AES Panama & AES Changuinola
Presentation to Fitch Ratings
2019 Annual Review

May 7th, 2019

Safe Harbor Disclosure

This presentation may contain forward-looking statements speculative in nature based on the information, operational plans and forecasts currently available about future trends and facts. As such, they are subject to risks and uncertainties. A wide variety of factors may cause future real facts to differ significantly from the issues presented or anticipated in this presentation, including, among others, changes in general economic, political, government and business conditions. In the event of materializing any of these risks or uncertainties, or if underlying assumptions prove to be mistaken, future real facts may vary significantly. AES Panama or AES Changuinola are not bound to update or correct the information contained in this report.

Agenda

1. Company Overview
2. Update on the Changuinola Outage
3. Market Update
4. Financial Update
5. Key Debt Metrics
6. Projections

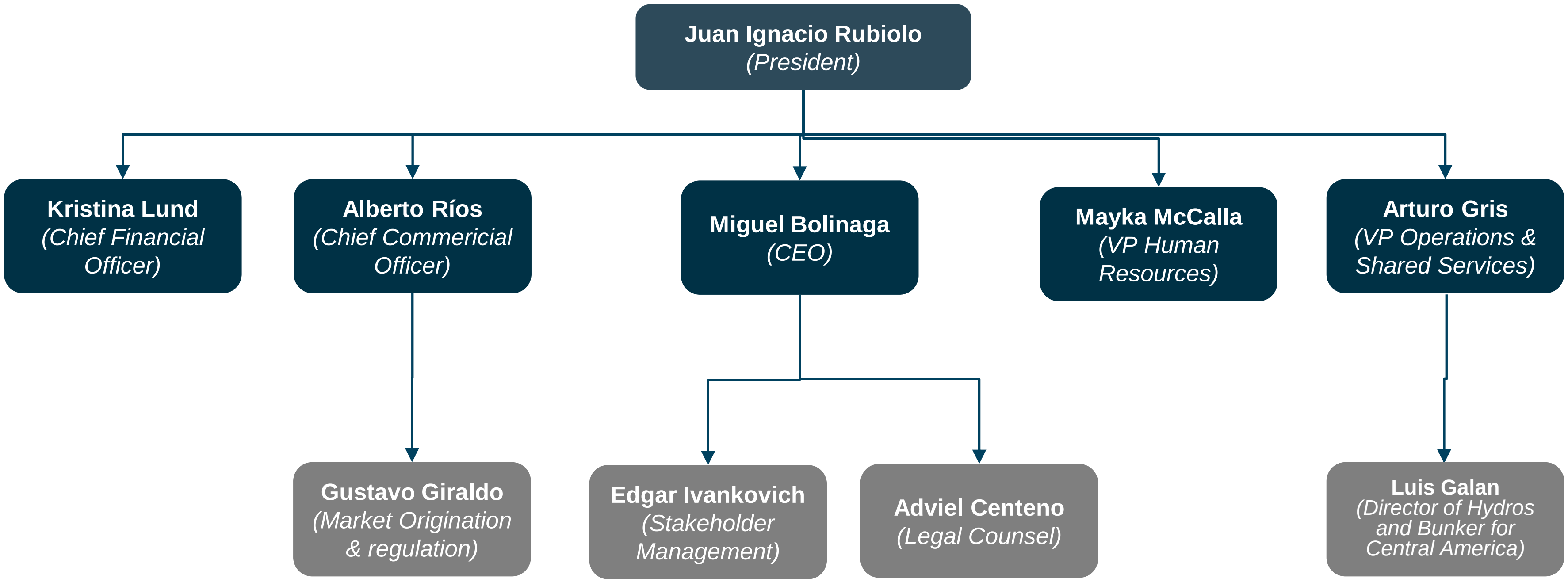
1. Company Overview

AES in Panama: Company Overview

- Largest generation company in Panama with 34% market share (GWh´s in 2018)
- Well diversified portfolio with run-of-river, reservoir facilities and FO6 fueled engines
- World class operations with high availability factors and experienced management team
- Uniquely positioned in a fast growing and investor friendly market
- Majority government ownership, privately managed and controlled

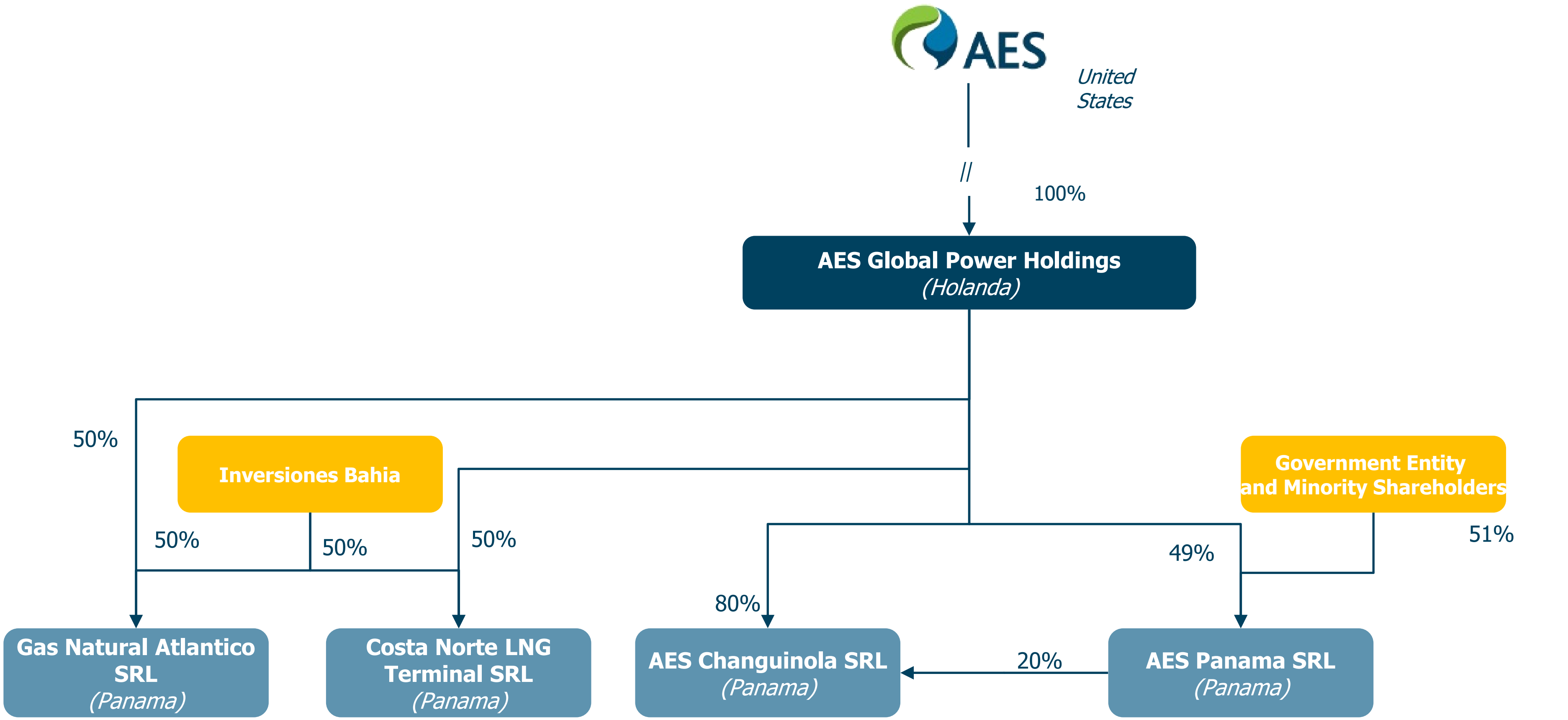
AES Management Team

Based on the latest AES global reorganization, some of the top management of for the region has recently changed.



