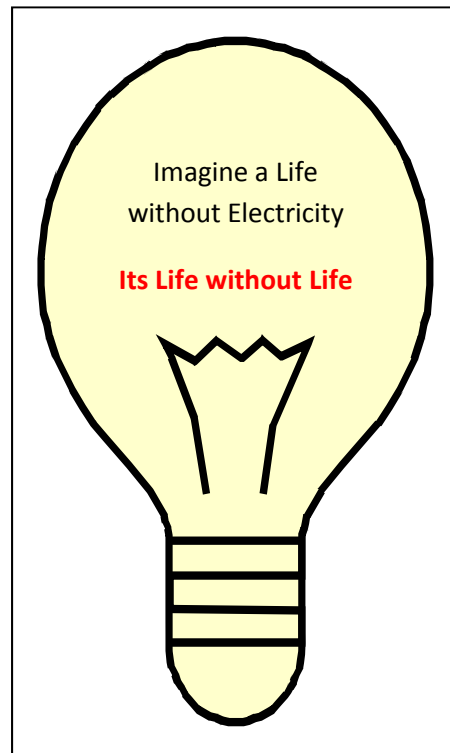




POWER | RISK DEMYSTIFIED

A look through Circular Debt

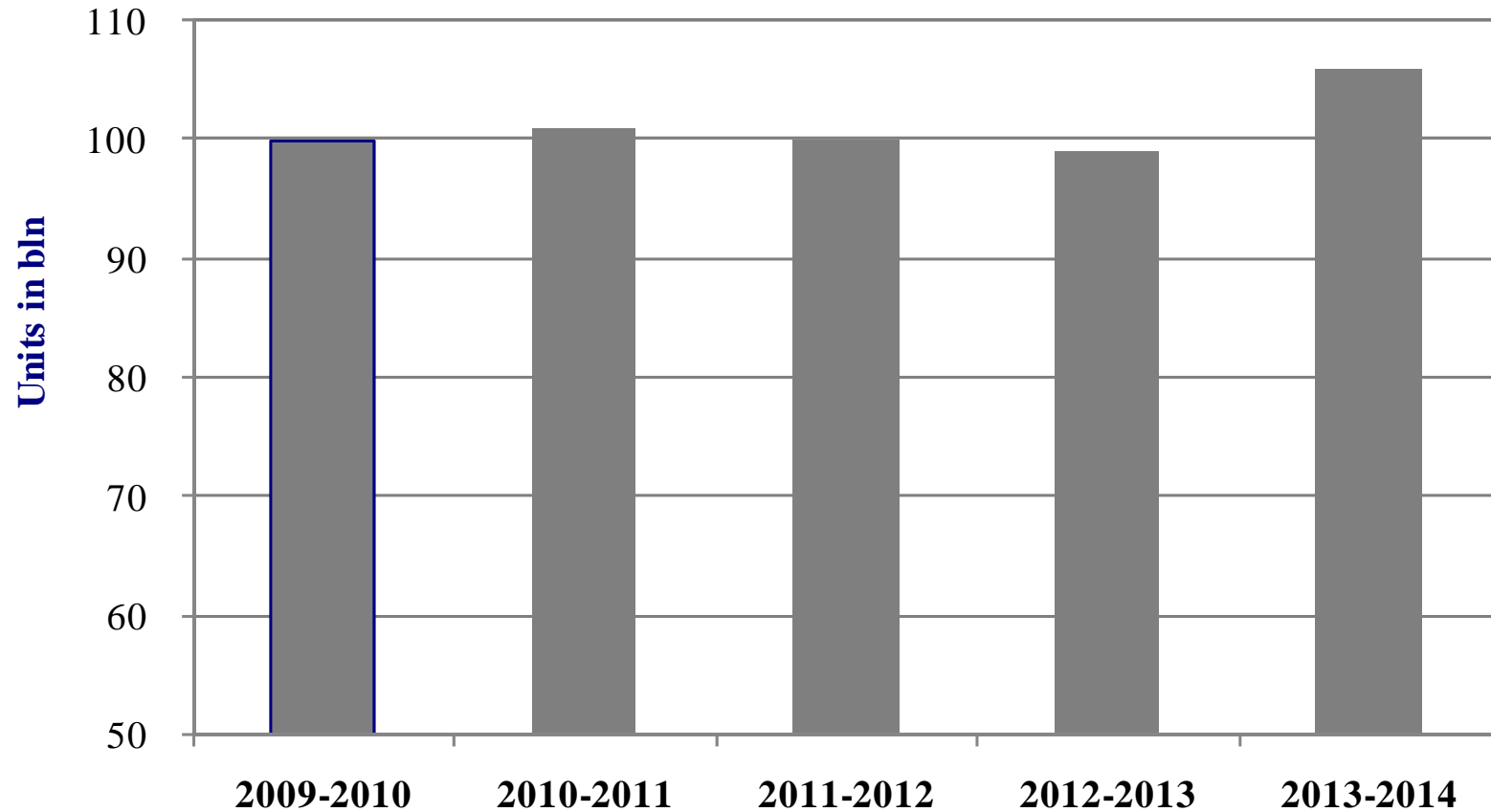
Electricity | Power to the world in the world of Power



