Electricity Department, Government of Puducherry

Financial Restructuring Plan & Investment Plan

December 2009

Document review and approval

Revision history

Version	Author	Date	Revision

This document has been reviewed by

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This document has been approved by

	Name	Signature	Date reviewed
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1 Introduction

1.1 Background

The Puducherry Electricity department is in the process of compliance with the Electricity Act, 2003 (referred to as The Act from here on). The Act professes that its basic premise is that SEBs should not be continued in their present form. The act makes it mandatory for all SEBs to be unbundled into separate generation, transmission and distribution entities, to make them more efficient than vertically integrated utilities.

Government of Puducherry (GoP), to comply with the Act, has initiated reform and restructuring of power sector and conversion of functions of transmission and distribution into corporate bodies. This reform initiative is pursuant to the objective of creating conditions for sustainable development of power industry in the state by promoting competition, efficiency and transparency; thus improving the quality of the electricity services in the state.

Hitherto, the Department has been functioning as a Government entity, consequently without dedicated information systems, such as employee master, efficiency monitoring systems, balance sheets or accrual based Profit Loss accounts. The initial step in the reforms process was hence identified to be the drawing up of an As is report on Financial, Technical and Organization related parameters. In line with the same, KPMG has submitted the report which among others, establishes the current financials of the Department

As a result of discussions and analysis of structuring options available, it was decided by the specially constituted Steering Committee that one Transmission Company (PETCO) and one Distribution Company (PESCO) would be created from the Electricity Department. These entities would have to possess clearly delineated functions, Assets, Liabilities, revenues and employees, which is covered under the submitted Transfer Scheme

Moving forward, the successor entities would have significant challenges in terms of various financial heads, notably investment, capital structuring, revenue requirement finalization and tariff fixing. This document addresses the above issues to chart a roadmap for the successor entities till the forecast period

1.2 Objectives of the Financial Restructuring Plan

The key objectives of the FRP include:

- Proposal of a capital structure for the entities (current state) as identified in the Transfer Scheme; proposal of capital structuring for the forecast period in line with the shifting Debt Equity figures

- Development of a high level investment plan for the successor entities on the basis of their asset ratios in comparison with comparable power utilities. Phasing of the investments in line with changes in demand and supply schedule

- Projections of key operating heads for the successor entities including Revenues, Power availability, purchase, operating and fixed costs, debt estimates and return on equity

- Formulation of a trajectory for efficiency improvement – both for losses (Aggregate Technical and Commercial losses, including collection efficiencies) and employee efficiency enhancement
- Outlining the key tariff implications of the reforms and restructuring plan across the forecast period

1.3 Our Approach

The approach adopted in developing the Financial Restructuring plan is as mentioned hereunder:

- The preparation of clean balance sheets for the successor entities has been done through discussions with the Department as well as the Steering Committee, especially regarding equity structuring and treatment of receivables
- In the lack of a dedicated load study/ existing long term capex plans, the investment plan has been prepared based on benchmarking with comparable states to chart out an investment schedule for the forecast period based on projections of power demand and supply
- Growth projections (revenues and costs) are based on 17th CEA survey and inputs from the Department on allocation in upcoming power plants respectively
- All assumptions and methodologies have been vetted with both the Department stakeholders as well as the Steering Committee
- The detailed calculations covering each successor entity in terms of Revenues, Costs, Demand and supply forecasts, Current Assets and liabilities, Debt schedules, Investment plans, As is assessment, Equity structuring and return and tariff schedules, complete with inter linkages and assumption summary have been provided in soft copy to the Department

2 Financial Restructuring Plan

2.1 As is State – Transmission and Distribution

2.1.1 Financial Statements

The Electricity Department, being a Government entity, has not till date maintained its balance sheets or accrual based Profit and Loss statements. The same were restated in the Financial section of the As is Assessment, and have been reproduced below.

PROFIT & LOSS STATEMENT - PED	
Particulars (all figures in Rupee Lakh)	**2008-09**
Revenue	
Tariff Income	59,554
Income from Wheeling Charges	-
Non-Tariff Income	300
Total Revenue	**59,854**
Expenditure	
Total Power Purchase Cost	56219
Employee Cost - regular	4822
Repairs and Maintenance (R&M) Expenses	740
Administration and General Expenses (AGM)	152
Provision for Bad Debts and Write-offs	0
Other Expenditure Items	106
Capitalized Expenses	2442
Total Expenditure	62038
PBDIT	**-2184**
Less: Depreciation	1818
PBIT	**-4002**
Interest and Finance Charges (IFC)	360
PBT	**-4362**
Less: Income Tax	0
Addition to Retained Earnings	**-4362**

BALANCE SHEET - PED	
Particulars (all figures in Rupee Lakh)	**2008-09**
LIABILITIES	
Long Term Liabilities	
Sum of Government Equity and Employee liabilities (retirement)	26179
New Long Term Loans	0
Existing Long Term Loans	1892
Other Market Borrowings for Capital Expenditure	0
Other Market Borrowings for Revenue Deficit	0
Other Market Borrowings for Working Capital	0
Current Liabilities	
Consumer Security Deposits	13022
Power Purchase Liabilities	6243
Staff related liabilities	421
Liabilities towards suppliers	156
Interest accrued but not due	0
Others	0
Repayment due but not paid	13
Employee liabilities in respect of 6th Pay Commission arrears	945
Net of Current and Long term liabilities	22692
Total Liabilities + Equity	48871
ASSETS	
Gross block at the start of the year	33029
Net block at start of year	20368
Additions during year	2442
Depreciation	1818
Net block at year end	20992
Current Assets	
Stores	1505
Gross Receivables against supply of power	14624
Less: Provision for Doubtful items (under litigation) - previous dues	1743
Net Receivables against supply of power	12881
Cash	1
Bank Balance	5513
Bonds	131
FDR, NSC	4461
Bank Guarantees	3049
Short Term Investments	340
Loan Advances	0
Sundry Receivables	0
Total Assets	**48871**

Detailed notes of the calculation of the above have been provided with the As is Assessment report.

The above assets, liabilities and commitments have to be transferred to the successor entities (Transmission and Distribution). The transfer of the same has been detailed out in the Transfer Scheme Report, which covers transfer of Assets, Liabilities, Employees and Commitments from the Department to the successors. The balance sheet split between the successor entities (if the utility had been functioning on separate Transmission and Distribution lines as on March 31 2009) is given below

Balance Sheet – Distribution (March 2009)	
LIABILITIES (INR Lakhs)	
Long Term Liabilities	
Government equity	12985
Existing Long Term Loans	0
Other Market Borrowings	0
Current Liabilities	
Consumer Security Deposits	13022
Power Purchase Liabilities	6243
Staff related liabilities	337
Liabilities towards suppliers	78
Others	0
Repayment due but not paid	11
Employee liabilities in respect of 6th Pay Commission arrears	0
Net of Current and Long term liabilities	36746
Total Liabilities + Equity	**32675**
ASSETS (INR Lakhs)	
Net block at start of year	8386
Additions during year, less depreciation	351
Net block at year end	8737
Current Assets	
Stores	1204
Gross Receivables against supply of power	14624
Less: Provision for Doubtful items (under litigation) - previous dues	1743
Less: Adjustment for write off of unrecoverable items	3441
Net Receivables against supply of power	9441
Cash	1
Bank Balance	5513
FDR, NSC	4461
Bank Guarantees	3049
Short Term Investments	272
Total Assets	**32675**

Balance Sheet - Transmission (March 2009)	
LIABILITIES (INR Lakhs)	
Long Term Liabilities	
Government equity	10698.5
Existing Long Term Loans	1891.7
Other Market Borrowings	0.0
Current Liabilities	
Staff related liabilities	84.2
Liabilities towards suppliers	78.2
Others	0.0
Repayment due but not paid	2.7
Employee liabilities in respect of 6th Pay Commission arrears	0.0
Net of Current and Long term liabilities	6320.7
Total Liabilities + Equity	**12755.2**
ASSETS (INR Lakhs)	
Net block at start of year	11982.7
Additions during year, less depreciation	272.9
Net block at year end	12255.6
Current Assets	
Stores	301.0
Cash	0.2
Bonds	130.6
Short Term Investments	67.9
Total Assets	**12755.2**

Detailed notes on the methodology of division have been provided in the Transfer Scheme. However, two key reflections of decision points on the restatement of financial statements are in respect of Capital structuring of the successor entities, and on treatment of Receivables

2.1.2 Capital structuring

The value of pension liabilities of the Puducherry Electricity Department (July 2009) has been calculated at INR 213.2 Crore through an actuarial valuation (attached). Through a pro rata allocation of the same (for estimation purposes) calculated on the basis of employee cost ratios of the transmission and distribution functions, the values of pension liabilities for the successor entities come to 42.6 Crore for Transmission and 170.56 Crore for Distribution. Together with the current debt schedule and consideration of current assets and liabilities, the residual equity has been valued in both successor entities

The Steering Committee decided that it was imperative that the Government support the successor entities in the initial stages so that they could be on a sound financial footing. The above financial support was agreed to stem from the following five principal streams

- Creation of successors with leverage levels at industry benchmark levels to boost creditworthiness and stand alone solvency through appropriate equity infusion

- Agreement on a revised tariff schedule in light of increasing costs, while leveraging on efficiency improvements and optimal capital structuring to maintain the tariff competitiveness of Puducherry

- Agreement on capital structuring trajectory for the forecast period, with a gradual step of return on Government equity

- Agreement on revaluation of historical receivables, now to be transferred to the Distribution entity (PESCO) with the objective of avoiding recovery realization shocks in the future period

- Support in obtaining bridge funding from the market, to be repaid by the successor entities, at reasonable market rates

Govt. equity in lakhs - 2009	Pension liability	Residual Equity	Net equity
Distribution (PESCO)	17056	-4071	12985
Transmission (PETCO)	4264	6434.5	10699
Total Govt. equity in successor entities @ 100% ownership of pension liabilities			**23684**

Hence, the Government would be taking ownership of the existing pension liability of the employees, and fund the Trust to be created for the same. This would be in accordance with accrual based norms, since these liabilities are due for services rendered by the employees till the date of creation of the successor entities, when the businesses were owned by the Government. As a result of the support, the Government equity stands at 129.85 Crore and 106.99 Crore in the Transmission and Distribution successor entities respectively, bringing the total Government holding (value of the entities) to 236.84 Crore. This equity in the successor entities would attract dividends as the entities reach a steady state in operations.

2.1.3 Treatment of Receivables

The total value of receivables (gross) towards sale of power stood at 113.52 Crore by the end of FY 08, and is estimated at 146.24 Crore by the end of FY 09. Of this, currently 17.43 lakhs has been designated as doubtful (corresponding to receivables under litigation). However, from historical trends, it has been identified that the steady state collection efficiency of the Electricity Department is only around 96%, implying that 4% of revenues need to be significantly discounted for realization

Of the total amount of receivables, close to 60 Crore (estimated on historical basis) is receivable from various government departments. This was agreed to be paid in full, over the next 3 years (FY10 to FY12). The residual amount of external receivables (~ 69 Crore) remains to be collected. On the basis of historical trends of collection efficiency of the Puducherry Electricity Department, as well as from the precedents from other states, the effective amount realizable from the external receivables would be ~ 50%, i.e. 34.5 Crore. The residual amount is to be passed to the ownership of the Puducherry Government, with collection responsibility entrusted with the successor Distribution entity, where a suitable incentive based collection model can be developed.

2.2 Investment Plan

2.2.1 Context

The Puducherry Electricity Department has been investing in capital expenditure over the past years from the plan allocation provided. The net capital expenditure has hence remained more or less constant at ~ 25 Crore on an average across the past 4 years. Though this is sufficient to offset the current depreciation (on a capital base of ~ 210 Crore (net block)), this has not been enough to provide sufficient infrastructure for the increasing capacity. The plan support amount has also remained static over the years due to funding pressures from the centre, resulting in little net capital additions

Currently, in the absence of a dedicated load flow study to identify gaps in infrastructure, the Department estimates the capital expenditure areas and levels based on ground up information on breakdowns, interruptions and new connections. Moving forward, the successor entities are expected to be at capital levels comparable to industry benchmarks. Hence both the Transmission and Distribution successor entities would require high levels of capital expenditure to reach the above benchmarks. The Investment plan develops a high level, benchmark based estimate of the capital requirement of the successor entities over the forecast period, outlines the funding mix for the Capex, and draws up an associated depreciation schedule (vital from the point of view of an ARR in the future)

2.2.2 Methodology

The investment plan has been developed on the following key levers

- The investment intensity of PED has been benchmarked with other sates using the metric of Fixed Assets per Unit Purchased (FAUP) for Transmission and Fixed Assets per Unit Sold (FAUS) for Distribution. They are defined to be respectively the capital assets (net block) per Million units of power wheeled/ sold as the case may be

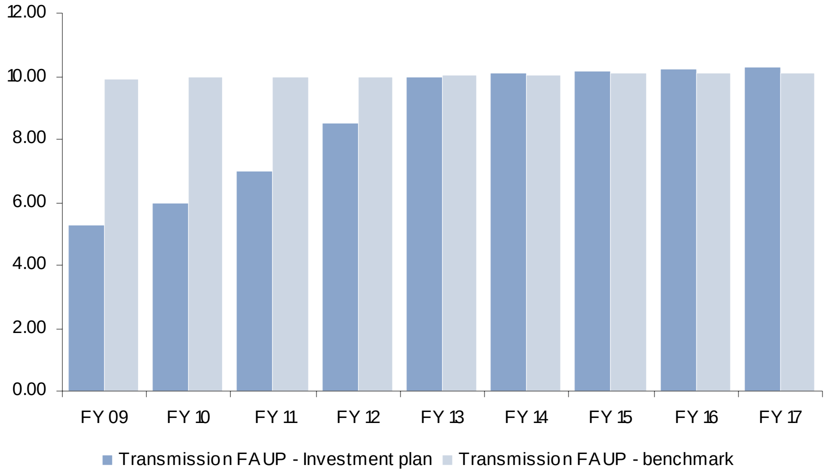
- The FAUP (Transmission benchmark) based on southern states is in the 10 – 16 band. However, considering the differences in spatial buildup of the territories, the wires requirement for Puducherry is expected to be significantly lower, since Puducherry has one of the highest industrial concentrations among southern states (consumption per unit area). Hence, the adequate FAUP for PETCO has been considered to be 10. This level is expected to be attained over the next four years, up from current FAUP level of 5.27 (FY 2009)

