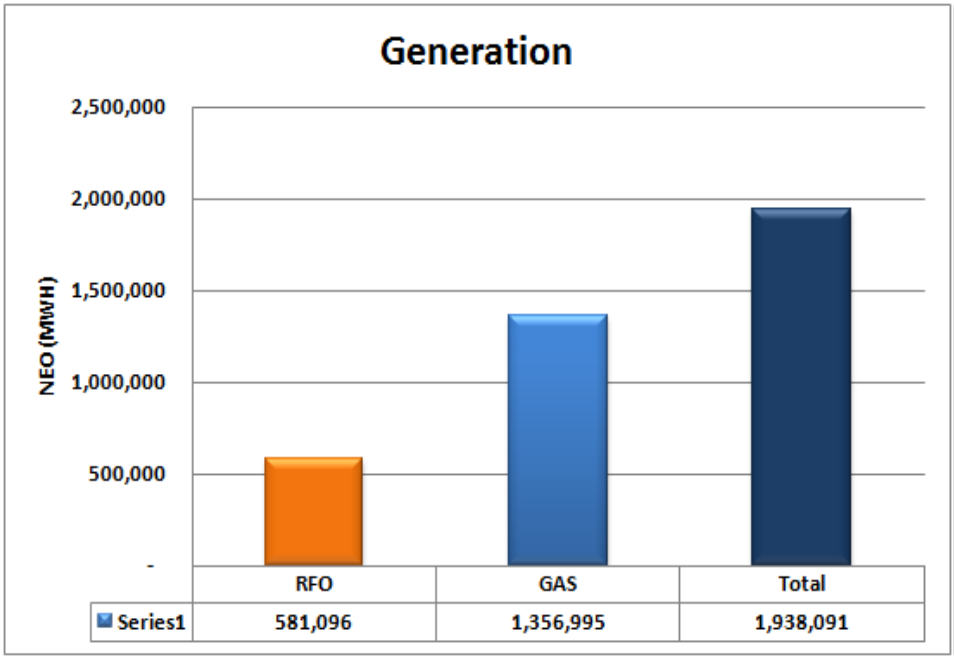
Monthly Infographics

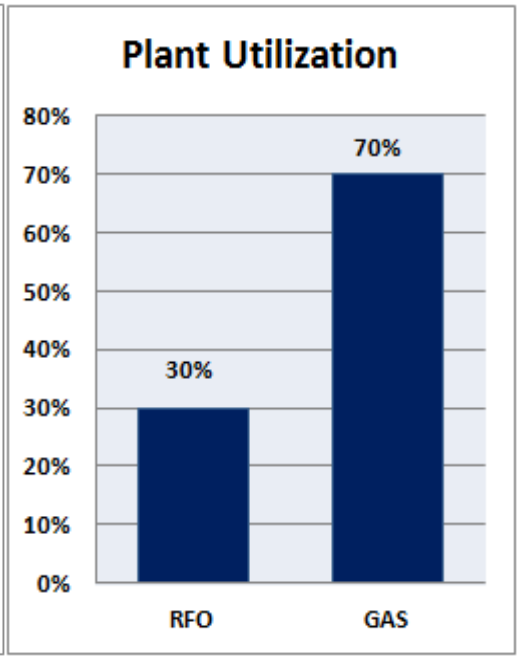
Billing and Payments in July 2019 in PKR Millions



Source: Member and Subsidiary IPPs

Net Generation and Plant Utilization in July, 2019





Source: Member and Subsidiary IPPs

Local News

IESCO in the Grips of Financial Scandal

IESCO has been in the grips of a Rs 1.8 Billion scandal. Reportedly IESCO officers, in cahoots with banking staff, had prepared and posted bogus scrolls related to IESCO consumer's bills using fake bank statements. This fake data was then posted to the IESCO online system.

