2018 SUSTAINABILITY REPORT

AES
we are the energy

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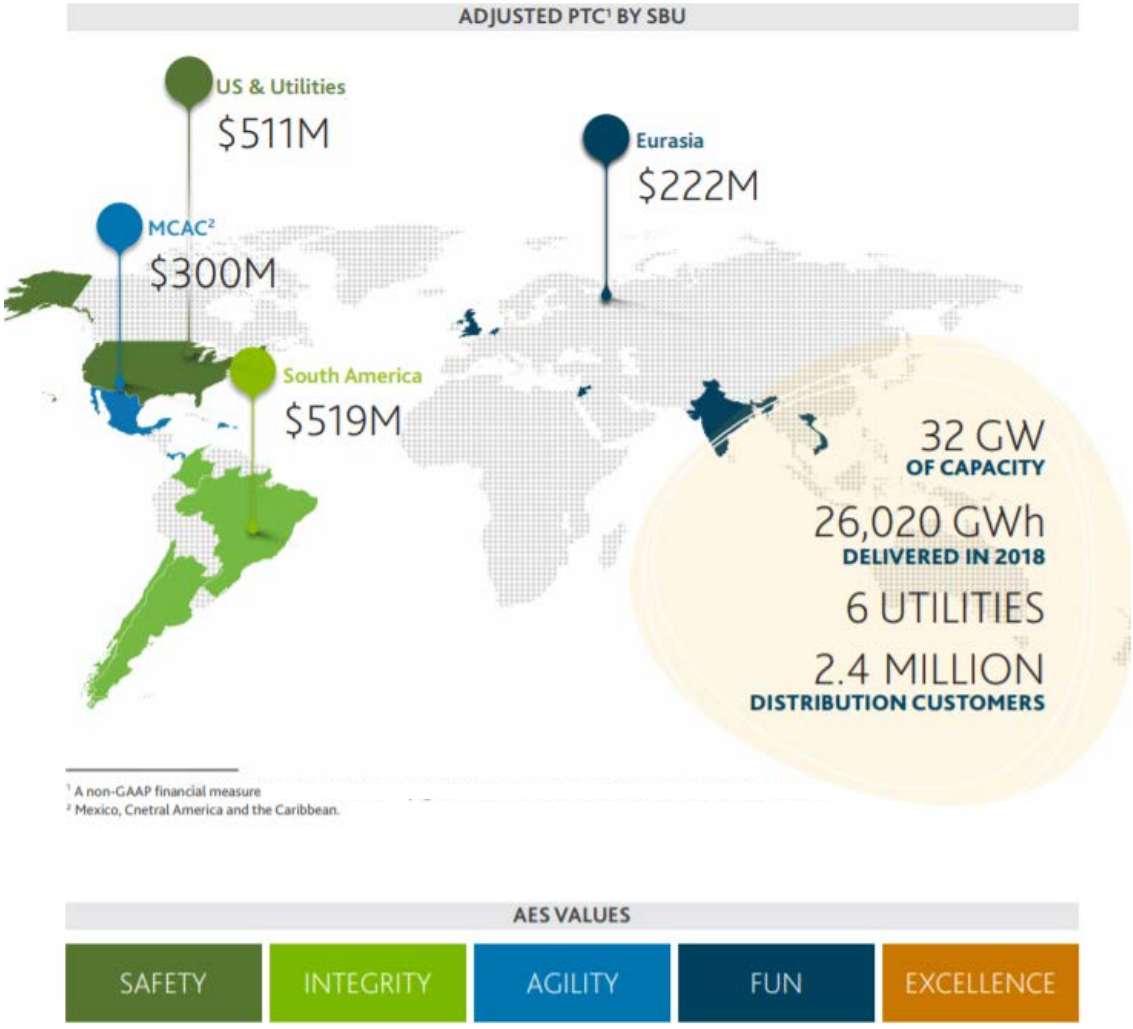
ORGANIZATIONAL PROFILE

The AES Corporation (NYSE: AES) is a Fortune 200 global power company founded in 1981. The company's headquarters are in Arlington, Virginia, United States (US). AES is publicly traded company, incorporated in Delaware and governed by a Board of Directors.

Our vision is to be the world's leading sustainable power company by leveraging our unique electricity platforms and the knowledge of our people to provide the energy and infrastructure solutions our customers truly need. We are organized into four market-oriented strategic business units (SBUs). Within our four SBUs, we have two lines of business. The first business line is generation, where we own and/or operate power plants to generate and sell power to customers, such as utilities, industrial users, and other intermediaries.

The second business line is utilities, where we own and/or operate utilities to generate or purchase, distribute, transmit and sell electricity to end-user customers in the residential, commercial, industrial and governmental sectors within a defined service area. In certain circumstances, our utilities also generate and sell electricity on the wholesale market. We are a leader in lithium-ion, battery-based energy storage, with approximately 400 MW in operation, under construction or in advanced development across seven countries.



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MATERIAL ASPECTS HIGHLIGHTED IN THIS REPORT

This report is structured to present the following "material aspects" within the context of our five broad strategic initiatives.

FINANCIAL EXCELLENCE

- Economic Performance
- Investment Return on Capital Allocation

OPERATIONAL EXCELLENCE

- Availability, Reliability and Access to Electricity
- Cybersecurity
- Disaster/Emergency Planning and Response

ENVIRONMENTAL PERFORMANCE

- Air Emissions
- Water
- Effluents and Byproducts
- Biodiversity

STAKEHOLDER ENGAGEMENT

- Impacts on Education and Living Standards in Our Communities
- Public Safety

OUR PEOPLE

- Global Talent Management
- Occupational Health and Safety

This is the 2018 Sustainability Report. Information contained in this report focuses on the company's operations and performance in 2018. The report has been prepared in accordance with the recommendations of the Global Reporting Initiative Standards and includes Electric Utility Sector Disclosures. Other Specific Standard Disclosures are addressed in the "2018 AES Sustainability Report Supplement 2018".

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FINANCIAL EXCELLENCE

We manage our financial performance in line with our corporate strategy set by our CEO and Executive Leadership Team and approved by our Board of Directors. We have selected the Standard and Poor's (S&P) 500 Utilities Index as our peer group index to compare our performance.

As we strive to create long-term shareholder value by providing safe and reliable electricity related services, financial success enables us to continue to attract capital and talented people as well as to invest in new projects and innovative solutions for our customers. Our knowledge of the markets where we operate puts us in a position to take advantage of growth opportunities or quickly respond to changing conditions.

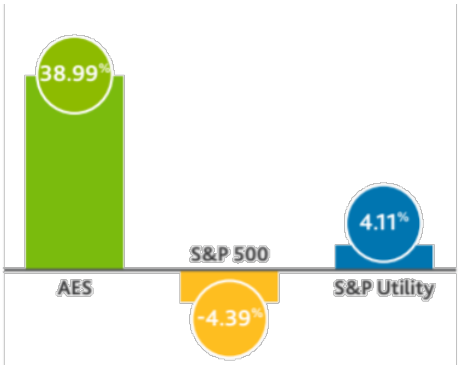
We operate our portfolio to generate capital for growth investments, create value for our shareholders, manage debt repayment, and deliver shareholder dividends. We have an investment decision-making process in place to ensure our investment opportunities align with management objectives. In alignment with this process and our overall strategy, we are focusing our growth on platform expansions in markets where we already operate and have a competitive advantage to realize attractive risk-adjusted returns.

Another important element of our governance and financial management is the anticipation, identification and management of risks. The risk identification process is integrated within the company through an Enterprise Risk Management program and risks are managed both at the corporate and SBU levels. Further details on risk management are available on our website and also our 2018 AES Annual Report discloses information on the different risks that could have an impact on the performance of the company.

Economic Performance and Investment Return on Capital Allocation

Our overarching goal is to deliver sustainable and attractive risk-adjusted total returns to our shareholders. In 2018, we delivered on all of our commitments, including achieving our financial guidance, hitting key milestones on our strategy and positioning AES for long-term, sustainable growth. Some key accomplishments this year included:

- Adjusted EPS of US$1.24, compared to guidance of US$1.15 to US$1.25;
- Parent Free Cash Flow of US$689 million, compared to our expectation of US$600 to US$675 million;
- Total Shareholder Return (TSR) of 39%, outperforming the S&P 500 and S&P Utilities Indexes;
- Paid down US$1 billion in Parent debt, enabling us to achieve a key investment grade financial metric of 3.95x Parent leverage one year early;



Total Shareholder Return

In the third quarter of 2016, we established a goal of reaching investment grade. At that time, we had US$5 billion in Parent debt and a Parent Debt/EBITDA coverage ratio of 4.9x. Since then, we have reduced debt by

US$1.3 billion and ended 2018 with a Parent leverage ratio of 3.95x, achieving our goal a year ahead of our plan. We are now very well-positioned to attain investment grade ratings in 2020.

We believe this improvement in our credit profile is helping us not only to reduce or cost of debt and improve our financial flexibility, but also to enhance our equity valuation. Over the next few years, we expect that our credit metrics to show further improvement through growth in our current free cash flow as well as modest additional delivering.

We continued to improve the returns from our existing portfolio and position AES for long-term, sustainable growth. We will achieve this objective as we continue to optimize our costs, strengthen our Balance Sheet, reduce our carbon intensity and deploy new technologies in our existing markets. Combining our current dividend yield of 3.2%, and our 7% to 9% average annual growth in Adjusted EPS and Parent Free Cash Flow, will yield a double-digit total return annually through 2022.

(1) *A non-GAAP financial measure*

(3) *Parent Free Cash Flow (a non-GAAP financial measure) should not be construed as an alternate to Net Cash Provided by Operating Activities which is determined in accordance with GAAP. Parent Free Cash Flow is equal to Subsidiary Distribution less cash used for interest costs, general and administrative activities, and tax payments by the parent company. Parent Free Cash Flow is used for dividends, share repurchases, growth investments, recourse debt repayments, and other uses by the parent company.*

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OPERATIONAL EXCELLENCE

Striving for excellence is one of our core values. We built and grew the company by applying innovation, creating solutions to address our industry's biggest challenges, and improving the way people work and live today. As we look to tomorrow, finding new solutions to best meet our customers' needs will be essential to accelerating a cleaner energy future for everyone.

Our definition of operational excellence comprises not only supplying reliable, affordable electricity and ensuring our plants are available— but also managing cybersecurity, disasters and emergencies, public safety and environmental performance.

Our management approach includes the establishment of a uniform system of Key Performance Indicators (KPIs) set yearly to measure how efficiently and reliably we operate our plants, meet our customers' electricity needs and manage collections.

KPIs for generation businesses include commercial availability, equivalent forced outage factor, equivalent availability factor, heat rate and days sales outstanding. Similarly, KPIs for distribution businesses include system average interruption duration, system average interruption frequency, customer satisfaction, days sales outstanding and non-technical losses. This report covers only the KPIs that are related to the identified material issues.

Operational performance, established by the Compensation Committee of the Board of Directors, is included in the Performance Incentive Plan Payouts of the base salary of Executives and all AES people. Additional information is available in our 2019 Proxy Statement.

Availability, Reliability and Access to Electricity

Guaranteeing a steady supply of electricity to our customers requires that our businesses use modern technologies for power generation and delivery and monitoring system reliability. It also requires a deep understanding of our service areas and customer base. Through innovative solutions and flexibility, our businesses seek to understand, monitor and serve all our customers' needs for power.

Our generation businesses help markets meet their existing and growing electricity demand needs, while our utilities businesses deliver electricity to more than 2.4 million customers.

Our businesses ensure they operate in compliance with local applicable regulations. Because millions of people rely on the energy our businesses provide, our people continually improve the way we work and strive to deliver energy in the most efficient, safe, and reliable manner we can. For example, Asset management ensures we are running our businesses as effectively and efficiently as possible. Using standards, such as ISO, helps ensure we are performing asset management in line with industry best practices.

During 2018 our businesses in Panama, Dominican Republic, Mexico, Puerto Rico, and El Salvador were certified in Asset Management with the ISO 55001: 2014 designation. This achievement proves the commitment of our people to build a stronger AES and to incorporate continuous improvement in our approach.

Generation

We currently own and/or operate a generation portfolio of 31,792 MW (including one integrated utility), to generate and sell power to customers, such as utilities, industrial users, and other intermediaries. Our generation fleet is diversified by fuel type. Most of our generation businesses sell electricity under medium- or long-term contracts or under short-term agreements in competitive markets.

Our power generation facilities employ a broad range of fuels suited to the different markets in which we operate, including coal, gas, fuel oil, biomass and renewable sources such as wind, solar, hydroelectric power and energy storage. This diversified generation portfolio reduces the risks associated with dependence on any one fuel source.