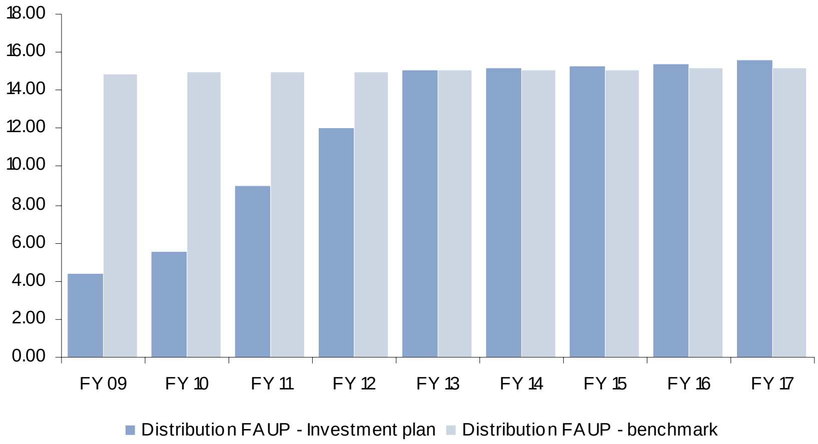
- The FAUS (Distribution benchmark) based on southern states distribution utilities (e.g. BESCOM, APCPCDL) are around 15 – 20. Again, owing to high per customer consumption (due to high levels of HT Industrial, LT Industrial and Commercial consumption compared to domestic and agricultural), the FAUS target for Puducherry has been set at 15. This is expected to be attained over the next four years, up from current FAUS level of 4.37 (FY 2009). Contrary to experience from other states, Puducherry currently has higher asset intensity in Transmission compared to Distribution (though both are lower than best in industry benchmark levels). A reason for the same could be that all substation assets come under the Transco in Puducherry compared to other states where at least 22/11KV sub stations come under the distribution entity. The bottomline of this observation is that PESCO would require higher investment over the next 4 – 5 years to bring it up to level with asset benchmarks in distribution

- The above metrics, while adequate at a comprehensive entity level, need to be further vetted and split into individual capital expenditure heads post a separate detailed load flow study. The capital investments in Transmission are heavily linked to quality of power delivered and maintenance/ further reduction of transmission losses – vital assumptions in the Business plan. Similarly, the Distribution investments are linked to accurate loss measurement, boosting collection efficiency and real time fault reporting, which are key assumptions to the Distribution entity's business

- The growth projections – both in terms of category wise end user demand (PESCO) and total power wheeling capacity (PETCO) have been captured in the Revenue Forecast section of the FRP. While the basis for the former is the 17^{th} CEA survey (tailored to reflect the latest macro economic growth trajectory and its impact on power consumption) and the schedule of Power Plants commissioning (tailored to reflect current delays in the projects on account of project hitches as well as financial closure)

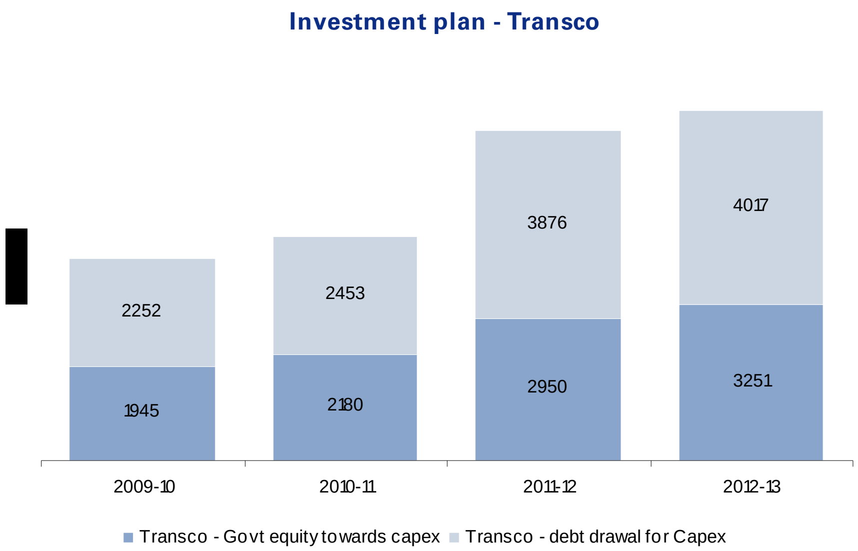
- The time frame assumed for bringing up the asset intensity ratios up to benchmark levels has been estimated to be 4 – 5 years (including FY 10). Post this, the successor entities would have to principally spend on depreciation and asset addition for capacity/ demand growth. The FAUP benchmarks have also been assumed to increase with inflation, and the resulting asset ratios have been plotted below. It can also be seen that with the planned longer term investment schedule, both PETCO and PESCO remain ahead of the inflation linked Net block ratios through the forecast period

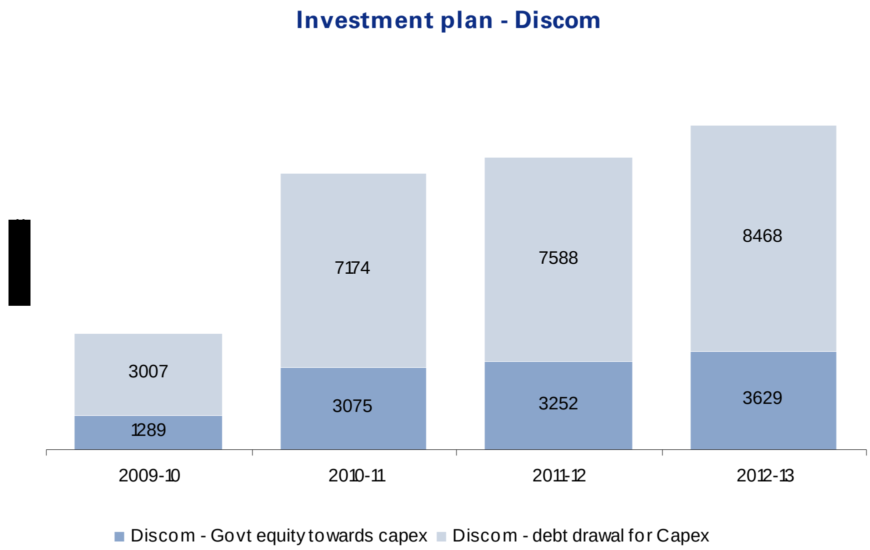




2.2.3 Financing Mix

- Till date, almost all investments in capital assets (with the exception of the System Control Centre) have been created with 100% equity (Government plan funding). However, moving forward, since building the envisaged asset intensity levels (more than twice of current levels) would involve high cash outflows over the next five years, a debt equity mix in line with industry practices is adopted. The investments over the next 4 – 5 years have been assumed at 70:30 debt equity mix, which is a standard in this industry. The resulting debt schedules for the Transmission and Distribution entities has been given below





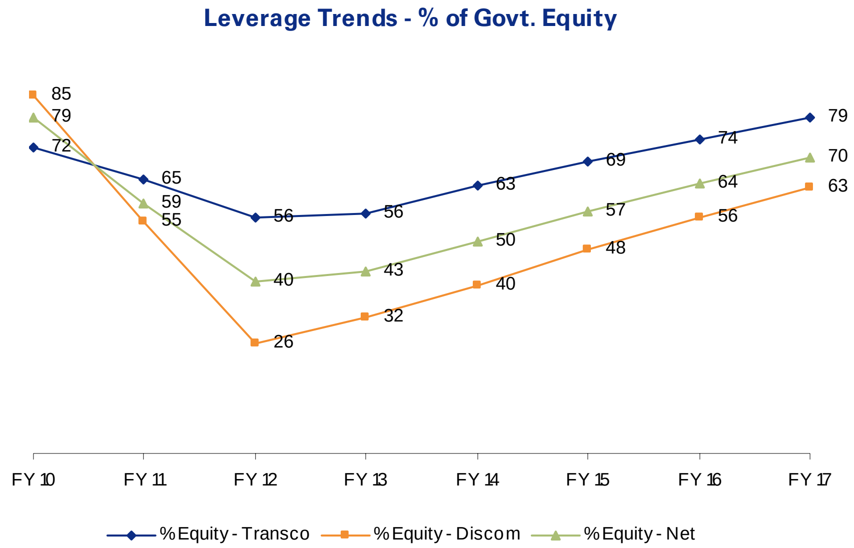
- Rates and repayment: The debt has been assumed at 12% interest. This is in line with the REC lending rates, and the general long term rates for the power sector (assuming adequate debt coverage levels). The successor entities, in coordination with the Government need to actively explore multilateral funding and debt (World Bank, Asian Development Bank etc) to utilize the cheapest possible funding source possible. The investment under RAPDRP – Part A is assumed to be 100% grant, which is awarded on demonstration of successful project execution. All other loans are expected to be repaid in equal installments (annuities) over a 10 year repayment period, the first year of repayment being the year immediately after the intensive capital asset development (2013 - 14), which is on the lines of REC loan model. The repayment schedule has been crafted with the objective of creating successor entities that have optimal leverage, never going beyond the industry benchmarks required by lenders (maximum of 75: 25) or violating the DSCR norms

- Long term capital investment plan: Post 2013, bulk of the investments would be towards covering depreciation and adding Capex for growth in demand (marginal). This is expected to be passed down to the customer in the form of depreciation expense in the ARR. It should be noted that despite this aggressive Capex plan, along with growth in demand and strict norms on DSCR levels and caps on leverage, the tariff hikes have been kept at moderate levels

- The above Capex plan and investment plan also takes into account the existing liabilities on account of the loan to PGCIL towards the System Control centre, which post the transfer scheme is a liability of the Transmission entity (PETCO)

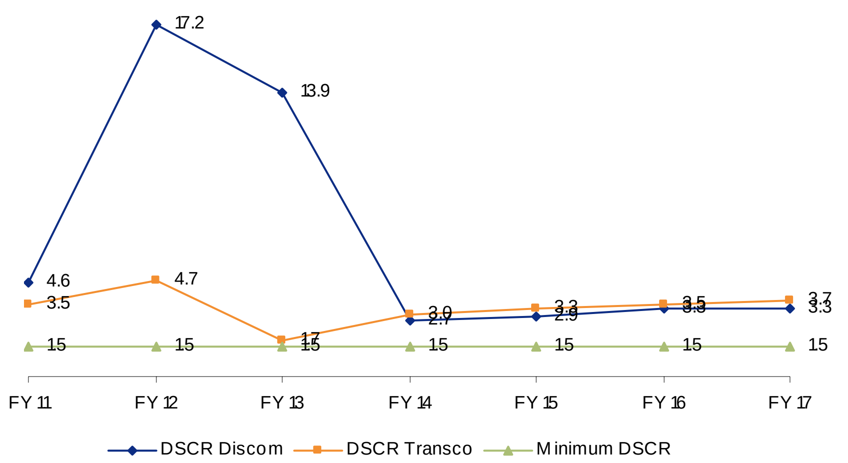
2.2.4 Key results and projections

Consolidated (Lakhs)	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
EBITDA	-4730	5051	14312	18878	21143	23239	23410	23820
PBT	-6069	2637	11200	12514	7569	8598	9029	8871
Dividend	0	0	0	6570	3974	4514	4740	4657
Debt	6998	17074	30173	39488	37765	35183	32300	28993



As seen above, the Government equity in the successor entities bottoms out at ~ FY 12 – 13 corresponding with the heavy debt buildup till then. Post this period, the debt inflows reduce, greatly increasing the legroom available for further expansion/ technological investment if need be. Since the Government would be paid returns on its holdings with 14% returns capped on a base of 30%, this sharp increase in Government holding would not increase the WACC of the successor entities

DSCR trends - PESCO and PETCO



As seen above, the DSCR of the successor entities, notably the Distribution entity (PESCO) starts at a very high level owing to current lack of debt on its books. However, the DSCR times flatten out to ~ 4 times in the long term, well above the mandated borrowing requirement of 1.5 times for the industry (IDFC)

A summary snapshot of the investment plan is presented below, with Capex linked to power wheeled, depreciation expense, expenditure on account of capacity building, and the net outflows.

