

MINUTES

EVENT: Sindh's Energy Landscape: Challenges and Opportunities

A briefing by Energy Department, government of Sindh

KEY SPEAKER: Mr. Abu Bakar Ahmed Madni, Secretary, Energy Department, Government of Sindh

DATE: August 3, 2023

Venue: Hotel Marriott, Karachi

Ms. Zeenia Shaukat, Director, The Knowledge Forum (TKF)

The Knowledge Forum (TKF)

Alliance for Justice and Clean Energy

We mean to promote clean energy. Alternatives should be social friendly, economic and environment friendly.

Sindh is a major player in energy landscape. Natural resource reserves are more in Sindh.

We try to seek priorities of Sindh government to incorporate Sindh's civil society expertise.

Energy being a source of energy security. Sindh is facing climate change challenge. Last year floods, we are witnessing seven heatwaves. Discuss climate change concerns.

Introduction of participants

Abu Bakar Ahmed Madni, Secretary

Pakistan's energy landscape: 99% hydro. We moved to gas for energy production. We spent gas till 2000. We shifted to furnace oil and we started producing.

2015 gas depleted. We did not have coal and exploration was difficult. We tried to shift to alternatives, but there was difficulty to shift if cloudy weather is there.

We need a base fuel. Alternative can be used as.

2023 now furnace oil is costly. Cheaper electricity is difficult to produce

29,000 MW capacity is there. We need 25,000-27,000 MW in Summer and 15,000 in Winter. KE is using furnace oil. Basket Rs 60 per unit. Alternate not for whole country.

Ultimately base load is required. If we look at India, 70 percent is coal and they depend 55 percent.

Sindh has started coal 2640 MW being produced from coal. 3300 MW from Thar coal.

25,000. 10000MW hydro, 3300 coal, 2000MW on alternative. 10,000 on furnace oil. 100 MW on gas in Sindh

Gas is mostly used for producing fertilizer. Gas is being depleted. 1700 mmcf gas is being produced in Sindh. Our demand is 2500 mmcf. Sindh is top in gas production. 55% gas being produced, 45% petrol from Sindh.

Coal: Third cheapest electricity.

Hydro is the cheaper, once a dam is completed, no need additional cost.

May, June, July August glaciers are melting down.

Base load can be shifted to coal. You don't have any other choice. 175MT we are using only 0.5%. Capital cost is more in coal. Rs 12-14 per unit from coal.

Problem: Provincial level dispatch is issue. We don't have capacity. 132 KW. 660 KW is the highest from Thar to Lahore. Line loss and theft are main issues. 60-30 percent line losses or theft.

DISCOs 14 were made. Sindh 3, IBD 5, KP 3, Balochistan 1

Circular debt: All discos have recovery rate of 50%. They shift burden to each other. Rs 3 trillion circular debt.

Capacity payment is a major issue. Governments signed agreements with IPPs to increase capacity of power.

Technology is not available. Transfer is not made. Peak demand is 30,000 MW and our production is 25,000 MW.

Coal is the only solution. Due diligence and minimum emission. Follow international practices. We are 1 % on carbon. World countries are at 10%. Imported coal is costly. Dams are under construction. You have shortage of funds and foreign reserves.

Alternative: Wind corridor. We are producing 1800 MW, 150 MW on solar.

Many technical issues are involved in solar. You need maintenance and dirt removal. You need converter.

You need battery for storage. No factory is there for local production of panels. Locally produced solar panels. We need technology transfer for solar.

Nuclear. Capital cost is involved. You need uranium and fuel.

Shell gas: It is not normal gas. It is in the form of rock. There is abundant. Initial expenditures are very high. You have to break rock.

Impervise entrenched body. Technology wise it is infant.

We have to depend on conventional methods.

We follow global technology. We mostly use conventional sources. Shell gas is big challenge and it is very expensive.

Kashif Bajeeer: Civil society. Due diligence is essential.

Labour department is not working and the government should register the works.

Abu Bakar: Thar Foundation is doing good work. In Block-2 laws are implemented. Block-1 there are some issues. We are learning from experience.

District administration is responsible. Sindh Energy department is quite young. We have started in 2017 we are still learning. International mining has started recently.

Leela Ram: People suffer and laws are not implemented.

Shariq:

One of the best resettlement policy is being followed. We have started implementing the policy.

In block 2 we are exercising.

After COD, the CSR will start.

Zain Molvi: I am impressed. Opportunity is available that Sindh has its own regulatory mechanism and institutions. 2013 we started.

One mine USD 1 billion.

Recommendation: First time SEpra is being established at provincial level.

There are lot of issues can be resolved at provincial levels. Environmental, social costing. Strategic

Integrated least cost. There are contradictions. IGCP. MoU is being signed. Least cost planning. Plans for expansion. Regulatory environment laws, resettlement issue. Energy department should take initiative.

Base load: Frequency regulation. Forecast modeling. Environment costing be included in tariff regulation. Local people suffer. Also you can get recognition from international funding.

We can make a modeling plan keeping in view experience of local population.

Abu Baker: NTDC

We are not working on

Shariq: Resources are provincial, legislation is federal. Energy is

Problem remain political driving policy. Political instability is a major problem. Things are being evolved. Coal to gas policy: we are working on it.

This is a federal area. We are facing regulation issues.

K-Electric is producing power on coal. We will transfer coal from Thar to Port Qasim. 1200, 1300 MW

Least cost planning.

Zain: We can discuss together.

Prof. Scenario model be adopted.

SEpra: All stakeholders be taken onboard. Users and local industries be involved.

One Energy Policy be adopted. We should use electricity cooking, heating, transport.

