

## **PREPA's Transformation** A Path to Sustainability

June 1, 2015

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## I. Business Plan



- Business Plan forecast shows total operating costs from FY16 through FY30 based on the following primary inputs and assumptions
  - Cost build up is used to estimate rates required to cover costs
    - □ CILT and A/R are based on estimated rates and would be need to be adjusted to reflect actual rates
    - □ FY16 shows an average rate, depending on timing when a new rate would be implemented the new rate would need to be higher than shown to account for the months the existing low rate is in effect
  - Draft Siemens preliminary IRP output for one scenario which assumes AOGP is constructed and limited capital investments, excludes natural gas to the north
    - All scenarios from Siemens are expected to be finalized during June 2015 and will include a scenario with natural gas available in the north as well as expanded/accelerated capital investments
      - When scenarios are available, Business Plan will be expanded to reflect the most likely scenarios
    - In conjunction with Siemens, PREPA will determine which scenario provides the most favorable economic benefit as well as system stability and flexibility
  - Improvement initiatives are included
  - Financing costs include:
    - Existing bonds debt service based on current terms
    - □ Fuel line and GDB LOC paid in full in FY2016
    - $\square$  DSCR of 1.25x to meet current requirement of 1.20x
  - Assumes PREPA has sufficient cash to fund capital expenditures



#### Business Plan (cont'd)

- Draft preliminary IRP output is for the Siemens scenario titled Future 1 Portfolio 1, which has the following assumptions:
  - During first five years the only investment capital expenditures included are to comply with MATS
    - □ AOGP commences operation on July 1, 2017 (FY18), implies construction commences November 2015
      - When AOGP begins operations, PREPA supplies LNG to EcoElectrica and Gas Natural Fenosa ("GNF") to process at a fixed fee for Costa Sur
      - Scenario which addressed gas to the north is not yet available
    - □ All steam generation units comply with MATS by FY21
      - PREPA obtains an EPA agreement to provide additional time to comply with MATS at Aguirre (FY18), Palo Seco (FY21) and San Juan (FY21)
      - Aguirre Steam and CC are converted to burn gas (FY18)
      - Palo Seco three new dual fueled units total 200 MW constructed and begin operations in FY21, assumed to burn diesel
        - Palo Seco 3 & 4 and San Juan 9 & 10 steam units totaling 632 MW are retired
  - After first five years capital for new investments is limited, additional scenarios are being developed expanding and accelerating capital investments
    - Multiple units are repowered to improve efficiency and replace aging units Aguirre CC (FY23), Aguirre Steam (FY28) and Costa Sur Steam (FY30)
  - Relatively flat load growth
  - RPS target as currently defined is not met during the projection period, if RPS law is modified to include distributed generation ("DG") and net metering ("NEMS"), RPS compliance is achieved in FY25
  - Fuel prices based on April 2015 forward curves prepared by Siemens
  - Purchased power assumes existing contracts are extended when they expire, EcoElectrica (FY22) and AES (FY27)



I. Business Plan

#### **Preliminary IRP Fleet Assumptions**

- During the projection period PREPA reduces total thermal megawatts installed by approximately 600 MW while renewable installations increase by approximately 1,000 MW
  - Renewable generation is intermittent and cannot be used to support PREPA's night time peak
- The only new units installed are at Palo Seco in FY21; all other megawatts added are due to repowerings of existing sites

		2015	IRP MATS					Re	tiremer	nts/Rep	olacem	ents/A	dditions	s					FY31	Change
Plant	Units	MW	Compliance	FY16	FY17	FY18	FY19	FY20	FY21 1	FY22 I	FY23 I	FY24 1	FY25 F	Y26 1	FY27	<b>FY28</b>	FY29 1	FY30	MW	MW
Aguirre Steam Units	1 & 2	900	Conv Gas (repower)			0									93	93			1,085	185
Costa Sur Steam Units	3 & 4	170	Limited Use	-170															0	-170
Costa Sur Steam Units	5&6	820	Gas (repower)													93	93		1,006	186
Palo Seco Steam Units	1 & 2	170	Limited Use	-170															0	-170
Palo Seco Steam Units	3 & 4	432	Retire 2021						-432										0	-432
Palo Seco New	3		New Units						210										210	210
San Juan Steam Units	7&8	200	Limited Use	-200															0	-200
San Juan Steam Units	9 & 10	200	Retire 2021						-200										0	-200
Aguirre CC	1 & 2	527	Conv Gas (repower)			0			0	0									527	(
San Juan CC	5&6	400	na																400	(
Cambalache CCTP	2 - 3	165	na																165	(
Mayaguez GT	1 - 4	200	na																200	(
Gas Turbines	18	378	na																378	(
Diesels - DG sets	6	8	na																8	(
Hydro	21	60	na																60	(
Total PREPA		4,630		-540	0	0	0	0	-422	0	0	0	0	0	93	186	93	0	4,039	-591
EcoElectrica Cogenerator	1	507																	507	(
AES Cogenerator	1 & 2	454																	454	(
Renewable Independent		207		127	128	136	152	108	28	26	43	42	62	9	25	8	51	40	1,193	986
Total Independent		1,168		127	128	136	152	108	28	26	43	42	62	9	25	8	51	40	2,154	986
		5,798																	6,193	395



### **Operating Costs Key Assumptions**

Following are the key revenue and cost assumptions of the Business Plan (excludes IRP components)

	Comments
Rate Structure	<ul> <li>Rates ultimately will be based on Navigant's preliminary rate structure concept</li> <li>Fuel and purchased power will be complete pass-through and all other costs will be covered through fixed and variable charges</li> </ul>
Labor	<ul> <li>PREPA current labor force at March 2015 of 7,077 employees is assumed to the opening labor force in FY16</li> <li>FY16 through FY19 it is assumed 80% of eligible annual retirees retire bringing the labor force down to a run rate of 6,395 employees by July 1, 2020</li> <li>Labor costs shown as operating expenses and employee counts exclude any labor improvement changes</li> </ul>
Pension	Annual contribution increased to \$160 million to support underfunded pension, adjusted for inflation
Non-Labor O&M Costs	<ul> <li>PREPA FY2015 through February plus four months of FY15 budget ("8+4")</li> <li>1% year-over-year increase for inflation (before reduction from cost saving initiatives)</li> </ul>
CILT and other appropriations	<ul> <li>CILT estimated, once rates determined will be adjusted to reflect actual rates</li> <li>CILT represents 36.9% of government revenue (17.6% of operating revenue)</li> <li>Municipalities equal 31.8% and other appropriations (chiefly subsidies) equal 5.1%</li> </ul>
Improvement Initiatives	<ul> <li>Initiatives across all areas including customer service, procurement, fuel and other are included</li> <li>Benefits shown net of implementation costs and are inclusive of inflation where applicable</li> <li>Benefits estimated and may adjust as initiatives are further developed</li> </ul>
Inflation/Escalator	1% or as contractually defined, where applicable
Accounts Receivable	<ul> <li>Based on estimated revenues and trends over trailing six months through February 2015</li> <li>Improvements and savings included under improvements</li> </ul>
Accounts Payable	<ul> <li>Based on current and anticipated contract terms</li> <li>Improvements and savings included under improvements</li> </ul>



Sources: Historical PREPA Monthly Operating Reports, Navigant preliminary rate structure concept, PREPA historical financial and operational data.

## Business Plan Operating Costs (\$'s)

Forecasted operating costs average over \$3.2 billion annually through the forecast period based on forecasted fuel curves

#### **Summary Financials**

\$ in thousands															
						Busin	ess Plan Sta	ige 2 Status (	Quo Forecas	t					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Operating Costs															
Fuel	1,381,102	1,446,937	1,204,743	1,167,508	1,237,493	1,236,286	1,142,321	1,029,964	1,034,677	1,027,166	1,103,037	1,109,671	969,442	949,205	979,192
Renewable Purchased Power	89,682	132,433	176,051	228,387	278,014	301,013	309,207	320,643	336,365	353,961	365,446	367,118	369,640	379,305	396,386
Purchased Power	737,693	730,251	691,450	694,932	685,147	683,238	681,417	669,182	658,181	675,901	674,843	678,199	701,622	708,671	688,081
Labor & Benefits ex-Pension	355,174	350,654	342,416	338,111	337,774	341,151	344,563	348,008	351,488	355,003	358,553	362,139	365,760	369,418	373,112
Pension & Pension Obligation	142,132	143,805	145,607	146,882	148,522	150,007	151,507	153,022	154,552	156,098	157,659	159,235	160,828	162,436	164,060
Additional Safety Upgrades	5,246	4,433	350	350	350	350	350	350	350	350	350	350	350	350	350
O&M Costs	218,002	194,932	196,881	198,850	200,838	202,847	204,875	206,924	208,993	211,083	213,194	215,326	217,479	219,654	221,851
Total Operating Costs	2,929,029	3,003,444	2,757,498	2,775,021	2,888,138	2,914,892	2,834,241	2,728,094	2,744,607	2,779,563	2,873,083	2,892,038	2,785,122	2,789,040	2,823,032
Performance Improvements															
Customer Service	(26,042)	(43,750)	(50,500)	(51,005)	(51,515)	(52,030)	(52,551)	(53,076)	(53,607)	(54,143)	(54,684)	(55,231)	(55,783)	(56,341)	(56,905)
Fuel	(93,426)	(128,706)	(108,838)	(109,241)	(108,465)	(110,000)	(110,000)	(110,000)	(110,000)	(110,000)	(110,000)	(110,000)	(110,000)	(110,000)	(110,000)
Procurement	(37,500)	(128,700)	(55,550)	(109,241)	(56,667)	(57,233)	(57,806)	(58,384)	(110,000)	(110,000)	(60,153)	(60,754)	(61,362)	(61,975)	(62,595)
Other, Net	(20,833)	(70,833)	(101,000)	(102,010)	(103,030)	(104,060)	(105,101)	(106,152)	(107,214)	(108,286)	(109,369)	(110,462)	(111,567)	(112,683)	(113,809)
Total Performance Improvements	(177,801)	(298,290)	(315,888)	(318,361)	(319,677)	(323,324)	(325,457)	(327,612)	(329,788)	(331,986)	(334,205)	(336,448)	(338,712)	(340,999)	(343,309)
	(111,001)	(=, 0,=, 0)	(****,****)	(+++,++++)	(***)	(===;=== :)	(	(0=1,01=)	(,,	(;,)	(***,=**)	(220).10)	()	(4.10,111)	(* ******
CILT & Other Appropriations	276,612	276,046	275,358	275,350	273,723	272,100	270,483	270,314	270,152	269,985	269,807	269,622	269,433	269,241	269,049
Bad Debt Expense	152,776	152,463	152,083	152,079	151,180	150,284	149,391	149,298	149,208	149,115	149,017	148,915	148,811	148,705	148,599
Other post-employment benefits (OPEB)	7,878	7,957	8,037	8,117	8,154	8,154	8,154	8,154	8,154	8,154	8,154	8,154	8,154	8,154	8,154
Changes in Working Capital															
Change in A/R	38,609	435	(1,574)	(18)	(5,433)	(2,002)	(3,697)	(387)	(2,060)	1,306	(406)	(423)	(2,117)	1,246	(440)
Change in Fuel Inventory	7,454	(3,558)	(11,294)	(1,050)	4,371	(3,463)	(10,036)	(5,107)	330	(439)	3,538	501	(6,113)	(1,578)	1,977
Change in M&S Inventory	312	89	90	91	92	67	94	95	69	123	97	98	99	100	101
Change in A/P	(27,424)	(13,545)	7,696	10,532	(22,381)	13,189	21,950	(8,323)	(276)	(6,226)	4,510	(2,337)	(3,176)	(16)	(2,352)
Baseline Changes in Working Capital	18,951	(16,580)	(5,082)	9,555	(23,351)	7,790	8,311	(13,722)	(1,937)	(5,236)	7,739	(2,161)	(11,306)	(249)	(713)
Maintenance Capex	296,427	314,686	284,135	277,593	281,262	284,985	288,763	292,598	296,490	300,440	304,450	308,519	312,650	316,843	321,100
Total Operating Costs	3,503,872	3,439,727	3,156,140	3,179,354	3,259,429	3,314,880	3,233,886	3,107,124	3,136,886	3,170,036	3,278,046	3,288,641	3,174,152	3,190,736	3,225,911