Transmission	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17
Fixed Assets	12255.58	15962.52	19956.62	25984.63	32213.18	34257.76	36601.53	39087.15	41723.16
Power Wheeled	2323.50	2660.42	2850.95	3057.02	3221.32	3397.56	3600.77	3816.17	4044.47
Fixed Assets per MU purchased (FAUP)	5.27	6.00	7.00	8.50	10.00	10.08	10.16	10.24	10.32
Depreciation coverage	465.71	490.22	638.50	798.26	1039.39	1441.86	1533.38	1638.28	1749.54
Capex towards capacity building/ expansion	911.35	3706.93	3994.10	6028.01	6228.55	1891.24	2180.70	2311.40	2449.95
Net expenditure	1377.06	4197.16	4632.61	6826.28	7267.94	3333.11	3714.08	3949.69	4199.49

Distribution	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17
Fixed Assets	8736.80	12595.06	22214.38	31943.50	42443.98	45387.16	48509.11	51820.57	55332.93
Power Wheeled	2000.00	2290.01	2468.26	2661.96	2821.14	2989.85	3168.68	3358.23	3559.13
Fixed Assets per MU purchased (FAUP)	4.37	5.50	9.00	12.00	15.05	15.18	15.31	15.43	15.55
Depreciation coverage	415.00	436.84	629.75	1110.72	1597.18	2374.74	2539.41	2714.08	2899.36
Capex towards capacity building/ expansion	632.44	3858.25	9619.32	9729.12	10500.47	2690.64	2851.90	3022.83	3204.02
Net expenditure	1047.44	4295.09	10249.08	10839.84	12097.65	5065.38	5391.31	5736.92	6103.38

2.3 Cost projections

2.3.1 Context

There has been historically a power surplus in Puducherry, with the state drawing a significant amount of revenue from UI sales. However, since the start of FY 09, there has been a shortfall in power availability, leading to imposition of power cuts, especially on the high value HT customer category. Several steps have been taken to ameliorate this condition, including award of extra power from Central Generating Stations. However, from the demand and supply equations, the leeway seems limited for the state for the next two years (FY10 and FY 11). Post FY 11 though, the power availability is expected to outstrip demand, with headroom for UI sales

2.3.2 Power Purchase

2.3.2.1 Availability estimation

The availability of power in Puducherry across the forecast period has been estimated on the following basis

- The concrete allocations from various upcoming power plants (State and Central) have been compiled based on information provided by the department. This includes the quantum of power, the rate of provision (where available) and the likely date of commissioning of the project

- On this data, correction factors have been applied in terms of updating the progress of construction of the power plants and factoring in the delays in commissioning into the availability trajectory. In addition, where concrete cost estimates are not available, benchmark data has been taken on the same (e.g. UMPP charges have been estimated on the basis of already awarded projects). Also the full availability of power from any given plant has been spread over a duration of two years, as a conservative measure to buffer the financial projections against project completion delays and the like

- The power purchase costs have been calculated based on prices at the start of FY 10. Since power purchase costs are tied to Global coal prices and CIL hike schedules, both of which are volatile and difficult to predict. As is the practice across other utilities, any increases in power purchase cost will be directly passed down to the consumers as a power surcharge. This would be in line with transparency in pricing (since the exact quantum of power purchase inflation over current levels would be transferred) and precedent. A uniform spreading of the hike across categories would also help reduce the levels of cross subsidization, which by sticky nature of prices are difficult to eliminate immediately

- In addition, an attempt has been made to reduce the ad hoc purchase from TNEB, especially in light of the current litigation over pricing of TNEB power (the effects of which would be a contingent liability on PESCO from the date of transfer). As external (mainly CGS) power availability increases, drawal from TNEB has been gradually phased out

- The below availability schedule does not contain any forecasts from expansions in PPCL capacity or from other merchant power plants/ state initiatives since they are highly aeleatory in nature, in terms of both project certainty and price

Power Plants	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
NLC TS 2 (Stage 1&2)	96	96	96	96	96	96	96	96
NLC TS-II Expansion	0	0	15	15	15	15	15	15
NLC TS 1 (Exp)	18	18	18	18	18	18	18	18
Tuticorin Project of NLC	0	0	25	25	25	25	25	25
NTPC Ramagundam (1&2)	79	79	79	79	79	79	79	79
NTPC Ramagundam (3)	20	20	20	20	20	20	20	20
NTPC Talcher	70	70	70	70	70	70	70	70
Simhadri Expansion Of NTPC	0	0	0	25	50	50	50	50
Orissa UMPP	0	0	0	0	35	70	70	70
MAPS	7	7	7	7	7	7	7	7
KAIGA	70	76	76	76	76	76	76	76
Kudankulam	0	34	67	67	67	67	67	67
North Chennai Thermal Power Plant	0	0	33	66	100	100	100	100
TNEB	76	57	38	19	0	0	0	0
PPCL	32	32	32	32	32	32	32	32
Total allocation	**468**	**489**	**576**	**615**	**690**	**725**	**725**	**725**

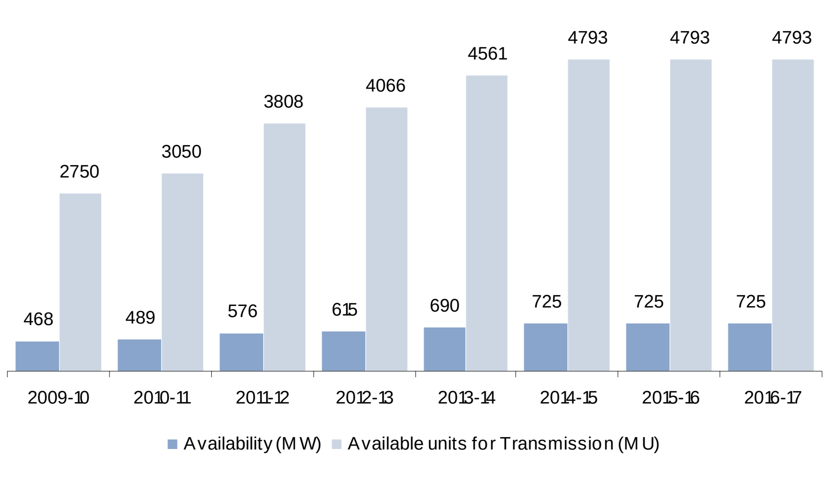
The cost schedule (current) which has been assumed constant throughout the forecast period (since any power purchase cost escalations shall be transferred intact as power surcharge) has been captured below

Power purchase price forecast (Rs per unit)	
NLC TS 2 (Stage 1&2)	1.68
NLC TS-II Expansion	2.18
NLC TS 1 (Exp)	2.18
Tuticorin Project of NLC	2.18
NTPC Ramagundam (1&2)	1.66
NTPC Ramagundam (3)	2.04
NTPC Talcher	2.05
Simhadri Expansion Of NTPC	2.18
Orissa UMPP	2.30
MAPS	1.91
KAIGA	3.04
Kudankulam	3.04
North Chennai Thermal Power Plant	2.18
TNEB	2.18
PPCL	2.01

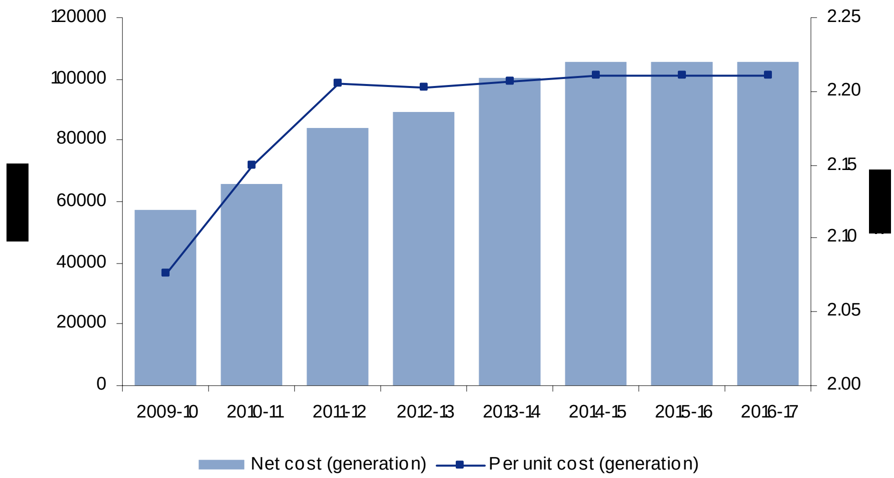
- The additions are expected to be complete by 2015 (the existing confirmed pipeline). As will be seen, the demand trajectory over the forecast period is such that no additional power would be required post the 2015 realization to service the demand of the state. Hence, the power availability levels have been maintained at 2015 levels for the next 2 years. The successor entities could of course buy the excess power and sell them at spot rates in the power exchange, boosting their earnings. However, in interest of conservatism and considering that the number of power projects coming up post 2015 would be limited (in view of limited coal availability and higher costs in relation to imported coal, since bulk of power plants well into 2020 are expected to be coal fired), these potential additions have not been taken into consideration. If however in the future, the successor entities decide to enter power purchase agreements in light of Trading potential/ unforeseen demand spikes, they would have to accordingly up their investments in Capex, in line with the asset intensity benchmarks which have been provided in the earlier section

- The availability of power from these plants has been calculated based on two assumptions. One, the PLF (Plant load factor) is assumed to be at 85%, as is conventionally assumed. In addition to this, Transmission losses (from Plant to PETCO jurisdiction) are expected to reduce the actual availability by ~ 4%. Also from past experience of PED, there has been only a ~ 90% realization (which has further reduced to 80% in case of some plants of late) of energy at the Department's end owing to other factors including fuel shortage, lockouts etc. Hence, the effective realization has been considered to be at 90% in the long run. This is in interest of conservatism, since any additional realization could always be sold in the spot market, the rates of which are expected to be higher than the average realization rate within the territory (moreover, without T&D losses). The actual availability of power in MU, post these computations is given below

Power availability forecast



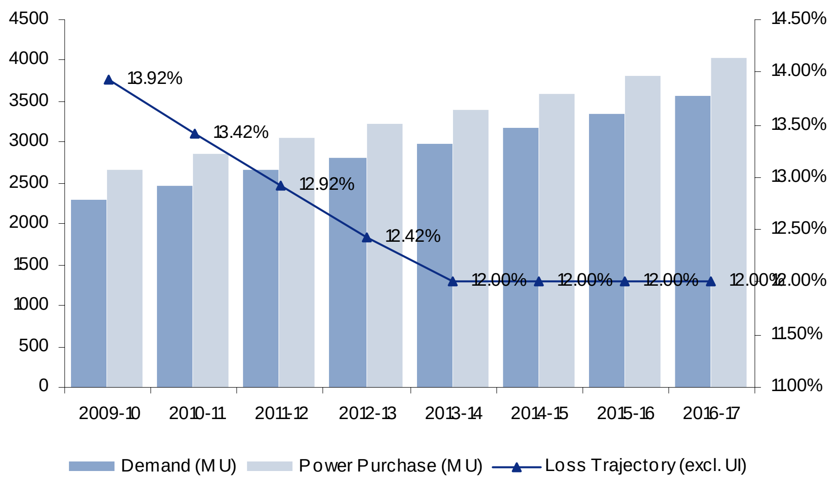
PP Cost projections



2.3.3 T&D losses

At present, the net T&D loss levels of the Puducherry Electricity Department have been calculated to be 13.9% (excluding UI). Due to lack of sufficient voltage wise metering systems, the voltage wise loss levels have not been estimated. However, the net loss level is one of the lowest in the country. This also implies that despite heavy investments in infrastructure (including R-APDRP Part A and B), further reduction in loss levels would be gradual and limited. It is estimated that the reduction in loss levels can be done only to an extent of an additional 1.92%, taking the total T&D loss to12%. This is expected to be achieved in a phased manner over the next four years. The calculations of energy demand have been reflected on the power purchase accordingly as shown

T&D loss projections



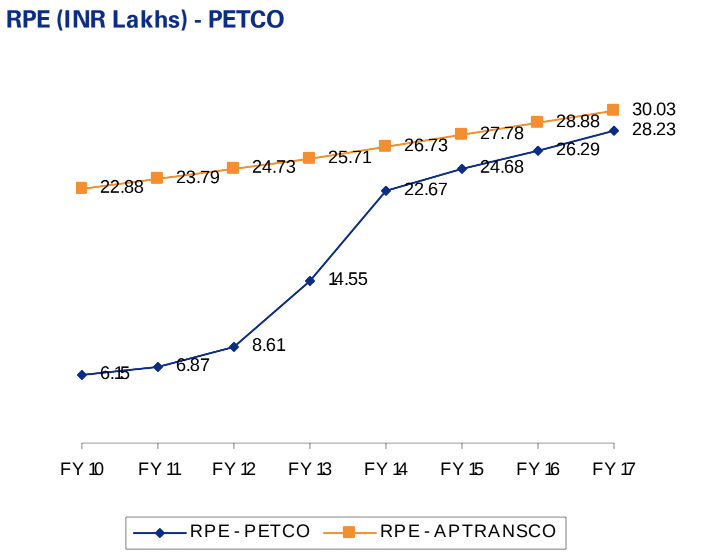
2.3.4 Employee Expenses

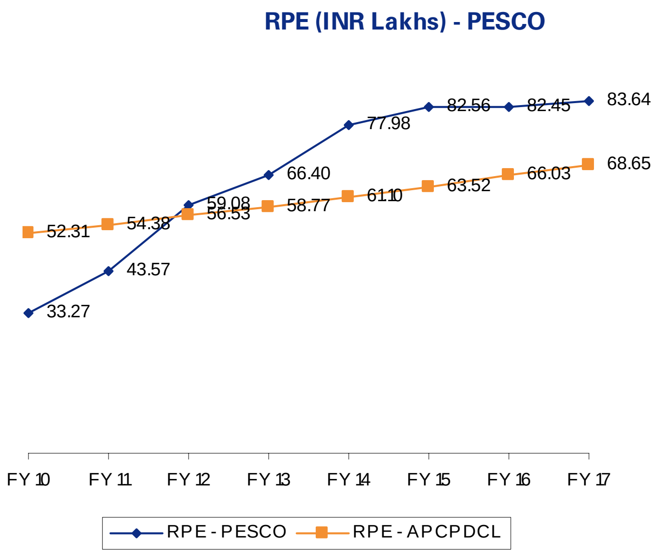
- The employee expenses of PED in FY09 stood at 48.2 Crore, with outstanding dues payable of INR 12.96 Crore (60% of the 6^{th} pay revision arrears) in FY10. This amount, in addition to the historical employee liabilities (valued at INR 213.2 Crore) would have to be funded by the Government, on account of being liabilities from an earlier period. The employee expenses for future forecast periods has been projected on the basis of employee strength in the Transmission and Distribution entities, which has been estimated on the basis of current split (as per the transfer scheme, with future employee strength trajectory computed on the basis of a combination of requirement (from other state benchmarks) and retirement rates). However, the successor entities would be free to estimate their own manpower requirements in reference to the shifting demand supply dynamics in the future.