Technologies
without electricity
would crash

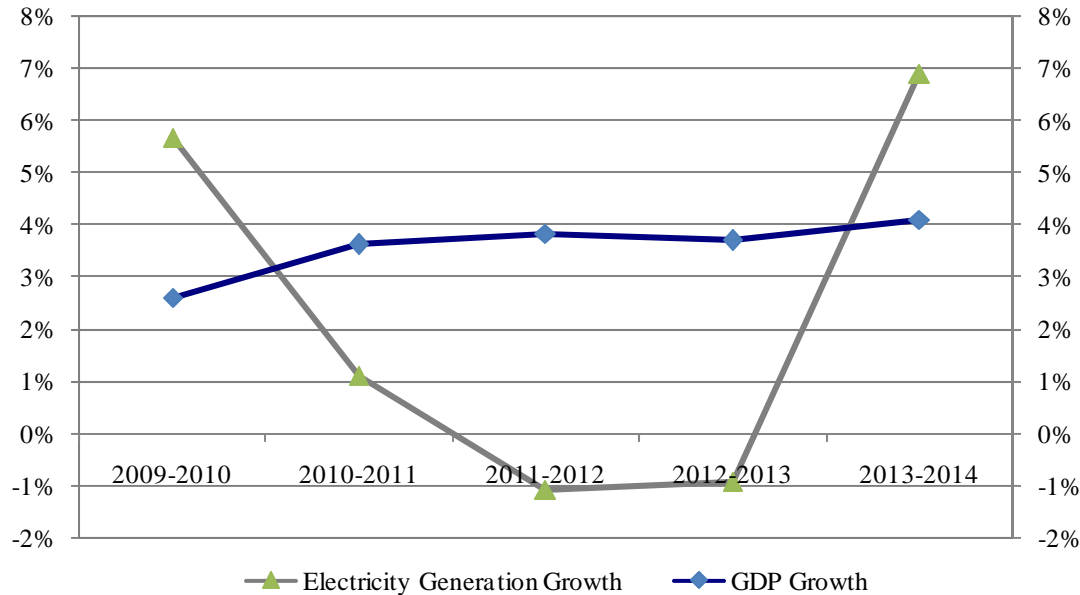
Pakistan | Significance of electricity

Pakistan | Electricity Units Produced



Pakistan | Significance of electricity

Growth Rates | GDP vs Electricity generation



Relationship with GDP

2% growth in ELECTRICITY has the potential to push GDP by 1%

What is Limiting us?

Ability to pay

Ability to Install

PKR 1.4trn | 5% of GDP

Cost /MW | **US\$3mln**

WILLINGNESS?

FUNDING?

MARKET OVERVIEW: DOLLAR \$, EURO €, POUND £, RUPEE ₹

Circular debt brought down by Rs52b in a few months

Independent Director of the Federal Board of Inflation (FBI) has said that the circular debt has been brought down by Rs52 billion in a few months...

Circular debt falls to Rs196.42 billion by March 15

Circular debt Power sector arrears 2pc of GDP till Jan '15: IMF

Govt unable to reconcile circular debt

ISLAMABAD The government has been unable to reconcile circular debt in the energy sector. Ministry of Petroleum officials have reportedly estimated energy sector's circular debt at Rs 480 billion...