Table 1 - Energy Generated (GWH) (Equity Adjusted Values)

Energy Generated (GWH)	Gross Energy (including steam)	Net Energy[1]
Total	81,670,056.27	75,904,354.90

Performance drivers of our generation businesses include types of electricity sales agreements, plant reliability and flexibility, availability of generation capacity to meet contracted sales, fuel costs, seasonality, weather variations and economic activity, fixed-cost management, and competition.

Table 2 – Commercial Availability by Energy Source, 2015-2018

Commercial Availability (CA)[2]	2015	2016	2017	2018
AES Total	**89.85%**	**94.35%**	**94.66%**	**93.62%**
Coal	85.13%	92.56%	92.74%	92.33%
Gas	94.15%	94.1%	95.47	92.41%
Hydro	99.41%	99.85%	98.13	99.93%
Wind[3]	95.12%	92.79%	90.19	92.32%

In terms of 2018 performance, table above shows the consolidated performance of our generation portfolio in terms of commercial availability. AES Dominicana owns a Liquefied Natural Gas terminal and international dock that transports the LNG to the AES Los Mina (DPP) facility. During 2018, there were no significant or material gas leakages.

To meet growing demand, our businesses can develop and construct new generation facilities. For our

1 Refers to our own energy generated, adjusted by ownership. Does no include heat and energy used for self-consumption.
2 Commercial Availability: Actual variable margin, as a percentage of potential variable margin if the unit had been available at full capacity during outages.
3 Commercial Availability of a wind farm is determined using a different methodology, that is why it is not included in the AES total.

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generation businesses, our priority for development is platform expansion opportunities, where we can add on to our existing facilities in our key platform markets where we have a competitive advantage. We make the decision to invest in new projects by evaluating the project returns and financial profile against a fair risk adjusted return for the investment and against alternative uses of capital, including corporate debt repayment and share buybacks.

In 2018 we signed 1,946 MW of renewables under long-term Power Purchase Agreements (PPAs) and expect to sign an additional 2,000 to 3,000 MW per year through 2022. We have 4,440 MW of capacity under construction and expected to come on-line through 2021. Our primary projects under construction include: the 1,320 MW OPGC 2 project in India, the 1,384 MW Southland repowering in Southern California and the 531 MW Alto Maipo project in Chile.

The future growth across our markets will be heavily weighted towards lower carbon emissions generation. Growth in renewables not only provides an opportunity for direct investment in wind and solar generation but creates a market for energy storage.

During the year we completed 1.3 GWof new projects, including 254 MW of solar and energy storage mostly in the US. At our utility, Indianapolis Power and Light (IPL) in Indiana, we completed the 671 MW Eagle Valley combined cycle gas plant. The completion of Eagle Valley also represents the conclusion of a significant investment program at IPL, wherein we have replaced nearly half of IPL's coal-fired generation.

In Panama, we completed the 381 MW AES Colón combined cycle gas plant and regasification terminal, and made the first shipment of LNG in Central America's history. The LNG storage tank is expected to come online in 2019, with approximately 60% of the terminal's capacity still available to be contracted. We expect that the entry of low-cost U.S. LNG will transform the Central American energy sector, much as it has in the Dominican Republic.

Bósforo project inauguration in El Salvador

AES El Salvador and its partner Multi-Inversiones Corporation (CMI), completed the first 30 MW phase of the 100 MW Bosforo solar project.

The project consists of 10 plants of 10 MW each to be located in low-income rural areas. During the second phase of the project, three more 10 MW plants will be built – two in the western part of the country and one in the department of Usulután. In Bósforo III – the final stage of the project – four more plants, totaling 40 MW, will be built in the central zone of El Salvador. Bósforo is an example of our commitment to contribute to the energy sector and environmental sustainability in the country, through the implementation of avant-garde technologies.

We also broke ground of a solar project in Jordan. AM Solar – a joint venture of AES Jordan, Mitsui & Co. Ltd and Nebras Power –began construction of a 52 MW (DC) solar park in East Amman. The park is designed to help Jordan reshape itself towards green technologies and is aligned with Jordan Electricity master plan of 2020. Up to 300 jobs will be created during the construction phase of the park. After operations begin, renewable energy will represent 16% of the total energy produced in the country.

During 2018, AES Tietê entered into an agreement with Brazilian University Instituto Presbiteriano Mackenzie to install distributed energy generation to increase energy efficiency around its campus. The solution features a solar carport and energy efficiency lighting. The solar carport, a parking lot covered by photovoltaic panels, will be the largest private carport in Brazil with 1,680 solar panels and the potential to generate 63,700 kWh/month. Campus lighting will also be replaced with LED lamps saving 15,250 kWh/ month.

Table 3 - Megawatts Under Construction at the end of 2018

Location	Power Plant	Fuel	Gross MW
US - Various	AES Distributed Energy (AES DE)	Solar	47
		Energy Storage	3
	Riverhead (sPower)	Solar	20
	Basin Electric (sPower)	Wind	200
	San Pablo (sPower)	Solar	100
	Antelope DSR3 (sPower)	Solar	20
	Kekaha (AES DE)	Solar	14
		Energy Storage	14
	Southland Repowering	Gas	1,284
	Na Pua Makani	Wind	28
	Alamitos Energy Center	Energy Storage	100
El Salvador	Bosforo	Solar	57
Brazil	Boa Hora	Solar	69
	AGV Solar	Solar	75
Argentina	Energética	Wind	100
	Vientos Nequinos	Wind	80
Chile	Alto Maipo	Hydro	531
Mexico	Mesa La Paz	Wind	306
India	OPGC 2	Coal	1,320
Jordan	AM Solar	Solar	52

We are also focusing on our "Green Blend and Extend" strategy, where we are enhancing some of our current contracts by blending and extending existing PPAs, by adding renewable energy. We see potential opportunities to execute this strategy across many of our markets, including Chile and Mexico. In fact, in 2018 we signed our first two "Green Blend and Extend" contracts, for 576 MW in Chile and Mexico

Distribution

AES' six utility businesses distribute power to 2.4 million people in two countries (US and El Salvador). AES' two utilities in the US also include generation capacity totaling 4,102 MW. Our utility businesses consist of IPL (an integrated utility) and DP&L (transmission and distribution) in the US, and four utilities in El Salvador (distribution).

In general, our utilities sell electricity directly to end-users, such as homes and businesses, and bill customers directly. Key performance drivers for utilities include the regulated rate of return and tariff, seasonality, weather variations, economic activity, reliability of service and competition. Revenue from utilities is classified as regulated on the Consolidated Statements of Operations.

Table 4 – Length of Distribution and Transmission Lines (by SBU and Country)

Profile by SBU	Business Country	Transmission Lines (Km) (High Voltage)		Distribution Lines (Km) (Low Voltage)	
		Overhead	Underground	Overhead	Underground
United States	IPL	1,392	-	11,453	9,233
	DPL	2,776	13	16,914	5,884
	TOTAL US	**4,168**	**13**	**28,367**	**15,117**
South America	Chile	1,417			
MCAC	El Salvador	-	-	38,142	97
	Total AES	***5,585***	***13***	***66,509***	***15,214***

Because we understand the importance of access of energy as a cornerstone for social development, we work with local governments and support their initiatives to provide access to energy, specially to low income communities. For example, with our AES Rural Energy program we have reduced the number of homes without electricity in El Salvador, improving the quality of miles of rural communities in the country. Access to energy allows them to have new opportunities such as the possibility of creating businesses and enjoying the benefits of energy to receive better education, health services, road safety and healthy recreation.

Families in El Salvador benefited from electric power installation

AES El Salvador, through its companies EEO and DEUSEM, executed the "Light for All" program providing electricity service for the first time to over 900 families in the departments of San Miguel and Usulután, providing them with new opportunities to improve their quality of life.

The project consists of the installation of metal poles, electrical wiring from the main street to the community, and meters for each of the families. In addition, each house has been installed an integral board, including a thermal box, an outlet and efficient light bulb.

We track the reliability of the distribution networks by the average number and duration of interruptions per customer. The values are consolidated and reported based on ownership-adjusted EBITDA. In addition, we also set targets for customer satisfaction based on the percentage of customers that are satisfied and greatly satisfied.

The system average interruption duration index (SAIDI) represents the total minutes of interruption the average customer experiences annually, while the system average interruption frequency index (SAIFI) represents the average number of interruptions the average customer experiences annually. As showed in the tables, the performance in the reliability KPIs improved overall for AES.

Table 5 – System Average Interruption Duration Index (SAIDI), 2015-2018

Business	2015	2016	2017	2018	2018 Target
Actual AES	**2.54**	**2.71**	**2.74**	**1.84**	**2.20**
AES El Salvador	14.91	17.42	15.47	13.75	
Dayton Power & Light (DP&L)	1.75	1.45	1.69	1.79	
IPL	0.81	1.03	0.99	1.12	

Table 6 - System Average Interruption Frequency Index (SAIFI), 2015-2018

Business	2015	2016	2017	2018	2018 Target
Actual AES	1.66	1.65	1.64	1.29	1.55
AES El Salvador	5.71	6.22	5.51	4.98	
Dayton Power & Light (DP&L)	0.92	0.76	0.82	0.92	
IPL	0.66	0.74	0.86	0.95	

Making Indianapolis Safer and More Resilient

Every year, the Edison Electric Institute (EEI) recognizes select companies with the Edison Award, our industry's most prestigious award. IPL, our integrated utility in Indiana, US was recognized as a finalist for Edison Electric Institute's 2018 EEI Awards for improving underground infrastructure to enhance the safety and resiliency of the City of Indianapolis.
IPL partnered with Texas-based Fiber-Optic Pipeline Solutions to be the first electric utility to use a distributed temperature sensing system to monitor external high-temperature threats in an underground network secondary grid. View a video to know more about this innovative development.

Customer Satisfaction

As one of five KPIs for utility businesses AES sets annual targets for customer satisfaction. The targets and actuals are tracked on a monthly basis in the monthly Management Performance Review meeting.

AES utilities participate in national and/or regional third-party surveys. These include CIER (Regional Energy Integration Commission) for our El Salvadoran utilities, and Power & Associates for IPL and DP&L. The surveys' statistically significant representative samples cover our distribution businesses complete customer base. The results are used to calculate the overall customer satisfaction index.

The results shown in the following table represent residential retail and commercial results from all AES distribution business for the past four years.

Table 7- AES Consolidated Customer Satisfaction for Distribution Businesses, 2015-2018

	2015	2016	2017	2018	2018 Target
% of customer satisfaction	83.9	88.5	86.3	87.5	86.3

Our utility businesses are continuously innovating to provide the best service to its customers, diversify communication channels, increase customer satisfaction and reduce operation costs. During the year, for example, DP&L launched a new online Outage Map to improve the customer experience and provide timely information. The new map was recognized by The Academy of Interactive and Visual Arts with a Silver W3 award in the Mobile Apps / Sites category for Services & Utilities. Also, DP&L residential customers started to receive Home Energy Insight Reports in their mail. This new program is designed to help customers understand how they use energy at home, see how they compare to similar households, and offer useful tips and strategies to lower their usage.

We are also implementing a corporate-wide digital transformation, including becoming a strategic investor in Simple Energy. Simple Energy provides a digital platform that allows our IPL and DP&L utilities to accelerate energy efficiency and demand response programs, all the while, improving customer experience. Simple Energy's digital platform serves not only AES utilities but 40 other utilities in the US with access to over 40 million end customers.

Our utilities were also recognized for their efforts. DP&L and IPL were among thirty-three U.S. utilities designated as 2018 Utility Customer Champions, an annual honor given to gas, electric and combination utilities that exhibit exceptional performance in brand trust, service satisfaction and product experience. These three categories compose the "Engaged Customer Relationship" (ECR) index, which provides a holistic measurement of the entire utility customer experience.

We have received no claims from our customers concerning violations to their privacy that incurred in significant penalties.

Energy Storage

AES businesses are dedicated to improving the lives of customers and energy storage reduces the cost of delivering electricity, supports renewable generation, and enables unmatched grid reliability and resiliency.

As utilities face increasing challenges integrating intermittent generation sources, there is a critical need for grid stabilization and reliability support. Energy storage is a proven, cost competitive solution with global demand expected to grow tenfold in five years and reaching at least 28 GW of installed capacity by 2022.

The integration of renewables and energy storage is the key to accelerating a cleaner energy future. In Hawaii, we are delivering two solar plus storage facilities for a total of 34 MW of solar capacity and 170 MWh of five-hour energy storage on the island of Kaua'i. The first of these pioneering projects, Lāwa'i was completed in December 2018 and will satisfy energy demand during peak hours in the evening, as well as the rest of the day. The second, Kekaha, is under construction and expected to be on-line later in 2019.

In 2018 we partnered with Siemens to create Fluence, the leading global energy storage technology and services provider. This market is expected to have rapid growth alongside the increased build out of intermittent power resources. Fluence combines the extensive technology expertise, unique energy storage market experience, and global reach of Siemens and AES to offer proven and cost-competitive energy storage systems for a rapidly transforming sector.