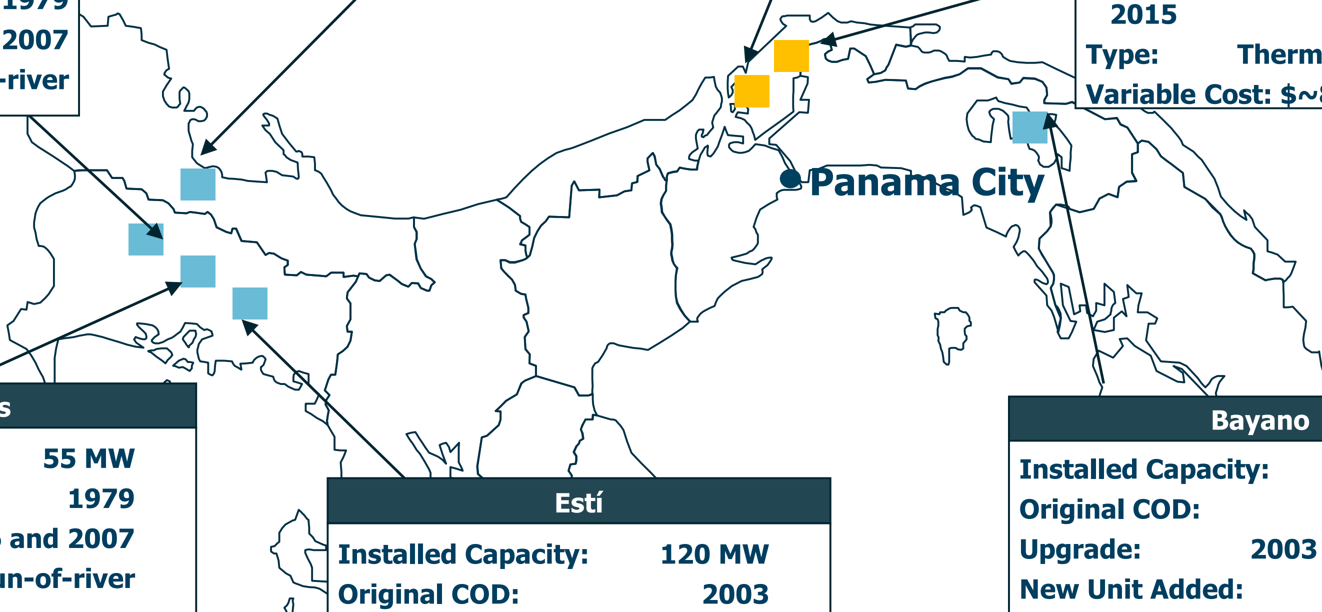
AES in Panama: Company Overview

Corporate Structure



AES in Panama: Company Overview

As of March 31st, AES supplies 35% of Panama's total demand and, with its current 1,158 MW, has 30% of the installed capacity of the country.



La Estrella

Installed Capacity:	47 MW
Original COD:	1979
Repowering:	2006 and 2007
Type:	Run-of-river

Changuinola

Installed Capacity:	223 MW
Original COD:	Nov 19, 2011
Type:	Run-of-river with a small reservoir (daily regulation)

Gas Natural Atlántico

Installed Capacity:	381 MW
Available:	Sept 1th , 2018
Type:	Thermal Plant (LNG)
Variable Cost:	$~54/MWh

Estrella del Mar I

Installed Capacity:	72 MW
Provisional COD:	April 24th , 2015
Type:	Thermal Plant (FO6)
Variable Cost:	$~82/MWh

Los Valles

Installed Capacity:	55 MW
Original COD:	1979
Repowering:	2006 and 2007
Type:	Run-of-river

Estí

Installed Capacity:	120 MW
Original COD:	2003
Type:	Run-of-river with hour regulation

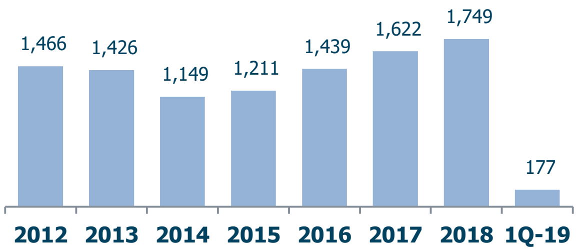
Bayano

Installed Capacity:	260 MW
Original COD:	1976
Upgrade:	2003 and 2004
New Unit Added:	2002
Type:	Reservoir

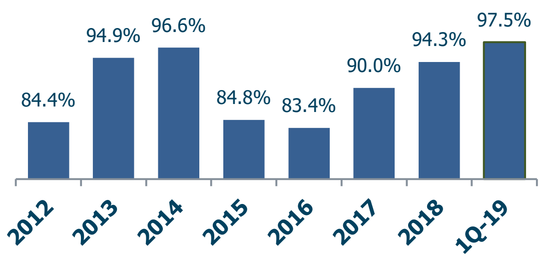
Key Operating Overview

AES Panama Hydro

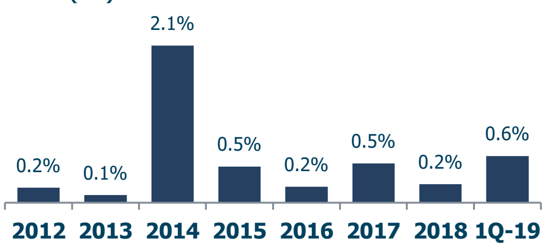
Net Generation
(GWh)



Availability Factor
(%)

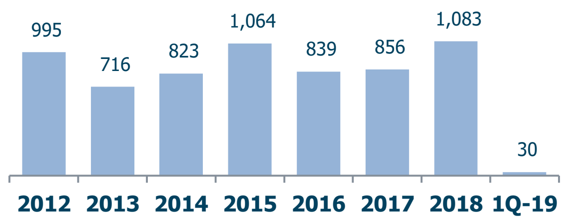


Forced Outage Factor - EFOR
(%)

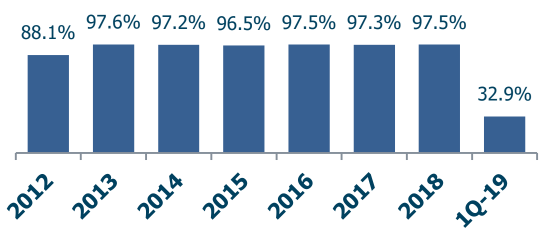


AES Changuinola

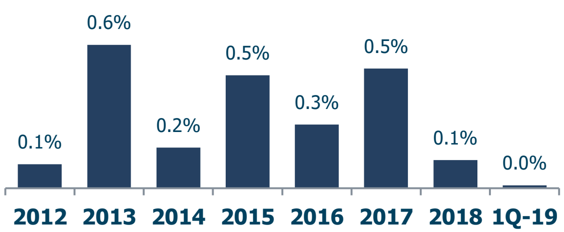
Net Generation
(GWh)



Availability Factor
(%)

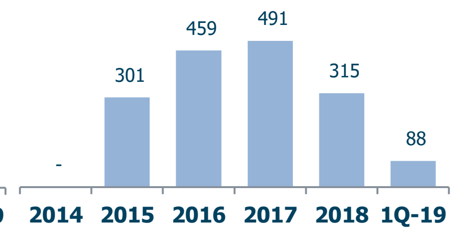


Forced Outage Factor - EFOR
(%)