Sources: PREPA Finance and Generation directorates, Siemens Stage 2 IRP (preliminary)
Preliminary and Confidential Draft Subject to Material Change - Prepared at the Request of Counsel

## **Business Plan Operating Costs (\$'s)**

- Including existing debt service costs and investment capital expenditures increases average costs by another \$1 billion annually
  - Approximately \$150 million annually for investment capital expenditures and \$850 million annually for debt service costs

				Su	mmar	y Finar	ncials								
\$ in thousands															
						Busin	iess Plan Sta	ige 2 Status	Quo Forecas	t					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Total Operating Costs	3,503,872	3,439,727	3,156,140	3,179,354	3,259,429	3,314,880	3,233,886	3,107,124	3,136,886	3,170,036	3,278,046	3,288,641	3,174,152	3,190,736	3,225,911
Investment Capex															
AOGP	96,121	384,484	-	-	-	-	-	-	-	-	-	-	-	-	-
New Units / Repowering	-	-	66,844	133,688	294,623	192,555	65,149	-	-	170,419	170,419	233,284	164,279	66,510	-
T&D investment capex	53,297	61,140	35,545	44,423	32,035	-	-	-	-	-	-	-	-	-	-
Retirements / Demolition		-	-	36,782	40,740	-	-	-	-	-	-	-	-	-	-
Total investment capex	149,418	445,623	102,389	214,893	367,397	192,555	65,149	-	-	170,419	170,419	233,284	164,279	66,510	-
Debt Service															
Principal on Existing Bonds	224,035	237,365	249,535	262,355	275,275	288,947	303,573	318,967	334,599	351,264	368,444	386,521	405,647	383,258	309,608
Interest net of Subsidies/Capitalized Interest	378,466	390,763	380,188	368,908	356,440	344,088	329,906	314,891	299,500	283,051	267,504	251,117	233,069	213,900	195,869
Debt Service for Existing Bonds	602,501	628,128	629,723	631,263	631,715	633,035	633,479	633,858	634,099	634,315	635,949	637,638	638,716	597,159	505,477
Fuel line debt service	695,992	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GDB LOC	35,133	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Existing Debt Service	1,333,626	628,128	629,723	631,263	631,715	633,035	633,479	633,858	634,099	634,315	635,949	637,638	638,716	597,159	505,477
Debt Service Coverage 1.25x	150,625	157,032	157,431	157,816	157,929	158,259	158,370	158,464	158,525	158,579	158,987	159,409	159,679	149,290	126,369
Total Cash Needs	5,137,541	4,670,510	4,045,683	4,183,326	4,416,471	4,298,730	4,090,884	3,899,446	3,929,510	4,133,349	4,243,401	4,318,971	4,136,827	4,003,694	3,857,758



Sources: PREPA Finance and Generation directorates, Siemens Stage 2 IRP (preliminary)
Preliminary and Confidential Draft Subject to Material Change - Prepared at the Request of Counsel

#### **Business Plan Operating Costs (cents/kwhr)**

- Operating costs can be used to calculate an implied rate that must be collected to cover all costs
- Assuming forecast materializes as forecasted, it yields an average of 27 cents/kwhr from FY16 through FY20, however, events could transpire that would shift rates required and/or costs
  - Forecast assumes AOGP beings operations in FY18, reducing fuel costs by over \$200 M annually
  - Fuel prices are realized as forecasted
  - Net sales occur as forecasted, however, net sales could alter if rates increase making NEMS, DG, and DSM
    alternatives more appealing and/or the broader Puerto Rico economy improves/deteriorates
  - If fuel lines were amortized over period, average rates would increase

				Business I	Plan Stage 2	Status Quo Fo	orecast				Averaş	ges
e in cents / kwh	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY16-FY20 F	Y16
Summary												
Fuel	8.26	8.67	7.23	7.01	7.48	7.51	6.98	6.30	6.33	6.29	7.73	
Purchased Power	4.95	5.17	5.21	5.55	5.82	5.98	6.06	6.06	6.09	6.31	5.34	
Total Pass-Through	13.20	13.84	12.44	12.56	13.29	13.49	13.04	12.36	12.42	12.60	13.07	
Debt Service	8.87	4.70	4.73	4.74	4.77	4.81	4.84	4.85	4.85	4.86	5.56	
CILT/Bad Debt	2.57	2.57	2.57	2.57	2.57	2.57	2.57	2.57	2.57	2.57	2.57	
Labor	2.97	2.96	2.93	2.91	2.94	2.98	3.03	3.07	3.10	3.13	2.94	
Maintenance Capex	1.77	1.89	1.71	1.67	1.70	1.73	1.77	1.79	1.81	1.84	1.75	
Improvements	(1.06)	(1.79)	(1.90)	(1.91)	(1.93)	(1.96)	(1.99)	(2.00)	(2.02)	(2.03)	(1.72)	
Labor & Operating Costs	1.49	1.14	1.20	1.30	1.12	1.33	1.36	1.23	1.32	1.31	1.25	
Total Costs and Collections	7.74	6.77	6.51	6.54	6.40	6.65	6.73	6.65	6.78	6.82	6.79	
Investments	0.89	2.67	0.61	1.29	2.22	1.17	0.40	-	-	1.04	1.54	
Total Cash Needs	30.71	27.98	24.30	25.12	26.68	26.12	25.01	23.85	24.05	25.32	26.96	



\*Estimated rates are subject to further revision based on Navigant Consulting

#### Rate: Current vs. 3 Year Average Cost Base

The existing rate structure is not sufficient to cover the forecasted cost base



(1) Debt service reflects PREPA's status quo debt service obligations for FY2016-FY2018 assuming swaps are terminated and all BAB subsidies remain in place. Also assumes that fuel lines are repaid in full at July 1, 2015 and that all debt service (excluding the fuel line repayments) must have a 1.25x debt service coverage ratio.



### **Business Plan Operating Costs (cents/kwhr)**

- Forecasted operating costs require an average of 19 cents/kwhr during the forecast period based forecasted fuel curves
  - Fuel and a portion of purchased power are based on forecasted fuel prices, to the extent fuel prices are higher or lower than the forecast the rates will be adjusted