During the year, Fluence delivered or was awarded 80 projects in 17 countries, with a total capacity of 766 MW. Notably, Fluence was also named the #1 utility energy storage integrator by Navigant.

Cybersecurity

Directly aligned to our first value of safety, the mission of our global cybersecurity program is to securely enable the business by reducing risk, improving cyber-hygiene, and protecting privacy, while promoting innovation and the AES transformation to a digital enterprise.

This is important as the energy sector is increasingly under siege from cyber criminals, organized crime, and hacktivists that disrupt the sector's critical infrastructure. A successful cyberattack on one of our plant control systems could impact generation capabilities; similarly, a breach causing loss of personal data could cause financial and reputational impact to our customers and employees.

In 2013, AES initiated a strategy to create a Global Cybersecurity program. Over the years, this strategy has evolved to include an operating model, governance, mandatory cybersecurity guidelines, training, awareness, data protection, shared technologies and intelligence that we employ to guide our global program across our diverse businesses.

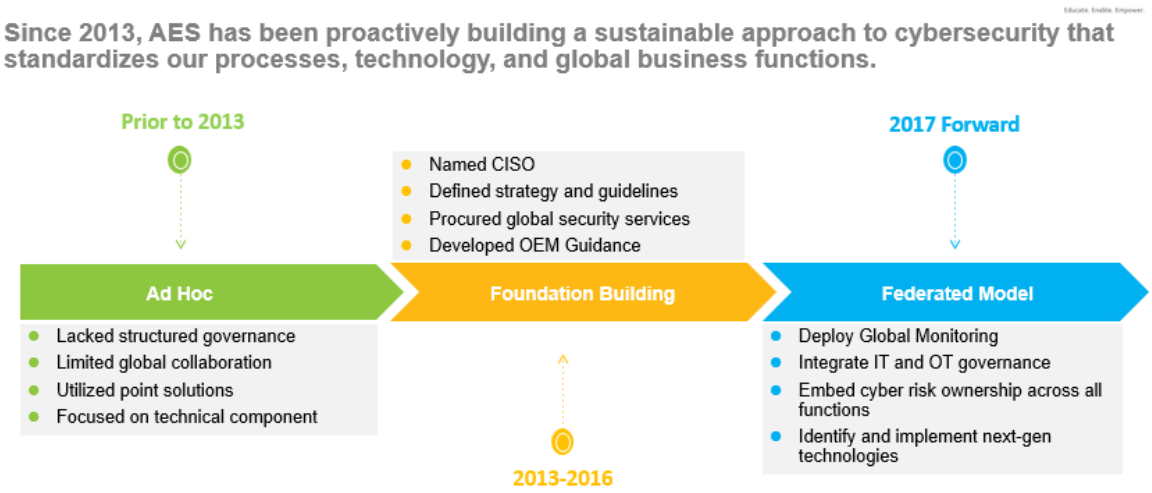

Figure 1 - AES Cybersecurity program history

We regularly communicate this strategy with the corporate leadership, the Board of Directors and our global cybersecurity team through biweekly cybersecurity council meetings, quarterly Chief Information Security Officer (CISO) updates, and an annual off-site summit. Additionally, as part of our global strategy, we self-assess compliance with our stated guidelines and cooperate with our Corporate Internal Audit function to audit compliance. Similarly, AES businesses conduct external penetration tests to assess the sustainability of the data system and plants.

Operating a global cybersecurity program in 15 diverse markets requires a flexible strategy to work with different internal stakeholders across the businesses, including our regional presidents, local information technology (IT) directors, plant managers, cybersecurity program managers, and the internal audit and technology teams.

This adaptability has made our program successful. For example, while we audit our businesses against cybersecurity guidelines, they have the discretion to deliver cyber awareness information customized to their own people and local culture. This global view includes hosting our cybersecurity program managers and IT directors at an annual summit, where they can be trained and network with their colleagues from around the world.

As a result of the efforts by our Global Cybersecurity program, AES has not had a significant cybersecurity event —including the capture of a control system, unauthorized exposure of company data, or breach of customer records.

Awareness and Education

AES Cybersecurity Awareness Program was recognized with the coveted CSO50 award for the innovative ways we have tied cybersecurity to our first value of safety, through interactive security exercises, user-friendly awareness materials, and global training, all delivered across multiple languages. Over the past four years, components of our program have been recognized by CSO50, SANS, Info Security, PhishMe and ISE for our Cyber Ninja campaign, Community Collaboration, and Advanced Threat Mitigation.

As part of our awareness function, we design training and activities for collective use among SBUs. This way, Cyber Program Managers in each SBU can focus on executing awareness activities without having to create and design from scratch. Among the activities are newsletter articles, internal briefings (formal briefings and informal gatherings), relevant film screenings, email reminders, group area reminders (such as tabletop reminder cards), employee training and employee awards.

Conditioning AES people not to click malicious emails is critical. To that end, AES works with anti-phishing training company Cofense to reduce employee susceptibility to phishing attempts. We administered 118,004 exercises to AES people in 2018. The result was reduced reduction of susceptibility rates from 12 percent in 2015 to 7.4 percent in 2016 to 5.9 percent in 2017 to 4.07 percent in 2018. For comparison, the susceptibility rate for all energy sector companies is 8.2 percent.

Charter of Trust

Led by our CEO, Andrés Gluski, AES joined The Charter of Trust (CoT), a cybersecurity initiative founded by Siemens, a key AES partner. The charter, launched at the 2018 Munich Security Conference, calls for standards to boost the security of critical infrastructure and ensure trust in digitalization through cybersecurity. Some of its founding signatories include Airbus, Allianz, Daimler Group and IBM. This aligns with our core belief that cooperative digital security norms are central to the future of companies that support critical infrastructure.

Next-Generation Technologies

The sustainability of our cybersecurity program depends on our adaptability to the changes in our business. With regard to next generation technology, we have pushed our team and our vendors to embrace new cyber technologies, including:

- Operational Technology security monitoring pilots
- Global consolidated penetration testing
- Integrated vulnerability management

Incident Response

We have labored to prepare for an incident at AES by reviewing our plans, developing relationships with regulators and law enforcement, signing retainers with cyber forensic firms, and obtaining the services of a breach coach. Perhaps the most critical component of incident response is crisis management. To that end, we

engaged an external party to design and facilitate a global cyber tabletop exercise. In this interactive session, we assembled AES corporate leadership to respond and react to a continually escalating series of events. Inspired by real-world experience, the incidents tested our responsiveness to cyber extortion, supply chain risk, Operational Technology security, disinformation campaigns, ransomware, and EU General Data Protection Regulation (GDPR) compliance. We conducted two exercises – the first with the Executive Leadership Team led by CEO Andrés Gluski and the second with a group of Corporate Vice Presidents named in the business continuity plan.

Intelligence and Advocacy

As we know that collective knowledge is an imperative, we actively participate in numerous utility, energy and cybersecurity working groups, including those led by government, industry and the private sector. Some of these working groups include: Department of Homeland Security, Federal Bureau of Investigation's InfraGard Program, EEI, Electricity Information Sharing & Analysis Center (E-ISAC), North American Electric Reliability Cooperation (NERC), the Institute for Critical Infrastructure Technology (ICIT), as well as several additional commercial partners that provide paid collaboration and intelligence services.

Additionally, we participate in a Cooperative Research and Development Agreement (CRADA) with DHS to share and receive industry and company actionable information. At the local level, some businesses also collaborate with local agencies, including FBI Field Offices and Global Legats, the Brazilian Policia Federal, and the Chilean Cybercrime Investigation Metropolitan Police.

Data Protection

In the past year, we have stood up a global privacy and data protection function. Led by a cross-functional steering committee, the Data Protection Officer, matrixed team, and external consulting support have developed a program to help AES comply with the General Data Protection Regulation. This has included completing strategic tasks within: Strategy and Governance, Policy Management, Cross-Border Transfers, Data Lifecycle Management, Individual Rights Processing, Privacy by Design, Information Security, Privacy Incident Management, Data Processor Accountability, and Training and Awareness. As a milestone, our Internal Audit function assessed our GDPR implementation and made recommendations for improving data protection and privacy globally at AES.

Disaster/Emergency Planning and Response

AES businesses face possible risks and scenarios that can disrupt operations and the service they provide. Safe, fast and effective power restoration following emergency events is essential to the reliability of electric power generation and distribution systems.

Hence, as a provider of essential services, our businesses have diverse programs in place to ensure our operations are prepared to manage unusual disruptions. The goal is to keep our business and operations running effectively, safely and securely.

Our management approach includes a set of emergency preparedness standards describing requirements for the development, review and implementation of Business Continuity Plans (BCP) at each AES location. These plans also consider local regulations and include preparedness for: operational emergencies; off-site emergencies that will have a significant impact on operations or staff; physical security measures, including evacuation of our employees in case of unrest; and emergencies involving nature, e.g., severe weather, floods, earthquakes, tsunamis, etc.

Our Safety Management System and the Global Safety Standard on Emergency Preparedness describes minimum requirements for emergency preparedness plans that address the risk associated with operational activities, man-made emergencies, natural disasters and anticipated industry hazards. Also, the Safety Standard require for emergency response drills and training to our people. In addition, when necessary, our businesses establish an educational program with the local communities.

Besides the emergency preparedness standards, each business has a comprehensive playbook that includes diverse plans such as: Business Continuity, Cybersecurity, Physical Asset and Personnel Security, Crisis Communication, Stakeholder Management, among others.

To ensure business continuity, businesses define scenarios followed by action plans to maintain an acceptable level of operational capability while restoring operations. Some of the procedures include monitoring of weather systems; staging of resources prior to anticipated emergencies; mobilization to restore outages; continuous improvement of our emergency response capabilities based on past performance; and extensive storm response training, including detailed storm simulations.

In the United States, for example, IPL and DP&L are part of a mutual aid agreement with several utilities to assist in bringing electricity back to customers following severe weather conditions. The same agreement enables IPL and DP&L to request help from other utilities when severe weather impacts our ability to serve our customers in Ohio or Indiana.

US SBU utilities recognized by Edison Electric Institute

Both DP&L and IPL received Emergency Assistance Awards for outstanding work assisting customers following Winter Storm Riley and Winter Storm Quinn by the Edison Electric Institute (EEI).
Winter Storms Riley and Quinn produced hurricane-force winds, more than three feet of snow, white-out blizzard conditions, coastal flooding, and heavy rain and snow. The storms left more than 670,000 customers without power across New England.
DP&L sent line workers concentrating on New Jersey covering more than 570 miles over the course of 11 days to help replace poles, miles of wire, and exchange transformers to restore power to customers. IPL sent line workers to Massachusetts to help restore power to customers over the course of 15 days.

Stakeholder collaboration and engagement is also an important part of our safety and recovery the plans. Our procedures include clear and frequent communications and collaboration with customers, neighboring communities, the media, contractors and government officials. To create awareness with key stakeholders, businesses also can share information with surrounding communities about safety and how to act during an emergency, bad weather conditions, or spill overs, among others.

ENVIRONMENTAL PERFORMANCE

In the pursue of our mission of improving lives by accelerating a safer and greener energy future, our businesses are committed to developing energy solutions in an environmentally responsible manner. Through impact evaluations, technological innovation, and implementation of appropriate environmental controls, we seek to select not only an environmentally compliant but also an environmentally sound energy solution for each market we serve.

We encourage our businesses to go beyond simply meeting environmental standards as regulations requirements and to develop the right energy solutions and operating practices for the markets in which they operate. Our environmental governance structure ensures assigning clear roles, responsibilities and accountability for overall environmental performance and goal achievement.

The Governance Committee of the Board of Directors is the highest body that monitors environmental compliance of AES businesses, and reviews and approves the scope of the internal environmental compliance audit programs. In addition, SBU leaders have responsibility for complying with environmental regulation and managing their operations to minimize environmental impact.

AES has an Environmental Policy that is the foundation of our environmental management approach. The policy comprises four principles applicable to all of our operating businesses and construction projects and sets the expectations for our AES people and contractors at all covered locations. Building on the Environmental Policy all the aspects of our environmental performance are managed in accordance with our Environmental Management System (EMS) framework

The EMS provides a framework for managing our material environmental aspects by using continuous improvement principles. Our EMS is based on industry best practices consistent with the principles of the ISO 14001 standard and sets environmental program guidelines for each AES business. In addition, about 66 percent of AES people work at locations that have voluntarily certified their EMS to the ISO 14001 international standard which helps organizations to identify, prioritize and manage environmental risks, as part of its usual business practices.

Under the EMS, each operational business and construction project is required to establish an environmental program that allows for continuous environmental performance monitoring, environmental risk assessments and periodic integrated environmental, health and safety audits.

The environmental programs assist each AES business in achieving environmental compliance, addressing significant environmental impacts and striving for continuous performance improvement.