- The employee split, in absence of actuals has been calculated through benchmarks (24% of net employee strength to Transmission).The spike in the employee expenses in FY10 comes from two reasons – Contributions towards terminal benefits assumed at 24% of direct employee cost in line with latest AP benchmarks compared to the lower previous value, and on account of the pay structure revisions involving a net of 1.5% (approx) increase in employee expenses on account of recalibration of the pay scales at the JE and AE levels in particular

- Employee efficiency benchmarking for PETCO and PESCO: The current RPE (Revenues per employee) for the transmission undertaking is estimated to be at INR 6.15 lakhs (FY11 estimate) compared to an RPE of INR 22.9 lakhs for APTRANSCO. Similarly, the RPE levels for Distribution stand at INR 38.4 lakhs compared to INR 52.3 lakhs in AP and other progressive unbundled states. However, segment leaders like New Delhi and Noida have not been considered due to their extremely high Capex levels. Moving ahead, this gap is envisaged to close, on account of more judicious staffing levels, training for employees and higher investment in Capex, making both the Transco and the Discom more capital intensive and automated.

Employee Expenses	**FY 10**	**FY 11**	**FY 12**	**FY 13**	**FY 14**	**FY 15**	**FY 16**	**FY 17**
Transco (PETCO)								
Direct Employee Cost	1221	1273	1304	1321	1350	1431	1517	1608
Contribution towards Terminal Benefits	293	305	313	317	324	343	364	386
Total employee expense	1513	1578	1617	1638	1674	1774	1881	1994
Discom (PESCO)								
Direct Employee Cost	3914	4061	4232	4325	4371	4657	4959	5223
Contribution towards Terminal Benefits	939	975	1016	1038	1049	1118	1190	1253
Total employee expense	4853	5036	5248	5363	5420	5775	6149	6476
Combined employee expense	**6366**	**6614**	**6865**	**7001**	**7094**	**7549**	**8030**	**8470**





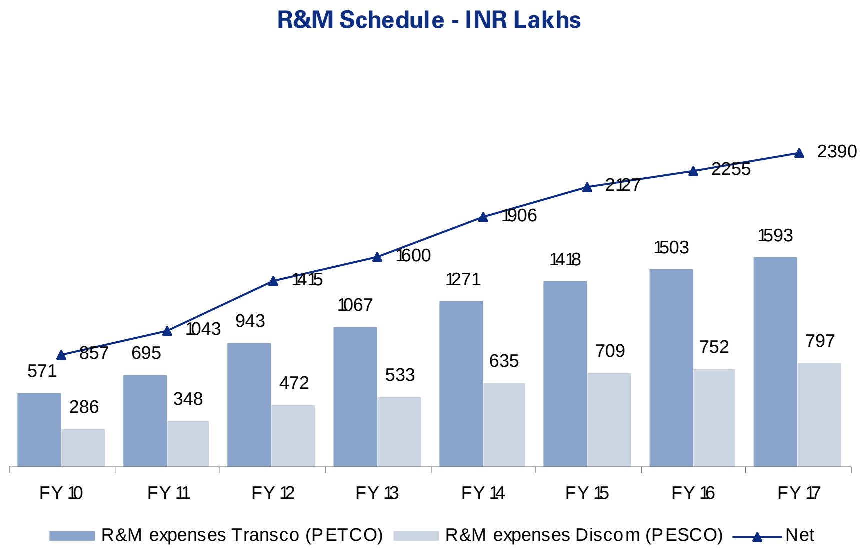
- The above efficiencies are expected to be achieved on the back of high capital spending by both successor entities. It is important to observe that the capital expenditure and employee productivity levels are highly interlinked. In addition, the incentive based pay mechanism, which the successor entities would implement following corporate best practices would help Puducherry become a benchmark state in terms of Power sector employee efficiency in the years to come

2.3.5 Other operating expenses

2.3.5.1 Repairs and Maintenance (R&M expenses)

- The historical R&M expenses have been at ~ 1.2% of the total power purchased. While in proportional terms this has been, for most part adequate, given the aggressive nature of the Capex schedule for both the Transco and the Discom over the next 4 – 5 years, this is expected to increase in rupee terms. The future R&M charges have been estimated at 1.5% of power purchased (shared between the Transco and the Discom prorated to the asset size and depreciation schedule). The increasing net R&M expenditure can be seen in the chart below, attributable partly to higher capacity (over next 5 years) and the inflation effect on R&M charges (assumed at 6% YOY)

- Since the power purchase costs have been assumed at level, with a power surcharge passed down to the consumers, it is expected that the R&M expenses would increase in terms of the % of projected power purchase charges. Hence, an inflation of 6% year on year has been built into the plan. The individual as well as combined R&M expense schedule is given below. It should be noticed that on account of all substations and HT wires (most significant asset chunk requiring regular repairs) is under the Transco, the R&M expenses for the Transco are higher than those for the Discom

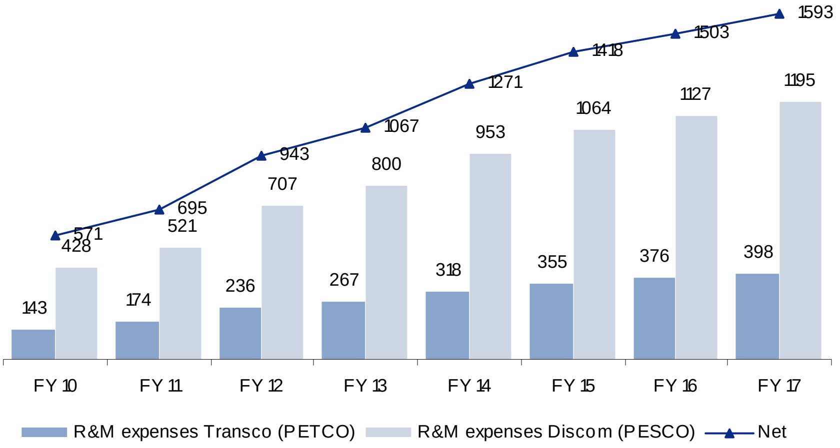


2.3.5.2 Administrative and General Expenses (A&G)

- The historical A&G expenses have been at ~ 1% of the total power purchased. While this is less than the benchmarks observed in other states (~1.25%), post the reforms and restructuring, through the optimal Organization Structure and judicious shared use of several facilities, this rate is expected to be maintained. Moreover, since a bulk of the A&G expenses are expected to be from the Distribution entity. With rapidly increasing power availability, this computation is expected to provide sufficient buffer for the entities in terms of managerial and decision oriented expenses (Communication, Morale improvement, R&D and Consultancy support)

- Since the power purchase costs have been assumed at level, with a power surcharge passed down to the consumers, it is expected that the A&G expenses would increase in terms of the % of projected power purchase charges. Hence, an inflation of 6% year on year has been built into the plan. The individual as well as combined A&G expense schedule is given below. It should be noticed that on account of most administrative systems and processes falling under Distribution, the A&G expenses for the Discom are higher than those for the Transco

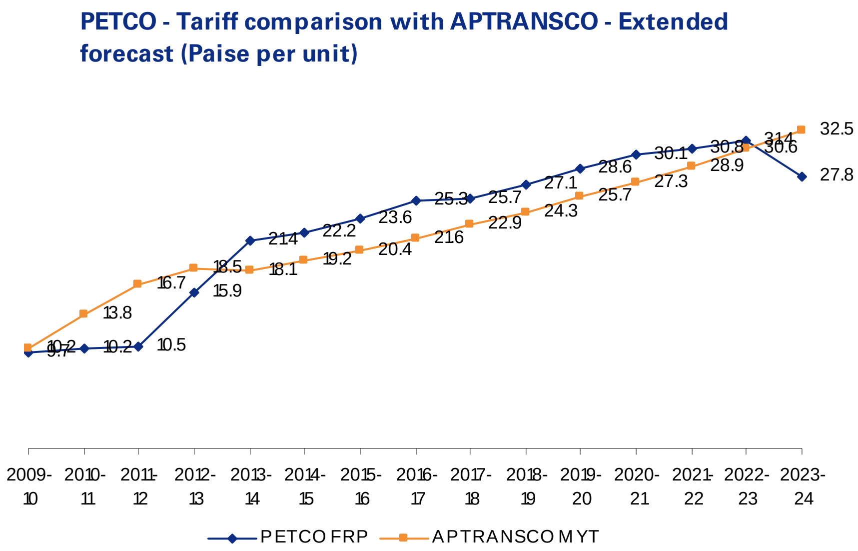
A&G expense projections - INR Lakhs



2.3.6 Transco charges – PETCO and PGCIL

- The PED has been paying PGCIL towards transmission charges outside the state. The payments amount effectively to a rate of 19.31 paise per unit. Moving forward, the Financial projections have been made under the assumption of constant rate of PGCIL. While this level of pricing is expected to remain sticky for a few years, any further changes on account of pricing revisions would be effectively transferred to the customer as a Transmission surcharge, similar to the power surcharge. Since almost all of the power purchased by Puducherry in the forecast period is expected to come from other states, the PGCIL net charges have been computed based on the net amount of power purchase by the State. The schedule of PGCIL charges is shown in the chart below

Transmission Charges	**FY 10**	**FY 11**	**FY 12**	**FY 13**	**FY 14**	**FY 15**	**FY 16**	**FY 17**
Puducherry Transco Charges	3343.64	3671.76	4440.56	7197.33	10832.15	11796.92	12566.63	13494.03
Transmission charges to PGCIL	5107	5192	5759	6114	6965	7461	7461	7461
Net (INR lakhs)	8451	8864	10200	13311	17797	19258	20028	20955



- The PETCO charges have been calculated based on a cost plus methodology. The high capital investments over the first 4 – 5 years have been balanced out through appropriate debt schedule to balance the cash flow effects of the investments. In addition, Government support, through the mode of waiver of dividend payouts is expected to keep the tariffs low in the first 4 years of stabilization. The Government would be required to invest for the first four years in the capital expenditure along the 70: 30 formula. It can be seen that the final PETCO tariffs compare favourably with the APTRANSCO MYT (till 2014, inflation linked to future period), indicating the viability of the operations in line with benchmarks

Expense heads	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Transco Capex	3216.7	3503.9	5537.8	5738.3	3333.1	3714.1	3949.7	4199.5
Capex charge passed on	965.0	1051.2	1661.3	1721.5	3333.1	3714.1	3949.7	4199.5
Employee expenses	1513.5	1578.0	1616.9	1638.4	1674.0	1774.5	1880.9	1993.8
R&M expenses	571.0	695.2	943.3	1066.8	1270.8	1418.2	1503.3	1593.5
A&G expenses	142.8	173.8	235.8	266.7	317.7	354.6	375.8	398.4
Net operating charge (post govt support)	**2983.6**	**3311.8**	**4080.6**	**4693.4**	**6595.6**	**7261.3**	**7709.8**	**8185.2**
Financing charges - debt	360.0	360.0	360.0	2503.9	2503.9	2503.9	2503.9	2593.9
Mandatory ROE	0.0	0.0	0.0	0.0	1723.0	2021.4	2342.1	2703.4
Net charge to be passed on	**3343.6**	**3671.8**	**4440.6**	**7197.3**	**10822.5**	**11786.7**	**12555.8**	**13482.5**
Capacity (MW)	468.1	488.6	576.1	615.1	690.1	725.1	725.1	725.1
Per MW charge	**7.1**	**7.5**	**7.7**	**11.7**	**15.7**	**16.3**	**17.3**	**18.6**

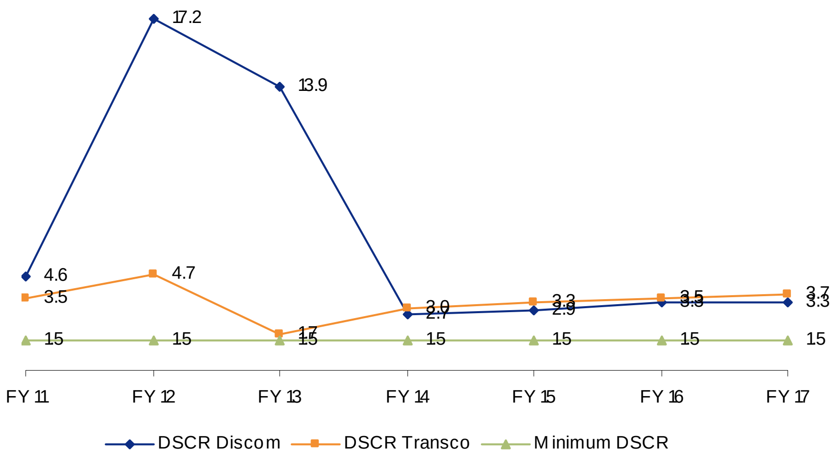
2.3.7 Debt Coverage

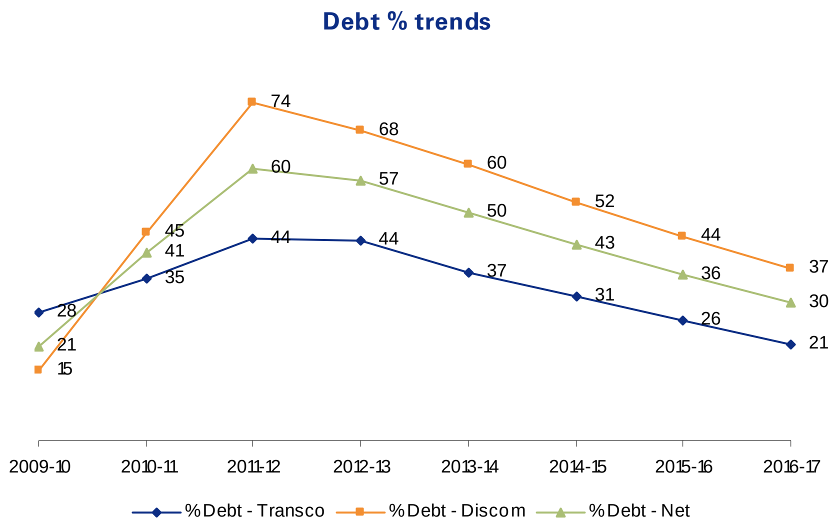
The debt coverage consists of two parts – Balance sheet debt consisting of debt towards capital expenditure and debt towards working capital financing, and off Balance sheet debt (bridge funding supported by the Government to cover gaps in cash flows). The bridge funding is dealt with separately. The below section deals with Balance sheet debt