						Busi	ness Plan Sta	age 2 Status	Quo Forecas	t					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY203
Kwh Sales (000s)	16,727,536	16,693,321	16,651,696	16,651,225	16,552,818	16,454,659	16,356,931	16,346,709	16,336,884	16,326,768	16,316,033	16,304,861	16,293,407	16,281,819	16,270,1
Operating Costs															
Fuel	8.26	8.67	7.23	7.01	7.48	7.51	6.98	6.30	6.33	6.29	6.76	6.81	5.95	5.83	6.
Renewable Purchased Power	0.54	0.79	1.06	1.37	1.68	1.83	1.89	1.96	2.06	2.17	2.24	2.25	2.27	2.33	2
Purchased Power	4.41	4.37	4.15	4.17	4.14	4.15	4.17	4.09	4.03	4.14	4.14	4.16	4.31	4.35	4
Labor & Benefits ex-Pension	2.12	2.10	2.06	2.03	2.04	2.07	2.11	2.13	2.15	2.17	2.20	2.22	2.24	2.27	2
Pension & Pension Obligation	0.85	0.86	0.87	0.88	0.90	0.91	0.93	0.94	0.95	0.96	0.97	0.98	0.99	1.00	1
Additional Safety Upgrades	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
O&M Costs	1.30	1.17	1.18	1.19	1.21	1.23	1.25	1.27	1.28	1.29	1.31	1.32	1.33	1.35	1
Total Operating Costs	17.51	17.99	16.56	16.67	17.45	17.71	17.33	16.69	16.80	17.02	17.61	17.74	17.09	17.13	17
erformance Improvements															
Customer Service	(0.16)	(0.26)	(0.30)	(0.31)	(0.31)	(0.32)	(0.32)	(0.32)	(0.33)	(0.33)	(0.34)	(0.34)	(0.34)	(0.35)	(0
Fuel	(0.56)	(0.77)	(0.65)	(0.66)	(0.66)	(0.67)	(0.67)	(0.67)	(0.67)	(0.67)	(0.67)	(0.67)	(0.68)	(0.68)	((
Procurement	(0.22)	(0.33)	(0.33)	(0.34)	(0.34)	(0.35)	(0.35)	(0.36)	(0.36)	(0.36)	(0.37)	(0.37)	(0.38)	(0.38)	((
Other, Net	(0.12)	(0.42)	(0.61)	(0.61)	(0.62)	(0.63)	(0.64)	(0.65)	(0.66)	(0.66)	(0.67)	(0.68)	(0.68)	(0.69)	((
otal Performance Improvements	(1.06)	(1.79)	(1.90)	(1.91)	(1.93)	(1.96)	(1.99)	(2.00)	(2.02)	(2.03)	(2.05)	(2.06)	(2.08)	(2.09)	(2
TLT & Other Appropriations	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1
ad Debt Expense	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	(
Other post-employment benefits (OPEB)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	(
Changes in Working Capital															
Change in A/R	0.23	0.00	(0.01)	(0.00)	(0.03)	(0.01)	(0.02)	(0.00)	(0.01)	0.01	(0.00)	(0.00)	(0.01)	0.01	((
Change in Fuel Inventory	0.04	(0.02)	(0.07)	(0.01)	0.03	(0.02)	(0.06)	(0.03)	0.00	(0.00)	0.02	0.00	(0.04)	(0.01)	(
Change in M&S Inventory	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(
Change in A/P	(0.16)	(0.08)	0.05	0.06	(0.14)	0.08	0.13	(0.05)	(0.00)	(0.04)	0.03	(0.01)	(0.02)	(0.00)	(
aseline Changes in Working Capital	0.11	(0.10)	(0.03)	0.06	(0.14)	0.05	0.05	(0.08)	(0.01)	(0.03)	0.05	(0.01)	(0.07)	(0.00)	(
laintenance Capex	1.77	1.89	1.71	1.67	1.70	1.73	1.77	1.79	1.81	1.84	1.87	1.89	1.92	1.95	
otal Operating Costs	20.95	20.61	18.95	19.09	19.69	20.15	19.77	19.01	19.20	19.42	20.09	20.17	19.48	19.60	1

#### many Einancial



### **Business Plan Operating Costs (cents/kwhr)**

Including financing costs increases cents per kwhr average rate to over 25 during the forecast period

#### Summary Financials

Rate in cents / kwh															
						Busin	ness Plan Sta	age 2 Status	Quo Forecas	t					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Kwh Sales (000s)	16,727,536	16,693,321	16,651,696	16,651,225	16,552,818	16,454,659	16,356,931	16,346,709	16,336,884	16,326,768	16,316,033	16,304,861	16,293,407	16,281,819	16,270,192
Total Operating Costs	20.95	20.61	18.95	19.09	19.69	20.15	19.77	19.01	19.20	19.42	20.09	20.17	19.48	19.60	19.83
Investment Capex															
AOGP	0.57	2.30	-	-	-	-	-	-	-	-	-	-	-	-	-
New Units / Repowering	-	-	0.40	0.80	1.78	1.17	0.40	-	-	1.04	1.04	1.43	1.01	0.41	-
T&D investment capex	0.32	0.37	0.21	0.27	0.19	-	-	-	-	-	-	-	-	-	-
Retirements / Demolition		-	-	0.22	0.25	-	-	-	-	-	-	-	-	-	-
Total investment capex	0.89	2.67	0.61	1.29	2.22	1.17	0.40	-	-	1.04	1.04	1.43	1.01	0.41	-
Financing Cash Flows															
Principal on Existing Bonds	1.34	1.42	1.50	1.58	1.66	1.76	1.86	1.95	2.05	2.15	2.26	2.37	2.49	2.35	1.90
Interest net of Subsidies/Capitalized Interest	2.26	2.34	2.28	2.22	2.15	2.09	2.02	1.93	1.83	1.73	1.64	1.54	1.43	2.55	1.90
Debt Service for Existing Bonds	3.60	3.76	3.78	3.79	3.82	3.85	3.87	3.88	3.88	3.89	3.90	3.91	3.92	3.67	3.11
Fuel line debt service	4.16		5.70	5.77	5.62	5.65	5.67	5.00	5.00	5.67	5.50	5.01	5.72	5.07	-
GDBLOC	0.21	_	-	-	-	_	_	_	-		_	-	-	-	-
Total Existing Debt Service	7.97	3.76	3.78	3.79	3.82	3.85	3.87	3.88	3.88	3.89	3.90	3.91	3.92	3.67	3.11
Total Elisting Door ber ree		5.70	5.70	5.17	5.62	5.65	5.07	5.00	5.00	5.07	5.70	5.51	5.72	5.07	5.11
Debt Service Coverage 1.25x	0.90	0.94	0.95	0.95	0.95	0.96	0.97	0.97	0.97	0.97	0.97	0.98	0.98	0.92	0.78
Total Cash Needs	30.71	27.98	24.30	25.12	26.68	26.12	25.01	23.85	24.05	25.32	26.01	26.49	25.39	24.59	23.71



Sources: PREPA Finance and Generation directorates, Siemens Stage 2 IRP (preliminary)

I. Business Plan

#### **Demand and Supply Summary**

- Demand by customer type remains static during the projection period and is based on historical trends
- By the end of the projection period PREPA supplies approximately 50% of the total demand





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#### **Demand Detail**

- Gross demand increases slightly during the forecast period while net demand declines
- By the end of the forecast period, DG, NEMS and DSM reduce gross demand by approximately 6.8% versus the beginning of the forecast period at 2%



																	FY16 - FY30	FY16 - FY30
		FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Change	Average
Demand																		
Gross Demand	GWhrs	17,067	17,168	17,239	17,347	17,357	17,368	17,378	17,389	17,399	17,409	17,418	17,427	17,436	17,445	17,454	387	17,353
Less: DG & Net Metering	GWhrs	125	152	177	198	219	240	261	281	301	321	341	361	382	402	422	297	279
Less: DSM	GWhrs	215	322	410	498	585	673	761	761	761	761	761	761	761	761	761	546	637
NetDemand	GWhrs	16,728	16,693	16,652	16,651	16,553	16,454	16,356	16,347	16,337	16,327	16,316	16,305	16,294	16,282	16,271	(457)	16,438
Cumulu																		
Supply Generation	GWhrs	16,728	16,693	16,652	16,651	16,553	16,454	16,356	16,347	16,337	16,327	16,316	16,305	16,294	16,282	16,271	(457)	16,438
Generation	GWIIS	10,720	10,095	10,052	10,051	10,000	10,404	10,550	10,347	10,337	10,327	10,310	10,303	10,294	10,202	10,271	(457)	10,430
Gross Demand Supply %																		
DSM	%	1.3%	1.9%	2.4%	2.9%	3.4%	3.9%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	3.1%	3.66%
DG & Net Metering	%	0.7%	0.9%	1.0%	1.1%	1.3%	1.4%	1.5%	1.6%	1.7%	1.8%	2.0%	2.1%	2.2%	2.3%	2.4%	1.7%	1.61%
Generation	%	98.0%	97.2%	96.6%	96.0%	95.4%	94.7%	94.1%	94.0%	93.9%	93.8%	93.7%	93.6%	93.4%	93.3%	93.2%	-4.8%	94.73%
Year-on-Year Change																		
Gross Demand	%		0.59%	0.41%	0.63%	0.06%	0.06%	0.06%	0.07%	0.06%	0.06%	0.05%	0.05%	0.05%	0.05%	0.05%		0.16%
NetDemand	%		-0.20%	-0.25%	0.00%	-0.59%	-0.59%	-0.60%	-0.05%	-0.06%	-0.06%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%		-0.20%
DSM	%		50.03%	27.27%	21.40%	17.65%	15.00%	13.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		10.31%
DG & Net Metering	%		21.62%	16.44%	11.86%	10.44%	9.57%	8.57%	7.78%	7.14%	6.56%	6.25%	6.01%	5.70%	5.35%	4.97%		9.16%
Generation	%		-0.20%	-0.25%	0.00%	-0.59%	-0.59%	-0.60%	-0.05%	-0.06%	-0.06%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%		-0.20%
Generatori	70		-0.20%	-0.25%	0.00%	-0.59%	-0.59%	-0.60%	-0.05%	-0.06%	-0.06%	-0.07%	-0.07%	-0.07%	-0.07%	-0.07%		-0.20%



#### **Generation Detail**

During the projection period, the share of demand supplied by thermal generation decreases by 12.4% while the share of demand supplied by renewable generation increases by 9.3%