According to FIA, the alleged scheme worked with the cooperation of many individuals. These included RO Mohammad Naeem (who use to work in IESCO Subdivision-1 Islamabad), Commercial Assistant Khalid Mahmood (who use to worked as an CSO-1, IESCO Division-1 Islamabad), Account Assistant Mohammad Rafiq and Account Assistant Gul Khatab. This group in cooperation with each other, prepared and posted bogus scrolls related to IESCO consumers bills using fake bank statements. Bogus stamps were also recovered from the alleged culprits.

Hydro-Power reaches maximum capacity utilization on the back of monsoon showers.

Hydro Power capacity has reached its max power generation of 4888 megawatts. According to Spokesperson Water and Power Development Authority (WAPDA), the recent capacity utilization was made possible because of the recent monsoon rains. Before these rains, it was reported that the dams were producing around 3478 MW of power. The following pie-chart shows the latest distribution of Power generation by source.

Hydel is expected to play a major role in the future power production in the country. Currently, 7290 MW of hydel power projects are under construction within WAPDA's portfolio. In addition, the private sector is in the process of completing 6411 MW of Hydel Power Projects by 2023.

Billing collection increases while power loss decreases

According to the latest official data, power sector revenues have seen an increase of Rs 121 billion. This increase was coupled with a decrease in losses worth Rs 16 Billion. Such figures have come as a result of consistent government efforts to increase collection and improve the transmission network. Last year, the government launched an anti-power-theft campaign that resulted in installation of smart meters. Furthermore, a record 23,049MW of power was transmitted via the improved transmission network. Out of this figure of Rs 121 billion around Rs 1.2 billion was collected from power thief. In this effort, 5318 individuals were forced to pay back their power bills. A total of 36,000 FIRs (First Information Report) were registered against these individuals. DISCOS (Distribution Companies) also played their part in the recovery efforts. DISCOs were given a target of recovering Rs 8 Billion from their receivables. In addition, they were also ordered to freeze their receivables to the levels that they were seen October 31, 2018. These efforts will be followed through with other initiatives in the future. This includes launch of The Advanced Metering Infrastructure (AMI) in Lahore which is an ADB (Asian Development Bank) funded initiative to reduce power theft via installation of smart meters. Other anti-theft measures include installation of Arial Bundle Cables (ABCs) and implementation of strategic plan to curtail circular debt. According to power division plans, the government is expected to reduce the circular debt to a mere 8 billion by June 2020 and zero by December 2020. The results of these efforts can be seen in the form of reduced load shedding and forward movement in the efforts to implement privatization of DISCOS.

International News

Amazon announces new additions to an already healthy portfolio of renewable energy

Source: Forbes Energy

Amazon has announced two new renewable energy projects in its bid to support 100 percent of its operations with green energy. The two projects consist of a solar power plant in Pittsylvania County, Virginia, USA and a wind farm in Cork, Ireland. The plant in Ireland is expected to generate 68,000 MWh of clean energy annually by 2020 while its solar plant in Virginia may generate up to 100,000 MWh of energy by 2020. These two projects are just additions in an already healthy renewable energy generation portfolio.

Currently, Amazon has a number of projects all over the world including India, China and European Union. All in all, Amazon is expected to generate 1,342 MW of renewable energy every year.

These installations are aimed to offset the power consumption for its computational needs for Amazon Web Services (AWS). In addition, Renewable Energy installations will offset CO_2 equivalent of more than 200 million truck deliveries linked to Amazon's truck deliveries.

Ukraine finds employees stealing electricity from a Ukrainian Nuclear Power Plant

Source: UNIAN news

Detectives from Security Service of Ukraine (SBU) seized crypto mining equipment from the office in Yuzhnoukrainsk Nuclear Power Plant. Two mining rigs were seized from office 104 along with fiber optic and other network cables. SBU is investigating the incident as a potential breach of state secrets. Connecting the plant computers to the internet could have led to potential breach of state secrets. It is pertinent to mention that Nuclear reactors are classified as critical infrastructure within Ukraine. It is possible that the Industrial cyber security expert, Phil Neray vice president of Industrial Cyber security at Cyber X commented that industries should always employ the policy of "trust but verify".