- The loan towards capital expenditure is expected to be taken at 12%, repayable over 10 years post the moratorium period (4 years of intensive capital expenditure). The interest rate is in line with the REC rate (11.5%), and has been buffered taking into account likely inflationary pressures in the mid term. Repayment is in equal annual installments squared off to the present value of the liability in the payment period. The long term financial projections have been designed to completely pay back the debt for the Capital expenditure expansion (over the next four years) by 2024, while gradually reducing debt levels (external) from peak of 60% to 30% by end of the twelfth plan period (2017)

- On the R-APDRP spending, the Part A has been disbursed as a grant, subject to demonstration of successful project completion. The investments through Part A would be focused on loss measurement and monitoring, focusing near exclusively on the Distribution space. The net investment in this is expected to be INR 700 lakhs. In part B, 50% is expected to be a grant, and 50% as loan. The net amount involved in R-APDRP Part B is estimated at INR 4000 lakhs, based on inputs from PED as well as Capex linkages. The Part B investments are expected to commence from FY11 onwards, when Part A would be nearing completion. This loan is expected to be repaid over the next 8 years at the end of a four year moratorium period, with interest rates assumed at standard 10% rate for R-APDRP

DSCR trends - PESCO and PETCO





External debt schedule (Long term):

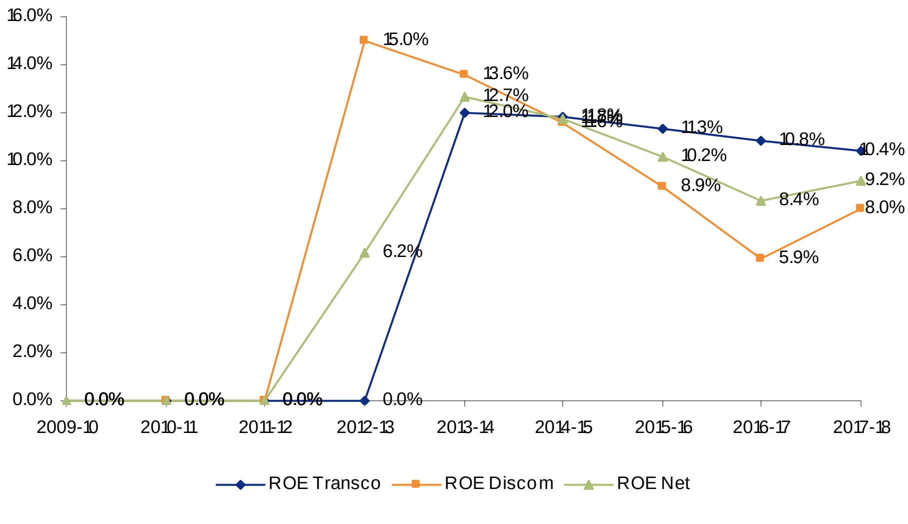
Debt schedule	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
PESCO								
Drawal schedule	3007	7174	7588	8468	350	0	0	0
Payback schedule	0	0	0	322	4202	4502	4502	4502
Net outstanding	2398	2687	3455	4056	5956	6585	6994	7427
PETCO								
Drawal schedule	2252	2453	3876	4017	0	0	0	0
Payback schedule	360	360	360	2504	2504	2504	2504	2594
Net outstanding	3991	6534	10795	13542	12589	11529	10347	8941
Consolidated								
Drawal schedule	**5258**	**9627**	**11464**	**12485**	**350**	**0**	**0**	**0**
Payback schedule	**360**	**360**	**360**	**2826**	**6706**	**7006**	**7006**	**7096**
Net outstanding	**6390**	**9221**	**14249**	**17598**	**18545**	**18113**	**17341**	**16368**

- In addition, PESCO is expected to take a loan of INR 2500 lakhs in the first year (FY2010) towards working capital. This loan, in conjunction with a part of the security deposits (25% of the total of INR 13000 lakhs, which is estimated to be uncalled for the next four years) amount to INR 5750 in the first year (FY 2010) and INR 6500 lakhs in the second year (FY 2011) would cover the working capital requirement, the net of which is expected to be around INR 6100 lakhs (on the basis of one month power purchase, employee expenses and supplier dues). This short term loan is expected to be repaid over the next five years (FY 2011 to FY 2015) in equal annuities, computed at a 13% interest rate. Post FY 2014 however, the internal cash accruals of the successor entities are expected to provide cover for the working capital

2.3.8 Return on Equity:

The central regulator allows a 14% return on equity to be passed through the ARR, subject to equity not accounting for more than 30% of the net value. However starting with a nearly 100% equity base, maintenance of this 70: 30 rule via external debt would take a long time, even with aggressive capex schedule. Moreover, the loans for the capital investments would have benchmark tenures (8 – 12 years for Power sector). In light of the above factors, it is recommended that the successor entities go ahead with external debt schedules based on the Capex requirements and not on the basis of leverage considerations. As for the return on Equity, the Government could be paid 14% on its holdings, subject to a maximum of 30% of the net value, and debt rates there on. At a 70: 30 mix, the Weighted Average Cost of Capital (WACC) works out to ~ 11.9%, which would be the cap for Government payouts. However, in real terms, the government payments are expected to move slowly from zero remittances in the first four years (time for stabilization of the successor entities) and gradually move up, ultimately reaching ~ 10.2% by 2016 with the current suggested tariff structures

Post 2016 (or indeed at any point in the interim period), the successor entities could of course file ARRs to ensure Government return of at least WACC (11.9%). However for the purposes of the FRP, it is assumed that the Government, in return for nominal tariff hikes to maintain the competitiveness of Puducherry as a commercial and manufacturing destination, would allow the return on its investments to be at lower levels. The estimated returns from the successor entities is shown below (Profits after Tax – PAT)



The shapes of the PESCO and PETCO return curves can be explained on the basis of their respective tariff structures. The transmission utility starts from real, cost based tariff structures. Hence, the returns are stable, though after an extra year of delay owing to greater Capex schedule. However, the Distribution entity has to follow a staggered tariff hike to insulate customers from a tariff shock. Hence, its returns are more protracted and spread out unevenly on account of skewed debt timeframes. However, in comparison to the current cash negative state of PED, the Restructuring would result in entities providing ~ 10% returns to Government with minimal adverse tariff impact

2.4 Revenue projections

2.4.1 Demand forecasts, growth and scenarios

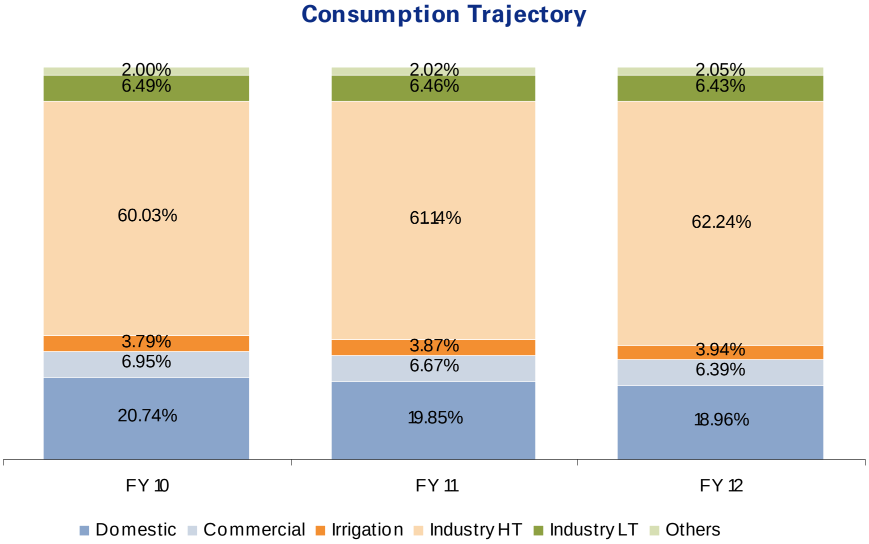
The demand forecasts have been made on the basis of the 17th CEA Power Survey, which clearly outlines the demand forecast for Puducherry by category. It also lays out a consumer mix projection for the forecast period. The CEA Power survey is based on the infrastructure – economy growth linkage which maintains that for every unit percentage point growth in the economy, a 1.5% growth in power supply is essential. However, considering past trends, the multiple has been closer to 1 owing in part to insufficient power generation and low investment intensity in the sector. However, in light of the recent upsurge in investments – both public and private in the power sector, it can be assumed that there will be no lower bias from the multiple of 1

The CEA forecast, having been made prior to the recent economic slowdown pegs the National GDP growth at 9% and hence implies a net growth in power at 9.5% - 10%. However, taking into consideration the latest economic dynamics, the GDP may be expected, reliably to grow at 7% - 7.5% in the medium term (Planning Commission and RBI estimates), which puts the estimate of power growth in the mid term at ~ 7.5% in line with the CEA econometric tools. Hence the CAGR has been corrected by a correction factor of close to 30% (based on adjusted GDP figures) and the demand estimates have been made for the period ending FY 12 (11th plan period)

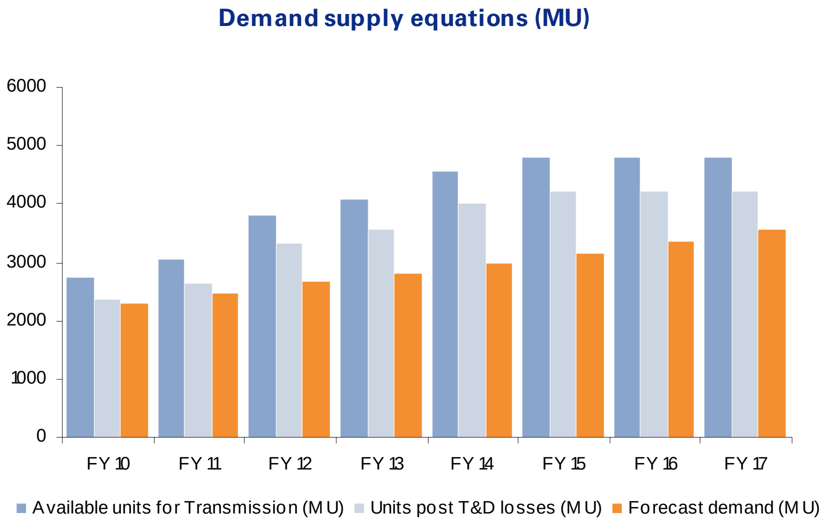
For the next 5 year plan period, we have assumed a conservative growth scenario of 6% YOY. This is based on the following reasons.

- A bulk of power is consumed by the Industrial segment in Puducherry. These units have been around, for most part for over two decades, and have experienced multiple rounds of capacity addition
- The current measures towards establishment of special manufacturing areas is expected to fuel growth in the mid term (11th plan end) and has been factored into the higher growth forecast in that period
- Moving ahead, land acquisition is viewed as a significant impediment to establishment of industries/ establishments. Also, Puducherry is currently at a high level of domestic and commercial electrification. Hence the growth rate in the long term is seen to be limited to 6
- The potential effect of higher levels of open access on Puducherry Industrial clients is expected to be a significant factor in terms of plateauing long term growth
- In case of higher than forecast demand growth, there would still be limited need for excess supply since under the current demand projections, the state has a healthy UI trading buffer

In light of the above factors, a revised growth schedule and a relatively unchanged segment wise consumption trend has been assumed. The Industrial segment, which is the bulk (and most profitable) consumer is seen to maintain its consumption at close to 62% of net.



Demand (MU)	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17
Domestic	472.35	487.37	502.15	532.27	564.21	598.06	633.95	671.98
Commercial	158.15	163.63	169.11	179.26	190.01	201.41	213.50	226.31
Public Lighting	20.00	21.00	22.00	23.00	24.00	25.00	26.00	27.00
Public Water works	18.52	21.64	25.16	27.41	29.86	32.51	35.38	38.48
Irrigation	86.39	94.91	104.29	110.55	117.18	124.21	131.66	139.56
LT Industrial	147.70	158.54	170.26	180.48	191.31	202.79	214.95	227.85
HT Industrial	1366.90	1500.91	1648.46	1747.37	1852.22	1963.35	2081.15	2206.02
Non Industrial	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
OHOB	13.00	13.26	13.53	13.80	14.07	14.35	14.64	14.93
Net	**2290.01**	**2468.26**	**2661.96**	**2821.14**	**2989.85**	**3168.68**	**3358.23**	**3559.13**



2.4.2 UI sales

Comparing the demand estimates to the supply numbers, we observe that moving forward, from FY 2011, Puducherry can expect to enjoy a power surplus scenario, with legroom for UI sale. The UI sale rates have been conservatively assumed, and are projected to reach parity with long term rates on the back of aggressive capacity expansion. Even in case of UI sale rates being on the higher side, the successor entities could adjust their ARRs accordingly.