																	FY16 - FY30	
		FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Change	Average
Summary																		
PREPA Thermal	GWhrs	12,387	12,155	11,850	11,568	11,297	10,920	10,634	10,802	10,953	10,651	10,711	10,756	10,414	10,402	11,099	(1,288)	11,106
PREPA Renewable	GWhrs	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	(0)	146
Purchased Thermal	GWhrs	7,303	7,263	7,271	7,270	7,000	7,145	7,268	7,065	6,896	7,087	6,917	6,829	7,149	7,125	6,557	(746)	7,076
Purchased Renewable	GWhrs	542	783	1,032	1,333	1,607	1,723	1,759	1,813	1,889	1,975	2,029	2,047	2,071	2,113	2,196	1,654	1,661
Total Generation	GWhrs	20,377	20,347	20,299	20,317	20,050	19,933	19,807	19,825	19,884	19,859	19,802	19,778	19,779	19,786	19,997	(380)	19,989
Self Consumption & Losses	GWhrs	(3,639)	(3,638)	(3,635)	(3,638)	(3,437)	(3,425)	(3,412)	(3,414)	(3,416)	(3,417)	(3,419)	(3,420)	(3,422)	(3,423)	(3,425)	214	(3,479)
Dump Energy	GWhrs	(11)	(16)	(12)	(28)	(60)	(54)	(39)	(64)	(131)	(115)	(67)	(53)	(63)	(80)	(301)	(291)	(73)
PREPA Supply (Net Demand)	GWhrs	16,728	16,693	16,652	16,651	16,553	16,454	16,356	16,347	16,337	16,327	16,316	16,305	16,294	16,282	16,271	(457)	16,438
DSM	GWhrs	215	322	410	498	585	673	761	761	761	761	761	761	761	761	761	546	637
Distributed Generation & Net Metering	GWhrs	125	152	177	198	219	240	261	281	301	321	341	361	382	402	422	297	279
Other Supply	GWhrs	340	474	587	696	805	913	1,022	1,042	1,062	1,082	1,102	1,122	1,143	1,163	1,183	843	916
Total Supply (Gross Demand)	GWhrs	17,067	17,168	17,239	17,347	17,357	17,368	17,378	17,389	17,399	17,409	17,418	17,427	17,436	17,445	17,454	387	17,353
PREPA Thermal	%	59.6%	58.1%	56.4%	54.7%	53.7%	51.9%	50.5%	51.2%	51.7%	50.3%	50.7%	50.9%	49.2%	49.1%	51.7%	-7.8%	52.6%
PREPA Renewable	%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.0%	0.7%
Purchased Thermal	%	35.1%	34.7%	34.6%	34.3%	33.3%	34.0%	34.5%	33.5%	32.6%	33.5%	32.7%	32.3%	33.8%	33.6%	30.6%	-4.6%	33.5%
Purchased Renewable	%	2.6%	3.7%	4.9%	6.3%	7.6%	8.2%	8.4%	8.6%	8.9%	9.3%	9.6%	9.7%	9.8%	10.0%	10.2%	7.6%	7.9%
DSM	%	1.3%	1.9%	2.4%	2.9%	3.4%	3.9%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	3.1%	3.7%
Distributed Generation & Net Metering	%	0.7%	0.9%	1.0%	1.1%	1.3%	1.4%	1.5%	1.6%	1.7%	1.8%	2.0%	2.1%	2.2%	2.3%	2.4%	1.7%	1.6%
Total	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	100.0%
Self Consumption & Losses of Generation	%	-17.9%	-17.9%	-17.9%	-17.9%	-17.1%	-17.2%	-17.2%	-17.2%	-17.2%	-17.2%	-17.3%	-17.3%	-17.3%	-17.3%	-17.1%		



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#### **Business Plan** ١.

#### **Generation Detail - Renewable**

- During the projection period renewable portfolio standards requirements (as currently written) are not met. If the definition were amended to include all renewable resources including DG and NEMS, PREPA would be in compliance in FY25
- Forecast assumes installed renewable generation increases by over 3X during the projection period



		FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY16 - FY30 Change
Renewable Mix																	
Hydro (PREPA)	GWhrs	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	(0)
Solar	GWhrs	202	444	693	966	1,211	1,328	1,364	1,417	1,494	1,580	1,633	1,652	1,675	1,718	1,801	1,598
Wind	GWhrs	339	339	339	339	339	339	339	339	339	339	339	339	339	339	339	(0)
Waste	GWhrs	-	-	-	•	• .			•	• .	• .		-	•		•	
Landfill Gas	GWhrs	-	-	-	28	56	56	56	56	56	56	56	56	56	56	56	56
Renewable Generation	GWhrs	687	929	1,178	1,479	1,753	1,869	1,905	1,958	2,035	2,121	2,174	2,193	2,216	2,259	2,342	1,654
DG and Net Metering	GWhrs	125	152	177	198	219	240	261	281	301	321	341	361	382	402	422	297
Total Renewable All Sources	GWhrs	813	1,081	1,355	1,677	1,972	2,109	2,165	2,239	2,336	2,442	2,515	2,554	2,598	2,661	2,764	1,952
Hydro (PREPA)		21%	16%	12%	10%	8%	8%	8%	7%	7%	7%	7%	7%	7%	6%	6%	-15%
Solar		29%	48%	59%	65%	69%	71%	72%	72%	73%	74%	75%	75%	76%	76%	77%	47%
Wind		49%	37%	29%	23%	19%	18%	18%	17%	17%	16%	16%	15%	15%	15%	14%	-35%
Waste		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Landfill Gas		0%	0%	0%	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Total		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Renewable All Sources % of Adj. Net De	ema	4.8%	6.4%	8.1%	10.0%	11.8%	12.6%	13.0%	13.5%	14.0%	14.7%	15.1%	15.3%	15.6%	16.0%	16.6%	
RPS Renewable % of Net Demand		3.2%	4.7%	6.2%	8.0%	9.7%	10.5%	10.8%	11.1%	11.6%	12.1%	12.4%	12.6%	12.7%	13.0%	13.5%	
RPS Target		12.0%	12.0%	12.0%	12.0%	12.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	
RPS Target Delta		-8.8%	-7.3%	-5.8%	-4.0%	-2.3%	-4.5%	-4.2%	-3.9%	-3.4%	-2.9%	-2.6%	-2.4%	-2.3%	-2.0%	-1.5%	
Renewable Supply Status																	
Existing	GWhrs	563	563	563	563	563	563	563	563	563	563	563	563	563	563	563	(0)
New	GWhrs	125	366	615	916	1,190	1,306	1,342	1,396	1,472	1,559	1,612	1,630	1,654	1,696	1,779	1,348
Total	GWhrs	687	929	1,178	1,479	1,753	1,869	1,905	1,958	2,035	2,121	2,174	2,193	2,216	2,259	2,342	1,348
Existing/Contracted Projects New Projects		82% 18%	61% 39%	48% 52%	38% 62%	32% 68%	30% 70%	30% 70%	29% 71%	28% 72%	27% 73%	26% 74%	26% 74%	25% 75%	25% 75%	24% 76%	



#### **Fuel Costs – Forecasted Prices & Consumption**

- Fuel prices are based on a Siemens (PACE) prepared fuel curve of April 2015
  - Fuel oil #6 ranges from approximately \$66 - \$93/barrel through FY25
  - Fuel oil #2 ranges from approximately \$90 - \$110/barrel through FY25
- In FY18 when AOGP begins operations, Costa Sur LNG price falls dramatically as PREPA changes to directly purchasing LNG and paying EcoElectrica and GNF to process
- PREPA's heat rate improves dramatically over the projection period moving from an approximate heat rate of 9,900 in FY16 to 8,460 in FY30
- Fuel consumption reflects the improved heat rates and lower generation with GBtu consumption falling by approximately 25% or 31,000 GBtu during the forecast period

Forward Fuel Prices (\$/mmBtu)



#### 200.000 10.000 8 000 160.000 120.000 otu/Kwhi C B tu 80.000 000 40 000 2 000 FY16 FY17 FY18 FY19 FY20 FY21 FY22 FY23 FY24 FY25 FY26 FY27 FY28 EY29 PREPA Fuel Consumption IPP Fuel Consumption PREPA Heat Rate IPP Heat Rate

#### Forecasted Gbtu & Heat Rates (btu/kwh)

#### **Fuel Costs**

- Fuel costs fall dramatically during the forecast period due to gas conversion at Aguirre, lower generation and improving heat rates, offsetting the higher consumption of No. 2 in the North
- No. 2 consumption increases periodically during the forecast period as units are shut down to repower including Aguirre CC (FY21 & FY22), Aguirre Steam (FY26 & FY27) and Costa Sur Steam (FY28 and FY29)

Asset Changes			AOGP			Palo Seco		AG CC Rep				AG ST Rep		CS ST Rep		
A	51/2040	EV0047	EV2040	EV2040	EV2020	EV2024	EVanaa	EV2022	EV2024	EVODOE	EVODOC	EV2027	EV2020	EV2020	EV2020	FY16 - FY
\$ in thousands	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Change
Fuel Costs																
No. 6	\$886,338	\$876,519	\$402,832	\$373,386	\$456,081	\$306,410	\$80,791	\$61,433	\$72,121	\$61,481	\$78,564	\$87,268	\$67,949	\$41,788	\$75,378	(\$810,96
No. 2	165,461	245,219	95,462	63,573	131,832	275,494	356,453	164,662	123,683	146,972	262,488	277,130	129,619	133,913	31,667	(133,79
LNG	329,303	325,199	622,502	638,823	558,833	562,752	613,604	713,389	747,282	728,343	670,438	653,477	684,445	685,351	779,717	450,4
Commodiy Costs	\$1,381,102	\$1,446,937	\$1,120,795			\$1,144,657	\$1,050,848	\$939,484	\$943,086	\$936,795	\$1,011,491	\$1,017,875	\$882,013	\$861,052	\$886,762	(\$494,3
Regasification Costs		-	83,948	91,727	90,748	91,630	91,473	90,480	91,592	90,371	91,547	91,795	87,430	88,153	92,429	92,42
Total	\$1,381,102	\$1,446,937	\$1,204,743	\$1,167,508	\$1,237,493	\$1,236,286	\$1,142,321	\$1,029,964	\$1,034,677	\$1,027,166	\$1,103,037	\$1,109,671	\$969,442	\$949,205	\$979,192	(\$401,9
Fuel Prices (\$/Mmbtu)																
AG No 6	11.86	12.50	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6
CS No 6	11.92	12.43	12.56	13.07	13.52	14.17	14.68	15.21	15.71	15.89	16.33	16.80	17.25	17.78	18.30	6.3
N No 6	11.70	12.21	12.31	12.79	13.33	13.64	-	-	-	-	-	-	-	-	-	1.9
No 2	17.59	18.12	18.23	18.58	19.05	19.52	19.84	20.34	20.70	20.99	21.21	21.53	22.03	22.31	22.60	5.0
LNG	-	-	7.73	7.86	7.99	8.11	8.22	8.33	8.43	8.50	8.57	8.64	8.70	8.77	8.82	1.0
CS Gas	8.80	9.37	7.66	7.36	7.41	7.61	7.72	7.88	7.93	7.92	8.06	8.36	8.71	8.77	8.83	0.0
<sup>1</sup> Average Realized Price	11.33	12.15	10.16	10.07	10.93	11.47	11.41	10.36	10.22	10.42	11.32	11.70	10.96	10.97	10.43	(0.:
Fuel Consumption (Gbtu)																
AG No 6	35.171	27,644	-	-	-	-					-				-	(35,1)
CS No 6	12,949	12.844	6,333	6,219	5,527	6,585	5,503	4,038	4,592	3,870	4,812	5,194	3,940	2,351	4,118	(8,8
N No 6	26,905	30.412	26,260	22,847	28,611	15,618	- 0,000	-,000	-,552	- 3,070	-,012	-	- 0,040	2,001	-,110	(26,90
No 2	9,405	13,533	5,236	3,422	6,919	14,116	17,968	8.095	5,976	7,002	12,374	12,874	5.884	6,002	1,401	(20,50
LNG	- 5,405	-	51.051	49,117	41,475	37,521	43.278	57,548	56.840	58.379	46.611	42.161	60,284	57.127	51,403	(0,00
CS LNG	37,435	34,705	29,732	34,334	30,693	33,974	33,390	29,696	33,832	29,290	33,665	34,590	18,348	21,040	36,949	(48
PREPA Total	121,865	119,138	118,612	115,939	113,226	107,814	100,140	99,378	101,240	98,542	97,463	94,819	88,455	86,521	93,872	(27,99
IPP	62,540	62,245	62,392	62,240	60,113	61,316	62,291	60,826	59,261	61,016	59,638	58,996	61,481	61,254	56,799	(5,74
Total	184,405		181.004	178.179	173.339	169,129	162,431	160.203	160.501	159.558	157.101	153.815	149.936	147.774	150.671	(33,73