Gravity based storage article

Source: Forbes Energy

Energy Vault announced today a $110 million investment from Japan's Soft Bank Vision Fund. Energy Vault aims to create large energy storage projects with its unique gravity-assisted technology. This is only one of many promising news to come out of the power storage sector in 2019.

Earlier, 8minute signed an agreement with Los Angeles Department of Water and Power to supply 200 megawatts (MW) of solar energy at a rate of 2 cents per KWh. This deal was combined with an additional offer of developing four hours of battery storage at 1.3 cent per MWh.

Some storage firms have also taken towards acquisitions to include wind power generators into their portfolio. Glide Path Energy's has recently taken over eight North Texas wind farms in a bid for vertical integration. The eight farms together generate 149 MW of operational wind farms in North Texas. These plants currently sell their power to the Southwest Power Pool (SPP). In addition to increasing its generation capacity, the company has also embarked on a merchant storage project.

Previously wind energy was not considered viable for storage due its relatively unpredictable generation path as compared to solar power.

Alberta gives approval to Travers Solar

Source: PV magazine

Canada's largest Solar power project has been given approval by The Utilities Commission of Canadian province of Alberta. The project named "Travers Solar", which is expected to cost up to $500 million project is expected to have a capacity of 400 MW. Travers Solar will be developed by Greengate Power Corp and is expected to start commercial operations by 2021. So far details about customers of the power project have not been shared including any subsidy offers by the government.

The project is part of Canada's Technology Innovation and Emissions Reduction (TIER) which is expected to come into force on January 1. Under the TIER program, big polluters can acquire emissions credits from renewable energy generation facilities. Greengate has almost 1 GW hours of production capability in the pipeline.

MONTHLY ACTIVITIES OF IPPA

Sector Skills Council – RE inches forward with Collaborations and Registration

In the month of August, 2019, the council, apart from garnering memberships and collaborations with relevant stakeholders in the energy sector, held its 3rd Council Meeting in order to nominate promoters for the council – a requirement set by the SECP. Consequently, the council consulted with all interim members to nominate their representatives in promoter capacity, repeatedly. Additionally, the council incessantly pursued SECP's registration under Section 42 of the Companies Act, 2017 and therefore, met with SECP's representatives from time to time in order to respond to 'name reservation' objections. It also consulted SECP from time to time, regarding the subsequent phases for acquiring the license.

Moreover, the SSC RE website development - with the technical support of GIZ - advanced to its final stages along with finalization and on-going incorporation of the Labor Market Information (LMI) in it. The council also received a standardized template of the Memorandum, Articles of Association, Operational Manual and Business Strategy from the GIZ to be reviewed and adjusted to its needs.

IPPA participated in consultation Workshop on National Certificates Scheme for Energy Auditors/Managers in Pakistan

IPPA representatives attended the NEECA (The National Energy Efficiency & Conservation Authority) consultation Workshop on National Certificates Scheme for Energy Auditors/Managers in Pakistan. The chief guest, Mr. Nadeem Babar who is the Special Assistant to Prime Minister, attended the event and gave his remarks on the role of efficiency in restoring national competitiveness. In addition, various specialists from power, cement and steel sector also gave presentations on their efforts to improve efficiency in their respective fields. Meanwhile, NEECA representatives highlighted the salient features of the NEECA Act 2016 and explained how NEECA will play its role in standardizing Energy Auditing in the Country. The event was jointly hosted by NEECA and PITCO in an effort to integrate stakeholder comments into policy formation.

SDPI and IPPA held their second meeting regarding collaborations on various fronts

Representatives from IPPA and SDPI met this month to discuss cooperation on various forums. These included IPPA's partnership in the establishment of SDPI's "Center for Private Sector Engagement". According to this partnership, IPPA will aim to provide financial and intellectual support in the establishment and growth of the Center for Private Engagement. In addition, IPPA and SDPI also recounted last year's successful dialogue on "Power Sector's Future" at the annual SAEC conference. It was decided that the IPPA and SDPI would replicate last year's success with a similar dialogue involving various stakeholders from the power sector. Furthermore, the two sides also agreed on producing actionable research on the transmission sector in the country. Both parties look forward to further developments in all their partnerships.

