

Property All Risk



PII – PRCL Dec. 16th 2023

Agenda

- Technical Orientation.
 - Electricity Generation in Pakistan – Energy Split
 - Ways and Means of Power Generation, with their efficiency.
 - What is RLNG it's procurement and usage.
 - What is a Turbine and what is special about H class Turbines, brief history.
- Policy CMI.
 - Brief study of Policy wording.
 - Loss Adjuster and Forensic Expert appointment.
 - Root Cause Analysis. Study in brief.
 - Financial loss, initial and adjustment.

Insurance – Evolution



BABYLONIAN: The Bottomry Bonds existed as far back as 3000 BC. Extra interest on the loan would relieve the borrower in case of loss.



The Code of Hammurabi, around 1800 BCE, devotes clause 102 & 104 to such loans



916 BCE, Rhodes promulgated a maritime law, with a concept as settling losses that were incurred for the benefit of all on the basis of the **“General Average”** thereby “the loss of one was divided amongst several.



Burial/Benevolent societies were created by Greeks and Romans around 600 BC, First Life insurance was issued on 15th June, 1583 to William Gybbons, by 1705 Actuaries developed, and Large numbers of mathematics evolved to support insurance



Marine insurance originates from Italy in 14th century.



Lloyd’s Coffee house, the first regulated marine insurance facility in 1691, Lloyds SG Policy



Great Fire of London in 1666 developed Fire Insurance and Tooley street fire in 1701 shaped the insurance as well as Fire Fighting.



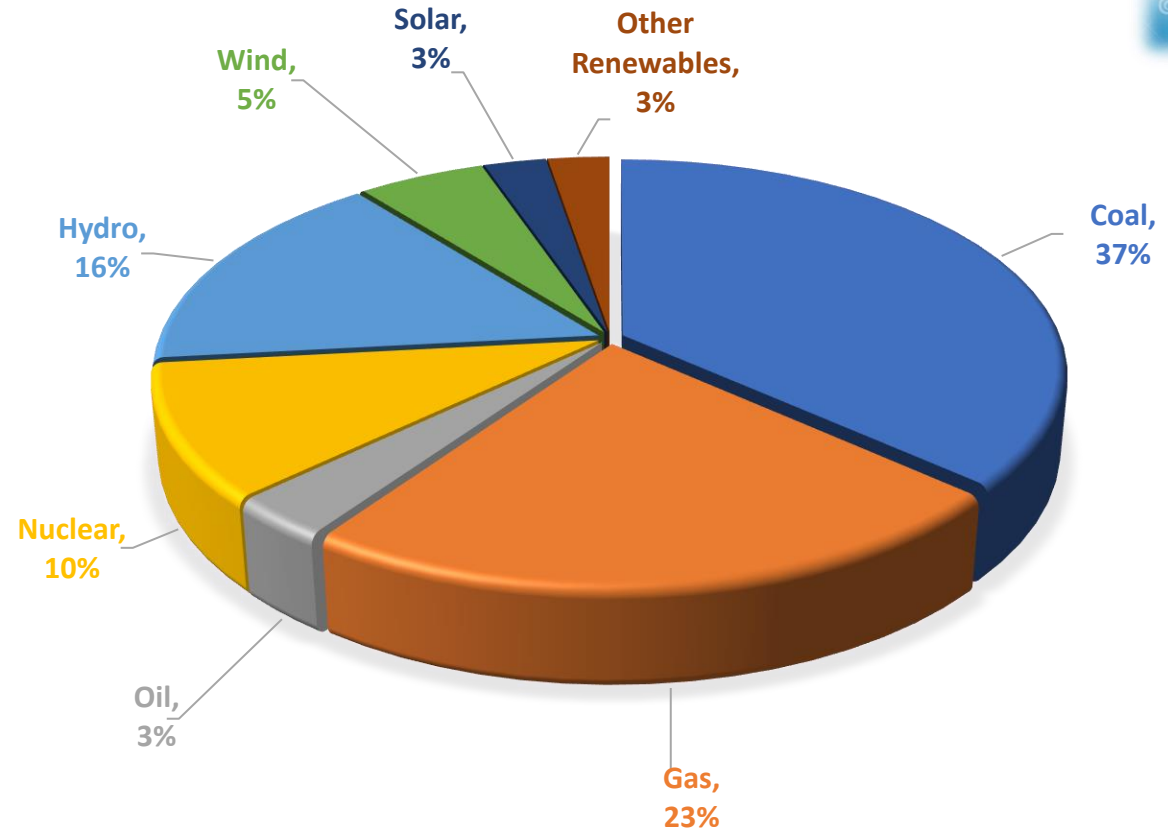
By 1846, first registered Re-insurer “Cologne Re” came into being in the aftermath of great fire of Hamburg, the business of Reinsurance and Retrocession begins