Akbar Rahimoon: District administration shift responsibility on Thar Coal and they shift to Energy department. CPEC is

Over 100 animals died and people are dying due to electrocution.

Dust particles are more in Thar.

Due to coal sulfur and carbon are added. Thunderstorm

Temperature has risen. Sulfur and carbon provide path to thunderstorm.

Abu Bakar: Electricity Act 1910 clauses. Power plants needed to provide earthing in the area.

International practices:

Electric Inspectors are not electric engineers.

In India they are providing electricity in Thar area.

No study is done. No document is available Environment Development Plan.

Shariq: Thunderstorm. We will study

Compliance by the IPP is must. All have to do earthing. Government allows them.

People of Islamkot are getting 200 units free of cost.

India has started since 1955.

Political stability is essential .

Yasir: We don't have data air quality, health impact.

We have to go to renewables.

Social contract: KE is privatized. It has own consequences.

KE: Effluents are moving to solar. Neighbourhood impact needed to be considered. Energy justice.

Abu Bakar: We needed locally manufactured solar panels.

We need cheap energy.

Zulfiqar Shah: Recognise services of Minister and Secretary.

Energy is emerged as a big thing. We would like to engage with government. It is a good opportunity.

CSR: Land, water, environment are main challenges

Environmental assessment. SEPA

We will submit recommendations.

Abu Bakar: We were going to federal government for solution of problems. Taxes be reduced and remove all impediments.

Highlights: Taxes on solar be reduced. Federal government has quality.

Solar panels be produced locally.

Taxes be reduced.

EIA should be done again as for the last five years mining is being done.

PRESS RELEASE

Activists demand to re-conduct EIA of Thar coal project

KARACHI, Aug 3: Civil society, energy experts and environment activists on Thursday underlined the need to protect the rights of local people and re-conduct the Environment Impact Assessment (EIA) of Thar coal project of mining and power plants. In this regard, they suggested to use state-of-the-art technology in coal mining and coal power plants.

The participants welcomed creation of the Sindh Electric Power Regulatory authority (SEPRa) as this has endorsed the Sindh's leadership role in energy security of Pakistan, which is directly linked to the future of climate security in the country.

These observations emerged at a meeting between the Energy Department of Sindh officials and civil society leadership advocating for clean energy for Pakistan. The participants pointed out Sindh is the worst affected area from the Climate change impacts and last year's floods had hit majority of the population in the province.

Secretary of Energy Department, Government of Sindh Mr. Abu Bakar Madani gave a presentation on "Sindh's Energy Landscape: Challenges and Opportunities" organized by The Knowledge Forum (TKF) .

According to him the installed capacity of power plants is much more than they are producing because fuel cost are higher which makes electricity dearer.

According to him currently most of electricity in Pakistan is produced from either hydel or furnace oil sources. Cost of furnace oil is much higher and it has become unaffordable. manifold.

"We need to produce affordable electricity," said Mr. Madani. Most of the Pakistani power producing plants are using furnace oil to generate electricity, whereas only 2000 MW is being produced through renewable energy sources like solar and wind, he added.

The Karachi Electric is producing power mostly from furnace oil that is why its per unit cost is much higher, he said adding that the KE is planning to shift from furnace oil to Thar coal. A railway track is being laid from Tharparkar to Bin Qasim to produce power from coal.

All environmental concerns should be addressed while generating power via coal, said Mr. Madani. He pointed out that Sindh is adding over 1800 MW of electricity in the national grid from various sources like coal, solar and wind.

He said renewable energy has a lot of potential but is not reliable because during cloudy weather solar energy cannot be produced. “We need to have at least one baseload for an uninterrupted supply of power,” he said adding that India has made coal as its baseload and it is producing its 70 percent of energy from coal.

It is matter of the fact that Pakistan mostly relied on hydal sources for power generation for many decades. Then it shifted reliance on gas, which is now depleting. After gas reduction, power generation was shifted on furnace oil, which has become costlier.

According to him there is a lot of potential to increase share of solar and wind energy. If the federal government reduces taxes on solar panels and quality panels are produced locally, the cost of solar would be reduced manifold.

Currently only affluent class of the society can get benefit from the solar energy because it is costlier, so if locally made good quality solar panels are made available, middle and lower middle class can afford to install solar at domestic levels.

Mr. Madani pointed out that hydro power is the cheapest source, where as coal is on third number in low-cost production of electricity. Current over 3300 MW electricity is being produced through Thar coal, he said adding that Pakistan has started relying on locally produced coal due to forex crisis.

In their views, the civil society participants of the meeting highlighted the problems being faced by local people from coal power plants. Coal mining has destroyed natural resources and polluted ground water, they pointed out.

Researches should be conducted on impact of power plants on local population and environment, the participants agreed.

Earlier, in his welcome remarks, Ms. Zeenia Shaukat, Director of The Knowledge Forum (TKF) said Sindh is a major player in energy landscape of Pakistan. Natural resource reserves are more in Sindh especially coal, which is being used for power generation.

Prominent among those who also spoke on the occasion included Shariq Rizvi, Senior Technical Officer of Energy Department; Zulfiqar Shah, Member of Sindh Human Rights Commission; Ali Akbar Rahimon from Thar’s organization AWARE; Kashif Bajeeer of Civil Society Support Programme; Ms. Tajreen Midhat from Hibib University; Prof. Dr. Razal Ali Khan from NED University; Zain Molvi, advocate from Alternative Law Collective, Kamran Khosa from PRIED, Yasir Hussain from Darya Lab, Ishak Soomro from The Change Organisation, Nazeer Mahar from TRI and others.

Ends