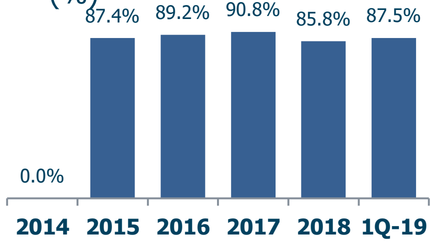


AES Panama Barge

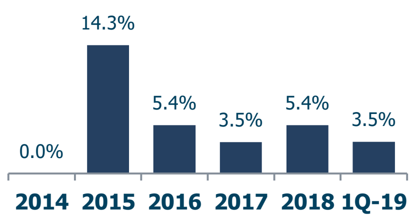
Net Generation
(GWh)



Availability Factor
(%)



Forced Outage Factor - EFOR
(%)



Note: AES Panama Hydro EAF during 2010/2012 was affected by the collapse of tunnel Estí and 2015/2016 affected by Bay U1

Current Commercial Structure

Suppliers

Spot

AES Changuinola Backup Contract

Ann. Energy: Based on Changuinola Dispatch (Physical Contract)

Contracted Capacity:
-175 MW until 2030.

Fuel Supplier

CHEVRON

Delivery through oilduct.
Min. reserve of 7 days.

Price indexed to FO#6
US Gulf FO6 3% + 6.6$/Bbl

Spot Purchases

Backup Contract

FO#6 Supply

AES PANAMA

Spot Sales

Hydro PPAs Sales

Thermal PPAs Sales

- **Changuinola Backup Contract**
  -Reimbursement of spilled energy in case of Transmission Constraints
- **Regional Transactions**
  -Short term optimization of the variable margin through importing/exporting energy from/to the Regional Market

- **Hydro DISCOS Contracts**
  -Contract sales through Fix Prices
- **Large Users Contracts**
  -Mostly Fix Energy Prices and capacity prices are adjusted by Capacity Factor.
- **Thermal DISCOS Contracts**
  -Capacity plus Energy charges adjusted by fuel (diesel)

Off-takers

Spot

DISCOS
EDEMET, EDECHI, ENSA

Contracted Capacity:
- 350 MW 2019-2030
- LF ~59%

16 Large Users
Contracted Capacity:
-7.79 MW 2016-2019
-32.79 MW 2020-2026
LF 65%

Barge PPAs

DISCOS
EDEMET, EDECHI, ENSA

Ann. Energy:
~476 GWh

Contracted Capacity:
- 80 MW 2015 -2020

Current Commercial Strategy

Strategy Focus	• **Targeting to keep or increase the contracting level up to 2,810 GWh/yr focusing in the C&I customers** • **Continue looking to hedge spot exposure during dry season by backing up with complementary assets (wind/solar/storage)**

Strategic Rational	• **Exposure to hydrology has decreased materially compared to prior years due to AES thermal projects and lower commodities scenario**
	    • 72MW Power Barge (2015) and 381MW Colon (2018)
	    • WTI (50-60 $/bbl); Natural Gas (2-3 $/mmbtu)
	• **Very large potential C&I market that has not been developed yet (Peak Demand >100kW) can provide to the business more flexibility for a progressive contracting execution and implementation (year basis), and articulation of a mitigation plan execution if needed**

Key advantages of focusing in the C&I Segments	• Portfolio Diversification • Better control in the execution and implementation of the contracting strategy • Better Contracts Term and Conditions • Possibility to revert the position if needed by buying back the PPAs if market conditions suddenly change

Variable Margin Composition FYF 2019

Variable Costs | **Revenues**

Merchant

Spot
- US$95 mm
(energy, capacity, ancillary services,etc)

Spot
+ US$15 mm
(energy, capacity, ancillary services,etc)

AES Panamá

Contracts

AES Changuinola
-US$60 mm
(energy, capacity , premiun)

2019 VM US$204 mm

gasNatural fenosa | ENSA Grupo·epm
(Hydros PPAs)
US$262 mm
16 Large Users
US$ 33 mm

Chevron
-US$30 mm
(FO #6 Supply + OM)

Barge related

gasNatural fenosa | ENSA Grupo·epm
+US$ 96 mm
(Barge PPAs)

Current Contract Level

AES Panama is currently at a ~ 80% contracted level. With the current contract maturities, this percentage will go up above 85% by 2020

Distribution Companies

- **Annual Energy:** ~2,000-2200 GWh
- **Contracted Capacity:** 350 MW (2019-2030)
- **Current Avge. Monomic Price:** $95 /MWh

Large Users

- **Annual Energy:** ~225 –396 GWh
- **Contracted Capacity:** 7.79 MW (2019) and 32.79 (2020)
- **Current Avge. Monomic Price:** $108 /MWh

Barge PPAs

- **Annual Energy:** ~ 476 GWh
- **Contracted Capacity:** 80 MW (July 2015 – Jun 2020)
- **Current Avge. Monomic Price:** $198 /MWh

AES Changuinola Backup Contract

- **Annual Energy:** Based on Changuinola dispatch (physical contract)
- **Contracted Capacity:** 9.66MW (Oct 2019) and 175 MW until 2030.
- **Current Avge. Monomic Price:** $94 /MWh

Large Users Portfolio

AES Panama currently supplies 16 Large Users in the Panamanian System and aims to maintain and potentially grow in that market niche

New entrance:

- May 15st = Super Xtra Penonomé y Changuinola
- May 15st = Club Unión
- June 1st = Zanetato, Lavery Metalpan
- Jan 2020 = CEMEX

2. Changuinola Outage Update

Activities Outside of Tunnel

- Production of concrete from 80m^3/hr batch plant and installation of 50m^3/hr batch plant
- Testing concrete mixes in laboratory ahead of permanent works concreting
- Production of reinforcement cages for the invert of the reinforced concrete lining
- Transporting reinforcement cages into tunnel for storage and for construction of permanent invert slab upstream

80m^3/hr concrete batch plant

Testing of concrete mixes in laboratory

Fixing steel reinforcement cages for invert

Transporting reinforcement cages into tunnel for construction of invert upstream and downstream

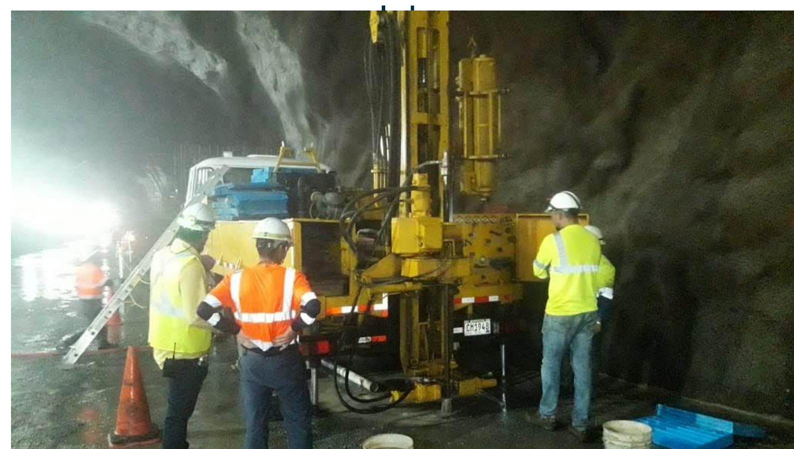
Activities Inside of Tunnel

- Construction of permanent invert slab upstream of junction
- Construction of permanent invert slab downstream of junction
- Removal of underbreak in the surge adit to allow lining to be constructed
- Coring investigation to verify lining design