102. If a merchant entrust money to an agent (broker) for some investment, and the broker suffers a loss in the place to which he goes, he shall make good the capital to the merchant.
103. If, while on the journey, an enemy takes away from him anything that he had, the broker shall swear by God and be free of obligation. Entrusts

World Electricity Data – By Source



World Power Generation/consumption by source- Billion KWH		
Source	% ge	Billion Killo Watt
Coal	37%	9,618
Gas	23%	6,083
Oil	3%	843
Nuclear	10%	2,724
Hydro	16%	4,219
Wind	5%	1,420
Solar	3%	694
Other Renewables	3%	689
TOTAL	100%	26,290

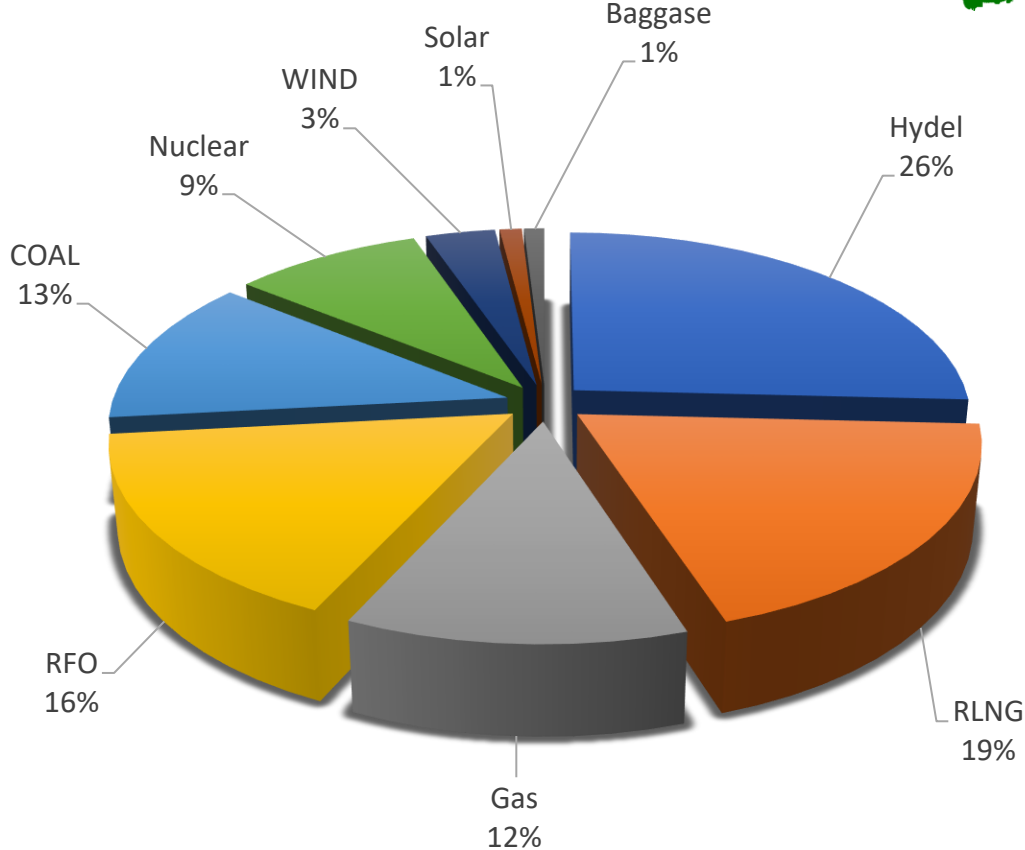


Pakistan Consumes around 93 Billion Kw (0.354% of World)