The EMS is comprised of thirteen environmental management and technical standards that cover topics such as general environmental requirements and prohibitions, PCB (polychlorinated biphenyl) management, hazardous waste and chemicals management, biodiversity protection, spill prevention and control, and contractor environmental management. In some cases, the requirements of these standards are more stringent than local environmental regulatory requirements.

To verify the adherence and compliance of our businesses to the AES EMS Framework and standards we have developed an integrated Environmental Health and Safety (EHS) audit program. Each audit finding is accompanied by a corrective action plan and a completion date, with the overall audit performance reported periodically to the executive leadership.

During 2018 none of the businesses we operate paid significant fines[4] or penalties related to the environment or ecological issues.

AES used the services of Lloyd's Register Quality Assurance Inc. (LRQA) to verify and conduct a limited assurance for 2013-2018 of AES businesses':

- Air emissions data;
- Water withdrawal and discharge data; and
- Coal combustion product (CCP) generation and recycle/reuse data.

In addition to third-party verification, we use an internal AES quality assurance/quality control (QA/QC) process to validate reporting every year.

All the data included in the environmental performance indicators covers all business where AES has operational control.

2018 Environmental Goals

AES first established the expectation for setting of local level environmental goals in 2008 with the company-wide implementation of our EMS framework. Since then, we made a commitment to set new annual goals focused on identifying opportunities for improvement of our existing environmental programs and initiatives. Our 2018 global environmental goals focused on identifying opportunities for improvement of our existing environmental programs and initiatives:

2018 GLOBAL ENVIRONMENTAL GOALS	Result
1) Unified Environmental reporting practices To identify and implement industry best practices as we maintain our EHS Management Information Systems.	Goal Achieved
2) Develop global database of significant environmental permits. To operate our business, it is at times necessary that we apply and obtain a construction/operating permits. One of our practices at the business level is to comply with the requirements and renewals of these permits. The global database allows for the ease of accessibility and renewal tracking company wide.	Goal Achieved

Additionally, we also have in place a set of two environmental leadership KPIs, which support accomplishment of the annual environmental goals. These KPIs track environmental performance in areas of environmental awareness training participation, environmental audits performance, environmental operating events, and regulatory proceedings, fines, etc. Each business leader's performance against these KPIs is continually tracked using our global EHS Management Information System (EMIS), the AESOnline System.

4 Significance is determined by a threshold and this only refers to fines that were equal to or less than US$10,000 USD.

Air Emissions

Combustion of fuels to generate electric power results in the release of both conventional and greenhouse gas (GHG) emissions. Many factors influence emissions, including generation diversity and efficiency, demand for electricity, weather, fuel availability and prices, and emission controls deployed. Depending on the fuels used to generate power, these air emissions may consist of sulfur dioxide (SO2), nitrogen oxides (NOx), particulate matter (PM), mercury (Hg), as well as greenhouse gases such as carbon dioxide (CO2) and trace emissions of methane (CH4) and nitrous dioxide (N2O).

Air emissions from AES' generation businesses comply with applicable national, local and, in some cases, international regulatory requirements. Air emissions are tracked using continuous emission monitoring systems (CEMS) and/or operational parameters (e.g., fuel use and appropriate emission factors). Our businesses manage air emissions using a combination of power generation plant combustion unit and air control equipment design, and proper operation of these two systems. The installation of air control systems is primarily dictated by locally applicable environmental laws and regulations. Because air emissions are directly related to the amount of fuel used, each AES business continuously monitors its power generation efficiency and takes action to improve efficiency when necessary.

In addition to power generation, the use of light and heavy-duty vehicle fleets, as well as other equipment, represents another source of direct emissions, which is monitored and accounted for at our businesses.

All air emissions are consolidated using an equity share approach and are voluntarily disclosed via this Sustainability Report, the Annual Report, CDP Climate Change program and other means of communication. Targets account for any operational variations by factoring in portfolio changes (divestitures, shutdowns, acquisitions, growth, etc.) and are estimated to not exceed the highest annual emission rate during the preceding three years.

AES Gener voluntarily joins an emissions monitoring system

AES Gener and other leading companies in Chile voluntarily joined the Online Monitoring System implemented by the Chilean Environment Superintendence. The monitoring system tracks components emitted into the atmosphere including CO_2, SO_X and NO_X, and seeks to improve the environmental compliance model in Chile. Chilean officials are using the data to create a state-of-the-art environmental management model. By voluntary submitting to the monitoring system, AES Gener is being transparent about its emissions which are well below the standard further highlighting its commitment to the environment while helping Chile build its environmental management model.

Climate Scenario Report

In 2018 we announced that based on our renewable growth plans, we expect to reduce our carbon intensity (tons of CO2/MWh of generation) by 70 percent from 2016 to 2030. Furthermore, we also announced a near-term target of reducing our carbon intensity by 50 percent from 2016 to 2022, compared to our prior goal of 25 percent over the same period.

In November 2018, we published the AES Climate Scenario Report, which includes an impact analysis of a 2° Celsius scenario on our strategy and business, fulfilling our commitment to adopt the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). AES was the first publicly-traded owner of utilities and power companies based in the U.S. to disclose its portfolio's resilience consistent with the TCFD recommendations and third-party scenarios.

The report shows that AES' portfolio is resilient against the assessed climate risks and demonstrates the significant upside for AES in a lower carbon future.

Direct Greenhouse Gas Emissions

We follow the principles and requirements of the GHG Protocol's Corporate Accounting and Reporting Standard. Our GHG emissions inventory includes all GHGs covered by the Kyoto Protocol, except for PFCs and NF3, since these are not used in our operations.

Our 2018 greenhouse gas emissions in CO2 equivalent (CO2e) result primarily from the following sources:

- Major fuel-fired power generation stationary sources (e.g., boilers, gas turbines, reciprocating engines), used for power generation;
- Non-power generation sources, such as smaller fuel-fired sources (e.g., emergency generators, space heating, portable equipment), vehicles, and releases of CH4, SF6 and HFC-based gases.

Complete details related to our inventory and methodology can be found on our response to CDP Climate Change questionnaire available at CDP's website.

Table 8 shows direct (Scope 1) GHG emissions values on an ownership-adjusted basis for 2015-2018. The CH4 value for 2016 do not match the ones reported in previous years, because it was recalculated using updated emissions factors.

Table 8 – Direct GHG Emissions (Scope 1), 2015 – 2018

Direct GHG Emissions (Scope 1) [5]		2015	2016	2017	2018	2018 target
Total Scope 1		**70,339**	**70,457**	**63,497**	**51,878**	**68,922**
Power Generation	Thousand MT					
CO_2		70,105	69,981	63,053	51,481	
CH_4		26[6]	210	186	153	
N_2O		208	204	210	167	
Other Sources						
CO2		43	42	29	51	
SF6, HFCs and CH4		18	19	19	27	
Emissions Intensity	MT / MWh	0.71	0.67	0.65	0.61	

As noted in the table, our Scope 1 emissions stayed below the 2018 target. Also the actual Scope 1 emissions have improved by 26 percent since 2015 due to emission reduction activities, conversion of coal units to gas, efficiencies, retirements and portfolio changes among other factors.

5 Equity adjusted values.
6 In 2017 there was a change in the emission factor for CH4. Values for 2015 were not recalculated

Direct SO2, NOx, and Other Emissions

The data in Table 9 refers to SO2, NOx and mercury emissions resulting from our businesses' major fuel combustion units during the last four years. Air emissions data related to mercury primarily consists of emissions from coal-fired electric power generation units.

Table 9 – Metric Tonnes of SO_2, NOx, PM and Mercury Emissions, 2015 - 2018[7]

	2015	2016	2017	2018	2018 Target
NOx	70,106	68,561	57,094	46,628	69,355
SO_2	142,186	111,305	97,186	77,192	140,801
PM	8,577	7,602	5,766	3,807	8,467
Mercury	0.56	0.42	0.45	0.52	0.56

The primary reason for a decrease in NOx emissions since 2015 is fuel conversion projects, decommissioning and the sell-down of several fossil fuel-fired units. In addition, SO2 emissions have trended down due to new installation of emission controls at some of our facilities. For example, the start of operations of the new CCGT Eagle Valley plant and the decommissioning of the Eagle Valley coal power plant in the United States, and also the selling of Masinloc coal power plant in Philippines.

Emissions from biologically-sequestered carbon

AES' 2018 CO2 emissions from biologically sequestered carbon include emissions from our landfill gas (Nejapa, El Salvador) and biomass (Laja, Chile) burning power plants.

Some of our businesses use E85 fuel for their vehicles, which represented a small fraction of the overall CO2 emissions from biologically sequestered carbon and so these emissions are not included in the table below.

Table 10 - CO_2 Emissions from Biologically Sequestrated Carbon, 2015 – 2018

Biogenic CO2 Emissions [8]	2015	2016	2017	2018
	Thousand metric tons			
Biomass	69	63	71	87
Landfill Gas	32	24	26	22
TOTAL	**101**	**88**	**97**	**109**

7 Equity adjusted values.
8 Equity adjusted values.

Indirect GHG Emissions

Our indirect GHG emissions includes tracking of:

- Electricity purchased from non-AES generated sources for a business's own use;
- Transmission and distribution losses of non-AES generated electricity sold to end users, of AES distribution companies;
- Sales to customers by our distribution businesses (Scope 3);
- Business air travel for our global operations (Scope 3).

Based on the GHG Protocol's Scope 2 Guidance, AES has taken a dual reporting approach to estimate emissions from energy purchases for our own use because we identified that some of our businesses are in markets, where consumers have the opportunity to make decisions about purchasing electricity from providers of their choice.

Table 11 – Indirect GHG Emissions (Scope 2 and 3), 2015 – 2018 (Equity adjustec)

	2015	2016	2017	2018	2018 target
	Thousand metric tons CO2e				
Electricity-Related Indirect Emissions (Scope 2)					
Location Based Method	367.8	306	226	360	367.8
Market Based Method	368.1	309	230	362	368.1
Other Indirect Emissions (Scope 3)					
Emissions due to Sale of Electricity to End Users	6,238	5,864	15,421	10,893	
Emissions due to Business Air Travel[9]	3.2	1.8	1.0	1.3	

A portion of the electricity we generate is used for "station service" (or own use), thus in many cases, it is not necessary to purchase energy from the market. Exceptions to this general rule of thumb include periods of outages, when electricity is purchased from the market to support our energy needs.

Additionally, our transmission and distribution businesses purchase electricity for their own use either from the grid or from AES-owned power plants. In the case of purchases from the grid, a certain degree of double counting may be present due to the fact that our portfolio consists of both generation and T&D businesses.

Reduction of Air Emissions— Energy Efficiency for Our Customers

Our businesses are continuously looking for ways to improve power generation efficiency and reduce emissions. During 2018, AES operating businesses implemented diverse emission reduction projects through process improvements and equipment replacements. Diverse emission reduction projects or low carbon energy installations were implemented or started implementation for over 1.5 million metric tons of estimated annual CO2e reductions. One example is the installation of PV in offices buildings or the lighting system optimization

[9] Not Equity adjusted values

project of AES´ power plant in Jordan. The project included the replacement of exiting lighting system for a new technology that besides being more efficient and environmentally friendly applies smart solutions to reduce operation hour of lighting system (limit switch's, photo cell and combination of control circuits).

Diverse businesses also implemented improvements at some power plants to reduce "conventional" air emissions. In 2018 IPL celebrated the official opening of its Eagle Valley natural gas power plant. This plant has enabled IPL to significantly reduce its dependence on coal while still delivering safe, reliable, and sustainable energy. The CCGT natural gas plant is one of the cleanest power plants ever to be built. It is nearly twice as efficient and will reduce the rate of key emissions by 98 percent compared to the coal and oil fired units it replaced. Water use and wastewater generation will significantly reduce as well.

Furthermore, our distribution businesses offer a variety of energy efficiency, renewable energy and demand-side programs, which result in GHG emission reductions by their customers. The type of programs offered by each utility depends on market conditions.

Some examples of the programs and efforts carried out for residential and industrial customers to leverage energy efficiency and load optimization include: LED replacements in public lighting; providing energy efficiency manuals for customer awareness; and energy management consulting for optimization of electricity use.

- In the United States, DPL's energy efficiency and educational projects contributed to the reduction of 206,784MWh in electricity consumption by customers in 2018.
- AES El Salvador delivered a public project called Soyapango Iluminado (Lighted Soyapango), which replaced older city lighting of sodium and mercury for an efficient, environmentally friendly LED lighting system. 5,000 lighting fixtures were installed in rural and urban zones for a savings of more than 65 percent in energy consumption. This system is monitored, in real time, through a unique remote management system.

Our businesses have also been recognized for their efforts. AES Andres, one of our businesses in the Dominican Republic was recognized by the Minister of Environment and Natural Resources for the successful Implementation of the cold use for air conditioning in its offices. The award promotes and encourages the implementation of a clean production strategy and the efficient and sustainable use of natural resources in the country.