Construction of upstream permanent invert slab

Construction of downstream permanent invert

Removal of underbreak in surge adit



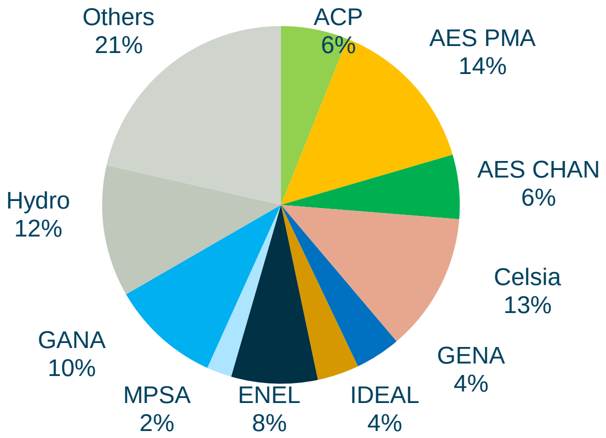
Coring Investigation to verify lining design

3. Market Update

2019 Panama Market Update

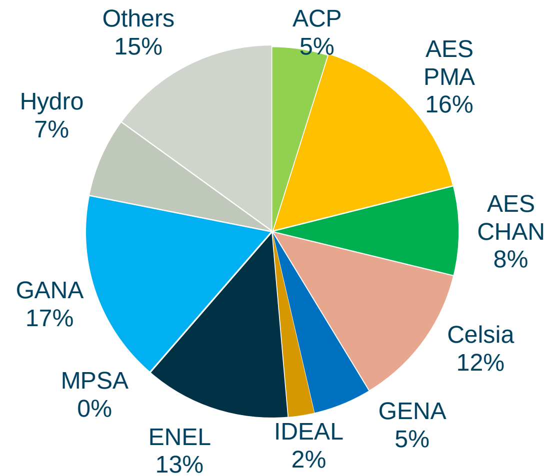
Installed Capacity, March 2019

Total 3,844 MW



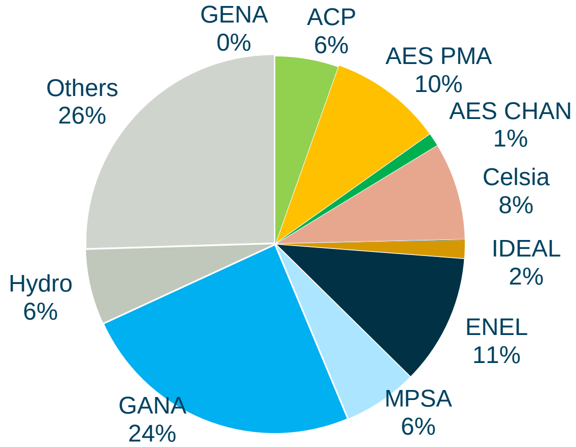
Firm Capacity, March 2019

Total 2,273 MW



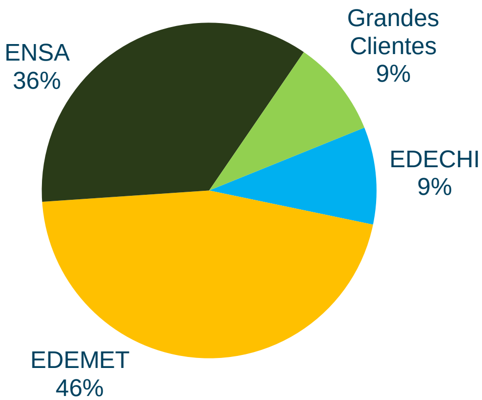
Generation, YTD March 2019

Total 2,713.21 GWh



Energy Demand, YTD March 2019

Total 2,288 GWh



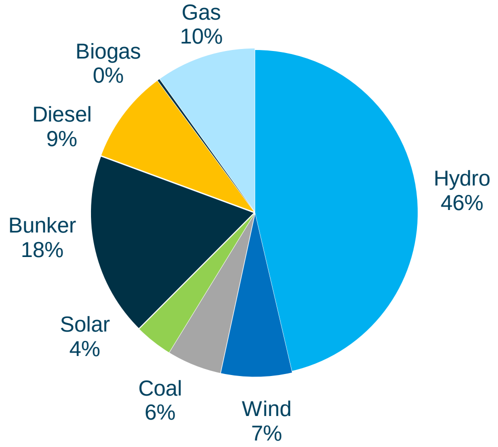
1. **Embajada de Estados Unidos**
2. **Importadora Ricamar**
3. **Varela Hnos**
4. **Avipac**
5. **Contraloría General de la República**
6. **Sunstar Hotel**
7. **Caja del Seguro Social**
8. **Cemento Interoceánico**
9. **Cerveceria Nacional**
10. **Aceti-Oxigeno**
11. **Toledano**
12. **La Prensa**
13. **Business Park**
14. **Super Xtra**
15. **Felipe Motta**

Source: National Dispatch Center (CND).