IPPA's CEO met with the First Secretary of Development Corporation in the German Embassy

IPPA's CEO Dr Fatima Khushnud met with Miss Marion Pfennings who is currently serving as the First Secretary of Development Corporation in the German Embassy. Dr Fatima had a detailed meeting with Marion on energy sector outlook and Sector Skills Council – Energy (SSC-E). She took a keen interest in knowing about IPPA, its members, the research initiatives and other activities conducted by IPPA. After having a detailed discussion about SSC-E, Miss Marion appreciated the initiative and she extended her full support in this regard.

IPPA's CEO met with the new Economic Council at the US Embassy

IPPA's CEO Dr Fatima Khushnud met with Miss Peggy J. Walker who recently took over her duties as Economic Council at the US Embassy. Dr Fatima gave her a detailed round up about the energy sector, challenges and way forward. She was glad to know that IPPA is working as a think tank for this sector and acknowledged all the initiatives taken in this regard.

FIRST YEAR IN POWER: PROMISE VS PERFORMANCE

The sitting government just completed first year of its tenure. Two million jobs and 200,000 houses per year was committed to honor the commitment/promise of 10 million jobs and one million homes in five years. However, a closer look reveals, that on one hand, economic policies led to shrinking the affordability net and pushed thousands of people below the poverty line, while on the other hand, handful of 'Panah Gahs', E-visa extension and visa on arrival, no financial scandal involving government high ups was reported as the landmark achievements. Moreover, right in the middle of talks with the IMF Team, the Government sacked its own financial experts, bringing in new FBR Chairman, Governor State Bank and Finance Advisor. A common mind wonders which are the elements of the Government's narrative that have found traction with the people of this country?

This article will analyze performance of Government in its first year from economic indicators standpoint in general and its effects on energy sector in particular.

So far, implementation of market-based exchange rate mechanism has eroded the rupee value vis-a-vis other currencies with a consequent negative impact on imports. Although traditionally the economic effect of devaluation is positive on exports, however, it is pertinent to mention that exports did not witness a significant raise which could have had positive implications for the current account deficit. In addition to this, hike in unemployment coupled with a high rate of inflation, (around 11 percent at present projected to rise to 13 percent by the end of this year) questions the viability of the economic policies implemented so far. Within the energy sector, circular debt has crossed PKR 1.4 trillion mark and the sector is facing extreme liquidity crunch. However, the sector reforms within the energy sector seem to be promising so far:

Infrastructural and Institutional Blows to Circular Debt

In order to improve the infrastructure of the power sector, the present government promoted installation of Smart Meters and laying of ABC transmission lines. Pakistan, in collaboration with Asian Development Bank (ADB), initiated the installation of smart meters that would allow for automatic digital communication between the DISCOs (Distribution Companies) and the meters. The first phase of the project will install these meters in IESCO and LESCO at a cost of $900 million. Furthermore, IESCO and LESCO will also see the installation of ABC cables aimed at further reducing T&D losses. ADB has decided to provide financing of $400 million for the installation of ABC cables.

Institutionally, the power ministry focused on improving DISCO performance and taking action against power theft and issuing of Sukuk bonds. A massive sum of Rs 1.3 Billion was recovered from power thieves under the anti-power pilferage campaign. A total of 36,000 first information reports (FIRs) were registered against 5,318 power thieves. In order to address the toxic circular debt, the power ministry gave targets to DISCOS to maintain the receivables amount as per their value at October 31, 2018. In addition, they had to recover Rs 8 billion from old receivables.