Also, IPL was also named a 2018 Utility Environmental Champion by Market Strategies International's Cogent Reports' study. Customers ranked IPL as having exceptional dedication to the environment for four years in a row, reflecting the extent to which customers believe IPL supports environmental causes, commitment to environmentally-friendly energy resources, and offering tools to help customers manage their energy usage.

ASPECT: Water

Water availability is a critical risk factor for the electric power industry and for our operations at locations where we need water to operate efficiently. On an annual basis, our individual facilities may use from only a few hundred cubic meters of water (like wind generation sites) to more than 700 million cubic meters of water (such as in a large thermal power plant).

While some facilities like solar and wind do not need water to generate electricity, our thermal and hydro plants rely on water. The water is predominantly used for the steam cooling process at our thermal plants. As part of the process, a small portion of the water evaporates while most of it is returned to the water source body.

As we strive for excellence, we work to develop solutions that will result in lower withdrawals from freshwater aquifers, which is especially important in arid areas. As an example, we use salty/brackish water from the ocean or from existing wastewater sources that reduce the amount of wastewater discharged into waterways by treatment plants or other organizations.

Water use is also key to our hydroelectric power plants, since water flowing through turbines is used to generate electricity. However, these waters are immediately returned to the environment at similar or higher quality as raw water extracted.

Risk Management

As part of the company risk management process, AES has a Hydrology Risk Committee that serves as the company's center of excellence for hydrology and is responsible for identifying, monitoring and establishing best practices around hydrology risk on both a portfolio and individual business basis.

In addition, as part of the EMS Framework, water risk management is mainly conducted at the local business level during the siting of the power plant.

With the World Business Council for Sustainable Development (WBCSD), the World Resources Institute (WRI) Global Water Tool and the AES Environmental Impacts Assessment tool we are able to assess reputational, physical and regulatory water related perils. All AES direct operations are covered by this risk assessment.

Additionally, to ensure proactive resource management, AES businesses performs periodic analysis and stress testing on water availability on a local and aggregate basis. Also, as part of the EMS, AES businesses assess water use for potential impacts and mitigation when conducting environmental risk assessments on an ongoing basis.

Through periodic external and internal EHS audits, AES businesses monitor the management of water resources and its compliance with regulatory requirements. Findings are properly addressed, and closure actions are established.

Water Withdrawal and Discharge

Our water inventories include:

- Cooling water, including those from once-through and recirculating cooling water systems;
- Process water;
- Potable/drinking water (with the exception of bottled water).

Water used for generation of electricity at our hydroelectric power plants, as well as water evaporation from cooling towers in our closed-circuit cooling systems, domestic sewage, rainwater and storm water effluents is not included in our water inventory. Water withdrawal and discharge data is consolidated using an operational control approach.

Table 12 – Water Withdrawal and Discharge, 2015 - 2018

	UNIT	2015	2016	2017	2018	2018 target
Total water withdrawn		**6,393**	**7,512**	**6,618**	**5,265**	**7,433**
Surface	*Million Cubic Meters*	6,324	7,491	6,582	5,236	
Municipal		5	4	7	9	
Groundwater		64	18	29	20	
Total water discharged/returned to the source *(at similar or higher quality as raw water extracted)*		**6,135**	**7,386**	**5,570**	**4,426**	

Because water is a shared natural resource, AES businesses engage with local communities and other stakeholders located in the same watershed areas on a bi-lateral or multi-lateral basis. These engagements include communication campaigns, such as public hearings, community engagement programs, development of contingency plans, social responsibility programs, and participation in governmental and inter-governmental initiatives.

For example, our plant power plants in Dominican Republic, AES Andres and Itabo operate desalination units, and during water scarcity they provide water to the communities. AES Dominicana is a member of the board of directors of ECORed, an institution formed by the Dominican business community to protect the environment. ECORed has encouraged that the National Congress approves the water law, which includes aspects to regulate the use, consumption and treatment of water. Both power plants were also recognized by the Ministry of Environment and Natural Resources for the Optimization Project Demineralized Water Use in Units I & II and the re-use condensed water in the chiller projects.

In 2018, AES Jordan PSC was included in the national water quality monitoring program launched by Ministry of Environment, this program aims to monitor the quality of water recycled for irrigation and the quality of water discharged to municipality stormwater, water samples are collected and analyzed by ministry of environment on a quarterly basis. Also, for the fifth consecutive year, AES Jordan PSC won a Best Practices Award from Combined Cycle Journal in the "Water Management" category. The project team in Amman East developed a system that helps the plant control the iron content in the evaporation pond. The system ensures that water meets environmental guidelines and make it usable for other purposes.

AES Colombia has implemented the Program for Efficient Use and Water Saving, approved by Corpochivor in 2010, and through which has reduced water consumption by 33 percent since 2013. This program includes 7 specific projects with 13 associated activities, among which are the construction of intakes, the installation of counters, the identification and repair of leaks, trainings and laboratory tests, among others.

ASPECT: Effluents and Byproducts

Fossil fuel-fired generation plants may produce coal combustion byproducts (CCBs), solid wastes (e.g., small quantity hazardous waste, municipal waste), cooling water discharges and other wastewater effluents.

Water discharges may include cooling water and process water discharges, which can impact the quality of receiving streams such as temperature and pH. These impacts are managed through diligent control and

monitoring of all water discharges. The control may also include monitoring of upstream and downstream areas from our water discharge sources as well as monitoring of groundwater around our ash ponds. The results of these measurements are reported to regulators on a periodic basis.

The AES EMS and global environmental standards establish minimum requirements for the management of hazardous and special wastes, chemical and raw material management, and spill prevention and control through assessment of hazards, management actions, and establishing preventive and control measures. Each AES business is required to have emergency response plans, including spill prevention and containment plans. All spills are reported on a monthly basis through our EMIS.

With the exception of coal combustion products (CCPs), the byproduct streams from electric power generation, transmission and distribution businesses consist of small mass and volumetric quantities, and may include municipal solid wastes, construction and demolition debris, and hazardous and special byproducts such as PCBs, solvents, used oils, herbicides, etc. Specific AES environmental standards govern proper handling and management of these wastes and byproducts. Adherence to these standards is monitored through our program of internal and external audits on a periodic basis.

Coal Combustion Products Generation & Recycling

Coal Combustion Residuals are materials formed when coal is burned to generate electricity, and include bottom ash, fly ash, synthetic gypsum (also referred to as flue gas desulfurization (FGD) gypsum), FGD solids and cenospheres. AES businesses recycles its CCRs safely and economically.

CCRs are used as a valuable ingredient in a wide range of concrete products and as a structural fill material in place of soil or other mined materials. Gypsum, which is produced as part of the air emissions control process, is recycled and used in wallboard for the construction industry, as a raw material in the production of cement, or for use as a soil stabilizer in agriculture.

Table 13 - CCPs Generation and Recycling/Reuse, 2015-2018[10]

	2015	2016	2017	2018	2018 target
CCPs generated (metric tonnes)	9,550,936	9,024,417	8,879,824	7,931,714	9,529,989
CCPs recycled/reused (%)	33.9	31.9	38.2	22.1	33.9

Coal combustion generation and recycle/reuse data above is consolidated using an operational control approach.

Our 2018 reuse/recycle showed a decreased because we divested/sold diverse businesses that were large reuse/recycle facilities. We also had locations that had to hold the reuse material until a certain quantity was reached for the recycle facility to haul the material.

Our businesses also promote environmental awareness through their community outreach programs and encourage community members to take proactive action with regards to the environment. For example, to

10 The values in the table are not equity adjusted.

encourage the practice of recycling, AES México supported the RETO ReciclAES (Recycling Recipes) campaign, in which students, teachers and parents from eight elementary schools challenged each other to collect the largest amount of PET bottles and aluminum for their school over a period of four months. 17 kgs of PET and 30 kgs of aluminum were collected and delivered to a company for recycling.

In the Dominican Republic, AES Dominicana promotes the "Recycle with Clean Points" program to create change in the lifestyle of young people and adults in the communities of Boca Chica, Haina and Los Mina t as well as to encourage a reuse, reduce, recycle culture in the area.

Spills & Environmental Incidents

Our EMS and environmental standards set up a foundation for identifying, monitoring, controlling and following-up on any environmental events/conditions that could lead to non-conformances and financial impacts on the business. Our "AES Environmental incident management" standard requires each business to establish a process for identification, investigation and reporting of environmental non-conformance events.

According to the EMS and Environmental standards, AES reportable spills are any liquid spills reported to local environmental regulators and/or lost off AES property into the environment at a quantity equaling or exceeding 55 gallons (210 liters). Non-reportable spills usually represent small spills that are quickly contained or spills that are released into secondary containment. As part of this standard, all environmental incidents are categorized as either significant or non-significant using a risk matrix, which in turn determines further actions, such as a requirement to perform a root cause analysis.

For example, environmental non-conformance events could be those related to oil and chemical spills. In 2018, AES businesses recorded a total of twenty two reportable oil and chemical spills, caused primarily by equipment leaks or failures, and were immediately cleaned up. None of these spills resulted in significant environmental impact, regulatory enforcement actions and/or significant fines/penalties, which is why they were not addressed in our 2018 Annual Form 10-K.

ASPECT: Biodiversity

Protecting and encouraging biodiversity helps boost ecosystems and keep them healthy for all life forms to thrive. AES produces, distributes and sells energy across a large geographical area, and our operations may interact with diverse ecosystems, landscapes and species. These interactions can occur during both the construction and the operations phases of our facilities. It is therefore one of our focus areas in environmental management.

Our approach to managing biodiversity impacts at our operating and construction sites is built upon three major principles outlined in our Environmental Policy and embedded in our EMS' AES Biodiversity Assessment & Protection Standard:

- Risk and impact assessment through analysis of our activities, their potential impacts, and necessary control measures. Activities built on this principle include the Aspects and Impacts Assessment (AIA) process, Project Execution Framework (PEF) process for pre-construction studies, as well as monitoring during and after construction, and local biodiversity studies if required;
- Mitigation and control through implementation of monitoring programs and plans, engineering and other controls, and habitat restoration and protection; and
- Communication and awareness through collaboration with local scientific communities and other stakeholders, internal and external training and education, etc.

The standard also provides additional AIA assessment guidance to our businesses on biodiversity risks, including avoidance of direct impacts to World Heritage areas and IUCN Category I-IV protected areas.

Our approach has the objective of ensuring that all AES businesses identify, assess, document and take proper mitigation action on biodiversity matters to avoid or, if avoidance is not possible, to minimize negative biodiversity impacts and to promote positive biodiversity impacts. We also develop partnership with NGOs and specialized institutions to promote diverse biodiversity programs.

For example, AES Tietê is developing advanced biotechnologies for fish to help preserve endangered species. A species of fish named *Pseudopimelodus mangurus*, a type of Brazilian catfish, was successfully bred in captivity to help repopulate rivers where the population is decreasing. In partnership with CEPTA (National Center for Continental Aquatic Biodiversity Research and Conservation), a study of this type is unprecedented.

Due to their specificity, biodiversity risks for construction projects are assessed and mitigated during the pre-construction permitting and environmental impact assessment phases using methodologies that consider various alternatives and establish corrective measures to avoid, mitigate or offset possible impacts on ecosystems and biodiversity. Usually, information on the environmental impact assessments for our projects under development or construction are made publicly available on dedicated webpages either by the businesses or the regulatory bodies.

Table 14 – Links to the Public Websites containing EIA/AIA Results

Major Construction Project	Country	Link to the public website containing EIA/SIA results
Alto Maipo	Chile	http://seia.sea.gob.cl/expediente/ficha/fichaPrincipal.php?modo=ficha&id_expediente=2933044
OPGC 2	India	www.moef.nic.inwww.opgc.co.in
Colón	Panama	http://www.miambiente.gob.pa/index.php/en/
Southland Alamitos	United States	https://www.energy.ca.gov/sitingcases/alamitos/index.html
Southland Huntington Beach	United States	https://www.energy.ca.gov/sitingcases/huntington_beach_energy/
Mesa la Paz	Mexico	https://www.marketscreener.com/AES-CORPORATION-11547/news/AES-ACCIONA-to-build-Mesa-la-Paz-wind-farm-for-EnerAB-in-Mexico-27262764/
Bósforo	El Salvador	http://www.aes-elsalvador.com/nuestra-empresa/bosforo/

Protecting Biodiversity and Restoring Habitats

Each business and construction project demonstrate adherence to our environmental management principles, as well as compliance with local and national regulatory requirements, by developing biodiversity protection programs and plans, and addressing biodiversity risks in four major areas: awareness campaigns, site clean-ups, reforestation activities and habitat protection and restoration. Below some examples of initiatives carried out during the year:

Awareness Campaigns

- During the celebration of Earth Day IPL co-sponsored the 7th Annual JCC Indy Earth Day Community Celebration, which featured 65 hands-on, environmentally friendly activities by almost 50 exhibitors.