2019 Panama Market Update

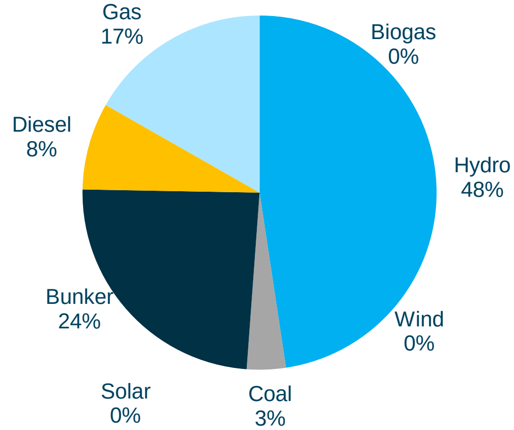
Installed Capacity, March 2019

Total 3,844 MW



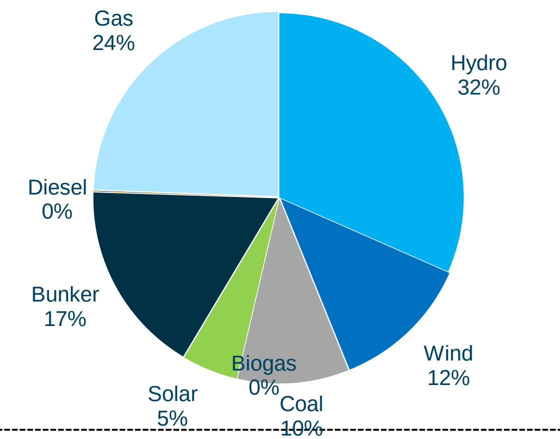
Firm Capacity, March 2019

Total 2,273 MW



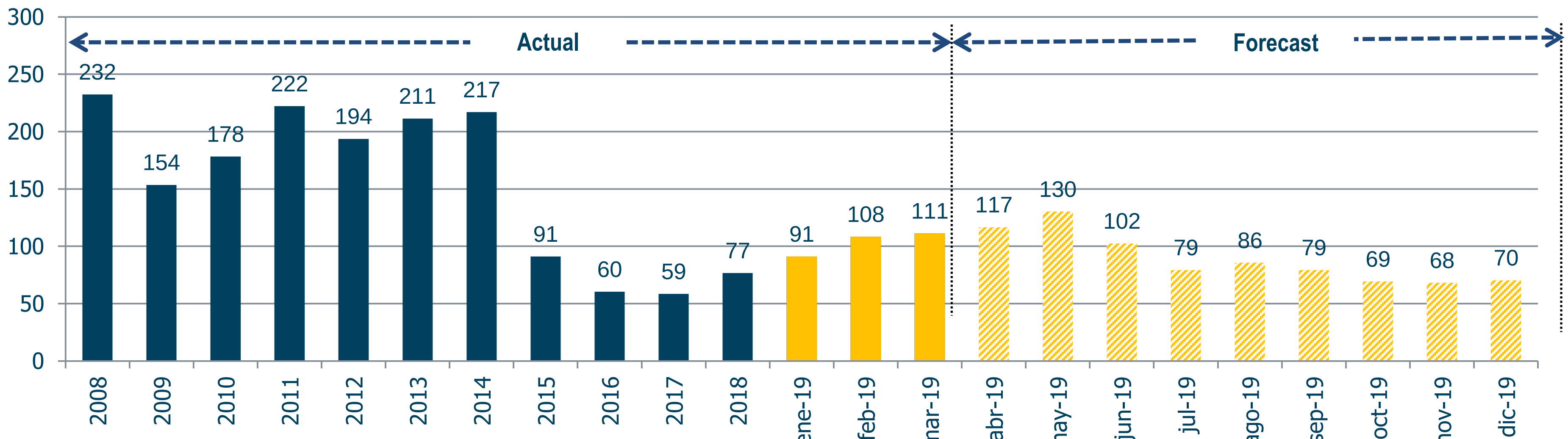
Generation, March 2019

Total 2,273 GWh



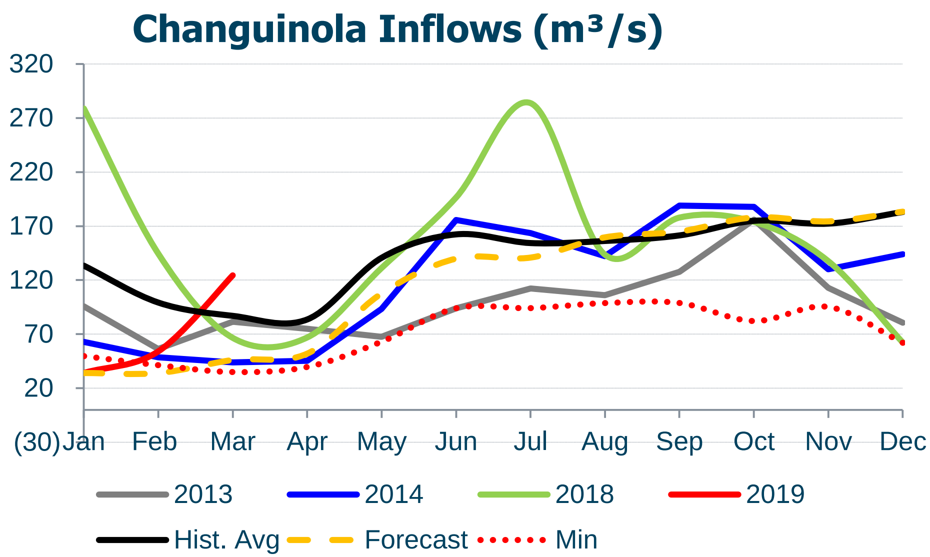
Spot Price Evolution

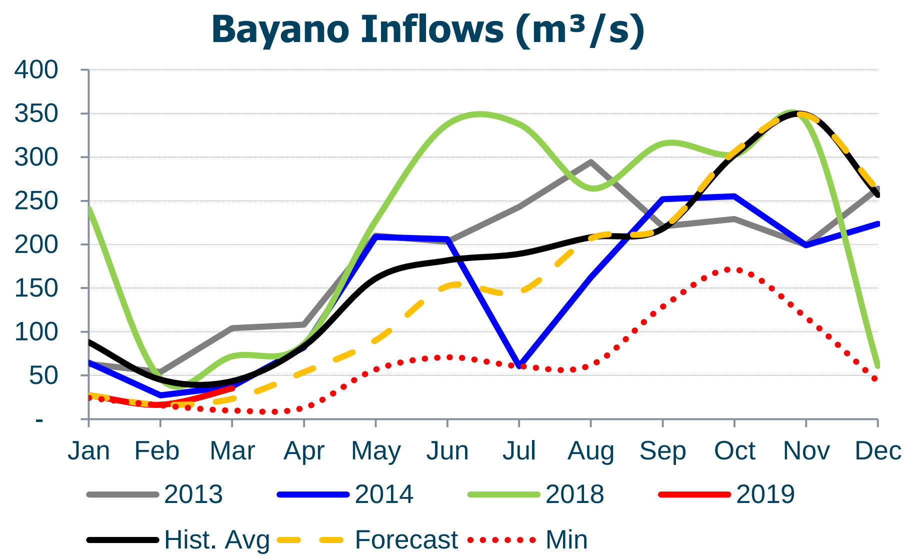
US$/MWh

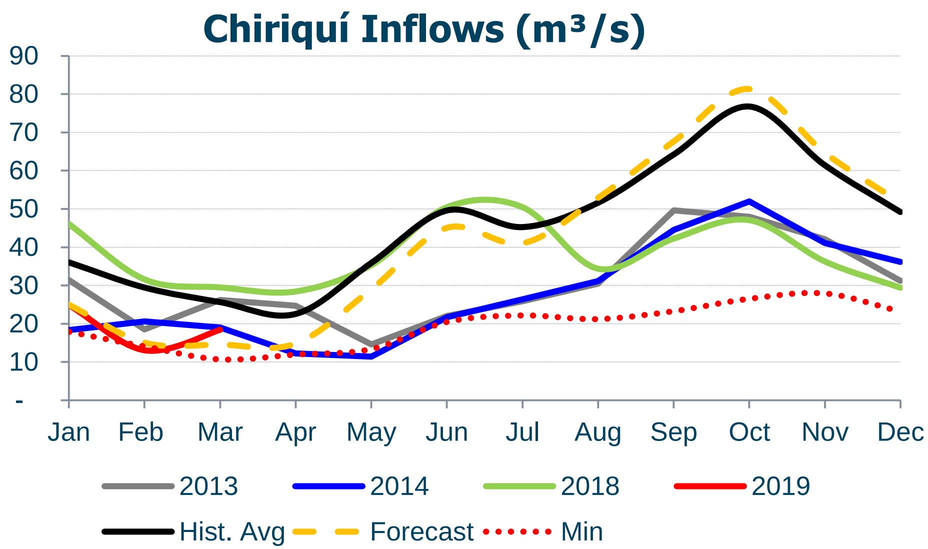


Source: National Dispatch Center (CND).