<sup>1</sup> Inclusive of regasification costs



#### **Purchased Power Costs**

- AES and EcoElectrica PPOA rates include operations cost, capital and fuel pass-through recoveries
  - Both contracts are assumed to be extended when they expire in FY22 (EcoElectrica) and FY27 (AES) at the same
    rates including capital recovery component
- Both contracts have take-or-pay requirements, 50% capacity factor at AES and 54% capacity factor at EcoElectrica
  - Forecast assumes both projects are consistently dispatched higher than the take-or-pay minimum requirement
- Utility scale renewables purchased power prices based on existing PPOA prices
  - Existing contracted renewable generation based on PPOA prices (operating and under construction) escalated
  - New renewable generation based on current contracted non-operating projects average prices with the assumption prices can at a minimum be improved to exclude an escalator

\$ in thousands	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Purchased Thermal															
EcoElectrica	\$428,618	\$422,218	\$384,111	\$393,133	\$390,763	\$401,283	\$411,828	\$408,797	\$414,116	\$424,798	\$424,504	\$424,378	\$445,026	\$451,828	\$436,943
AES	309,075	308,032	307,339	301,799	294,384	281,954	269,589	260,385	244,065	251,103	250,339	253,821	256,596	256,843	251,138
Total Thermal	737,693	730,251	691,450	694,932	685,147	683,238	681,417	669,182	658,181	675,901	674,843	678,199	701,622	708,671	688,081
Purchased Renewable															
Renewable Exisitng	68,570	69,918	71,317	72,743	74,223	75,682	77,195	78,739	80,341	81,920	83,559	85,230	86,964	88,673	90,443
Renewable New	21,111	62,514	104,735	155,644	203,791	225,331	232,012	241,904	256,024	272,041	281,888	281,888	282,677	290,632	305,943
Total Renewable	89,682	132,433	176,051	228,387	278,014	301,013	309,207	320,643	336,365	353,961	365,446	367,118	369,640	379,305	396,386
Total Purchased Power	\$827,375	\$862,683	\$867,501	\$923,319	\$963,161	\$984,251	\$990,624	\$989,825	\$994,546	\$1,029,863	\$1,040,290	\$1,045,317	\$1,071,262	\$1,087,977	\$1,084,467
Generaion (GWhrs)															
EcoElectrica	3,970	3,942	3,894	3,972	3,804	3,881	3,960	3,752	3,755	3,806	3,673	3,534	3,830	3,844	3,440
AES	3,333	3,321	3,376	3,298	3,196	3,264	3,308	3,312	3,141	3,281	3,244	3,295	3,319	3,281	3,116
Renewable	417	417	417	417	417	417	417	417	417	417	417	417	417	417	417
Renewable New	125	366	615	916	1,190	1,306	1,342	1,396	1,472	1,559	1,612	1,630	1,654	1,696	1,779
Total Generation	7,845	8,046	8,303	8,603	8,607	8,868	9,027	8,877	8,785	9,063	8,946	8,876	9,220	9,238	8,753
\$/MWhr Cost															
EcoElectrica	107.96	107.10	98.63	98.97	102.73	103.41	103.99	108.95	110.28	111.60	115.56	120.09	116.20	117.55	127.01
AES	92.73	92.75	91.03	91.52	92.11	86.38	81.51	78.61	77.71	76.53	77.17	77.04	77.31	78.28	80.59
Renewable Exisitng	164.42	167.70	171.06	174.48	177.98	181.53	185.16	188.86	192.65	196.49	200.42	204.43	208.53	212.69	216.94
Renewable New	169.52	170.61	170.22	169.85	171.27	172.53	172.86	173.33	173.91	174.55	174.89	172.89	170.94	171.33	171.96



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#### . Business Plan

\$ in millions, except per employee figures

#### Labor

- Labor forecast is based on directorate and employee category (e.g., senior management and union) headcount as of March 2015
- Through FY2019 forecast assumes 80% of the employees retire when they become eligible for retirement; from FY2020 forward forecast assumes retiring employees are replaced with new hires on a one-for-one basis
- Retirements calculated by directorate and employee category at the union-specific level
- From FY2016 through FY2019, total headcount decreases by 682 employees (9%), from 7,077 to 6,395 as a result of retirements
- Baseline Forecast excludes any improvement initiatives or changes due to new generation units, only noted retirement forecast is included

\$ in nations, except per emptoyee jigures															
				Business Pl	an Stage 2 I	Baseline For	ecast								
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Starting Headcount	7,077	7,016	6,694	6,528	6,395	6,395	6,395	6,395	6,395	6,395	6,395	6,395	6,395	6,395	6,395
Retirements (net)	61	322	166	133	-	-	-	-	-	-	-	-	-	-	-
Ending Headcount	7,016	6,694	6,528	6,395	6,395	6,395	6,395	6,395	6,395	6,395	6,395	6,395	6,395	6,395	6,395
Managerial	2,009	1,888	1,814	1,769	1,769	1,769	1,769	1,769	1,769	1,769	1,769	1,769	1,769	1,769	1,769
Union	5,007	4,806	4,714	4,626	4,626	4,626	4,626	4,626	4,626	4,626	4,626	4,626	4,626	4,626	4,626
Generation	1,629	1,529	1,493	1,486	1,486	1,486	1,486	1,486	1,486	1,486	1,486	1,486	1,486	1,486	1,486
Customer Service	1,217	1,186	1,160	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142
Transmission & Distribution	2,815	2,681	2,612	2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531
G&A	1,355	1,298	1,263	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236



Sources: PREPA Finance and Human Resources directorates.

## Labor (cont'd)

- During the forecast period, total baseline labor costs grow from \$589 million in FY2016 to \$633 million in FY2030
  - Impact of net retirements in FY2016 through FY2019 is more than offset by impact of inflation
  - Forecast assumes basic salaries are held constant until FY2017 as a result of Law 66, and from FY2017 forward basic salaries forecasted to increase at 1% annually
  - From FY2016 to FY2030, union labor costs represent more than two-thirds of total labor costs
  - Baseline Forecast excludes any improvement initiatives or changes due to new generation units, only noted retirement forecast is included

							Busi	iness	Plan S	tage 2	Baselin	e Fore	ecast																
	]	FY2016	FY	2017	FY	2018	FY2	019	FY20	20	FY202	l I	Y2022	FY	/2023	F	Y2024	FY	2025	FY	2026	F	Y2027	F	/2028	FY	2029	FY	Y2030
Union																													
Baseline total salary	\$	195	\$	192	\$	188	\$	186	\$	186	\$ 18	38 \$	190	\$	191	\$	193	\$	195	\$	197	\$	199	\$	201	\$	203	\$	205
Baseline benefits																													
Baseline pension cost	\$	66	\$	67	\$	68	\$	69	\$	69	\$ (	69 \$	70	\$	71	\$	72	\$	72	\$	73	\$	74	\$	74	\$	75	\$	76
Pension underfunding		39		39		41		41		42	4	13	43		44		44		44		45		45		46		46		47
Health plan		32		32		31		31		31	1	31	32		32		32		33		33		33		34		34		34
Other benefits		24		24		23		23		23	2	23	24		24		24		24		25		25		25		25		26
Baseline total benefits	\$	161	\$	162	\$	163	\$	164	\$	165	\$ 10	67 \$	169	\$	170	\$	172	\$	174	\$	175	\$	177	\$	179	\$	181	\$	183
Baseline OT / OT benefits		45		46		46		47		47	4	18	48		48		49		49		50		50		51		51		52
Total Union Labor Costs	\$	402	\$	400	\$	397	\$	397	\$	398	\$ 40	2 \$	406	\$	410	\$	414	\$	418	\$	423	\$	427	\$	431	\$	435	\$	440
Per Union Employee	\$	80,191	\$8	3,248	\$8	4,182	\$ 85	,751	\$ 86,	062	\$ 86,92	2 \$	87,792	\$ 8	38,670	\$ 8	89,556	\$9	0,452	\$ 9	1,356	\$ !	92,270	\$ 9	93,193	\$9	4,125	\$ 9	95,066
Non-Union																													
Baseline total salary	\$	103	\$	100	\$	95	\$	93	\$	93	\$	94 \$	95	\$	96	\$	96	\$	97	\$	98	\$	99	\$	100	\$	101	\$	102
Baseline benefits																													
Baseline pension cost	\$	35	\$	35	\$	34	\$	34	\$	34	\$	35 \$	35	\$	35	\$	36	\$	36	\$	36	\$	37	\$	37	\$	38	\$	38
Pension underfunding		20		20		21		21		21	2	21	22		22		22		22		22		23		23		23		23
Health plan		17		17		16		16		15		6	16		16		16		16		16		17		17		17		17
Other benefits		13		12		12		12		12		2	12		12		12		12		12		12		13		13		13
Baseline total benefits	\$	85	\$	84	\$	83	\$	82	\$	82	\$ 5	33 \$	84	\$	85	\$	86	\$	87	\$	88	\$	88	\$	89	\$	90	\$	91
Total Non-Union Labor Costs	\$	188	\$	184	\$	178	\$	175	\$	175	\$ 17	7 \$	179	\$	181	\$	182	\$	184	\$	186	\$	188	\$	190	\$	192	\$	194
Per Non-Union Employee	\$	93,376	\$9	7,432	\$ 9	8,212	\$ 99	,058	\$ 99,	039	\$100,03	0 \$2	101,030	\$10	02,040	\$10	03,061	\$10	4,091	\$10	5,132	\$1	06,184	\$10	07,245	\$10	8,318	\$10	09,401
Total PREPA Labor Costs	\$	589	\$	584	\$	575	\$	572	\$	573	\$ 57	9 \$	585	\$	591	\$	597	\$	603	\$	609	\$	615	\$	621	\$	627	\$	633