To further speed up the recovery of the circular debt, the Ministry of Water and Power (MoWP) also issued Pakistan Energy Sukuk-II bonds worth Rs 200 Billion. Issuing these bonds will alleviate load shedding in the short run before the long-run effects of infrastructural and institutional changes take their effect. With such measures, elimination of Circular Debt can be considered a foregone conclusion.

Current Account Deficit the Next Challenge

In addition to the above, certain issues within the economy will surface as threats in near future. The most important of these issues can be summarized as fiscal and current account deficit. The government will

have lower leeway on the fiscal front, owing to the impending IMF program. However, it does have quite a few options when it comes to the Current Account Deficit (CAD).

The importance of maintaining a favorable CAD can be gauged by the negative consequences of not being able to maintain a favorable balance. If Pakistan consistently has a large CAD, it will create pressure for rupee devaluation. As mentioned earlier, rupee devaluation will automatically raise input prices for industry, while inflation will decrease commercial activity. Both these factors will contribute to reduction in demand for electricity in the country in the medium term. In the long-run, such depreciation can also increase the rupee-based cost of installing new generation capacity. Therefore, the government needs to take corrective action to address CAD.

In order to address the CAD, it is important to look at the breakdown of this deficit. In 2018, Pakistani exports stood at 24.11$ billion while it imported $60.57 billion worth of goods within the same year. This led to a current account deficit of $36.46 billion. Fixing, CAD seems to be a simple matter of boosting exports and minimizing imports. Boosting exports will require reduction in input costs that can be translated into more competitive international prices. Ideally, the economy needs to reduce the import bill without severely restricting the input flows into the economy.

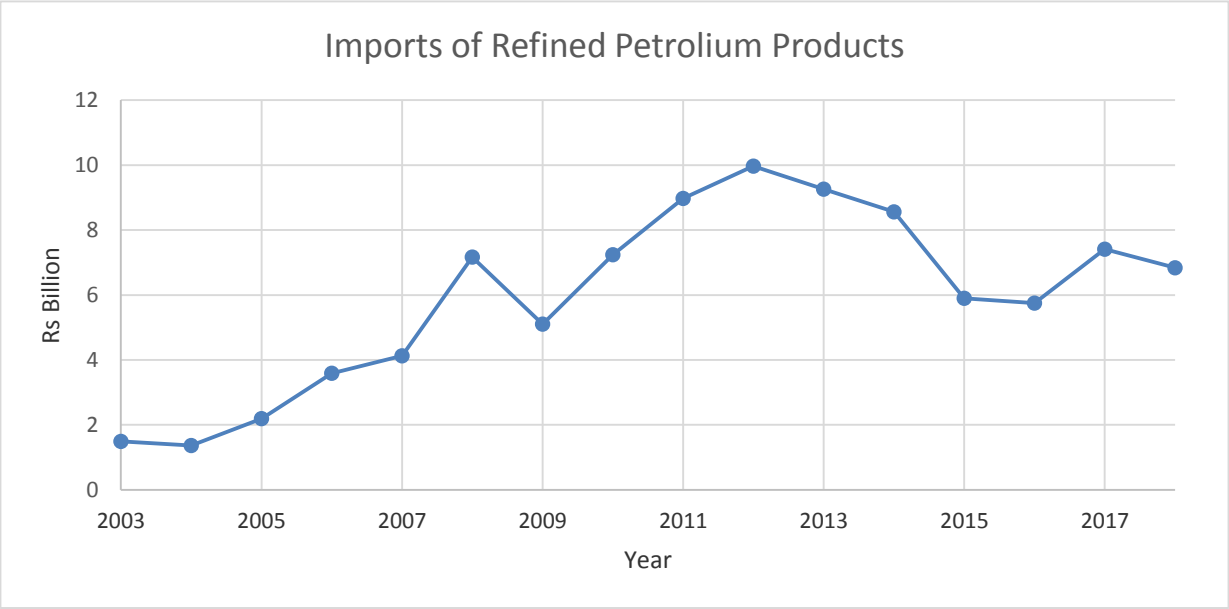
Both of these actions can be accomplished with increase in the country's refining capacity. The import bill highlights the importance of refining in the economy. A simple analysis of top 10 import categories for 2018 will show that Pakistan spends majorly on energy imports, steel/iron and machinery.