Power Production in Pakistan – By Source



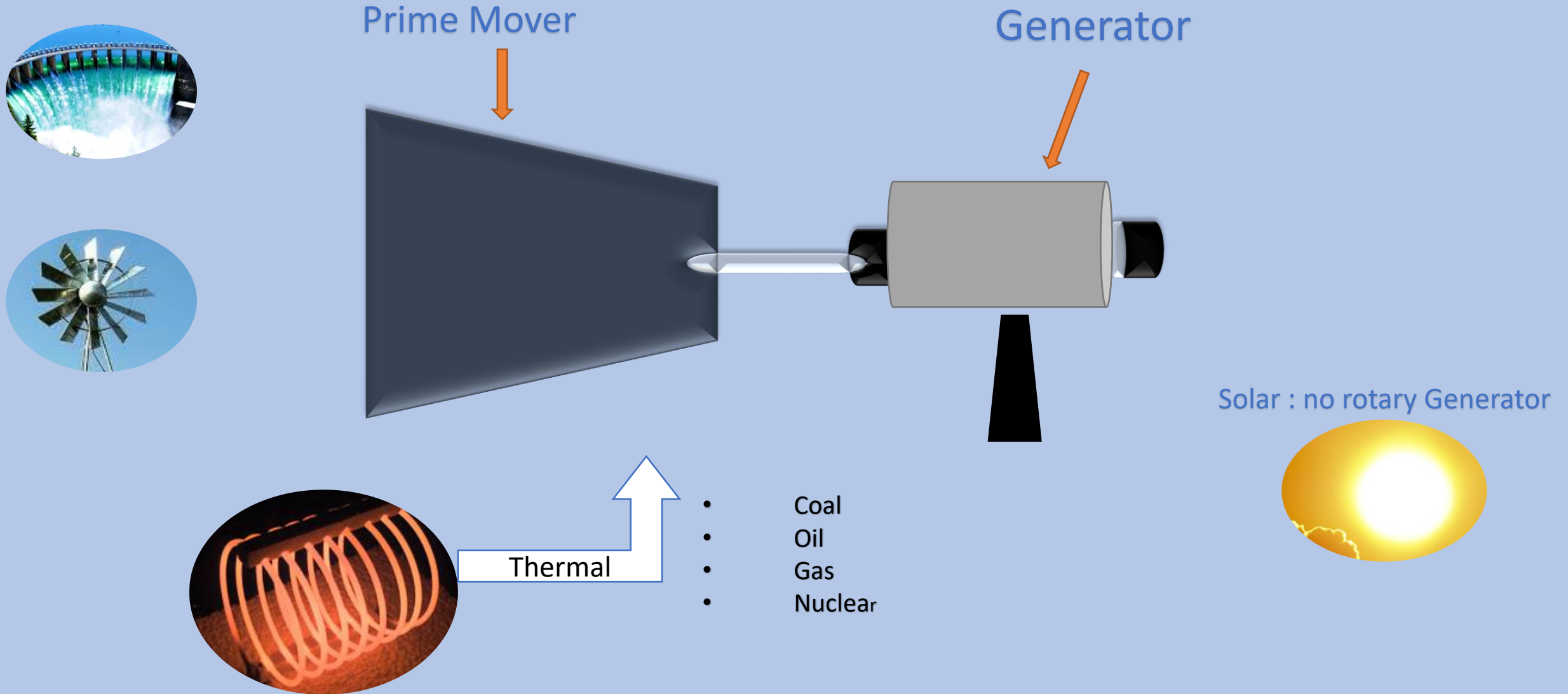
Source	Total Capacity MWH	Share In Production	Expected Yield	* Annual Capacity Yield Based
Hydel	9,847	25.80%	35 to 45%	34,503,888
RLNG	7,325	19.20%	100%	64,167,000
Gas	4,529	11.90%	100%	39,674,040
RFO	6,274	16.40%	100%	54,960,240
COAL	4,770	12.50%	100%	41,785,200
Nuclear	3,400	8.90%	100%	29,784,000
WIND	1,250	3.30%	35 to 40%	3,832,500
Solar	400	1.00%	16 to 20%	560,640
Bagasse	364	1.00%	100%	3,188,640
Total	38,159	100%		272,456,148
Total Theoretical Production In TWH				272
Total Actual Production				93