Government green light to pass circular debt burden on consumers

Rising circular debt keeps KSE in red zone

Rs 480b circular debt cleared

ISLAMABAD The government has been unable to reconcile circular debt in the energy sector. Ministry of Petroleum officials have reportedly estimated energy sector's circular debt at Rs 480 billion...

Mounting circular debt to worsen power crisis

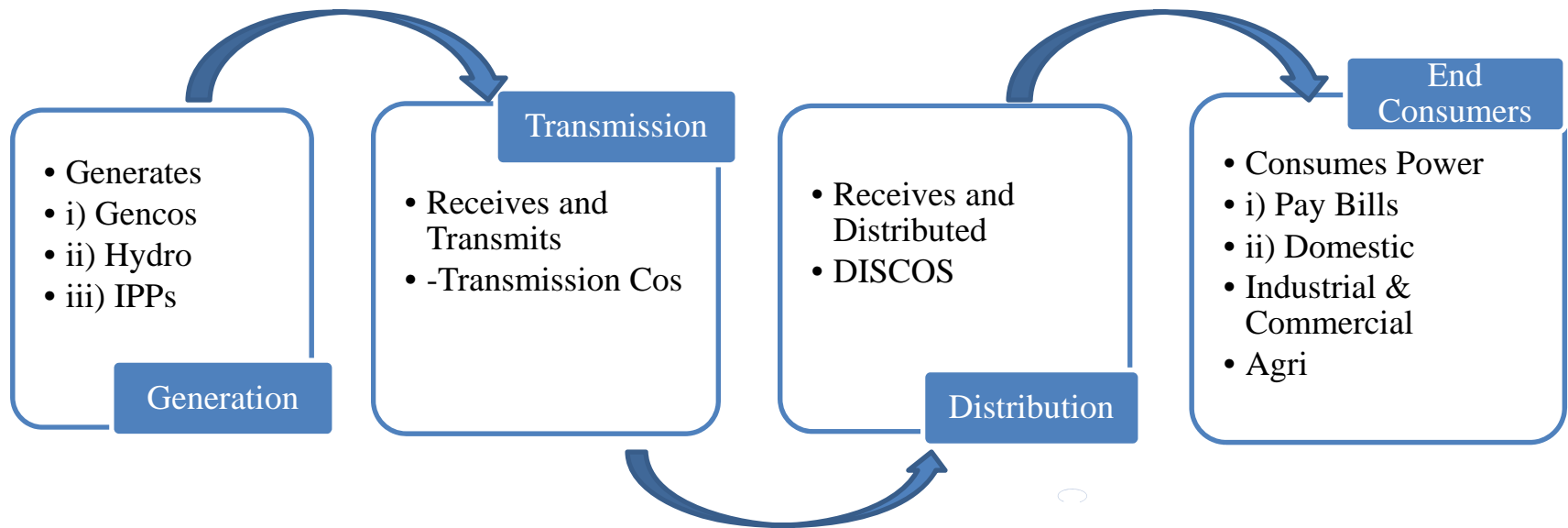
Several body reiterates that need to be met in upcoming weeks as people would be facing outages of at least 4 hours...

Circular debt swells to Rs300bn High-level meeting with IPPs to be held on 29th

ISLAMABAD The Ministry of Water and Power with a view to resolving circular debt issue has convened a high-level meeting with the representatives of Independent Power Producers (IPPs)...