Pakistan's top 10 import categories are as following

1. Mineral fuels (including oil): US$17.1 billion (28.4% of total imports)
2. Machinery including computers: $6.3 billion (10.4%)
3. Electrical machinery, equipment: $4.3 billion (7.2%)
4. Iron, steel: $3.7 billion (6.1%)
5. Organic chemicals: $2.8 billion (4.6%)
6. Vehicles: $2.6 billion (4.3%)
7. Plastics, plastic articles: $2.5 billion (4.1%)
8. Animal/vegetable fats, oils, waxes: $2.1 billion (3.5%)
9. Oil seeds: $1.5 billion (2.4%)
10. Cotton: $1.3 billion (2.1%)

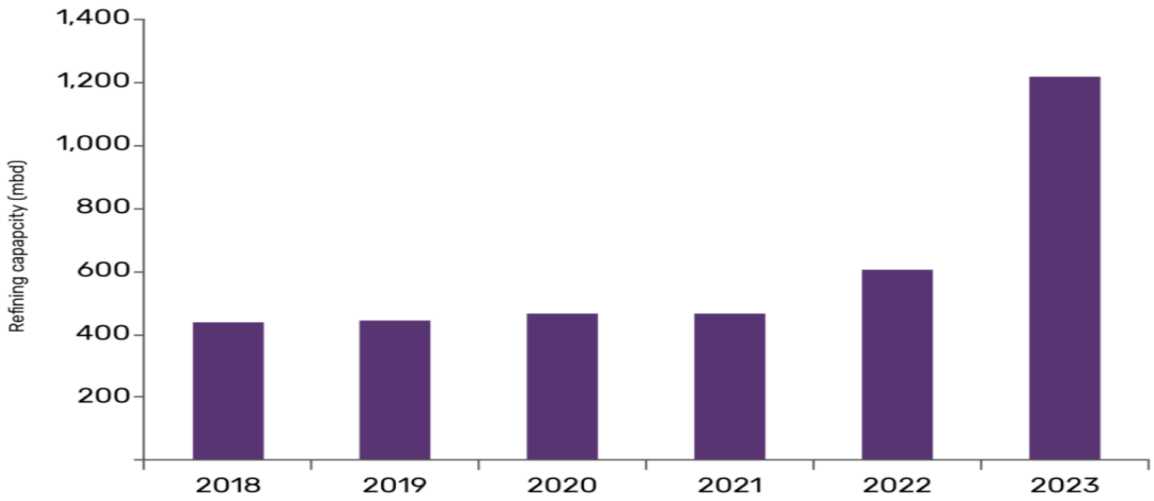
Source: http://www.worldstopexports.com/pakistans-top-10-imports/

Machinery imports (17.6% of the imports) are a relatively temporary phenomena that is expected to fade-out as the country winds down the installation phase of CPEC projects. This leaves us with energy imports as one of the biggest import categories. Due to heavy reliance on imported fuel (unless corrected in near future), Pakistan's import bill cannot be curtailed. Moreover, out of a total of $17 billion of energy imports, more than $6.8 billion of this oil import is in refined form. As the following graph clearly shows, such refined fuel imports have been consistently been on a long-term uptrend.