UI projections	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17
UI Sale	77.37	172.48	653.87	739.48	1024.20	1048.94	859.40	658.49
UI sale rate	6.00	5.50	5.00	4.50	4.00	4.00	4.00	4.00
UI sale revenue (Lakhs)	4641.93	9486.13	32693.38	33276.69	40967.82	41957.72	34375.86	26339.54

2.4.3 Tariff hike schedule:

The Puducherry Electricity Department tariffs have not been revised since 2002, and remain one of the lowest in India across categories. While this is positive for encouraging industry consumption, over the years, despite the higher efficiency of the PED, the escalation in power purchase and employee costs alone have made this structure unviable. Consequently, in FY 2009, PED has for the first time, observed a loss to the tune of over INR 43 crore. This is expected to exacerbate in the coming years with hikes in fuel costs and other operating expenses

The electricity Act 2003 envisages setting up of financially viable entities, with tariffs determined on an actual cost basis. Hence, there is a large legroom for Puducherry to increase its tariffs through the cost justification. However, care should be taken to avoid a situation of Tariff shocks which could potentially among other consequences affect public opinion, industrial consumption and collection efficiency

The ARR submitted by the Puducherry Electricity Department for FR2010 envisages a price hike of around 38% across categories. While this is unlikely to be admitted by JERC (which has historically not permitted hikes in any given year in double digits, barring a few exceptions), even in the instance of it being admitted, a large number of perception and shock oriented adverse effects seem highly probable

In light of the above, it can be concluded that while a Tariff hike is imperative to ensure sustainability of the successor entities, it should be done based on the following guidelines

- The hikes would have to be a result of a careful demand supply assessment, not just over the near term, but over a longer time horizon
- The expense trajectory of the successor entities would have to be plotted out based on PED actuals, historical trends and industry benchmarks
- A Capital expenditure schedule would have to be formulated and vetted on both a bottom – up basis (load flow study) and a top down basis (Capital asset intensity upon power purchased) to ensure that the plans reflect real requirements

- The hikes would have to be in moderation and spaced out over a longer period (3 – 5 years) in order to reduce the impact on the key consuming category – Industries

- Any near term shortfalls in the phasing period would have to be met through bridge funding, which the Government would help raise

- The Government support would be in terms of both bridge funding, and accepting a moratorium period for return on equity

The tariff hike schedule presented below is based on the above principles, with the exception of load flow study, which is recommended to be performed in future. However, we have estimated the demand and cost heads for the forecast period (and indeed till an extended time of 2024) and arrived at the tariff schedule which balances the effect on all stakeholders. The effects of UI sales have also been taken into account to ensure that the hikes are the bare minimum required for healthy successor entities, with fair pricing by both PESCO and PETCO

The hikes are to the tune of 7%, 6%, 5%, and 5% over the first four years (FY2010 to FY 2013) and a blanket hike of 1.8% per year from there on. It should also be remembered that any power inflation and inflation in PGCIL transmission charges would be passed on directly to customers. As can be observed, the hikes over the four years are just 1% - 2% higher than the expected inflation, which is a very defendable argument. Historically JERC also has approved of such moderate hikes

Since the first half of FY10 is already over, and since delays are expected in the announcements of the tariff hike, instead of spreading out the hike over the next four years, they could be made over the next three years as per the schedule below

Hike schedule	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17
Hike wef FY 2010	7%	6%	5%	5%	1.80%	1.80%	1.80%	1.80%
Hike wef FY 2011	0%	8%	8%	8%	1.80%	1.80%	1.80%	1.80%

This three year hike schedule is also just 2% - 3% higher than inflation, and would differ only in terms of bridge funding implications to the Government.

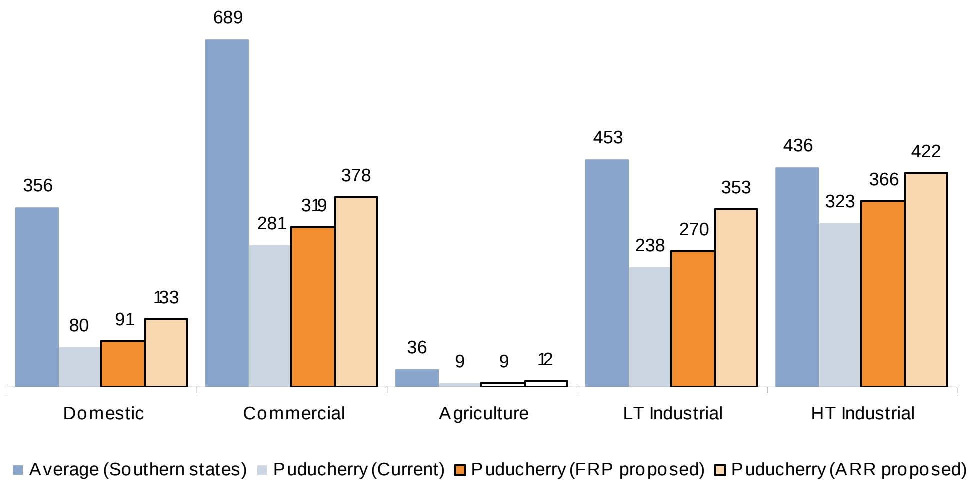
Tariff hike schedule	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17
Domestic								
Demand (MU)	472	487	502	532	564	598	634	672
Rate required(Average rate) - Rs	0.86	0.91	0.95	1.00	1.02	1.04	1.06	1.07
Implied hike over last year	**7.00%**	**6.00%**	**5.00%**	**5.00%**	**1.80%**	**1.80%**	**1.80%**	**1.80%**
Expected revenue from segment	4043	4422	4784	5325	5746	6200	6690	7220
Commercial								
Demand (MU)	158	164	169	179	190	201	213	226
Rate required(Average rate) - Rs	3.01	3.19	3.35	3.51	3.58	3.64	3.71	3.77
Implied hike over last year	**7.00%**	**6.00%**	**5.00%**	**5.00%**	**1.80%**	**1.80%**	**1.80%**	**1.80%**
Expected revenue from segment	4755	5215	5659	6299	6797	7334	7914	8540
Agricultural								
Demand (MU)	86	95	104	111	117	124	132	140
Rate required(Average rate) - Rs	1.50	1.59	1.67	1.75	1.78	1.82	1.85	1.88
Rate post Govt subsidy	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Implied hike over last year	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Expected revenue from segment	1296	1509	1741	1938	2091	2256	2435	2627
LT Industrial								
Demand (MU)	148	159	170	180	191	203	215	228
Rate required(Average rate) - Rs	2.55	2.70	2.83	2.98	3.03	3.08	3.14	3.20
Implied hike over last year	**7.00%**	**6.00%**	**5.00%**	**5.00%**	**1.80%**	**1.80%**	**1.80%**	**1.80%**
Expected revenue from segment	3761	4280	4826	5371	5796	6254	6749	7283
HT Industrial								
Demand (MU)	1367	1501	1648	1747	1852	1963	2081	2206
Rate required(Average rate) - Rs	3.46	3.66	3.85	4.04	4.11	4.19	4.26	4.34
Implied hike over last year	**7.00%**	**6.00%**	**5.00%**	**5.00%**	**1.80%**	**1.80%**	**1.80%**	**1.80%**
Expected revenue from segment	47242	54985	63410	70576	76157	82180	88678	95691
Others								
Demand (MU)	7	7	7	7	7	7	7	7
Rate required(Average rate) - Rs	2.14	2.27	2.38	2.50	2.55	2.59	2.64	2.69
Implied hike over last year	**7.00%**	**6.00%**	**5.00%**	**5.00%**	**1.80%**	**1.80%**	**1.80%**	**1.80%**
Expected revenue from segment	150	159	167	175	178	181	185	188
OHOB								
Demand (MU)	13	13	14	14	14	14	15	15
Rate required(Average rate) - Rs	1.50	1.59	1.67	1.75	1.78	1.82	1.85	1.88
Rate post Govt subsidy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Implied hike over last year	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Expected revenue from segment	195	211	226	242	251	261	271	281
Street lights, Govt. installations								
Demand (MU)	39	43	47	50	54	58	61	65
Rate required(Average rate) - Rs	3.11	3.30	3.47	3.64	3.70	3.77	3.84	3.91
Implied hike over last year	**7.00%**	**6.00%**	**5.00%**	**5.00%**	**1.80%**	**1.80%**	**1.80%**	**1.80%**
Expected revenue from segment	1199	1407	1634	1834	1995	2169	2356	2559
Net demand expected (MU)	**2290**	**2468**	**2662**	**2821**	**2990**	**3169**	**3358**	**3559**
Net revenue	**62641**	**72188**	**82448**	**91760**	**99011**	**106835**	**115278**	**124389**
Average rate of sale per unit	**2.74**	**2.92**	**3.10**	**3.25**	**3.31**	**3.37**	**3.43**	**3.49**

As can be seen from the above tariff hike schedule, it is assumed that the actual tariff requirements will be passed down to the consumers across categories, on account of being reasonable and highly competitive (chart below). However, for two categories (Agricultural and OHOB) a subsidy regime has been assumed, with the monetary implications of the same to the Government given below. These subsidies would serve to clearly quantify and showcase the Government cash flows towards Agriculture and poverty alleviation. It is assumed that the subsidies would be payable in quarterly installments by the Government

Govt. subsidy schedule (Lakhs)	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17
Agricultural	1218	1424	1647	1838	1986	2145	2316	2502
OHOB	195	211	226	242	251	261	271	281
Net subsidy	**1413**	**1634**	**1873**	**2080**	**2237**	**2405**	**2587**	**2783**

Even post the hike schedules, Puducherry is expected to remain one of the most competitive states in terms of power price across categories. Below is a comparison of the rates across categories with FY11 forecast prices. Any variance in the same would only be to the favour of Puducherry since the below chart assumes that tariffs of the benchmark states stay at 2008 levels, while in reality their filed ARRs might entail an upward revision of the tariffs

Puducherry vs Southern States average



It is important to note that the competitive advantage of Puducherry especially in terms of Industrial (HT and LT) tariffs is being maintained with the proposed FRP. This is vital since the economy of Puducherry largely hinges on the performance of the manufacturing sector, and any shocks in factor inputs (notably power) would be detrimental to the Industries, and hence to the state interests

2.4.4 Collection losses:

Despite very low T&D losses, the AT&C losses of Puducherry Electricity Department stand at ~ 18.5% - indicating a 4.5% collection loss. The levels of collection loss seen in progressive distribution entities are close to 99%. Indeed, by way of ARR pass through of losses, JERC permits only a maximum of 1.5% of collection losses. Hence, it is clear that the successor Distribution entity has large scope for reduction of collection losses from the current 4. levels to 1%. This is envisaged over the next four years, with improvements of 1%, 0.5%, 1% and 1% over the next four years

This needs to be facilitated through a detailed plan in terms of loss monitoring and framing of policies for prosecution of defaulters. These measures need to be supported by governmental support in terms of enforcement. Andhra Pradesh has achieved significant collection efficiencies through a concerted mix of utility and Government policy

2.5 Cash Flows

The detailed cash flow statements of the successor entities have been projected in the model submitted to the Department. In order to make room for staggered tariff cuts, it is imperative that the successor entities fund their mid term deficits through a bridge loan. The hike schedule of 7%, 6%, 5% and 5% (or alternative schedule of 0%, 8%, 8% and 8%) is expected to create cash shortfalls for the first two years for the Discom, and for the first four years for the Transco. Cumulatively, the bridge funding would be required only for the first 2 – 3 years (till FY 2012) and the repayments in full would be made by the fifth year. There loan has been assumed at 13% rate of interest, guaranteed by the Government. Alternatively, the Government itself could provide this loan for the successor entities to bridge their short term funding gaps. Below is the cash flow schedule for the Distribution entity. As can be seen, by the end of FY 12, the entity becomes free of its bridge liabilities and transfers a net of INR 3224 lakhs to the Transco, via the Government. The Transco meets its cash flow requirements with this fund infusion

Cash flows Discom (PESCO)	FY 10	FY 11	FY 12
Cash outflow (gap)	-1382	-9978	17959
Loan + Interest at year end	-1562	-13040	3224

2.5.1 Govt. cash flows

Currently, the Government spends, in terms of plan funding alone, close to INR 4400 lakhs on the Puducherry Electricity Department. Moving ahead, considering the loss of over INR 4300 lakhs made by PED last year (FY 09), the Government would have to spend in excess of INR 10,000 lakhs in the future periods on a per annum basis. Compared to the status quo, the FRP envisages the Government spending only for the next 3 – 4 years in terms of capital infusions for Capex creation, followed by dividends to the Government. A summary of Governmental cash flows is presented below

Outflow	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Transco - Capex	1945	2180	2950	3251	0	0	0	0
Discom - Capex	1289	3075	3252	3629	4715	0	0	0
Net	3234	5255	6202	6880	4715	0	0	0
Inflow								
Transco – Cash flow adjusted to bridge loan	0	0	0	0	1941	2261	2503	2769
Discom – Cash flow adjusted to bridge loan	0	0	0	1998	2033	2253	2238	1888
Net	0	0	0	1998	3974	4514	4740	4657
Effective cash inflow	-3234	-5255	-6202	-4883	-742	4514	4740	4657

Year	Cash flows	PV factor @ 10%	Present value
2009-10	-3234	1.000	-3234
2010-11	-5255	0.909	-4777
2011-12	-6202	0.826	-5125
2012-13	-4883	0.751	-3668
2013-14	-742	0.683	-507
2014-15	4514	0.621	2803
2015-16	4740	0.564	2676
2016-17	4657	0.513	2390
2017-18	5663	0.467	2642
2018-19	6014	0.424	2551
2019-20	6455	0.386	2489
2020-21	7001	0.350	2454
2021-22	7429	0.319	2367
2022-23	7898	0.290	2288
2023-24	9082	0.263	2392

The extended projections show that till the horizon of 2024, the Net Present value of the effective cash flows (post tax) to the Government from the successor entities would be ~ INR 77 Crore. Hence, even after discounting the INR 213.2 Crore of payments that the Government would have to make towards Pension liabilities, the Government faces a net cash outgo of only INR 103 Crore net from FY 2011 onwards (two years plan funding amount). Hence it can be seen that the cash burden of the restructuring on the Government is low in terms of outflow, and very beneficial in terms of the opportunity cost of heavy future negative cash flows to the Government in case of continuing the utility under the current configuration. This benefit would also come at a very minimal tariff cost, since as demonstrated above, under the forecast tariff regime, Puducherry would still be among the cheapest and highest quality providers of power across consumer categories

It should also be remembered that in addition to these visible cash flows, the Puducherry Government would be in possession of over 70% (in 2017) equity in two very sustainable and robust entities, which could be potentially monetized in the future

2.6 Other Balance Sheet items

2.6.1 Current Liabilities

The current liabilities of the successor entities have been projected on the basis of the driving revenue/ asset figures on the basis of benchmarks, rationalized to trends in Puducherry Electricity Department. These trends are projected on top of the asset and liability division done through the transfer scheme. Key results and methodologies are

- Consumer security deposits are the largest item in current liabilities. A historical analysis of the CSD trends in security deposits reveals that the net cash CSD as a fraction of net revenues comes to ~ 8%. The net CSD for FY 09 stood at INR 130 Crore, with ~ INR 55 Crore being cash deposits (and the rest being non fungible bank guarantees and securities). Moving forward, the Government would be transferring the cash account to the successor (PESCO). It is to be observed that out of the total amount, ~ 25% is used for working capital requirements for the first three years, post which it is replaced to the deposit pool

- Power purchase liabilities are the next largest head of current liabilities. The Puducherry Electricity Department has been a very regular payer of power purchase dues, frequently earning rebates on timely payment. This is projected to continue, with the cash positions of the successor entity (PESCO) tuned to ensure prompt payments. The average outstanding days for power payment have been assumed at one month, and the PP liabilities calculated there on. Similarly, the liabilities towards the Transco have also been calculated on a one month period assumption

- Employee liabilities: These include mainly payments pending to employees for the month, apart from payments towards claims. Based on historical trends, the liabilities towards employees have stood at 7.96% of total employee expenses over the years. This is expected to continue, and the employee liabilities have been calculated thereof.