Panama: 2019 Hydrology



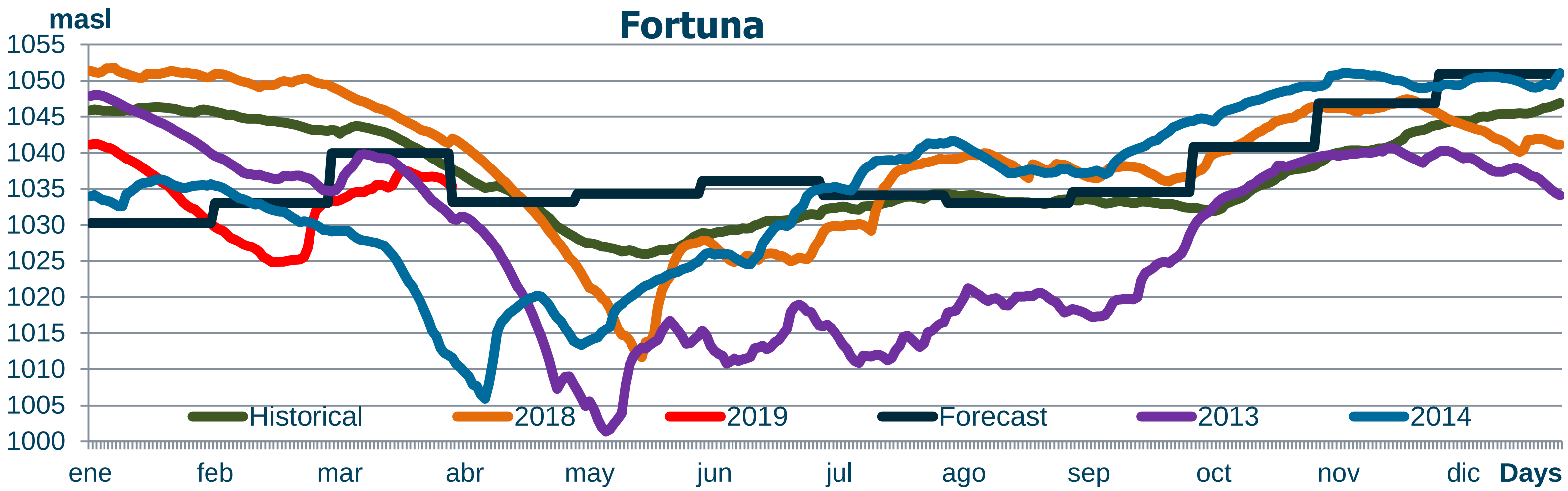


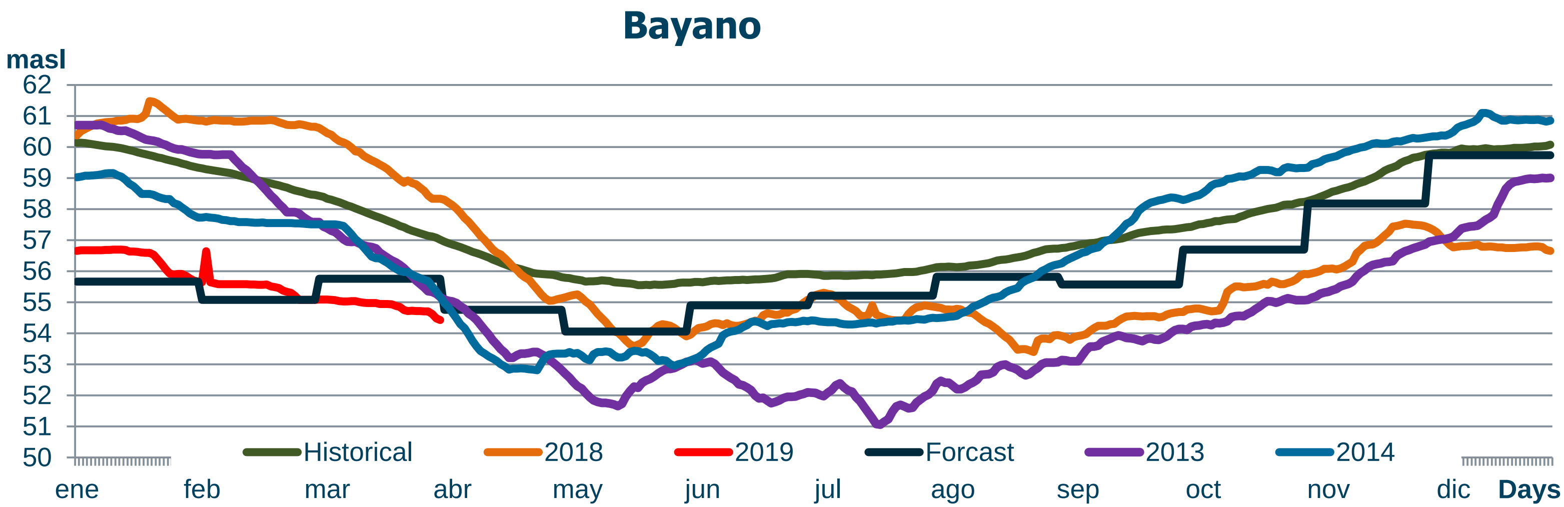


- For 1Q 2019, inflows have been 33%, 55%, 38% below historical average for Changuinola, Bayano and Chiriqui respectively.

Panama Reservoir Level Evolution

Both reservoirs level have been below historical averages and 2013/2014 behavior





4. Financial Update

AES Panama: Income Statement as of December 2018

USGAAP – values in millions US$

AES Panama	Dec-18	Dec-17	Variation	%Var.
Revenues	363.4	342.6	20.81	6%
Variable Cost	(166.2)	(151.4)	(14.77)	10%
Variable Margin	**197.2**	**191.2**	**6.04**	**3%**
Operating & Maintenance	(60.3)	(61.2)	0.89	-1%
EBITDA	**136.9**	**130.0**	**6.93**	**5%**
Depreciation	(31.6)	(31.4)	(0.15)	0%
Other Income (Expenses), net	0.3	0.9	(0.62)	-69%
Interest Expense, net	(21.7)	(22.2)	0.51	-2%
Equity Earnings in Investment in Affiliate	7.3	4.7	2.67	57%
Income before Income Tax	**91.2**	**81.9**	**9.3**	**11%**
Income Tax Expense	(24.4)	(18.6)	(5.84)	31%
Net Income	**66.8**	**63.3**	**3.50**	**6%**
Other Comprehensive Income of affiliate	0.1	0.1	-	0%
Total Comprehensive Income	**66.9**	**63.4**	**3.50**	**6%**

AES Changuinola: Income Statement as of December 2018

IFRS – values in millions US$

AES Changuinola	Dec-18	Dec-17	Variation	%Var.
Revenues	112.4	98.8	13.64	14%
Variable Cost	(9.1)	(7.8)	(1.33)	17%
Variable Margin	**103.3**	**91.0**	**12.32**	**14%**
Operating & Maintenance	(20.8)	(16.5)	(4.35)	26%
EBITDA	**82.5**	**74.5**	**7.97**	**11%**
Depreciation	(17.0)	(16.9)	(0.12)	1%
Other Income (Expenses), net	1.2	0.1	1.14	1803%
Interest Expense, net	(24.2)	(25.2)	0.93	-4%
Income before Income Tax	**42.4**	**32.5**	**9.9**	**31%**
Income Tax Expense	(8.7)	(9.6)	0.90	-9%
Net Income	**33.7**	**22.9**	**10.82**	**47%**
Amortization of other income	0.39	0.39	-	0%
Total Comprehensive Income	**34.1**	**23.3**	**10.82**	**46%**

5. Key Debt Metrics

AES Panama

Current Debt Structure

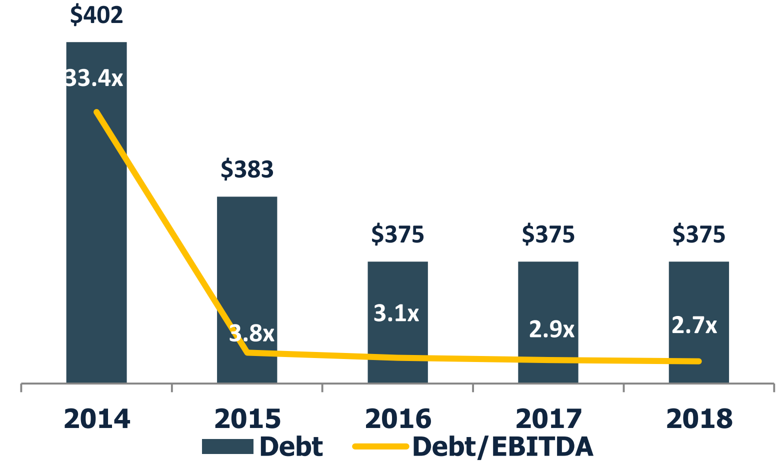
Long Term Debt

- US$375 mm of Senior Notes under Rule 144A Reg S.
  - Coupon: 6.0% p.a. / Maturity: June 2022.