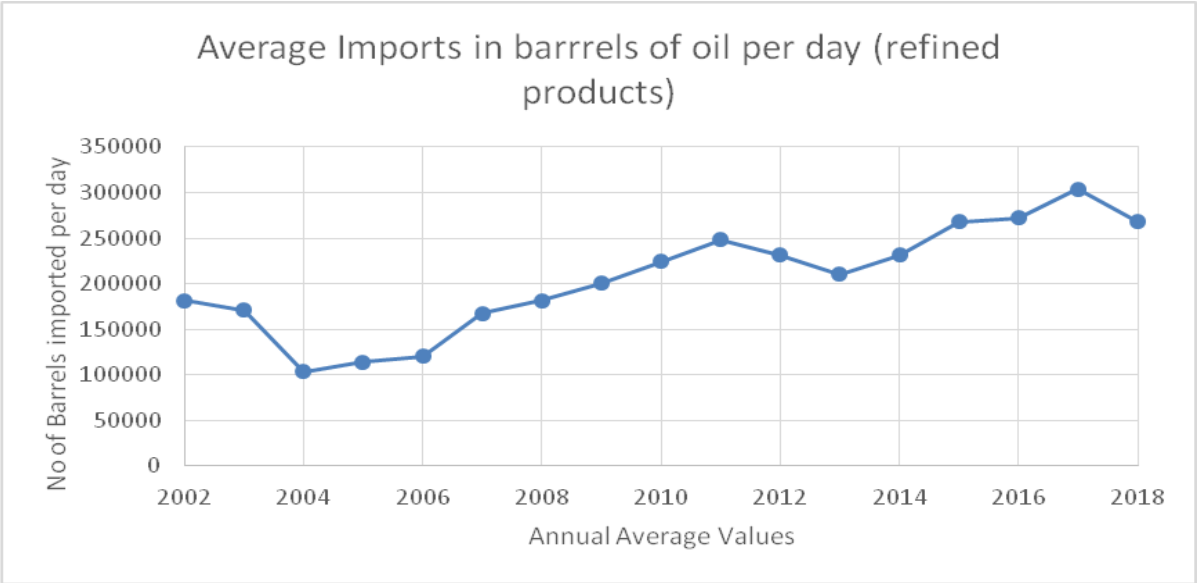
Source: UN Comtrade Data

One possible way to save foreign reserves can be to Replace refined imports with crude oil imports, and refining the same in the country. Investments for setting up new refineries is a positive step in this regard. Opening of these refineries is expected to increase the refining capacity from 434 thousand barrels per day to 1.2 million barrels per day in 2023.



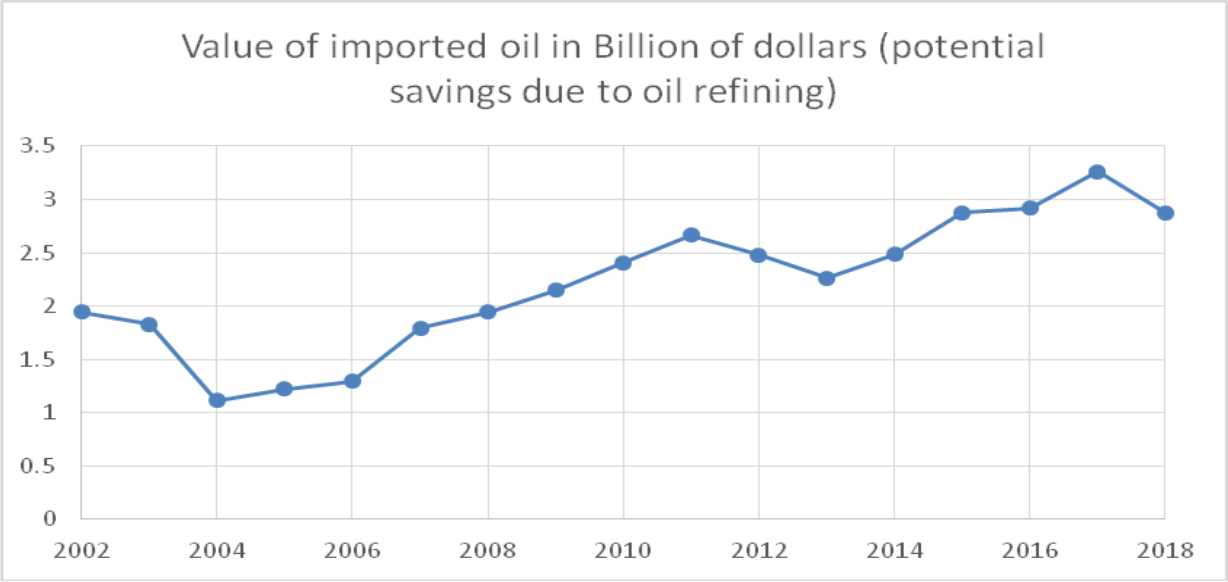
Source: GlobalData, Oil and Gas Intelligence Center