How it Works | The Power Chain



Units
Generated
106bln

—

Units
Recovered
72bln

=

Units
Lost
34bln

~PKR 476bln

Risk Bubble | Consumption

People Consumers	
Domestic	47%
Commercial & Industrial	36%
Agri & Others	17%

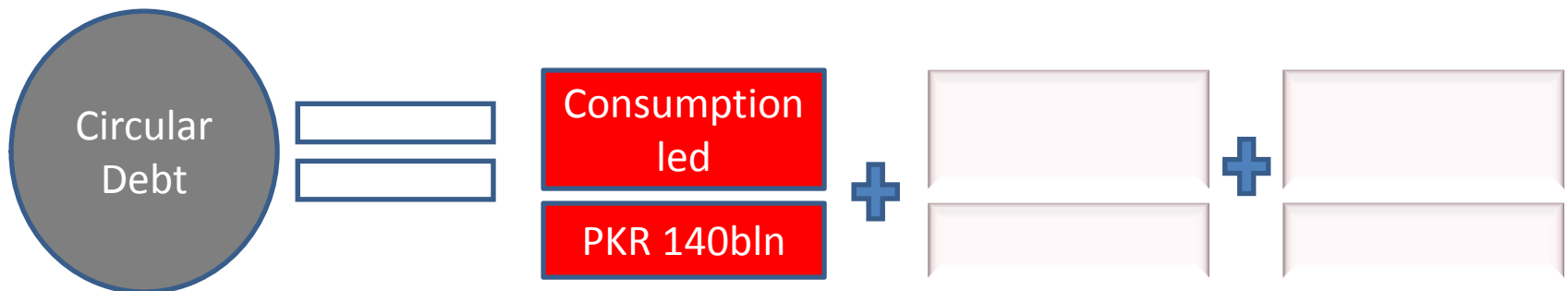
Traiff	
Cost to GoP	14/Unit
Aver tariff charged	12/Unit
Subsidy	2/Unit

Recovery Rate	
Units Billed	82bln
Bills received	72bln
Recovery Ratio	88%

Consumption loss
 Units Billed: 82bln
 Bills Received: 72bln
 Gap: 10bln Units

Government
 Subsidized Price

Conduct as Society
Theft
Non payment



Risk Bubble | Transmission & Distribution

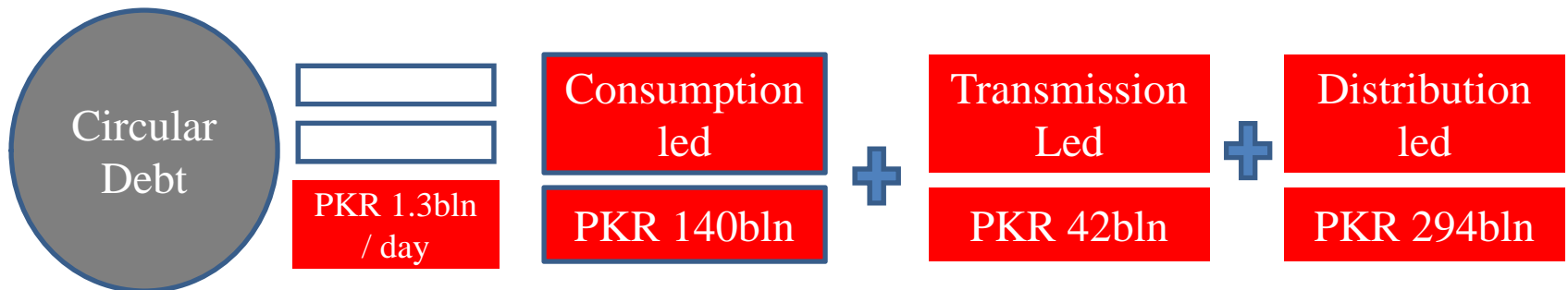
T&D losses	
Received	106bln
Transmitted	103bln
Distributed	82bln

DISCOS Load Managers	
Peak Demand	23,505MW
Supply Capability	18,121MW

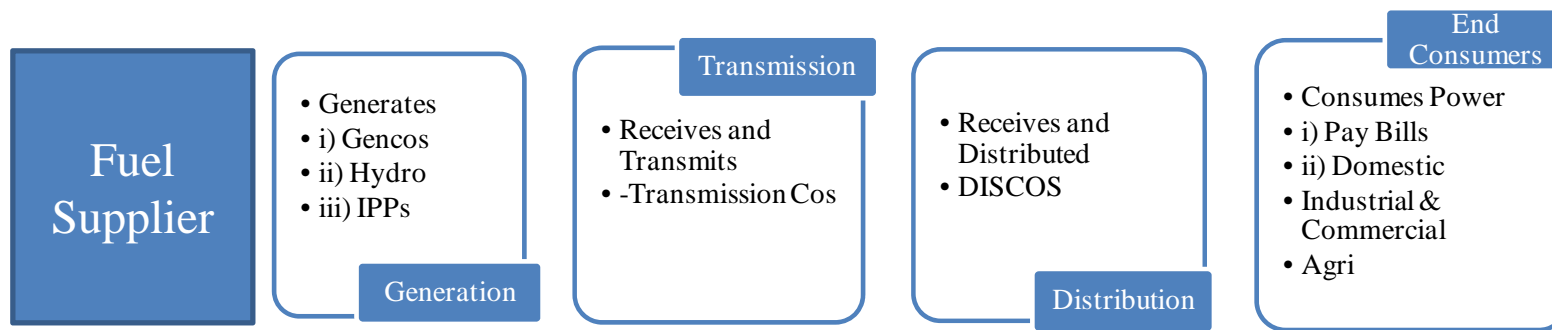
Dist Losses	
2010	21%
2011	21%
2012	23%
2013	20%
2014	20%