- Other liabilities: The rest of the liabilities are made of mainly liabilities towards suppliers and sundry liabilities for various services (water, telephone etc). The supplier's liability, from historical trends has been calculated at 10.74% of total Capex for that period. On this basis, the liabilities have been drawn

2.6.2 Contingent Liabilities

- Puducherry Electricity Department has consolidated a list of contingent liabilities, mostly stemming from power purchase disputes (notably with TNEB over pricing of the power) and from various claims (both related to quality of service and accidents involving fatalities). Of these, by far the largest claims stem from the TNEB case. It should be noted that in response to the uncertainty of this item, the successor distribution entity (PESCO) takes up a policy of gradually reducing dependence on TNEB power to zero levels over the next four years. All liabilities, whose origination lies before the date of transfer of assets to the successor entities shall be borne by the Government of Puducherry. The comprehensive list of liabilities as of FY 09 are in the possession of PED

2.6.3 Current Assets

The current assets of the successor entities have been projected on the basis of the driving revenue/ asset figures on the basis of benchmarks, rationalized to trends in Puducherry Electricity Department. These trends are projected on top of the asset and liability division done through the transfer scheme. Key results and methodologies are

- Receivables: Currently, PED has an estimated 45 days receivables period. This is projected to narrow down to 30 days over the next three years. Several steps, including the feasibility of pre paid meters can be explored to facilitate this improvement. The key target of these measures is to ensure that the key asset (receivables) is squared off against the top liability (power purchase) to ensure minimum requirement of working capital. The successor entities would need to evolve suitable carrot and stick systems to incentivize advance payment of bills as well as deter payment delays. The Transmission entity (PETCO) is assumed to be paid on a similar basis, with its receivables from PESCO having a 45 day payment period in the initial year, moving on to 30 days as the Distribution entity shortens its receivables period. The subsidy from Government of Puducherry is assumed to be receivable on a quarterly basis. Moreover, the revalued receivables from the previous periods, both from Government and external parties is expected to be monetized over the next 3 years (FY10 – FY 12)

- Cash and bank balances have been calculated on the basis of months of operating expenses – employee expenses, R&M expenses and A&G expenses with a two month minimum limit. In addition to the above, towards power purchase, an amount corresponding to one month payables has been made available through short term loan for the first three years, post which the internal cash accruals would be sufficient to provide for working capital of the entity

2.7 Government Equity

The equity schedule of the successor entities is given below. As demonstrated already, the net ROE is seen in the vicinity of 11% till 2016, post which, if the Government wishes to raise it to higher levels (as permissible by the rule of 14% ROE with equity capped at 30% and Debt returns on the remaining amount) it may do so in ARRs in the future period. However, the below return schedule strikes a good balance between Government return and tariff hike moderation, with the Government effectively getting debt return rates from the successor entities

Return on Equity	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Discom								
Net Government ownership	16537	12892	7032	12493	16786	22083	27722	33808
Rate of return on equity	0.00%	0.00%	0.00%	15.00%	16.16%	13.67%	10.82%	7.50%
ROE	0	0	0	1874	2713	3018	3000	2536
Transco								
Net Government ownership	10492	12039	13773	17672	21658	25396	29412	33937
Rate of return on equity	0.00%	0.00%	0.00%	0.00%	11.93%	11.81%	11.29%	10.83%
ROE	0	0	0	0	2585	3000	3320	3674
Net								
Total Govt holding	27030	24931	20805	30164	38444	47479	57134	67744
ROE	0.00%	0.00%	0.00%	6.21%	13.78%	12.68%	11.06%	9.17%

The Cash flows of the Government have already been provided in the Cash flows section. These are inclusive of the Government payouts towards historical employee liabilities, funding towards asset building in the initial years, any bridge funding and return on equity. As already mentioned, the Government effectively ends up having to spend only one year worth of plan funding on the successor entities under the FRP, considering cash flows till 2024 at a 10% discount rate

2.8 Projected Financial Statements

2.8.1 Distribution entity – PESCO

Projected Balance Sheet - INR Lakh	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
LIABILITIES								
Shareholders' Funds								
Shareholders' funds at start of year	12985	16537	12892	7032	12493	16786	22083	27722
Additions during the year	3552	-3645	-5860	5461	4293	5297	5639	6086
Net	16537	12892	7032	12493	16786	22083	27722	33808
Long-Term Liabilities								
Long term loans	3007	10539	19379	25946	25176	23654	21953	20052
Current Liabilities								
Consumer Security Deposits	13022	16944	22842	24876	27941	29749	29927	30149
Power Purchase Liabilities	5037	5771	7366	8064	9291	9814	9879	9956
Staff related liabilities	386	401	418	427	431	460	489	515
Liabilities towards suppliers	461	1101	1164	1299	544	579	616	655
Short term loans	2500	2114	1678	1186	629	0	0	0
Others	135	180	240	262	285	303	305	308
Net of Current and Long term liabilities (external)	24548	37051	53087	62060	64297	64560	63170	61636
Total Liabilities + Equity	**41085**	**49943**	**60119**	**74552**	**81083**	**86643**	**90892**	**95444**
ASSETS								
Net block at start of year	8737	12595	22214	31944	42444	45387	48509	51821
Additions during year	4295	10249	10840	12098	5065	5391	5737	6103
Depreciation	437	630	1111	1597	2122	2269	2425	2591
Net block at year end	12595	22214	31944	42444	45387	48509	51821	55333
Current Assets	**28490**	**27728**	**28176**	**32108**	**35696**	**38134**	**39072**	**40111**
Stores	48	58	79	89	106	118	125	133
Gross Receivables against supply of power	17094	12560	6715	7473	8065	8703	9391	10134
Less: Provision for Doubtful items	2366	2602	2310	1254	1404	1492	1501	1511
Net Receivables against supply of power	14728	9957	4404	6219	6661	7211	7890	8622
Cash and bank balance (at mandatory levels)	5513	7038	9332	10123	11315	12018	12087	12174
FDR, NSC, Bank Guarantees	7509	9906	13510	14753	16626	17731	17840	17975
Short term investments	340	360	382	405	429	455	482	511
Sundry Receivables	0	0	0	0	0	0	0	0
Subsidy receivable from Puducherry Govt.	353	409	468	520	559	601	647	696
Total Assets	**41085**	**49943**	**60119**	**74552**	**81083**	**86643**	**90892**	**95444**

Projected P&L (INR lakhs)	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Revenue								
Tariff Income	61,228	70,554	80,575	89,679	96,774	104,430	112,691	121,606
Income from UI sales	4,642	9,486	32,693	33,277	40,968	41,958	34,376	26,340
Revenue Subsidy from Puducherry Government	1,413	1,634	1,873	2,080	2,237	2,405	2,587	2,783
Non-Tariff Income (including scrap sale)	325	344	364	385	391	397	404	411
Towards receivables from previous period		4,720	4,720					
Total Revenue	**67,608**	**86,739**	**115,505**	**125,421**	**140,370**	**149,190**	**150,058**	**151,139**
Expenditure								
Total Power Purchase Cost	57103.01	65582.22	83952.04	89571.52	100655.82	105976.55	105976.55	105976.55
Puducherry Transco Charges	3343.64	3671.76	4440.56	7197.33	10832.15	11796.92	12566.63	13494.03
Transmission charges to PGCIL	5106.96	5192.04	5759.29	6113.83	6964.70	7461.05	7461.05	7461.05
Employee Cost	4852.89	5035.93	5248.24	5362.82	5420.04	5774.76	6148.63	6476.09
Repairs and Maintenance (R&M) Expenses	285.52	347.59	471.64	533.41	635.38	709.10	751.65	796.75
Administration and General Expenses (A&G)	428.27	521.38	707.46	800.11	953.07	1063.65	1127.47	1195.12
Provision for Bad Debts and Write-offs	2366.29	2602.18	2310.10	1254.21	1403.70	1491.90	1500.58	1511.39
Total Expenditure	73486.58	82953.10	102889.35	110833.23	126864.85	134273.94	135532.55	136910.97
PBDIT	**(5,878)**	**3,786**	**12,616**	**14,588**	**13,505**	**14,916**	**14,525**	**14,228**
Less: Depreciation provision	489	705	1243	1787	4715	5391	5737	6103
PBIT	**(6,367)**	**3,081**	**11,373**	**12,801**	**8,789**	**9,525**	**8,788**	**8,125**
Interest and Finance Charges	0.00	710.79	710.79	1032.80	4912.91	5212.91	4502.13	4502.13
PBT	**(6,367)**	**2,371**	**10,662**	**11,768**	**3,876**	**4,312**	**4,286**	**3,622**
Less: Income Tax	-	711.2	3,198.6	3,530.4	1,162.9	1,293.6	1,285.9	1,086.7
PAT	**(6,367)**	**1,659**	**7,463**	**8,238**	**2,713**	**3,018**	**3,000**	**2,536**
Less: Payment of Dividend	0.00	0.00	0.00	6864.60	2261.22	2515.35	2500.35	2113.10
Less: Payment of Dividend Tax	0.00	0.00	0.00	1372.92	452.24	503.07	500.07	422.62
Addition to Retained Earnings	**-6367.13**	**1659.45**	**7463.35**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.8.2 Transmission entity - PETCO

Projected Balance Sheet (INR lakhs)	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
LIABILITIES								
Shareholders' Funds								
Shareholders' funds at start of year	10699	10492	12039	13773	17672	21658	25396	29412
Additions during the year	-206	1546	1734	3898	3986	3738	4016	4525
Net	10492	12039	13773	17672	21658	25396	29412	33937
Long-Term Liabilities								
Long term loans	3991	6534	10795	13542	12589	11529	10347	8941
Current Liabilities								
Staff related liabilities	120	126	129	130	133	141	150	159
Liabilities towards suppliers	451	497	733	781	374	416	443	471
Short term loans	1740	1571	1384	1176	946	690	405	0
Others	5	5	7	8	4	4	4	5
Net of Current and Long term liabilities	6307	8734	13048	15637	14046	12780	11349	9575
Total Liabilities + Equity	**16799**	**20772**	**26821**	**33308**	**35704**	**38176**	**40761**	**43512**
ASSETS								
Net block at start of year	12256	15963	19957	25985	32213	34258	36602	39087
Additions during year	4197	4633	6826	7268	3486	3877	4124	4386
Depreciation	490	639	798	1039	1442	1533	1638	1750
Net block at year end	15963	19957	25985	32213	34258	36602	39087	41723
Current Assets	**837**	**816**	**836**	**1095**	**1446**	**1574**	**1674**	**1789**
Stores	48	0	0	0	0	0	0	0
Gross Receivables against transmission	418	408	370	600	903	983	1047	1125
Less: Provision for Doubtful items - previous dues	0	0	0	0	0	0	0	0
Net Receivables against supply of power	418	408	370	600	903	983	1047	1125
Cash and bank balance	371	408	466	495	544	591	627	664
Total Assets	**16799**	**20772**	**26821**	**33308**	**35704**	**38176**	**40761**	**43512**

Projected P&L (INR lakhs)	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Revenue								
Income from Wheeling Charges	3,344	3,672	4,441	7,197	10,832	11,797	12,567	13,494
Non-Tariff Income	32	40	52	64	69	73	78	83
Total Revenue	**3,376**	**3,712**	**4,493**	**7,262**	**10,901**	**11,870**	**12,645**	**13,577**
Expenditure								
Employee Cost	1513.48	1577.99	1616.90	1638.39	1674.03	1774.48	1880.95	1993.80
Repairs and Maintenance (R&M) Expenses	571.03	695.17	943.29	1066.81	1270.76	1418.21	1503.30	1593.50
Administration and General Expenses (AGM)	142.76	173.79	235.82	266.70	317.69	354.55	375.82	398.37
Provision for Bad Debts and Write-offs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Expenditure	2227.27	2446.95	2796.01	2971.90	3262.48	3547.23	3760.07	3985.67
PBDIT	**1,148**	**1,265**	**1,697**	**4,290**	**7,638**	**8,323**	**8,885**	**9,592**
Less: Depreciation allowance	490	639	798	1039	1442	1533	1638	1750
PBIT	**658**	**626**	**898**	**3,250**	**6,196**	**6,790**	**7,246**	**7,842**
Interest and Finance Charges	360.00	360.00	360.00	2503.93	2503.93	2503.93	2503.93	2593.93
PBT	**298**	**266**	**538**	**747**	**3,692**	**4,286**	**4,743**	**5,248**
Less: Income Tax	89.4	79.9	161.5	224.0	1,107.7	1,285.7	1,422.8	1,574.5
PAT	**209**	**186**	**377**	**523**	**2,585**	**3,000**	**3,320**	**3,674**
Less: Payment of Dividend	0.00	0.00	0.00	435.48	2153.89	2499.92	2766.47	3061.53
Less: Payment of Dividend Tax	0.00	0.00	0.00	87.10	430.78	499.98	553.29	612.31
Addition to Retained Earnings	**208.65**	**186.36**	**376.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