- AES India celebrated World Environment Day with the theme, "Beat Plastic Pollution." The week-long program included raising community awareness on replacing plastic bags with paper, holding a clean-up event at the power station and planting more than 85 saplings on site.
- A volunteer team from AES Panama's Bayano Hydroelectric Plant and administrative offices led 30 local children on a tour of the Biomuseo of Panama. Designed by world-renowned architect Frank Gehry, the Biomuseo is his only building in Latin America. The museum tells the story of the isthmus of Panama and its impact on the planet's biodiversity.
- AES El Salvador, and its distribution companies in El Salvador held the third urban Arboriculture Seminar: "Sustainable Cities" with the aim of providing knowledge on the modern arboriculture; the importance of the tree census; planting, logging and transplantation; risk assessment; Master plans for Arborization, among other topics that encourage harmony between urban trees and electrical infrastructure.

Site Clean-Ups

- Kilroot and Ballylumford, power stations in Northern Ireland, created wildflower meadows in suitable grassland to enhance biodiversity. The species-rich grassland at AES stations could be classified as lowland meadows, which are defined as unimproved grassland found on a well-drained mineral soil, with a variety of wildflowers such as knapweed, field scabious or ox-eye daisies.
- As part in Earth Day 2018 celebrations in the United States, AES Buffalo Gap people came together by picking up trash along the highway. AES Buffalo Gap sponsors two miles in Texas' Adopt-a-Highway litter prevention program. AES Ohio team members picked up litter along the Great Miami River near our Dayton Service Building as part of Five Rivers MetroParks Adopt-a-Park Earth Day event. Volunteering for Adopt-a-Park is a tradition for AES Ohio since 1990.
- For the third consecutive year, AES Bulgaria people took part in the municipality of Galabovo's annual event to clean the historic Haidushkoto Kladenche, a popular outdoor destination. More than 30 AES Bulgaria volunteers helped beautify the historic site. The event was a success, with participants collecting more than 2.5 tons of refuse.

Planting, Reforestation and Native Species to Rangeland Activities

- Mãos na Mata Program is an initiative launched in 2016 that with the support of SOS Mata Atlântica, another NGOs, seeks partnerships with companies that need to offset environmental impacts. Mãos na Mata is focused on revitalizing areas of the Atlantic Forest and the Cerrado. To do this, the program offers customers a space for reforestation, in areas bordering AES Tietê reservoirs, providing the project with seedlings and taking responsibility for monitoring of areas. In 2018, 246,5 hectares were reforested by the program.
- AES Jordan and the Khashafeyyeh Community Native Species project aims to integrate local communities in the process of restoring the natural rangelands in the project area through the propagation of local pastoral plants, using modern technologies and scientific methods that ensure the production of improved quality pastoral systems capable of adapting to the harsh environmental conditions in Jordan, such as scares rainfall.

Habitat Restoration, Monitoring and Conservation

- As part of the Program for Monitoring and Conservation of Terrestrial Animal Life, carried out in partnership with AES Tiete and Instituto Pró-Carnívoros in 2018, the company is monitoring the wolf manure and the brown jaguar.

- AES Tiete also manages a Fishing Management Program that promotes repopulation of fish in the reservoirs of the hydro plants located on the Grande, Tietê, Pardo and Mogi-Guaçu Rivers. Each year, 2.5 million fingerlings are released of streaked *prochilod, dorado, small-scaled pacu, piapara, piracanjuba and tabarana* fish, grown in hydrobiology and aquaculture stations at the Barra Bonita and Promissão plants. Repopulation contributes to reinforcing the food chain and boosting recreational and professional fishing in these regions.
- Since 2011, AES El Salvador and SalvaNATURA have had a partnership that has facilitated the donation of 45,000 sea turtle eggs, has contributed to the construction of 8 hatcheries and has supported the release of more than 2,000 turtle hatchlings.

STAKEHOLDER ENGAGEMENT

Our mission is to improve lives by accelerating a safer and greener energy future, and to achieve it, a strategic and proactive stakeholder engagement is key. AES operates in a complex environment, facing numerous opportunities and risks: operational, economic, market, legal, security, policy parameters, among others, each one possibly impacting our ability to conduct business.

Engagement with our stakeholders is a necessity for the functioning of our business, both daily and to achieve our long-term strategic objectives. In today's business environment, companies have to continuously adapt to fast traveling information, regulation uncertainty and growing scrutiny from governments, the media and public opinion.

Purely transactional relationships rarely work effectively in a stakeholder management context. At AES, stakeholder engagement refers to the process of developing strong, proactive, transparent, long-term and consistent relationships with key stakeholders of the company.

For example, as part of the development of Mesa La Paz, a new wind farm in Mexico, over 40 people attended a training session with the goal of engaging the local community in discussions about the construction of the wind farm. The meeting covered topics such as health and safety, environmental concerns and construction methods.

AES businesses engage with diverse stakeholders across the globe. Non-governmental organizations (NGOs), governments, communities, other market players, customers, lenders, investors and employees are stakeholder groups with whom we strive to maintain solid relationships. The engagement process is integrated into the company's global strategy as we recognize that it is not only a critical part of sustainability but also important for our business units' success and their licenses to operate.

Stakeholder relationships are important at the global, regional and local levels. Failure to manage local relationships can have regional or global consequences for AES business and reputation, hence a common strategic and consistent approach to manage our numerous stakeholders is fundamental to our success. Our Global Stakeholder Engagement guidelines, available internally to all our businesses, highlight the key elements of our engagement strategy and outline steps to ensure our relationships are successful and long-lasting.

These internal guidelines were developed using the AA1000 Stakeholder Engagement Standard as a reference, and cover topics such as: identifying and prioritizing stakeholders, deciding on the appropriate engagement methodology, performing risk assessments, evaluating progress of engagement actions, among others.

As part of the management approach we also use a customized online platform, to better anticipate and prepare for stakeholder risks, map stakeholders and effectively manage each stakeholder engagement strategy. We identify the key stakeholders based on the unique characteristics of each market and country where our operations are located. This identification is determined based on:

- The position or favorability (neutral, in favor, against);
- The level influence;
- The level of involvement; and
- The level of interest or concern.

AES awarded for Social Innovation

AES was presented with one of the first 2018 IndexAmericas Sustainability awards in the category of Social Innovation. The prize was awarded by Latin Trade in partnership with the Inter-American Development Bank (IDB) to the companies in Latin America and the Caribbean with the most sustainable practices.

AES won in the category of Social Innovation, recognizing the company's sustainable practices, innovative stakeholder management work as well as contributions to the social and economic development of local communities through sustainable corporate social responsibility programs. AES was selected for its sustainable programs that are adapted to the reality and needs of the local communities, such as competitive funds, education and capacity building training, cultural programs, among other innovative social programs.

Stakeholders

We strive to strengthen relationships through meaningful engagement with our stakeholders. We work to structure interactive stakeholder engagement activities, so we can receive effective feedback.

At a local level, the Market Business Leaders (the highest senior leader at a country level) directly oversee stakeholder engagement with the support of functional area leads. At the corporate level, the Global Stakeholder Engagement group provides the key elements of our engagement strategy and at the same time manages certain key corporate level relationships such as heads of state, trade associations, government officials, ambassadors, international institutions, country representatives and regulators.

Interactions and communications with investors and shareholders, high-level government policy makers and institutions like the Federal Energy Regulatory Commission (FERC) and North American Electric Reliability Corporation (NERC) are also managed at the corporate level.

The following table summarizes our current stakeholders and provides examples of engagement methods, issues discussed and how the issues are addressed. The examples provided are typical but may not necessarily apply to all our businesses.

TABLE 15 - Main Stakeholders

AES Stakeholders	Engagement	Key Issues	How Issues are Addressed
Suppliers	We promote suppliers' success through clear policies, procedures, terms and conditions. it is important to ensure our suppliers are aligned with our values and standards. We hold our suppliers and contractors to the same high ethical standards we have.	· Direct contact between vendors and AES supply chain buyers and sourcing specialists · Supplier performance score cards · Published policies and guidelines such as safety requirements and environmental guiding principles	· Centralized management of key supply chain categories such as fuel sourcing · Developed and communicated safety, environmental guidelines to existing and prospective suppliers
Investors/Shareholders	We regularly communicate with our investors regarding our business strategy and plan, risk management, financial returns, growth and governance via: · Quarterly earnings presentations · Investor relations website · Investor calls · Rating agency discussions · Investor and public forum events such as the Annual Shareholder Meeting · Annual and other corporate reports · Proxy communications · Traditional and social media	· Strategy and growth plans · Company management · Return on investment · Capital allocation · Governance · Financial performance and liquidity · Shareholder returns, including dividends · Risk management · Environmental performance	· Healthy balance sheet and sufficient liquidity · Timely information on key issues · Corporate reorganization to streamline the business for profitability
Customers	We are invested in understanding our customers' perspectives and in addressing their concerns via: · Customized energy management solutions · Wholesale and retail power and gas market participation · Internet-based feedback interface · Customer satisfaction surveys · 24/7 customer call centers · Publications and reports · Energy efficiency and demand response programs · Residential customer education programs · Sustainable energy solutions · Traditional and social media · Participation in public events	· Managing energy use with new technologies · Lowering energy costs · Using cleaner energy sources, including renewables · More efficient energy use · Safety	· Provide information and energy management tools via our websites · Develop peak demand management programs · Conduct advanced metering and dynamic pricing pilot · Deploy on-site renewable energy systems for commercial customers · Conduct energy-efficiency audits and building retrofits, and provide incentives for numerous energy efficiency measures · Provide risk management services for wholesale and retail customers
Community	We invest in, support and ensure dialogue with the communities where we conduct business via: · Periodic community meetings in communities surrounding our facilities · Career fairs · Volunteer projects and social investment programs · Participation in community events · Website · Traditional and Social Media	· Employment of local talent · Business development in local community · Infrastructure · Environmental performance and policies · Job creation · Safety · Skilled workforce development · Social benefits	· Updates on key issues and projects and feedback mechanisms on website · Skilled workforce development programs with industry and labor stakeholders at community educational locations · Social sustainable programs · Education on safe, adequate and efficient use of energy

AES Stakeholders	Engagement	Key Issues	How Issues are Addressed
Governments	It is our duty to communicate with local, state and federal government officials in the countries where we do business to ensure that we develop sound energy policies that balance reliability, affordability and environmentally sound practices via: · Meetings with elected officials in communities surrounding power plants and utilities infrastructure · Power plant tours · Emergency planning exercises conducted with local/state agencies · Policy white papers, testimony and briefings · Regulatory proceedings and rate cases · FERC and NERC reporting · Reporting in compliance with national and local requirements across the globe	· Reliability · Security, affordability and sustainability of electricity supply · Energy market structure and regulation · Job creation · Environmental compliance · Federal policies · Financial/OTC derivatives · Safety · Fuel diversity and balanced energy matrix	· Investment in new technologies to keep long-term electricity supply reliable, affordable and cleaner · Engage in discussions with federal governments, partnership groups and EPA about environmental performance and policy · Engage directly on financial reform legislation, GHG policy, Clean Energy Standard and federal loan guarantees
Industry Observers	We engage in dialogue with NGOs and other industry observers around the world through: · Industry organizations, conferences and direct dialogue · Participation in advisory councils, business alliances of NGOs · Collaboration with NGOs in facilitating policy-making dialogues · Website · Traditional and social media	· Employment · Business development · Infrastructure · Trends in the sector · Environmental performance and policies · Job creation · Safety · Skilled workforce development	· Engage in many NGO-sponsored dialogues on energy and environmental policy topics, including GHG policy, Clean Energy Standard and renewable energy incentives. · Participate in events as expert in the field to discuss trends in the sector
AES People	Engaging our people is critical to our business success and our employees expect open discussions about workplace safety, career opportunities, job satisfaction, diversity and inclusion, and benefits and salary via: · Company intranet — OurAES.com · Multi-lingual update communications from company executives · Electronic newsletters · Employee Helpline · Yearly performance reviews · Online courses, classroom training and college degree programs · Leadership and employee development opportunities · Employee surveys	· Workplace safety · Career opportunities · Job stability · Diversity and inclusion · Salary and benefits · Company strategy and leadership · Positive corporate image	· Promote two-way communications · Increase feedback mechanisms · Increase involvement in company-related activities

Impacts on Education and Living Standards in our Communities

In today's business environment, companies are increasingly vulnerable to public opinion's scrutiny and are expected to meet multiple expectations. Companies that do not engage with their stakeholders and do not consider the economic, environmental and social impact of their operations can face conflicts, which can ultimately threaten the longevity of the company in the long term.

At AES, we understand that the success and sustainability of our businesses also depends on the social licenses we obtain from local communities to operate and prosper in our business activities Wherever we locate or operate a business — whether it is a power plant, a utility or a renewable energy initiative — we seek to create meaningful relationships with the communities we serve.