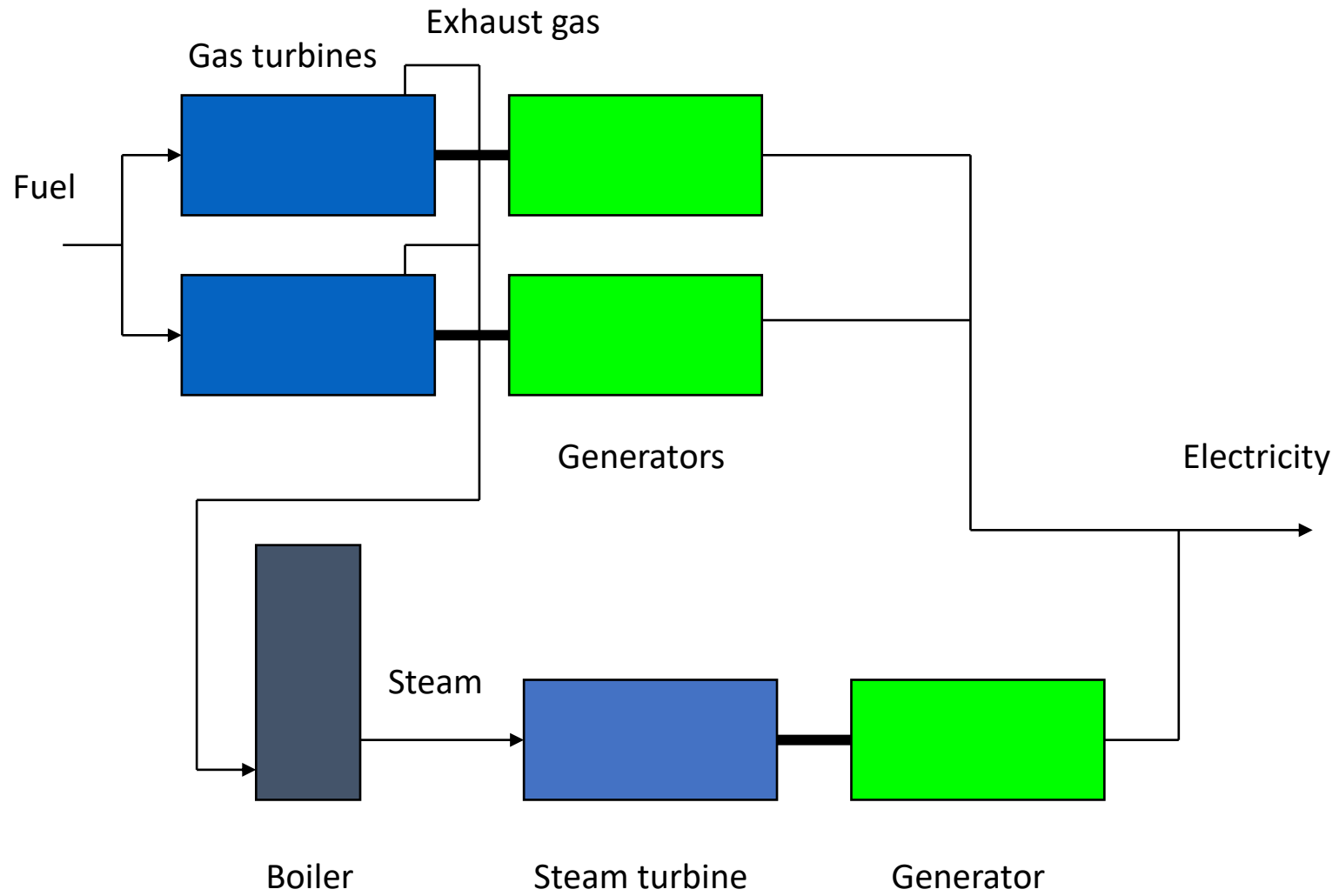
Pakistan Consumes around 93 TWH

- *Capacity X 24X 365 X yield percent
- ** mega to million to Trillion

Electricity Generation Block Diagram



CCGT Power Station



Insurance Policy

Named
Peril

The Cover is defined by perils listed in the policy such as Fire, Earthquake etc

All Risk:

Everything which is not excluded, is covered

- CMI was introduced by Munich Re in early 21st Century.
- The policy is structured to address a lot of Gaps in previous Industrial All Risk Wordings.
- Most used wording world wide as original or as a base for manuscript wordings.
- Covers Building, Machinery and stock which makes it pretty flexible and friendly.

- Section 1 Covers Material Damage
- Section 2 Covers Business Interruption.

Preamble

- This Part Contains Definitions, Exclusions and conditions applicable to all sections.

Section 1, Material Damage

- This part explains the coverage, additional exclusions and claim settlement basis specific to Material Damage.

Section -2 Business Interruption

- Additional Definitions.
- This part explains the coverage, additional exclusions and claim settlement basis specific to Business Interruption.

Schedule

- This Part records the details of the risk and coverage specific to the risk the policy is being attached to.

➤ **Section 1 - Property "All Risks" (including Machinery Breakdown):**

All material property (or part thereof) fixed, mobile or in transit, of every kind and description not otherwise excluded, either owned, leased, hired or borrowed by any of the Insured or held in the care, custody or trust of any of the Insured or for which any of the Insured are responsible or have assumed responsibility all forming part of or in connection with the Complex Facilities.

➤ **Section 2 – Business Interruption:**

The reduction in Gross Revenue and/or Capacity Charges actually sustained including continuing contractual Obligations and the increased cost of working if at any time during the period of insurance any property suffers insured damage, covered under Section 1 above, causing interference with or interruption to the Plant as defined in the Original Policy (ies).

CMI – Definition applicable to all Sections;

- There are a total of 27 definitions, but we pick only the following;

<i>Act(s) of God</i>	means an occurrence due to natural causes, directly and exclusively without human intervention and which could not have been foreseen or if foreseen, could not have been resisted by any amount of human care or skill.
<i>Actual value</i>	means the cost which in the event of loss or damage to any item or part of the <i>property insured</i> would be necessary to replace it with one of the same age and capacity and similar make and quality, inclusive of all materials, wages, freight, customs, duties and dues
<i>New replacement Value</i>	means the costs, which would be incurred to replace the property insured at the premises with new items of similar kind and quality at any time during the policy period.
Terrorism	means an act, including but not limited to the use of force or violence and/or the threat thereof, of any person or group(s) of persons, whether acting alone or on behalf of or in connection with any organization(s) or government(s), committed for political, religious, ideological, or ethnic purposes or reasons including the intention to influence any government and/or to put the public, or any section of the public, in fear.

CMI - Exclusions Applicable To All Sections.

Unless otherwise stated in any *section* of this *policy of insurance*, the *insurer* shall not indemnify the *insured* in respect of any loss or damage resulting from or aggravated by

- War Invasion Act of Foreign Enemies
- Ionization Radiation, Radioactive contamination
- Act of overthrowing of Government
- Any weapon of war employing nuclear fission or fusion
- Act of terrorism
- an act of default committed by the insured or its representatives;

Common additional Exclusion

- Cyber exclusion
- Covid exclusion
- Sanction Clause

- This Section Contains 14 conditions;
- 1. Premium Payment- Precedent
- 2. Reasonable precautions
- 3. Act of Default
- 4. Multiple insured
- 5. Subrogation
- 6. Risk inspection
- 7. Claims Notification – max 14 days
- 8. Material Change
- 9. Fraudulent Claim
- 10. Disclaimer of liability – 3 months
- 11. Dispute resolution
- 12. Termination of policy 30 days

Conditions are provisions inserted in the policy that qualify or place limitations on the insurer's promise to pay or perform. If the policy conditions are not met, the insurer can deny the claim

Operating Clause;

- *The insurer shall indemnify the insured for any sudden physical loss of or damage to the property insured which the insured could not reasonably have foreseen and which occurs at the premises at any time during the period of insurance due to any cause not specifically excluded and which results in property insured needing to be repaired or replaced*

• Property Insured;

The property insured under this section is all permanent and temporary installations, mechanical, electrical and electronic equipment, buildings including contents, stock, and goods in process, owned, operated, or held in the care, custody or control of the insured unless specifically excluded in this section.