Short Term Debt

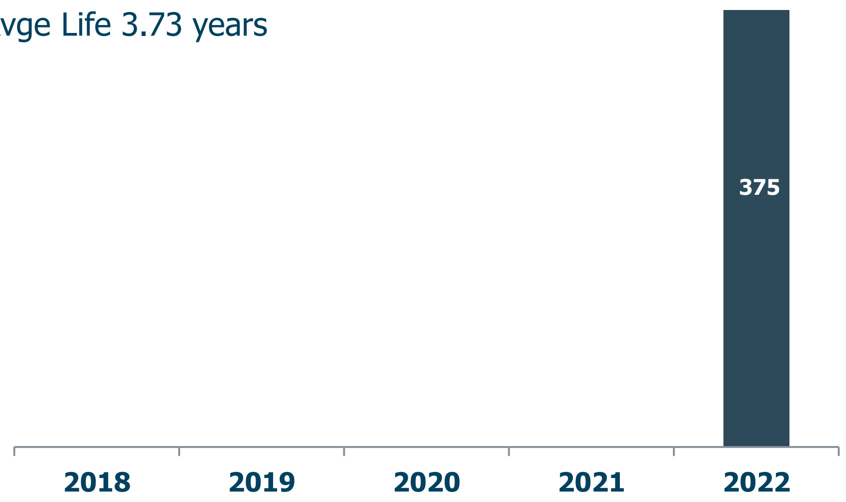
- No committed credit lines. Availability of over 90 million (not drawned)
  - Cost: ~ 3.5%

Total Debt/ EBITDA

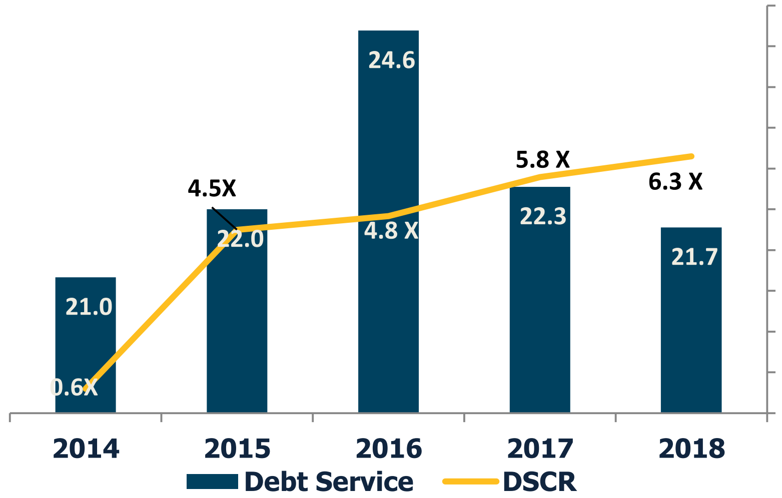


Current Debt Profile

Avge Life 3.73 years



Debt Service Coverage Ratio



AES Changuinola

Current Debt Structure

Long Term Debt

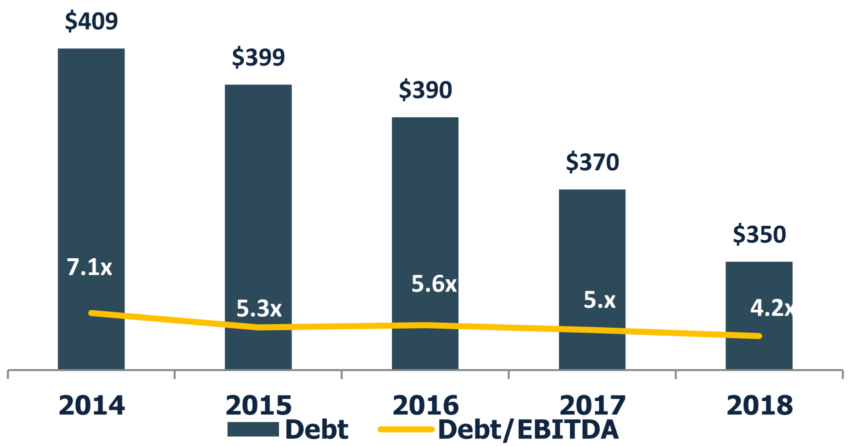
- US$150 mm of Senior Notes.(Amortizing)
  - Coupon: 6.25% p.a. / Maturity: Nov 2023.

- US$ 220 mm of Senior Notes (bullet)
  - Coupon:6.75% p.a. / Maturity: Nov 2023

Short Term Debt

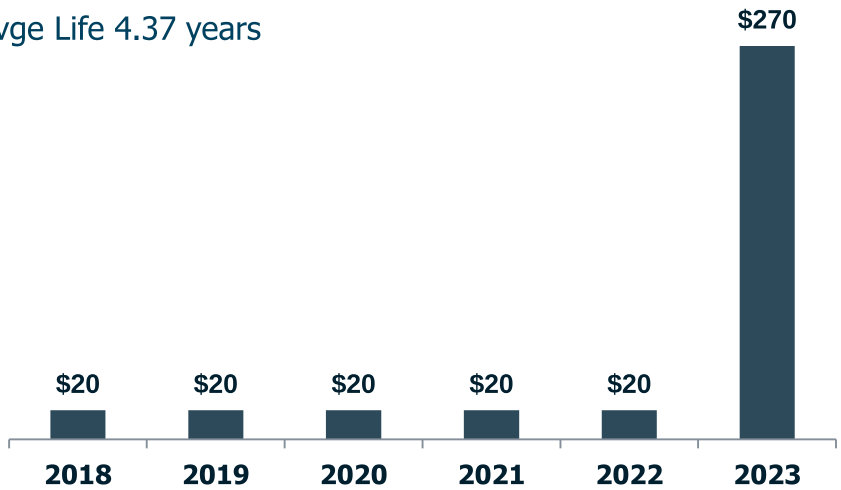
- Company entered into a $30M commited WC facility with BG however it has not been withdrawn