Note: Pension underfunding is allocated by total basic salary; Table assumes that OT and OT benefits are limited to union employees. Sources: PREPA Finance and Human Resources directorates.

I. Business Plan

#### **Non-Labor Operating Costs**

- Operating costs remain relatively flat with the increase due to inflation, assumed at 1% per year beginning FY16
- Restructuring expenses are included in FY16 of \$25 million and then are assumed to be zero for the balance of the forecast period



#### **Operating Costs Excluding Labor/Fuel/Purchased Power**

Note: Largest components of Miscellaneous expenses are Rent, Legal, Utilities and Professional Services and represent approximately two-thirds of Miscellaneous expenses.

## CILT, Bad Debt, A/R and A/P Forecast

- CILT, bad debt and A/R are all based on estimated rates and resulting revenues, when actual rates are determined all balances will be adjusted
  - CILT forecast is based on a trailing twelve month trend of approximately 36.9% of government revenues
  - Bad debt is based on PREPA historical trends of 3% of non-government revenue and 10% of government revenues less CILT
  - A/R is based on trends over trailing six months through February 2015
- A/P for fuel, purchased power and other payables is estimated based on existing contractual through their forecasted terms and then assumes industry standard
  - A/P changes are largely due to declines in fuel consumption and purchased power



#### **Environmental Compliance**

PREPA has also taken a series of steps towards an executable compliance plan for federal environmental regulatory standards, including the Mercury and Air Toxics Standards, commonly referred to as "MATS"

- PREPA's current compliance concept anticipates that 8 of its 14 units subject to MATS are expected to comply between FY18 and FY21
  - Costa Sur Steam Units 3 & 4 converted to limited use
  - Costa Sur Steam Units 5 & 6 converted to burn gas and fuel oil
  - Palo Seco Steam Units 1 & 2 converted to limited use
  - San Juan Steam Units 7 & 8 converted to limited use
- The remaining six units, Aguirre Steam Units 1 & 2, Palo Seco Steam Units 3 & 4 and San Juan Steam Units 9 & 10, are currently expected to comply from FY18 to FY21
  - PREPA requested and received a one-year extension for Aguirre Steam Units 1 & 2, extending the deadline for compliance until April 2016
    - Assuming AOGP is permitted and constructed, the current plan is for Aguirre Steam Units 1 & 2 to convert to gas by end of FY18 and be in compliance with MATS
  - On December 3, 2014, PREPA requested a one-year extension of the MATS compliance deadline for Palo Seco Steam Units 3 & 4 and San Juan Steam Units 9 & 10 that was recently denied by the Puerto Rico Environmental Quality Board due to an insufficient plan to reach compliance
    - The current plan for these four units, per the Siemens preliminary IRP, is to construct three new units totaling 210 MW at Palo Seco and retire four units at San Juan and Palo Seco by FY21
  - Solutions for the remaining six units will require capital, but will also result in significant cost savings and emissions reductions by burning cleaner fuel and/or consuming less fuel



#### **New Investment Capital Expenditures**

- During the first five years of the forecast period PREPA will invest capital to meet MATS compliance as well as diversify fuel sources
  - Concurrently with construction of AOGP, PREPA will convert the Aguirre Steam and Combined Cycle units to burn gas
  - New units at Palo Seco (210 MW) will begin operations in FY21 while San Juan Steam Units 9 & 10 (200 MW) and Palo Seco Steam Units 3 & 4 (432 MW) are retired
    - □ While the forecast assumes PREPA ownership of the new units, PREPA will issue an RFP seeking third party investors for new units in the north
  - Transmission and distribution will have additional investments to stabilize the system when the units in the north are retired
  - Demolition costs for the units retired

\$ in millions

φ <i>ι</i> ι <i>ιι</i> ιιο <i>ι</i> 5	Project	COD	Cost
	Gas Port	Jul-17	\$ 358.3
	Aguirre Steam 1 Conversion	Oct-16	37.6
AOGP and	Aguirre Steam 2 Conversion	Jul-17	37.6
related projects	Aguirre CC 1 Dual Fuel Conversion	Oct-16	23.6
	Aguirre CC 2 Dual Fuel Conversion	Jul-17	23.6
	AOGP total		\$ 480.6
	Small Aero CC or Recip	Jun-20	\$ 120.3
Palo Seco	Small Aero CC or Recip	Sep-20	122.8
1 10 5000	Small Aero CC or Recip	Dec-20	122.8
	Palo Seco total		\$ 365.8
T&D investments		Various	\$ 226.4
	Palo Seco 1-4, Costa Sur 3-4,	FY19-FY20	77.5
Retirements	San Juan 7-10	1 119-1 120	11.5
Total			\$ 1,150.4



#### New Investment Capital Expenditures (cont'd)

- In subsequent years, the forecast assumes PREPA will invest money to improve efficiency at Aguirre (Steam and CC) and Costa Sur via repowers
  - Repowering Aguirre CC involves new turbines which will decrease the heat rate considerably to approximately 7,500 btu/kwhr
- While the forecast assumes PREPA investments during this period, PREPA will seek third party investment or private/public partnership for repowers or more beneficial alternatives to rate payers

	Project	COD	Cost
	Aguirre CC 1 Repowering	Jun-21	\$ 191.6
	Aguirre CC 2 Repowering	Jun-22	195.4
Aguirre	Aguirre Steam 1 Repowering	Jun-26	202.8
	Aguirre Steam 2 Repowering	Jun-27	207.0
	Aguirre total		\$ 796.9
	Costa Sur 5 Repowering	Jun-28	\$ 195.5
Costa Sur	Costa Sur 6 Repowering	Jun-29	199.5
	Costa Sur total		\$ 395.1
Total			\$ 1,191.9



Sources: Siemens Stage 2 IRP (preliminary).

\$ in millions

I. Business Plan

#### **Total Capital Expenditures**

- Investment capex projects include AOGP, new units at Palo Seco, conversions and repowered generation at Aguirre and Costa Sur and significant new investment in T&D
  - While the forecast assumes PREPA investment, a portion of the investments could be made by third party investors
- Forecast assumes PREPA spends approximately \$300 million per year on maintenance capex during this period
  - Maintenance capital expenditures is split roughly 33% to generation with the balance attributable to T&D and service delivery







I. Business Plan

#### **Summary of Operational Improvements**

Operational improvements are projected to generate annual savings of \$145-290 million in addition to one time savings



#### **Operational Improvements**



Note: Customer Service initiative range increases to \$80-155M when fuel and purchased power are included in Non-Technical Loss initiative. Since the fuel and purchased power components of losses are passed-through to existing rate payers, PREPA does not benefit from these components as Non-Technical Losses are reduced. Preliminary and Confidential Draft Subject to Material Change - Prepared at the Request of Counsel

#### **Operational Improvements: Recurring Annual Benefits**

- Operational improvements are currently estimated from \$145-290 million, all of which will be cash generating
- Comparing current estimated benefits to those presented in February additional benefits excluding fuel benefits that were moved from operational improvements to the forecast

	Category	Initial Estimated Run-Rate (\$M)	Revisions / Updates	Estimated Run-Rate (\$M)	Run-Rate Achieved By:
	Forecasting	\$3-4	(3-4) Excluded currently	\$0	N/A
	Generation Dispatch	25-40	No adjustments	25-40	Q1 FY16
	Fuel Inventory Controls	5-20	No adjustments	5-20	Q1 FY17
Fuel Procurement	Fuel Sourcing	20-45	(5-20) Based on RFP results, FY18 forward in forecast	15-20*	N/A
	Supply Chain	15-40	No adjustments	15-40	Q2 FY16
	Generation Consumption	25-50	No adjustments	25-50	Q1 FY17
	Fuel Procurement Sub-Total	\$93-\$199	(23-49)	\$70-\$150*	
	Municipalities	TBD	20-30 Current estimate	\$20-30	Q3 FY16
	General Customers	5-10	No adjustments	5-10	Q3 FY16
Customer Service	Non-Technical Losses	15-25 (footnoted 45-90 due to pass-through)	No adjustments	15-25	Q3 FY16
	Customer Service Sub-Total	\$20-35	20-30	\$40-65	
Fleet and General O&M	Fleet and General O&M Sub-Total	\$35-75	No adjustments	\$35-75	Q1 FY17
Total		\$148-309	(3-19)	\$145-290*	

\*: Fuel Sourcing not included in sub-total and total since IRP fuel prices already include adjusted fuel adders.