- Capital addition; with a Limit, Insurers to be advised in 3 months
- Expediting Expenses
- Fire Fighting Expenses
- Hazardous Substance
- Removal of Debris
- Temporary renewal

Sum Insured

- The Policy requires that the Sum Insured shall not be less than *New Replacement Value*.
- In the event of a loss, the sum insured is automatically re-instated

Deductible

- Only one deductible applies if more than one item is damaged in one occurrence.
- Losses arising during 72 Hours by any same Act of God will attract only one deductible

The Policy Normally stipulates different deductibles for MBD, Act of God and the rest of the Perils.

- Property Excluded
 - Property being constructed
 - Machinery before commissioning
 - Moto Vehicles, locomotives, ships, aircrafts etc.
 - Money and other precious stuff
 - Land, dams, tunnels, bridges etc.
 - Flora fauna
 - Nuclear power stations.
 - Property of insured transferred to some other under agreement.

- Perils Excluded; A total of 15 Exclusions

- Faults or defects known at the commencement of the policy.
- Release of toxic hazardous substance
- Lack of supplies including Utilities
- Item falling under Guarantee

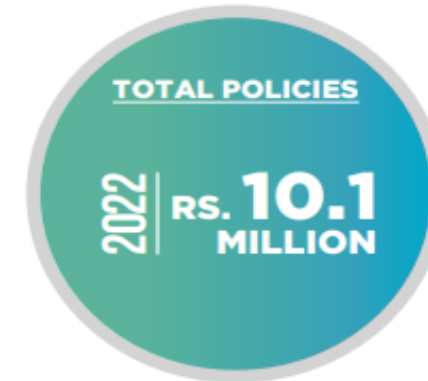
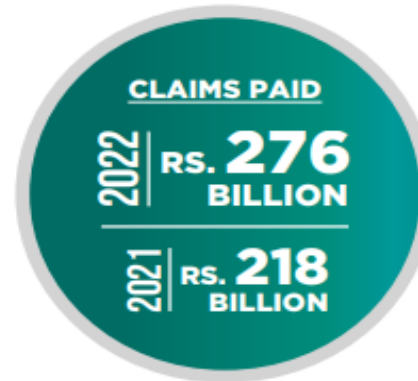
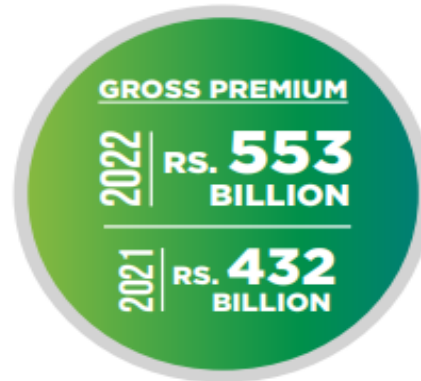
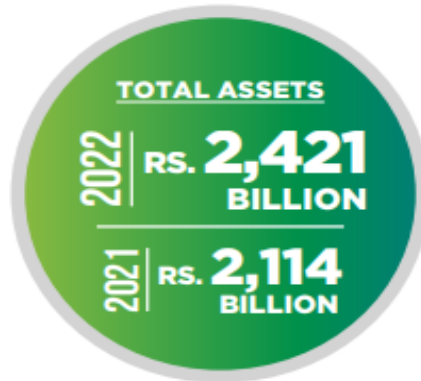
- wear and tear, rust, corrosion, erosion, cavitation, boiler scale, incrustation, deterioration, settling, gradual cracking, gradually developing deformation or distortion, gradual

but this exclusion shall be limited to the items immediately affected and shall not exclude liability for loss or damage to other parts of the *property insured* as a consequence thereof;

- Loss or disappearance found only during inventory

- any costs rendered necessary to replace, repair or rectify *property insured* which is defective due to any fault, defect, error or omission in design, plan, specification, material, manufacture or workmanship, but should *property insured* - other than mechanical, electrical and electronic equipment - containing any such defect become lost or damaged, the costs excluded are those which the *insured* would have incurred to replace, repair or rectify the original defect if such defect had been discovered before the occurrence of loss or damage.