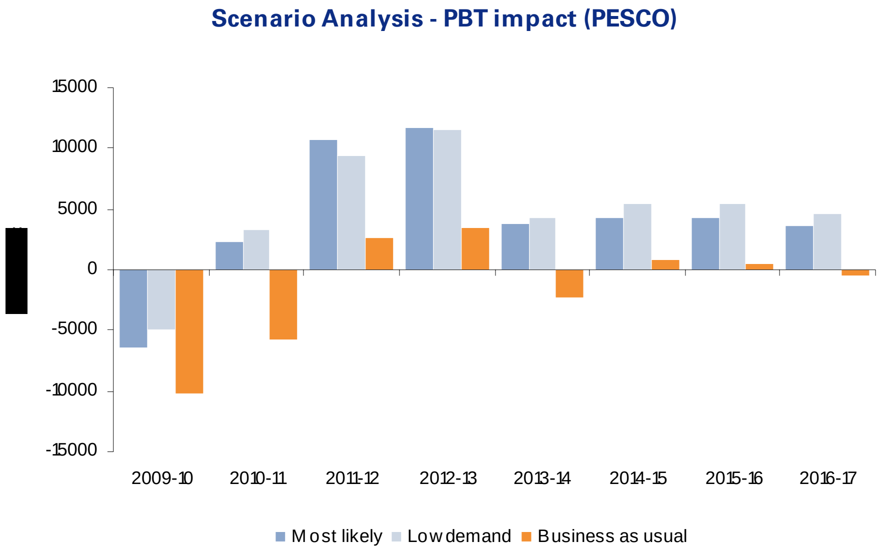
3 Scenario Analysis

3.1 Basis of scenario analysis

- **Scenario 1 – Low demand growth**
    - The demand growth has further been adjusted by 30% from the most likely case to mirror potential effects of a protracted recovery and increased impact of open access. This downward revision has been applied till the end of the 11th plan period (FY2012), post which the demand is expected to continue on normal grounds (6% growth)
    - The commissioning of power plants and availability of power from various upcoming stations has been delayed by 1 year. This is to capture the possibility of extended project delays (over and above those anticipated in the most likely scenario)
    - The tariff hikes have been assumed at current levels i.e. 7%, 6%, 5% and 5% over the next four years and a blanket hike of 1.8% there on, with power surcharge and PGCIL transmission surcharge pass through
    - The detailed impact of this scenario on multiple heads (Balance sheets, Profit and loss, Cash flows, debt service coverage, Demand and supply) have been modeled and submitted separately to the Department
- **Scenario 2 – Business As usual**
    - This scenario has been developed to demonstrate the effects of postponement of the hikes. The hikes have been assumed to come into force from FY2012 onwards, at the current hike schedule (7%, 6%, 5% and 5% over the next four years and a blanket hike of 1.8% there on, with power surcharge and PGCIL transmission surcharge pass through)
    - The demand growth and power plant commissioning/ power availability have been considered at most likely case assumptions. Consequently, levels of capital investment too have been retained at the most likely case assumptions
    - The detailed impact of this scenario on multiple heads (Balance sheets, Profit and loss, Cash flows, debt service coverage, Demand and supply) have been modeled and submitted separately to the Department

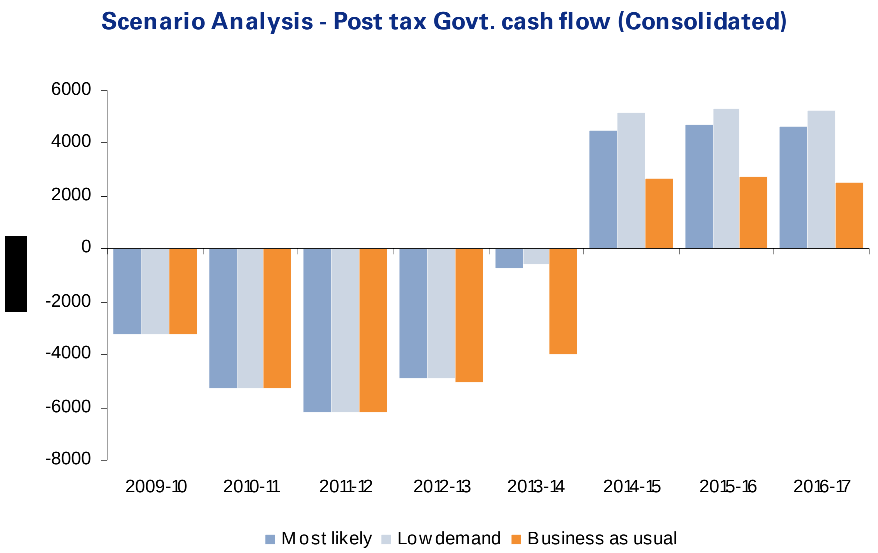
3.2 Key results – scenario analysis

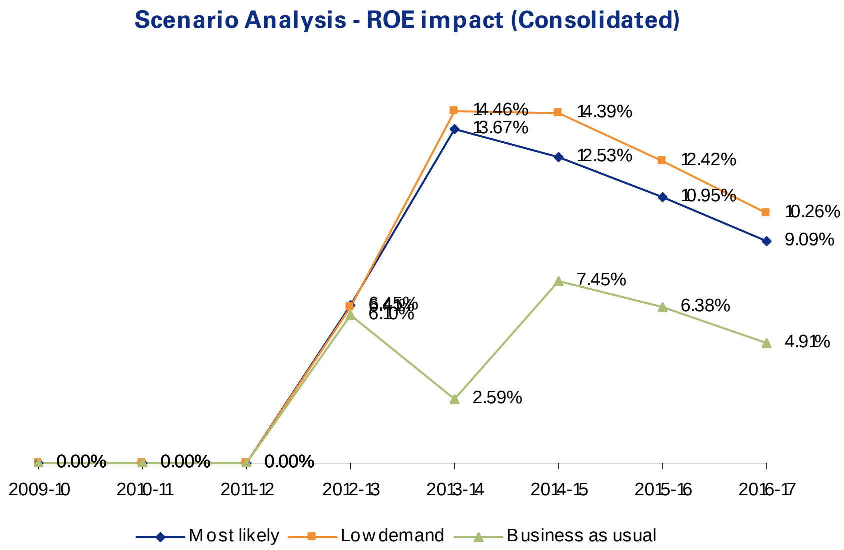
- **Effect on Bottomline:** As can be seen from the graph below, the most likely and the low demand scenarios are quite closely linked. A main reason for this is that despite the low growth in supply (additional one year lag), the lower revision of demand growth lets PESCO sell a much greater quantity of power in the spot exchange, where significantly higher prices are expected. Hence, with an identical tariff hike schedule, both the topline and the bottomline are higher than under the most likely case. However, continuing business as usual (2 year postponement of tariff hikes) has a very pernicious impact on the bottomline projections, with PBT levels consistently in the red/ negligibly positive



- **Effect on Government cash flows:** The impact of tariff postponement on the government cash flows has been captured below. As can be seen, the post tax cash flows under the BAU scenario remain heavily negative. In addition, in FY2012, the Government would need to make a cash infusion to the tune of INR 180 Crore into the Distribution entity in terms of gap funding to ensure continuance of operations. Hence, the Net Present value of cash flows to the Government moves from ~ INR 80 crore in the most likely and low growth scenarios, to ~ - INR 100 crore. In other words, from a 2024 horizon point of view, the government is in negative cash flow territory.

- **Effect on debt coverage:** As a natural consequence of low topline and uncompromised Capex schedule, the Business as usual (BAU) scenario places severe strain on the debt service coverage of the distribution entity. So much that for the first two years (FY2010 and FY 2011), the DSCR remains in negative territory, indicating the impossibility of debt financing of the capital expenditure (minimum DSCR of 1.5 is mandated by lending agencies for this sector). Hence, the Government would have to either bear the whole of capital expenditure on its own, creating severe pressures on the already fragile financials, or provide subsidies to bring the DSCR to acceptable levels. Either way, the cash implications would effectively imply postponement of the Capex schedule, impeding efficiency and exacerbating quality issues





- **Summary:** As has been demonstrated by the above scenario analysis, the cases of most likely as well as low growth scenarios, under the proposed tariff hike schedule and capital spending schedule maintain the financial viability of the successor entities. However, continuance on an as is basis without tariff hikes would necessitate high cash flows from the Government to keep the department out of the red. In addition, it would postpone the investment plan hindering the proposed efficiency improvements. At most, the Government could postpone the hikes only to the end of FY 2010, and follow the revised hike schedule given above (in the Tariff hike section) and provide both revenue gap funding and funding for capital investments for FY2010

4 Concluding remarks

4.1 Summary of key points

In summary

- The division of assets and liabilities across the successor entities has been done on a functional basis and has been detailed out in the transfer scheme. Key elements involve restatement of receivables, undertaking of pension and contingent liabilities and sizing of Government equity

- The investment plan has been made on the basis of asset benchmarks against demand and supply estimates. The intensive phase of asset creation would last for the first 4 – 5 years, post which investments would be made only to cover depreciation and for additional capacity

- Revenues have been calculated on the basis of segment wise demand estimates to cover the costs and financing charges. Tariff hike schedule of 7%, 6%, 5% and 5% have been planned over four years starting FY10, or alternatively 8%, 8% and 8% over three years starting FY11. These hikes would serve to make the successor entities financially sound, as well as retain the cost competitiveness of Puducherry. Transco tariffs have been demonstrated to be on comparable levels to APTRANSCO MYT

- Based on the investment plan, a debt schedule has been outlined, ensuring maintenance of a comfortable debt equity mix and debt service coverage at adequate levels across years

4.2 Implications to key stakeholders

The following are implications to various stakeholders

- Successor entities – Strong balance sheets across the years, comfortable debt service coverage and cash positions. Asset levels comparable to industry benchmarks. Revision of pay structures, and strong organization structure run on corporate basis

- Consumers – Marginal tariff hikes maintaining competitive nature of costs, increase in service quality on the back of high capital investments and performance KPIs

- Government – Transformation of the department to strong successor entities with minimal cash outflow. Reasonable returns on equity over the long term. Avoidance of tariff shocks to consumers, industry friendly tariff schedule to boost economy

- Lenders – strong balance sheet and cash positions to ensure solvency and liquidity, confidence in cash flows to encourage competitive lending

5 Appendix

5.1 Business and financial assumptions

Area	Assumption
Balance Sheet	
Assets:	Fixed assets calculated through deflation of estimated net block at historical deflation rates, followed by accelerated depreciation schedule
	Future asset trajectory in line with investment plan, based on state benchmarks in Assets/ Power wheeled
	Inflation assumed at 6% for the forecast period (for complete list of Investment plan assumptions, please refer to Assumptions sheet in the Investment plan)
	Depreciation assumed for future periods at standard rates (AP)
	Assets assumed to be funded 70:30 (D:E) till stabilization of asset ratios (4 years), post which maintenance depreciation is expected to be tariff funded
	Stores taken at benchmarks (% of R&M basis)
	Receivables calculated according to projected collection efficiency trajectory (row 19 of current assets sheet)
	Receivables from Discom to Transco assumed to have 0% collection loss
	Receivables period according to schedule (2 months - 1 month over 3 years)
	Cash and bank balance estimated as a % of operating expenses (R&M, A&G, Employee costs)
	Working capital requirements expected to be part funded from Customer Security Deposits (50% of cash deposits only, refunded at end of period) for 3 years, post which they would be 100% funded by internal accruals
Liabilities:	Government support in restructuring equity - acceptance of entire historical pension liabilities
	Zero dividend schedule till turnaround period - (3 years)
	Stabilization of Government returns (PAT) at levels comparable to WACC (~ 11%) in the long term
	PLR for external debt, REC rates where applicable
	Short term debt at 13%
	Consumer security deposits expected to increase in line with historical trends (as % of est revenues) given the stable consumer mix
	Bridge funding assumed at 13% (off balance sheet, Govt. guaranteed)
P&L	
Income:	Demand projections on basis of 17th CEA Survey, corrected to the current downturn effects on GDP; Three stage model of recovery, plateau and long term stabilization
	Of existing receivables, the Govt. dues are assumed to be repaid in 3 years. Of the remaining external portion, 50% is assumed recoverable over next 3 years (agreed to by the Steering Committee)
	OHOB and Agricultural segments are expected to be Govt. subsidized, with the subsidy amount reflected in a dedicated PL line
Expenses:	Power availability calculations on the basis of plant allocations, sale rates and commissioning dates as provided by the Department
	For upcoming plants with no cost data, estimates calculated using benchmarks (UMPP bid average rates etc)
	Plant commissioning and availability of allocation have been shifted rightwards and split across 2 years respectively taking into consideration historical delays in commissioning
	Puducherry Transco charges calculated on the basis of cost sheet (Transco_Charges), comparable with APTRANSCO charges according to latest MYT (till FY14)
	PGCIL charges assumed at current levels. Any increases would be passed through as surcharge to consumer
	Employee cost projections - employee headcount based on benchmark employee efficiency levels in conjunction with retirement trends; employee division based on PED actuals and benchmarks
	Terminal benefit contributions at 24% (AP) and hike of 6% YOY
	R&M, A&G expenses based on benchmarks - adjusted to inflation, along with current expense levels of PED. Cross verified to be within a close band of PED estimates (ARR filed)