I. Business Plan

#### **Operational Improvements: Labor Improvements**

- Preliminary analysis of potential labor cost savings suggests run-rate opportunity of \$100 million per year (in 2015 dollars) beginning in FY2017, with approximately \$60 million of costs to achieve
- Forecasts assumes any labor changes due to new generation units is captured in the general retirements and labor improvements

\$ in millions, except headcount

					Busine	ss Plan	n Stage	e 2 Prelin	ninar	y Labor	Analysis															
	FY2	016	FY2017	ļ	FY2018	FY201	19	FY2020	F	Y2021	FY2022		FY2023	F	Y2024	FY2025	]	FY2026	FY	2027	FY2	2028	FY	2029	FY20	30
Baseline total labor costs	\$	589	\$ 584	1\$	575	\$5	72 \$	573	\$	579	\$ 585	5\$	591	\$	597	\$ 603	\$	609	\$	615	\$	621	\$	627	\$ (	633
Forecast reduction in labor costs		(50)	(100	))	(102)	(1	104)	(106)		(108)	(11	))	(113)		(115)	(117	)	(120)		(122)		(124)		(127)	(	(129)
Implied headcount reduction in force (cumulative)		598	1,174	!	1,174	1,1	74	1,174		1,174	1,174	t	1,174		1,174	1,174		1,174		1,174	1	1,174		1,174	1,1	174
Costs to achieve		29	29	Ð	-		-	-		-	-		-		-	-		-		-		-		-		-
Net of Impact of Labor Savings		(21)	(7)	l)	(102)	(1	104)	(106)		(108)	(11	))	(113)		(115)	(117	)	(120)		(122)		(124)		(127)	(	(129)
Adjusted total labor costs	¢	569	\$ 513	, e	473	¢ 1	68 5	467	¢	471	\$ 474	1 e	470	¢	482	\$ 485		489	¢	493	¢	496	¢	500	e 1	504
(ex-additional pension funding)	э	568	\$ 513	, ,	4/5	ə 4	00 1	<b>4</b> 07	Þ	471	\$ 4/-	• 3	478	æ	482	\$ 400	Þ	409	э	495	Э	490	э	500	<b>э</b>	504



## II. Non-Economic Factors



II. Non-Economic Factors

#### **Proposed Governance Reforms**

In order to ensure that the reforms at PREPA are long-lasting, the Recovery Plan aims to reduce political influence over PREPA. Below are the governance reforms proposed to achieve this goal

	Proposed Reforms	
Board Composition	<ul> <li>Upon the closing of the exchange offer, [·] Board Members to be appointed by Governor, with the consent of the Senate- must include: (i) [·] members ex officio (including GDB President); (ii) consumer representatives and (iii) [·] members from [10]-person list of independent candidates ("Independent Candidates List") prepared by a nationally recognized search firm[, which list must include [·] Puerto Rico residents] (Governor may request additional candidates</li> <li>Board Members general requirements: (i) energy/utility sector experience; (ii) engineering experience; or (iii) corporate finance and legal experience</li> <li>Committees established by the Board will not include on each committee more than one Board Member greater than the number of Board Members appointed by Governor from the Independent Candidates List</li> <li>No more than one (1) former PREPA employee may serve on Board at the same time, provided that such person has n been employed by PREPA during the prior [3] years</li> </ul>	
Replacement Mechanics	<ul> <li>Board Members to have staggered terms, with a limit of two [6]- year terms per Board Member</li> <li>Board Members replaced by Governor, with the consent of the Senate; in case of members appointed from the Independent Candidates List, and for a limited period to be discussed, replacements are chosen by the Governor from [10]-person list of candidates as provided above</li> </ul>	ı a
Supermajority Voting Requirements	<ul> <li>Supermajority voting (2/3 of full board) is required for PREPA to take certain actions/decisions, including:         <ul> <li>Major decisions on labor relations, pensions and work rules</li> <li>Any decision on rate cases and CILTs</li> <li>Incurrence of debt above a certain threshold</li> <li>RFP / contracts (and material amendments) for third party operator and IPPs</li> <li>PPAs and material amendments</li> <li>Formation of, or material changes to, Subsidiaries</li> </ul> </li> </ul>	
Other	<ul> <li>Exemption from civil liability for the Board and its individual directors, and the officers, agents or employees of the Authority for any action taken in good faith in the performance of their duties and responsibilities</li> <li>New governance provisions to be included as covenants under the Trust Agreement as protection for bondholders (i. covenant will expire in [10] years; breach of governance provisions could lead to a debt default). Authorize compensation for Board Members</li> <li>All independent Board Members must meet the Final NYSE Corporate Governance Rules for director independence</li> <li>Quorum for meetings requires at least [6] members</li> <li>Non-ex officio directors shall not be deemed to be public officers for reporting income and other financial disclosures, including the provisions of Act No. 1 of 2012</li> </ul>	



## Legislative Reforms – Energy Relief Act

	Proposed Reforms
Collection Issues	<ul> <li>Agencies and Public Corporations: Provide PREPA with clear authority to curtail/disconnect service at non-essential public service providers and if feasible, non-essential functions at essential public service providers, establish payment plans, include enforcement mechanisms for more appropriate collection system</li> <li>Residential Customers: Provide PREPA with clear authority to charge reconnecting fees, report delinquent customers to credit bureaus, increase security deposits and late payment interest charges, deprioritize reconnects</li> </ul>
CILT	<ul> <li>PREPA to set a CILT cap for each municipality</li> <li>If cap exceeded, municipality must pay excess in cash and PREPA may collect payment and exercise remedies upon non-payment (including disconnecting non-essential service)</li> <li>"For profit" accounts are carved out from CILT and treated as normal paying customers</li> </ul>
Rate Structure	Rate structure to be based on Navigant Consulting's rate study (once available)
Rate Process (to be discussed with Energy Commission)	<ul> <li>Simplify rate review process, including, for example:</li> <li>Clarify that Energy Commission can adopt rates without conducting the initial rate review</li> <li>Clarify that PREPA and Energy Commission may hold joint hearings to consider proposed rate adjustments</li> <li>Provide PREPA with emergency powers to increase rates to cover repair costs upon extreme weather events</li> <li>Provide PREPA with power to increase rates annually within a certain range (1.0-1.5%) without Energy Commission approval</li> <li>Eliminate requirements of Transparent Bill in connection with rates because new rate structure will address transparency concerns</li> </ul>
RFPs for the Purchase of Power and/or Modernization of Generation Facilities	<ul> <li>Eliminate Energy Commission participation in any procurement process related to the modernization of a power plant or a power purchase agreement</li> <li>Delegate authority to PREPA to conduct the procurement process according to a process similar to that set forth in PPP Act</li> </ul>
Third Party IPPs	<ul> <li>IPPs will negotiate and contract with PREPA through a PREPA led process</li> <li>IPPs will be subject to Energy Commission regulation once the power plant comes on-line and is compliant with PREPA contract requirements.</li> <li>Energy Commission will be responsible for reviewing and approving negotiated rates prior to completion of the procurement process</li> <li>Purchased power will be payable as a Current Expense under Trust Agreement</li> </ul>
New Debt Issued by PREPA	Eliminate the need for the Energy Commission to provide recommendation as to PREPA debt



II. Non-Economic Factors

## Legislative Reforms – PREPA Organic Act

	Proposed Reforms
Financing	PREPA may create liens over its receivables, intangible and tangible personal property to secure any borrowing, as well as any stock of subsidiaries, subject to any contractual limitations set forth in the Trust Agreement or other debt documents
Governance	See "New Governance" section in preceding slides
Asset Transfers	<ul> <li>Liberalize provisions relating to the sale, lease or transfer of any PREPA property unless otherwise prohibited by any contractual limitations, including the Trust Agreement</li> </ul>



II. Non-Economic Factors

### **Objectives and Proposed TA Amendments**

Following are the proposed amendments to the existing Trust Agreement

	Proposed Amendments
Flexibility to access favorably-priced financing	<ul> <li>Modify definition of "System" by providing the ability to PREPA's Governing Board to subsequently add new projects under the "System"</li> <li>Modify definition of "Current Expenses" by explicitly including certain additional items such as         <ul> <li>(i) expenses/financing for fuel purchases, regular management contract payments and hedging,</li> <li>(ii) payment of existing revolving lines of credit in accordance with the Recovery Plan, and</li> <li>(iii) payments of non-generation projects, such as Excelerate / AOGP</li> </ul> </li> <li>Modify Negative Pledge/Liens Covenant by allowing PREPA to, among other things, (i) pledge specified tangible and intangible assets, (ii) pledge accounts receivable, (iii) enter into forward sales of electricity, (iv) create separate vehicles that could borrow to purchase fuel that would then be sold to intermediaries, and (vi) finance projects outside the System on non-recourse basis, without violating the negative pledge with respect to Revenues</li> <li>Introduce a more flexible/permissive Additional Bonds Test</li> </ul>
Flexibility to pursue value-enhancing structural reorganizations	Introduce more flexible/permissive carve-out for sales, leases, encumbrances if assets in question are no longer used or useful in the operation of the business as determined by the Board exercising its business judgment subject to PREPA being, among other things, in compliance with the rate covenant
Empower professional management and protect governance structure	<ul> <li>Add covenant requiring PREPA to adopt and maintain the governance requirements set forth in the Recovery Plan that expires in [10] years (any breach of this covenant would give rise to an event of default subject to 30-day grace period)</li> <li>Phase out of Consulting Engineers' role upon satisfaction of certain milestones</li> </ul>
Update Trust Agreement to reflect applicable law	<ul> <li>Clarify that rate covenant and related remedies are subject to applicable law and regulations (e.g., Energy Relief Act)</li> </ul>