AES has internal company-wide guidelines for developing Sustainable Corporate Social Responsibility Programs. The guidelines are suitable to different local contexts and provide tools for AES businesses to develop and implement sustainable social responsibility programs that are beneficial for our core business and the sustainable development of the communities in which the company operates.

Providing safe, reliable and sustainable solutions is key for the development of the communities where our businesses operate. But at the same time, infrastructure projects bring opportunities by providing employment as well as creating a demand for services and materials that creates dynamism in the local economy.

As described in the table above, AES businesses implement varying levels of engagement with local communities. There is a permanent dialogue with community stakeholders to continue to build and strength relationships based on respect, trust and collaboration.

Whether entering a new location or operating at an existing facility, AES businesses work with the local government and communities to develop programs that can make a community stronger economically, socially or environmentally. Where practical, our businesses involve stakeholders in the planning, implementation and evaluation of community programs.

Annually AES businesses develop more than 100 community-oriented investment programs in the areas of culture, education, environment, infrastructure, safety, health and social welfare. Some of these programs include access to electricity and basic services; vocational training and employment opportunities for young people; and safety education, among others.

Although the context in every country where AES is present is different, AES businesses see general added value in supporting programs and activities that focus on Education and training so that skills are developed in the community which will have long-term, direct and indirect benefits on citizens' lives.

For example, since 2012, Alto Maipo, a construction project in Chile, has partnered with Proforma OTIC (Intermediate Technical Training Organizations) to implement a training program in the town of San José de Maipo. The training program improves participants' skills and increases their employability. Over the last two years, 22 training courses have been taken by more than 200 people. Over the years, more than 75 percent of the people trained have found permanent work.

The Livelihood Restoration Plan of the AES Mong Duong 2 Power Plant in Vietnam was launched in 2014 to improve the quality of life for 68 households living near the project. Up until 2018, through close collaboration with local job placement centers and AES contractors, the plan has provided 97 people with jobs at the power plant and the plant's contractors. As part of the Plan the company has also invested resources in education for the local community to provide local residents with skills to find a better job and salary in the future. Diverse vocational training courses have been organized benefiting over 100 trainees. These courses are

organized based on the educational background, needs and expectations of the students as well as job opportunities in the local area.

AES businesses also engage in partnerships with various stakeholders to maximize the benefits of the programs and make a long-term, positive impact for the communities. Partners include government agencies, development agencies, municipalities, NGOs, universities and technical institutions, business partners and subcontractors.

AES businesses programs are aligned with diverse Sustainable Development Goals (SDG´s) set by the United Nations such as: 4. Quality Education; Decent work and economic growth; 17. partnerships for goals, among others.

During 2018, 65 percent of community-related activities, programs, donations and sponsorships were in education, social welfare and safety. Also, 22 percent of the money allocated to community-related activities, programs, donations and sponsorships was for education and safety, and 29 for social welfare. This includes provision of, education on safety, community infrastructure, vocational training and provision of school supplies, among others.

Table 16 - Social Investment by Area of Focus

Are of focus	Total of programs	Total of investment
Culture	12.1%	20.7%
Education & Safety	35.2%	22.9%
Environmental	8.4%	19.6%
Health	9.3%	5.4%
Infrastructure	4.9%	2.4%
Social Welfare	29.9%	29.0%

Strengthening Entrepreneurs in Guayama, Puerto Rico

During 2018, AES Puerto Rico and The Trust for the Americas, affiliated of the Organization of American States launched the program called "Fondos Concursables" to support economic growth in Guayama. The project offers free training that is designed to strengthen business skills as well as training for entrepreneurs who want to compete for grants to develop a community business. Twenty new entrepreneurs spent three months in training and in the development of their business models, and successfully completed business training.

In the advent of natural disasters or catastrophes with grave impact on local communities, AES (as a sign of goodwill and support of collective national action) could make resources available (immediate assistance) to support national disaster relief programs.

The contribution to the communities of some of these programs was recognized during 2018, some examples include:

- Latin Trade Group and Inter-American Development Bank (IDB) recognized AES business in Latin-America with the 2018 IndexAmericas Sustainability award for Social Innovation.

- AES Southland received the Commendation award for Social and Environmental Responsibility from Huntington Beach Wetlands, City of Huntingotn Beach, Orange County Supervisor Michelle Steel and California Assembly - Matthewy Harper.
- The Foundation "Manos Unidas por el Autismo" (United hands for autism) gave to AES Dominicana Foundation a special recognition for the work in favor of children´s education and for supporting them to impact the lives of children and adolescents who live with this condition.
- In Vietnam, the Quang Ninh Province recognized AES Vietnam projects that benefit local schools and students at National Month for Children. Also the American Chamber of Commerce awarded AES Vietnam with the 2018 Corporate Social Responsibility Recognition and Award.
- In Mexico, CEMEFI (Mexican center for philanthropy) awarded TEG/TEP with a Socially Responsible Company Distinction.
- In El Salvador, FUDEMAS (Business Foundation for Social Action) granted a special mention to AES El Salvador for its contribution to Salvadoran women through its corporate social responsibility program AES Woman and its technical course of electrical installations.

Training Women as Electricians

Since 2016, AES El Salvador, through its "AES Woman" program, has provided 10 courses on electrical installations in El Salvador allowing 174 women of the "Ciudad Mujer" (a program of the Social Inclusion Secretariat) to graduate as electrical technicians.

The Residential Electrical Installations training program trains women to perform reliable, safe and efficient installations of residential electrical systems. The course is designed to open opportunities for professional growth in an occupation that has previously been considered “men’s work. The program allows the graduates to improve their quality of life, providing them with new income, and opening paths to continued professional development.

The course also provides the participants the opportunity to receive a certification by the General Superintendence of Electricity and Telecommunications (SIGET) as electrical technicians. The certification entitles holders to practice by possessing the technical requirements set by SIGET.

With initiatives such as the AES Woman program, AES El Salvador promotes gender equality and the eradication of poverty through the inclusive development of women. With the AES Woman program, AES El Salvador has assumed a distinctive style of business leadership, providing opportunities in entrepreneurship and professional technical training to Salvadoran women.

Public Safety

As an operator of electric generation, transmission and distribution facilities, the infrastructure necessary to conduct our operations is located in the communities our businesses serve. Because contact with this infrastructure can be dangerous and to mitigate this risk exposure, AES businesses take controls and preventive measures like installing security fencing around the sites, or locating live electrical systems away from easy public access together with the corresponding warning signs legible and understandable.

In addition, because electricity is a safe and reliable energy source, but it can be hazardous when used without care and caution, our businesses communicate these risks to the public by various means. However, even with such preventive actions, there may be occasions when a member of the general public inadvertently comes into contact with one of our businesses' systems and suffers a fatal injury. This is most true for the electric distribution and transmission networks located throughout the communities our businesses serve.

Some situations in which community members can come into inadvertent contact with power lines include residential, industrial or construction and vegetation pruning activities; touching downed electrical lines; playing and kite flying around electrical wires and attempting illegal network connections or thefts of network equipment.

As part of our safety management approach and standards, all public injury incidents and public fatality cases are closely tracked and investigated by local AES businesses. Based on the results, the necessary mitigation controls and measures are implemented as needed.

During 2018 we did not experience any public fatal incidents across all our businesses -being the first year with this result. This was mainly driven by two factors: the exiting of distribution businesses in our portfolio (including the largest distribution company in Brazil), and the intensification of public safety programs and campaigns.

Table 17 – Public Fatal Incidents, 2015-2018

Fatal Incident Cases[11]	2015	2016	2017	2018
General Public	21	27	26	0

Our extensive public safety program includes different communication channels such broadcast media, information sessions at schools and community centers, and by other public outreach initiatives like participation in fairs and other public events.

In addition, our distribution businesses also provide safety information on their websites, such as safety precautions during power outages or when power lines are down, severe weather, seasonal and indoor/outdoor safety tips. Because we are inspired by our first value of putting safety first, we also look for ways to enhance public safety in our communities in areas beyond our sector. AES people volunteer to create awareness about safety in different situations.

11 Fatalities that occurred in the 2015-2017 period also include distribution businesses in Brazil that the company doesn't own anymore.

Magical Energy in El Salvador

AES El Salvador celebrated the 10-year anniversary of its Magical Energy program. The program has educated more than 560,000 children in schools and communities on how to use electricity safely and efficiently while taking care of the environment. During 2018 the program reached more than 48 thousand children and adolescents in 266 schools in the country. The Magical Energy program has received recognition from important international institutions such as the Organization of American States (OAS), Global Platts and the US Embassy in El Salvador.

Safety 101 Program in Indiana, United States

For over 10 years Indianapolis Power & Light's (IPL's) Safety 101 program has been teaching students, police and fire personnel, business and community groups in a visual, entertaining way about how electricity is produced, how to use it safely and how to avoid risks. To show how dangerous electricity can be, IPL's Safety 101 demonstrations use rather shocking illustrations involving flames three feet high or a hot dog cooked by electric currents in five seconds. The presentation is led by senior linemen in full protective gear, who vividly explain that humans, because we're made of water, are involuntary conductors of electricity.

IPL began offering Safety 101 demonstrations in 2004 and conducts approximately 40 presentations each year. More than 10,000 people have attended a Safety 101 demonstration.

Bringing Safety to the Community in Vietnam

As part of its mission to improve lives in the communities it serves, AES Vietnam trained 174 households in the Dong Mo village on electrical safety. The training provided lessons on handling equipment like electric pumps, fans, light bulbs and TVs in an energy-efficient manner. The session also covered how to prevent electric shock and how to handle electric emergencies.

OUR PEOPLE

Our people are committed to improving lives around the world by creating innovative energy solutions that will accelerate a safer and greener energy future. At AES, we work in diverse teams to deliver projects that bring positive global impact, providing our customers, communities and countries the opportunity for growth propelled by the availability of green, reliable and affordable electric power.

We recognize that our people are our greatest asset, and they set the foundation of our ability to achieve our strategic objectives. The success we have achieved would not be possible without the leadership, motivation, knowledge and skills that our people bring to work every day.

As of December 31, 2018, 57 percent of our permanent full-time people were covered by collective bargaining agreements. With nearly 9,000 people working in 15 countries, we have a unique opportunity to celebrate our collective mixture of people with a variety of abilities, perspectives, experiences and cultural backgrounds. At AES, we do not view diversity simply as a responsibility to be met. Instead, we believe it makes us a stronger company. We leverage and integrate it into how we work and we compete to win in the global marketplace.

In 2018, we formalized our belief by launching our "Global Diversity & Inclusion Program" to align and advance our diversity and inclusion efforts, with supporting practices across the company. As one of the objectives, the program will further enable women professionals to achieve leadership roles.

We aim to have women represent 30 percent of our senior leadership positions by 2022, representing a 50 percent increase from current figure (see details in the "Global Talent Development" section below). As an example of the importance we give to diversity at AES, 90 percent of our Executive Leadership Team (ELT) are from traditionally underrepresented groups today, including minorities and women. In addition, 21 percent of all management positions are held by women.

TABLE 17 - 2018 AES People Demographics by SBU

Strategic Business Unit	Permanent - Full time Employees	
	Female	*Male*
South America	724	2,102
Eurasia	200	941
MCAC	148	716
US & Utilities	737	3,022
Corporate	80	123
Total	**1,889**	**6,904**

The people who work in our businesses, who create our solutions, interact with our stakeholders, build our projects and restore power after storms, reflect the customers and communities whose lives we are improving through the solutions we provide and the investments we make in local safety, infrastructure, education and environmental programs.

The measure of our careers is the difference we make to our communities, customers, colleagues and families. We don't just work at AES. We are AES. The only limit to our influence and impact is our own commitment. We care as much about how we act as what we do, at work and in life.

Continually Improving How We Work to Succeed and Better Serve Our People

The energy industry is changing at unprecedented pace. Changes are coming with declining energy prices, new technology, changing customer needs and growing competition. Our customers and communities expect us to deliver a clean and unbreakable power grid.

Just as the energy industry is changing, so is the nature of work. At AES, we recognize the importance of adapting our way of working in the light of this ever-changing environment to enable our transformation strategy, while consistently improving our people's experience in the workplace.

In 2018, we reached fundamental milestones in that direction. We organized the company around our strategy, aligning goals, metrics and structures to support our strategic pillars. We also aligned our people so that each one understands the contribution of their role to a successful strategy. Our annual strategy meetings and integrated communications campaigns were invaluable to achieve this goal.

Each year, our senior leaders both at the global and SBU levels travel to various business locations to discuss our corporate strategy. Our survey conducted in 2018 showed that out of the leaders joining our annual strategy meeting, 96 percent have a better understanding of the company and 91 percent know what they need to do reach the company's strategy. We have also developed a fun and interactive training to connect our people from all levels with our strategy, by educating them about our transformation process and encouraging reflection on how each person's work contributes to a successful execution of our strategy.