Transmission loss
3bln Units
Distribution loss
21bln Units

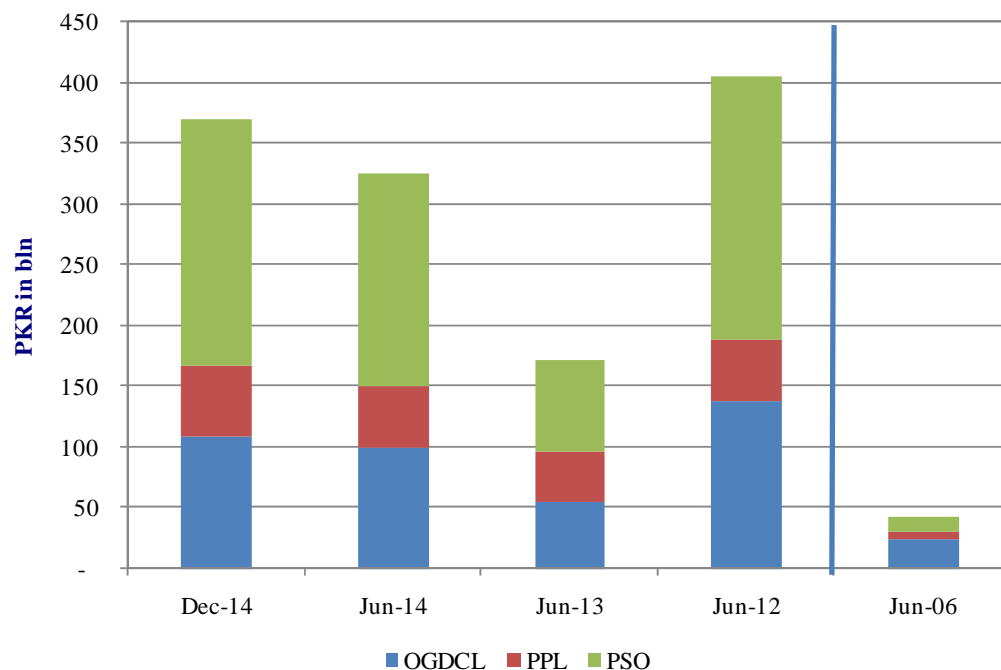
Governance
Management Efficiency
Transmission & Distribution Infrastructure
- Depreciated
- Slow replenishment



Risk Bubble | Where to find it?



Circular Debt | Buildup over the years



Receivables PKR bln					
	Dec-14	Jun-14	Jun-13	Jun-12	Jun-06
PSO	203	175	76	218	12
OGDCL	109	101	56	138	24
PPL	58	50	40	50	7
Total	370	326	172	406	43

Circular Debt | Way Forward



Consumption

Transmission

Distribution

Generation

Fuel Mix Generation	
Thermal	64%
Hydel	31%
Others	5%

Fuel Efficiency Benchmark	
Furnace Oil	45%
Gas	51%

Cost /Unit of Generation	
Gas	6
Furnace	18
HSD	24
Overall	14

Dependency on RFO
 [Generation bill: PKR1trn]
 Oil price prices has its share in the balloon

GENCOS Inefficient Generation
 [Efficiency : 25%]

Merit Order
 GoP decision – when to run; when not to run



Capacity Revitalization
 Capital Cost per MW: US\$1.5mln

Think Long term:
 Requires Capital Investment on low fuel cost, low operational cost projects
 [Power PSDP FY15: PKR64bln only]

Transmission & Distribution

Transmission	
Length	14,287km
Total Circuits	154
Overloaded	25
Under loaded	95

Distribution	
Efficiency benchmark	14%
Actual	20%



Infrastructure Revitalization
Capital Cost per MW: US\$ 1.5mln

Think Long term
Governance plus Management efficiency

Consumer

Lets play our part

Don't Steal

Pay the bills



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