In addition to this, these new refineries will also address the ever-increasing demand for oil supported by increasing car ownership. Such an increasing drift can be seen from the following graph



Source: Ministry of Finance

A barrel of oil has approximately $29.4 of value added due to refining[1]. As the following image shows, Pakistan can potentially save around $3 billion worth of imports via refining oil in-house.



The government needs to ensure complete support for the oil refining in order to make sure that projects regarding oil refining are implemented. At the same time, the long-term trend towards ever-increasing oil consumption needs to be arrested via electrification of transport sector.

[1] The refining added value is $0.7 per gallon and 42 gallons in a barrel of oil. This comes to $29.4.

Conclusion:

The government completed its first year in government with a sharp contrast between reality versus expectations. Against promises of jobs and house construction, the present government has so far only been able to provide a devalued rupee that has led to an inflation rate of 11 percent. Amidst such a situation, Ministry of Water and Power (MoWP) has come out on the top by taking concrete steps to eliminate circular debt in a bid to limit load shedding. Once MoWP's institutional and infrastructural measures take their full effect, elimination of circular debt can be considered a matter of course. However, Fiscal and CAD are issues that may threaten the future of power sector in Pakistan. These threats need to be addressed by correcting CAD. CAD can be minimized by ensuring increased oil refining capacity within the country. Doing so would reduce devaluation pressure on the currency and hence avoid second order effects of such depreciation.

Our Members

	Member IPPs	Primary Fuel	Alternate Fuel	Gross Capacity (MW)	Net Capacity (MW)
1	The Hub Power Company (Tehsil Hub)	RFO	HSD	1292	1200
2	Pakgen Private Limited	RFO	-	365	350
3	Lalpir Private Limited	RFO	-	362	350
4	Kohinoor Energy Limited	RFO	-	131	126
5	TNB Liberty Power Limited	GAS	HSD	235	211
6	Uch Power (Private) Limited	GAS	-	586	551
7	Rousch (Pakistan) Power Limited	GAS	HSD	412	395
8	Habibullah Coastal Power (Pvt.) Co.	GAS	HSD	140	126
9	Attock Gen Limited	RFO	HSD	165	156
10	Atlas Power Limited	RFO	HSD	225	214
11	Nishat Power Limited	RFO	HSD	200	195
12	Nishat Chunain Limited	RFO	HSD	200	195.6
13	Liberty Power Tech. Limited	RFO	HSD	200	195
14	Orient Power Company Limited	GAS	HSD	229	213
15	Saif Power Limited	GAS	HSD	229	209
16	Sapphire Electric Company Limited	GAS	HSD	225	209
17	Halmore Power Generation Co. Ltd.	GAS	HSD	225	209
18	Engro Powergen Qadirpur Limited	GAS	HSD	227	217
Subsidiary IPPs					
19	Hub Power Company Ltd (Narowal)	RFO	-	220	214
20	Uch-II Power (Pvt) Ltd	GAS	-	404	375.2
21	Saba Power Company (Private) Limited	RFO	-	134	125.5

Established in 2010, IPPA serves as an advisory body for Independent Power Producers (IPPs) in Pakistan. IPPA liaises with the government and related departments such as NEPRA, SECP, WAPDA, CPPA-G, NTDC and PPIB and also serves as a facilitator between various IPPs and stakeholders within the power sector.

If you have any suggestions or feedback, kindly write to us at feedback@ippa.com.pk