INDUSTRY OVERVIEW



Insurance Penetration **0.87%**

Insurance Density **Rs. 2,776**

42 Insurers

World Life And Nonlife Insurance Direct Premiums Written, 2018-2020

Pakistan - Direct underwritten Premium							
Year	Life			Non-Life		TOTAL	
	PKR	US\$	share	PKR	US\$	PKR	US\$
2019	229,000	1,526	67%	114,000	760	343,000	2,286
2020	220,000	1,359	65%	120,000	741	340,000	2,100
2021	292,000	1,622	68%	140,000	778	432,000	2,400
2022	375,000	1,659	68%	178,000	788	553,000	2,447

Growth 28% in PKR
2% in US\$
68 : 32 Split Life/Non
30 Life & 11 non life

Insurance
Penetration in 2022
was
0.87% of GDP
(down from 0.91)

Year	Life	Nonlife	Total
2018	\$2,866,868	\$3,273,005	\$6,139,873
2019	2,889,249	3,396,112	6,284,360
2020	2,797,437	3,489,608	6,287,044
% split	44%	56%	

Top 10 Countries' Direct Premiums			
Rank	Country	Total premiums	% share
1	United States	\$2,530,570	40.30%
2	PR China	655,874	10.4
3	Japan	414,805	6.6
4	UK	338,321	5.4
5	Germany	258,566	4.1
6	France	231,347	3.7
7	South Korea	193,709	3.1
8	Italy	161,973	2.6
9	Canada	143,468	2.3
10	Taiwan	113,304	1.8
741	PAKISTAN	2,447	0.03

CMI Section 1- Condition For Loss settlement (10)

Property	Basis Of Loss Settlement	
Stocks	Replacement cost by similar goods at same premises	
Plans and Drawings	Cost of reproduction from duplicates or original	
Mechanical , electrical & electronic equipment		
*Older than 5 years, Mobile equipment of any age.	Partial Damage	: Cost of repairs, No depreciation
	Total Loss	Actual cash value
All other Property (< 5 year, building etc.)	New Replacement Value or cost of restoration as new, no betterment	
Under Insurance, If applicable	Policy is subject to under insurance if the total sum insured is below NRV	

11. PREVENTIVE MAINTENANCE: Plant to be maintained as per the guidelines of Manufacturers, suppliers



Business Interruption Section - 2

INDEMNIFICATION

The insurer shall indemnify the insured for a **loss of the interest** insured unless specifically excluded if at any time during the period of insurance, the property insured under the operational material damage section suffers loss or damage indemnifiable under the operational material damage section or which would have been indemnifiable under the operational material damage section but for the application of a deductible, thereby causing an interruption of or interference with the business insured.

Loss of
Interest

- loss of Gross profit due to reduction in Turnover Plus increased cost of working or;
- Loss of Standing charges with increased cost of working.

Sum Insured:	Annual Gross Profit or Standing Charges. Adjusted according to the Indemnity Period,
Indemnity Period	commences from Date of loss/stoppage and continues till the business is restored or the period mentioned in the schedule runs off. (<i>normally 12 months</i>)
Premium	A deposit premium is charged on the given sum insured which may be adjusted at the end of year as per the actual numbers.
Excess value.	Excess could be mentioned as a number of days or a monetary value.
Exclusions	Material Damage of any sort. Earthquake, Tsunami, volcanic eruption unless covered. Restrictions imposed by Public authority. Fines and Penalties

Supplier's Extension;

Supply to the plant is restricted due to a loss at raw material supplier facility.

Customer Extension;

Customer unable to receive goods due to a loss at his place

Denial of Access;

The access to the industry is denied due to a loss in the neighboring industries.

Known as Contingent Business Insurance

Also known as Non-Damage Insurance cover



Thank you