Total Debt/ EBITDA

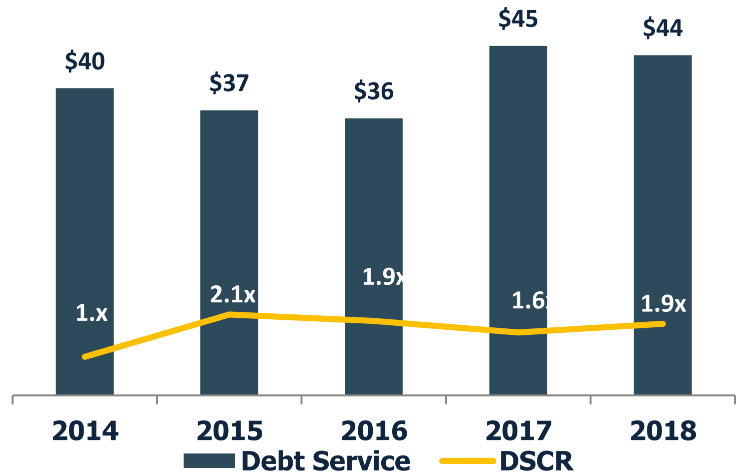


Current Debt Profile

Avge Life 4.37 years



Debt Service Coverage Ratio

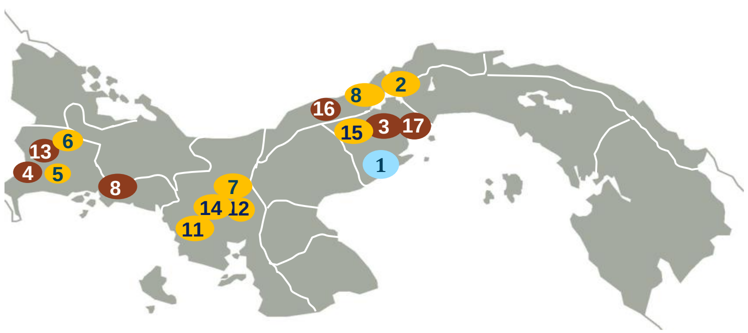


6. Projections

Generation Expansion Plan

Long term expansion plan base on LNG and Renewable projects

Locations



Timeline

4 — **40 MW - Solar** Ikako I,II,III

3 — **13 MW - Solar** Estrella Sol, Vista Alegre

2 — **381 MW -Gas** Costa Norte

1 — **37 MW - Solar** Sol Real, Pocri, Milton

5 — **43 MW – RoR** Pando,Chuspa

8 — **73 MW – RoR** San Andres, Burica

7 — **5 MW – RoR** La Huaca

6 — **171 MW – Wind** Antón, Toabre (Phase 1)

9 — **400 MW –Gas** Martano-NG

11 — **5 MW – RoR** Terra 4 - Tizingal

12 — **37 MW – RoR** Tabasará II

13 — **10 MW – RoR** El Sindigo

17 — **7 MW – RoR** Ojo de agua

16 — **9 MW – RoR** Río Piedra

15 — **22 MW – Wind** Toabre (Phase 2)

14 — **15 MW –RoR** San Bartolo

2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025

Legend:

- Commercial Operation
- Under construction -Merchant
- Secured (Awarded bid)

Capacity additions thru 2025

RoR	Utility Scale -Solar	Wind	Gas
200 MW	90 MW	190 MW	400 MW

Key Assumptions

Fuel & Energy Price	2019	2020	2021	2022	2023
Expected demand growth rate	1.0%	2.0%	4.0%	2.9%	3.3%
Brent Crude Oil ($/bbl)	64.4	55.8	57.0	58.2	59.3
NYMEX Natural Gas (Henry Hub) ($/mmBtu)	2.9	2.7	2.6	2.6	2.7
NYMEX Crude (WTI) ($/bbl)	58.4	58.1	56.2	54.8	54.2
NYMEX Natural Gas (Henry Hub) ($/mmBtu)	2.9	2.8	2.6	2.6	2.7
API#2 cif ARA b. 6000 kcal nar ($/ mt)	78.6	80.8	79.5	78.7	77.4
Gulf Coast FO #6 3% Sulfur ($/bbl)	58.4	47.1	48.9	50.4	52.1
Spot Energy ($/MWh)	93.0	48.4	51.8	51.5	54.3
Spot Capacity ($/kW)	1.0	1.0	1.0	1.0	1.0

AES Panama & AES Changuinola

Capacity (MW)	2019	2020	2021	2022	2023
Firm Capacity AES Panama	374	374	374	374	374
Firm Capacity AES Changuinola	175	175	175	175	175
Total Firm Capacity	**549**	**549**	**549**	**549**	**549**
Contracted Capacity	549	549	549	549	549
% Contracted	**100%**	**100%**	**100%**	**100%**	**100%**

Energy (GWh)	2019	2020	2021	2022	2023
AES Panama Hydro Generation	1,440	1,800	1,863	1,868	1,860
AES Panama Thermal Generation	287	0	-	0	0
AES Changuinola Generation	264	1,068	1,061	1,063	1,057
Total Generation	**1,992**	**2,868**	**2,924**	**2,931**	**2,918**
Contracted Energy Sales	2,949	3,010	2,766	2,766	2,744
Net Spot Position	**(957)**	**(141)**	**157**	**165**	**173**

Barcaza Variable Cost ($US/GWh)	2019	2020	2021	2022	2023
Barcaza Variable Cost ($US/GWh)	80.02	72.96	77.92	80.51	82.02

Avg. Prices (US$/MWh)	2019	2020	2021	2022	2023
AES Panama Monomic Contract Price	$ 112.16	$ 104.61	$ 101.64	$ 105.14	$ 105.17
AES Changuinola Monomic Contract Price	$ 87.69	$ 86.75	$ 94.99	$ 99.56	$ 108.56

2019-2023 AES Panama Financial Projections

Values in Thousands

Income Statements	2019	2020	2021	2022	2023
Revenue	357	343	308	321	322
Variable Margin	180	209	193	197	185
EBITDA	138	169	153	157	144
Net Income (before Minority Interest)	54	82	73	76	67

Balance Sheet	2019	2020	2021	2022	2023
Cash	10	20	20	20	20
Total Asset	563	547	527	500	479
Total Debt	375	375	375	375	375
Current Debt	-	-	-	-	-
Long term Debt	375	375	375	375	375

Cash Flow	2019	2020	2021	2022	2023
Cash Flow from Operating Activities	89	119	84	102	84
Cash Flow from Investing Activities	(9)	(6)	(4)	(3)	(5)
Cash Flow from Financing Activities	(86)	(103)	(80)	(98)	(79)

Covenants	2019	2020	2021	2022	2023
Debt to Ebitda	2.7	2.2	2.4	2.4	2.6
DSCR	6.1	7.5	6.5	6.4	5.9
*Net Debt to Ebitda	2.6	2.1	2.3	2.3	2.5

(*) Not an actual covenant but a proxy on leverage considering liquidty position

2019-2023 AES Changuinola Financial Projections

Values in Thousands

Income Statements	2019	2020	2021	2022	2023
Revenue	67	105	102	109	119
Variable Margin	61	98	97	104	113
EBITDA	44	82	83	88	98
Net Income (before Minority Interest)	17	30	31	37	44

Balance Sheet	2019	2020	2021	2022	2023
Cash	5	9	9	9	9
Total Asset	644	638	619	603	587
Total Debt	330	310	290	280	280
Current Debt	20	20	20	20	20
Long term Debt	310	290	270	260	260

Cash Flow	2019	2020	2021	2022	2023
Cash Flow from Operating Activities	4	50	53	62	64
Cash Flow from Investing Activities	(38)	(8)	(2)	(2)	(2)
Cash Flow from Financing Activities	(20)	(39)	(51)	(60)	(62.05)

Covenants	2019	2020	2021	2022	2023
Debt to Ebitda	7.5	3.8	3.5	3.2	2.9
DSCR	1.0	2.0	2.0	3.0	5.3
*Net Debt to Ebitda	7.4	3.7	3.4	3.1	2.8

(*) Not an actual covenant but a proxy on leverage considering liquidty position