## **Objectives and Proposed TA Amendments (cont'd)**

	Proposed Amendments
Strengthen information sharing/reporting covenants	Annual report to be delivered within 180 days from close of financial year
Simplify waterfall structure to free up working capital and liquidity	Eliminate the Capital Improvements Fund and the Self-Insurance Fund
Allow for efficient consent solicitation process, democratize bondholder action, and ensure long-term viability of TA	<ul> <li>Include aggregate two-limb collective action clauses:         <ul> <li>For single series, + [75]% outstanding debt securities of such series;</li> <li>For 2 or more series,</li> <li>if certain "uniformly applicable" requirements are met, + [75]% of outstanding debt securities of all series affected by proposed modification, taken in the aggregate; or</li> <li>(i) + [66 2/3]% of outstanding debt securities of all series affected by proposed modification, taken in the aggregate, and (ii) + [50]% of outstanding debt securities of each series affected by proposed modification, taken in the aggregate, and (iii) + [50]% of outstanding debt securities of each series affected by proposed modification, taken individually</li> </ul> </li> </ul>



II. Non-Economic Factors

### **Fuel Line Amendments**

Below are the proposed amendments to the fuel line agreements

	Proposed Amendments	
Rate Covenant	Conform covenant to new rate structure and align to new bond documents	
Lien Covenant	Conform covenant to new bond documents (i.e. allow flexibility to access favorably-priced financing)	
Downgrading	Eliminate downgrading covenant and event of default	



# III. Appendix



#### **Business Plan Inputs**

- Baseline operating statements and free cash flow forecast incorporates inputs from multiple sources:
  - Demand and supply load preliminary IRP, including unit dispatch
  - Customer mix PREPA planning group (residential, commercial, etc. as well as government/nongovernment)
  - Fuel price curves preliminary IRP dated April 2015
  - Fuel infrastructure AOGP current contract
  - Labor PREPA current labor force and total compensation as of March 2015 and then adjusts for forecasted retirements and annual increases in total compensation beginning in FY17
  - Pension Increased pension funding based on preliminary estimates from pension consultant
  - Baseline operating costs (non-labor) PREPA FY15 YTD plus four months budget adjusted for inflation
  - Capital expenditures for existing assets Adjusted PREPA 5-year plan through FY19 for all areas; extrapolated through remaining forecast period
  - Capital expenditures for new assets preliminary IRP
  - CILT Trailing twelve months through February 2015 as a percentage of government revenues
  - A/R and A/P PREPA status quo, contracted terms by customer and vendor type as well as longer term A/P industry standard

  - Financing costs reflects existing debt structures



## **Operating Costs Key Assumptions (cont'd)**

	Comments	
Accounts Receivable	<ul> <li>Based on estimated revenues and trends over trailing six months through February 2015</li> <li>Improvements and savings included under improvements</li> </ul>	
Accounts Payable	<ul> <li>Based on current and anticipated contract terms</li> <li>Improvements and savings included under improvements</li> </ul>	
<ul> <li>Fuel oil No. 6</li> <li>July 2015: 45 days payable outstanding per contract terms</li> <li>August 2015 through January 2016: 30 days payable outstanding per contract terms</li> <li>February 2016: 15 days (<i>one month at end of contract term</i>)</li> <li>March 2016 through June 2017: 45 days assumed to receive improving terms</li> <li>July 2017 and beyond: 60 days assumed to receive improving terms</li> </ul>		
Fuel oil No. 2	60 days payable outstanding, subject to \$30 million cap	
Natural gas	47 days payable outstanding per contract terms	
Purchased power	47 days payable outstanding per contract terms	
Other	60 days payable outstanding	



Sources: Historical PREPA Monthly Operating Reports, existing fuel contracts, PREPA historical financial and operational data.

III. Appendix

OELF

#### Rate: Current vs. FY16 Cost Base

The existing rate structure is not sufficient to cover the current cost base



At current demand level each one cent reduction in rate will require cost improvements of ~\$165 million
 FY16 rate and cost are illustrative and on pro-forma basis using Preliminary Stage 2 IRP and Stage 2 Business Plan inputs

(1) Debt service reflects PREPA's debt service obligations for FY2016 assuming swaps are terminated and all BAB subsidies remain in place. Also assumes that fuel lines are repaid in full at July 1, 2015 and that all debt service (excluding the fuel line repayments) must have a 1.25x debt service coverage ratio.

#### Fuel Costs – Forecasted Prices (\$/bbl)

#### FO6 Average Forward Prices (\$/bbl)





#### FO2 Average Forward Prices (\$/bbl)



III. Appendix

## **On-Going Fuel Procurement Initiatives**

	Activities	Benefits	Est. Start Date (Run Rate Date)	Est. Annual Value
Optimize Generation Dispatch	<ul> <li>Continuously monitor fuel unit \$/MMbtu costs to leverage cost arbitrage from the different fuel sources to optimize cost per kwh</li> </ul>	<ul> <li>Fuel cost savings benefiting end customers</li> </ul>	Q3 FY 2015 (Q1 FY 2016)	\$25 - 40M
Fuel Inventory Controls	<ul> <li>Standardize inventory controls across all plants with a standard inventory tool</li> <li>Integrate inventory controls into "Asset Suite"</li> </ul>	<ul> <li>Provide robust inventory controls that follow industry standards</li> <li>Create visibility for inventory variations in an auditable process</li> </ul>	Q3 FY 2015 (Q1 FY2017)	\$5 - 20M
Fuel Sourcing	<ul> <li>Support the tendering/retendering process to identify lower cost suppliers focused on adders reduction</li> <li>Get alternative suppliers to drive competitive pricing</li> </ul>	<ul> <li>Reduce cost of adders for Fuel Oil # 6 by 15-30% through FY2017</li> </ul>	Q1 FY 2016 (Q1 FY 2016)	Will vary by year
Fuel Supply Chain Structure	<ul> <li>Evaluate infrastructure options to allow different supply alternatives whilst leveraging the AOGP</li> <li>Enable fuel diversity for the different plants</li> </ul>	<ul> <li>Provide sustainable supply redundancies for NG</li> <li>Leverage alternate NG source to obtain favorable pricing in the mid term for Costa Sur</li> </ul>	Q2 FY2016 (Q2 FY2016)	\$15 - 40M
Fuel Consumption (Generation)	<ul> <li>Reduce the utilization of the existing fleet by optimizing the spinning reserve levels</li> <li>Mitigate the forced outages driving increased higher cost unit usage (i.e., diesel)</li> </ul>	<ul> <li>Reduced fuel consumption by using the most efficient units</li> <li>Potential generation spinning reserves reduction</li> </ul>	Q3 FY2016 (Q1 FY2017)	\$25 - 50M
			Total	\$70-150M, plus sourcing



savings

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III. Appendix

#### **On-Going Customer Service Initiatives**

	Activities	Benefits	Est. Start Date (Run Rate Date)	Est. Annual Value
General customers	<ul> <li>Implement new process for service suspension / new fees for reconnection</li> <li>Accelerate process to bring Law 33 cases to arbitration and collect full deposit</li> <li>Launch collection of inactive accounts with Collection Agencies</li> </ul>	<ul> <li>One time cash improvement for reduced A/R</li> <li>Increased reconnection fees</li> </ul>	Q3 FY 2015 (Q3 FY 2016)	\$5-10M
Decrease Non Technical Losses	<ul> <li>Continue implementation of programs to Improve theft detection and recovery</li> <li>Decrease in the amount of accounts estimated each month, improve the estimation algorithm</li> <li>Accelerate remediation of meters with no reading</li> <li>Reduce the time it takes to complete service suspension for non-payment</li> </ul>	<ul> <li>PREPA retains the costs saved though the base rate, rest is passed on to customers through reduce fuel and PP charges</li> </ul>	Q4 FY 2015 (Q3 FY 2016)	<b>\$15-25M</b> (Represents base rate component only)
Municipalities	<ul> <li>Collection of FY 2015 charges incurred in "for profit sites"</li> </ul>	<ul> <li>Additional revenue</li> </ul>	Q4 FY 2015 (Q3 FY 2016)	\$20-30M
			Total	\$40-\$65M



Note: Decreased Non-Technical Loss initiative range increases to \$60-115M when fuel and purchased power are included. Since the fuel and purchased power components of losses are passedthrough to existing rate payers, PREPA does not benefit from these components as Non-Technical Losses are reduced.

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## **On-Going Fleet & Other General O&M Initiatives**

	Activities	Benefits	Est. Start Date (Run Rate Date)	Est. Annual Value
Procurement	<ul> <li>Execute on security guard phase I &amp; II</li> <li>Develop and execute sourcing of fleet parts</li> <li>Develop and execute sounding of MDE/MRO parts</li> <li>Improve procurement processes and limit decentralization of activities</li> </ul>	<ul> <li>Improved cost base</li> <li>Increased use of standardized, catalogued items will reduce complexity and drive SG&amp;A efficiencies</li> </ul>	Q1 FY 2016 (Q1 FY 2017)	\$15 - 25M
Inventory	<ul> <li>Review footprint and consolidate warehouse operations (in coordination with fleet consolidation)</li> <li>Identify and dispose of obsolete and slow moving SKU's</li> <li>Reset safety stock levels to reduce overall inventory</li> </ul>	<ul> <li>Reduced labor and network costs (fewer locations with increased velocity)</li> <li>Limit write-downs / obsolete SKU's</li> </ul>	Q1 FY 2016 (Q1 FY 2017)	\$10-25M
Shops	<ul> <li>Review footprint and consolidate shops (in coordination with fleet consolidation)</li> <li>Develop shop SWAT team to target shops (weekly basis) with high out of service %</li> <li>Rollout improved metrics to drive higher accountability</li> </ul>	<ul> <li>Improved vehicle availability</li> <li>Reduce T&amp;D non-productive labor time ("patio entries")</li> </ul>	Q1 FY 2016 (Q1 FY 2017)	\$5-10M
Fleet	<ul> <li>Review network and consolidate fleet location to increase utilization</li> <li>Expand usage of GPS across fleet to increase visibility to and drive improvement within utilization</li> <li>Consolidate overall accountability of fleet (availability, utilization, cost) within transportation</li> <li>Develop fleet renewal program by vehicle class</li> </ul>	<ul> <li>Reduced investment required to renew fleet</li> <li>Improved tracking and centralized accountability will enable more efficient rebalancing of fleet</li> </ul>	Q1 FY 2016 (Q1 FY 2017)	\$5-15M



Total \$35-75M