We also continued to advance with our transformation program that's been in place since 2016, which is changing the way we work by improving our processes, creating economies of scale, enhancing technologies and leveraging leading practices. As part of this effort, we completed our multi-year Global Human Resources (HR) Transformation Program in 2018 with the goal to develop a more agile and nimble organization. Along the program, we realigned our human resources efforts in three areas:

- Centers of Expertise (COEs) that create global networks of expertise in specific knowledge-areas – Talent Management and People Analytics, Communications and Benefits and Compensation - to develop HR-related strategies;
- HR Business Partners implement strategy and provide local HR leadership; and
- HR Operations, consisting of Global Talent Acquisition, Global Payroll, and HR Shared Services Centers, which provide the everyday HR solutions our people need.

This new service delivery model leveraged our scale and harmonized HR programs and processes, ensuring global consistency while addressing local challenges. This initiative has also increased efficiency, speed and quality of service delivery to better serve our people.

In 2018, a new Shared Services Center was launched in Bauru, Brazil, in addition to our existing centers in Buenos Aires, Argentina and Sofia, Bulgaria. The creation of such centers not only standardized and automated transactional activities, but also created growth and development opportunities for existing HR members. As a next step, we expect to take our shared services to the next level with a global governance model, higher efficiency driven by further process improvements, automation and better use of systems and a service catalog of predefined offerings.

In addition to aligning our people and optimizing the way we work, we continue to empower our people with technology solutions. In 2018, we unified the multiple payroll systems used globally into one Global Payroll Service Provider. This system delivers all paychecks to our people, generates standardized reports, improves our analytical capabilities and offers a wide range of payroll-related services.

We also progressed with the implementation of new modules of Workday, our global human capital management system, initiated at the end of 2015. In 2018, we implemented the time tracking functionality for our United States businesses. This new functionality replaced old systems and outdated processes with a single digital platform, increasing efficiency and improving our people's every day experience.

All of our efforts to engage the organization, optimize our processes and empower our people with new technology demanded a great deal of change within the company. That is why it was important for us to develop and implement a change management approach to help our people navigate the changes. None of our transformation activities would have been successful without the development and application of our change management methodology and the commitment of our change team to ensure our people had the information and training they needed to embrace the changes.

Global Talent Management

We have a comprehensive approach to managing our talent and our developing leaders in order to ensure our people have the right skills for today and tomorrow whether that requires us to build new business models or leverage leading technologies.

Our global talent management strategy considers the full life-cycle of an AES person.

First, we understand the business needs for a given position, the value and contribution of the position and the skills, attributes and experiences needed. Next, we identify top talent by first leveraging existing AES people: someone who is aligned with our values, culture and leadership competencies. We believe it is important to leverage internal talents whenever possible. However, when the position requirements cannot be met internally, we recruit external talent. Once the appropriate candidate is identified and on-boarded, we focus on long-term development and engagement. We also ensure that these individuals are fairly and competitively rewarded for their performance.

To help our talents to reach their potential, we use three primary mechanisms, as well as challenge and enhance their personal growth:

1. Formal learning, by means of our ACE Academy for Talent Development;
2. Assessment and career planning, including development planning, objective-setting and regular feedback; and
3. Experience and exposure to new career development opportunities.

Figure 2 - Our Approach for People Development

ACE Academy for Talent Development

Formal training can build professional skills to help our people grow in their current role or into a new role within AES. ACE Academy for Talent Development is our talent management approach that provides the enrichment tools and experiences our people need to grow their professional skillset, develop business acumen, evolve their leadership competencies and take their career to the next level.

Every year, AES people receive training and development offerings in a variety of topics for multiple levels, from technical training to executive training to further develop their skills related to their positions. Our people also receive technical and leadership training to further develop their skills related to their positions. Programs are provided through formal classroom training, online resources and on-the-job learning opportunities. In 2018, each AES person averaged 42 hours of training.

We are constantly evolving our learning and development programs in the light of our culture, strategy and leadership needs. In 2018, we structured new programs and improved the contents to our people from all levels.

As part of the leadership training, we have a partnership with Georgetown University in Washington, DC, to support AES on the development of training programs in areas that we have identified as critical to our business, such as executive presence, developing talent, design thinking and global strategic mindset both now and into the future. By the end of 2018, more than 65 leaders have participated in the program.

Assessments and Career Planning

Our performance management process helps our people understand their role and responsibility in the organization, as well as the competencies and skills they need to develop to achieve their fullest potential. Our process includes objective setting, development goal setting and performance reviews. In 2018, more than 97% of the eligible employees completed their performance cycle. For career planning, one of our actions is to conduct talent sessions where we discuss our people potential, development opportunities and action plans to prepare them to the future. In 2018 the process involved over 1,200 employees.

Experience and Exposure

We believe the development of our people is enhanced by gaining a variety of on-the-job experiences that help people expand their skills and enhance their capabilities. We strive to purposefully give people a set of experiences that not only challenge them, but also help them to advance their careers at AES. For exposure, our ELT and other senior leaders are committed to engaging our global talent, including high potential talent. Our

high potential talent is given the opportunity to interact one-on-one or through group sessions with the leadership team.

In 2018, 25 percent of our overall workforce changed jobs as a result of promotions, lateral movements or manager changes, and 85 percent of our high-level leadership positions were filled with promotions or rotations. Also, our transformation program represents a great opportunity for our people to gain experience and exposure by working on strategic projects. Through the program, multi-functional teams are formed with people from different markets to work on a variety of workstreams aimed at improving our performance and competitiveness. Since its inception, more than 1,000 people from across the organization have been involved in the program.

In addition, every two years we host a global Innovation Congress to bring together people from across to inspire, celebrate and share our innovative activities as well as discuss topics of relevance to the company's strategy. In our 2017 110 people participated in the event which included a series of TED talks for AES people and external speakers to discuss their "Ideas for Change."

In 2018, we expanded our Trainee Program to give dynamic and innovative newly graduates global experiences at AES. The program is composed of global and local training on soft and hard skills, international exposure opportunities, mentoring sessions and regular meetings with senior leaders.

By investing in accelerated development through technical and behavioral abilities, our goal is to train professionals with a systemic and strategic vision. The program lasts two years and allows rotations among different areas of the company every six months. The trainees have the opportunity to lead high impact strategic projects at each rotation. This results in a new and fresh perspective that ultimately leads to innovation in processes and solutions while enabling best practices sharing across the organization. It also supports AES in building a leadership bench with a new generation of talent feeding the succession pipeline and creating flexible career paths. In 2018, there were 10 trainees in the local programs in 2 SBUs. The Program will include five countries in three SBUs in 2019.

Global Diversity and Inclusion Program

At AES, we believe that our individual differences make us stronger. We see Diversity and Inclusion as an enabler, complementing who we are by reinforcing our values and supporting our mission and strategy. A deliberate focus on Diversity and Inclusion will allow us to unlock additional value and create competitive advantage by fully leveraging the diverse workforce we have, broadening perspectives and further promoting an inclusive environment where our people can be excited about our achievements and the contributions they make to transform the future of energy.

Figure 3 - Our Diversity & Inclusion Journey

Launched in 2018 during our "Values Day" held in each of our businesses around the world, our Diversity and Inclusion Program targets the following achievements for the next two years:

- Create a common language and understanding about Diversity and Inclusion;
- Take actions to reduce unconscious bias to increase inclusivity by minimizing the negative effect bias can have on decision making;
- Foster culture of diversity and inclusivity to bring a wide variety of benefits to our talent, customers, communities, partners and other key stakeholders; and
- Track our program's results leveraging a balanced scorecard approach, which considers tracking gender balance in talent pools and leadership positions, training participation, community engagements, amongst other metrics.

We take a multi-pronged approach to achieve our goals, including:

- Offer training to create a foundational awareness around unconscious bias and the importance of creating an inclusive environment;
- Encouraging networking and mentoring to expand our affinity groups already established in the company to a broader audience and leverage tools to connect people with shared interests globally;
- Using data analytics to support informed decisions from a talent and people process perspective; and
- Creating business processes to replicate our successful initiatives in our communities to support interests of various groups and further strengthen our relationships.

Figure 4 - Our Diversity Program

Our Diversity and Inclusion Program is led by our Diversity and Inclusion Officer. Governance and standards are guided by the Chief Human Resources Officer, with input from members of the executive leadership team.

In 2018, we promoted training on "Preventing Discrimination and Harassment" to improve inclusivity in the workplace. We also launched a comprehensive communication campaign through our internal communication channels with testimonials from our people about their perspectives and experiences on diversity and inclusion.

Rewarding Our People

We invest significant time and resources to ensure our compensation programs are competitive and reward the performance of our people. Every year, AES people who are not part of a collective bargaining agreement are eligible for an annual merit-based salary increase. In addition, individuals are eligible for a salary increase if they receive a significant promotion. For non-collectively bargained employees at certain levels in the organization we offer annual incentives (bonus) and long-term compensation to reinforce the alignment between AES people and AES.

The following table includes the ratio of compensation for the highest-paid individual in each country to the compensation for all people, and the increase in compensation for the highest-paid individual to the median increase for all people.

Table 18 - 2018 Annual Compensation Ratios & Compensations Increases by Country

Location	Ratio	Increase
Argentina	14	1.7
Brazil	42	0
Bulgaria	16	0
Chile	24	0
Colombia	13	0
Corporate	40	0
Dominican Republic	18	0
El Salvador	26	0
India	7	0

Location	Ratio	Increase
Jordan	8	0.6
Mexico	21	2.1
Netherlands	5	0.0
Panama	26	1.6
Puerto Rico	7	0.0
United Kingdom	5	0.7
US	12	0.0
Vietnam	39	0.0

Culture and Branding

In 2018, we initiated an effort to reimagine our brand with the goal of signaling our transformation from the inside out. We engaged our people in a variety of ways along the process, as we recognize the importance of creating our brand together as a team. We launched the initiative in our Global Communications and Stakeholder Management meeting held in October 2018, where we could get input from our people on how to best conduct the project. We also held a Global Brand Assessment in our markets to gain a better understanding on how our people from different levels, functions and businesses experience our brand and our culture. We launched "Creating Our AES Together" newsletter and macrosite so that our people could track the progress of the initiative.

In 2018, we also increased our presence in social media to generate further engagement from our people by telling our stories about how we are building the future of energy. We shared posts about the progress of our projects, the results of our community work, the recognitions we received and events in which we participated. As a result, we experienced impressive increase in engagement from our audiences.

One of our strategic objectives in 2018 was to be recognized as a great place to work, and we use external

recognition, such as the Great Place to Work rankings to measure the success of our workplace initiatives. AES businesses participate in assessments and our people participate in questionnaires from recognized institutions that make a comprehensive evaluation of our company's programs, policies and benefits. During 2018 over 54% of our people participated in employee engagement assessments from Great Place to Work Institute that showed an overall 79% of satisfaction, in line with the values from previous three years (78.1%, 81% and 81%).

Table 19 - 2018 HR and Workplace Recognitions

Country	Business	Recognition, Category	Institution
US	AES Corporation	Top Three Best Places to Work in Arlington	Zippia
Argentina	AES Argentina	Great Place to Work in Argentina, 251-1000 people category, #13	Great Place to work Institute
Brazil	AES Tietê	Among the best in human development index	Group Gestao RH
	AES Tietê	150 best companies to work for	Você S/A Guide
	AES Tietê	Among the best in corporate citizenship	Group Gestao RH
Chile	AES Gener	Best companies to work for in Chile #21	Great Place to work Institute
Puerto Rico	AES Puerto Rico	Great Place to Work in Puerto Rico, #1 Great Place to Work in the Caribbean, #5	Great Place to work Institute
	AES Puerto Rico	Best Employers in Puerto Rico, #5	AON
Dominican Republic	AES Dominicana	Great Place to Work in the Dominican Republic, #8 Great Place to Work in the Caribbean, #9	Great Place to work Institute
Panama	AES Panama	Great Place to Work in Panama #4 Great Place to Work in Central America, #20 in the multinational companies Great Place to Work in Central America, 100-1,000 people category #11 Great Place to Work in 100-1,000 people category in Panama #1	Great Place to work Institute
El Salvador	AES El Salvador	Great Place to Work in El Salvador, #21 Great Place to Work in Central America #25 Great Place to Work in El Salvador, 1,000+ people category #7	Great Place to work Institute
	AES El Salvador	Most Attractive Enterprises to Work In	Tecoloco Market Study
Mexico	AES Mexico	Great Place to Work in Mexico #26	Great Place to work Institute

AES Performance Excellence: Improving Lives by Improving the Business

Consistently running for over 13 years, APEX (AES Performance Excellence) is one of the most successful AES programs, whose roots reside in AES' value of Excellence. To achieve operational excellence, AES businesses around the world employ cutting-edge and time-tested continuous improvement tools and methodologies such as Lean Six Sigma and PDCA (Plan Do Check Act). These methodologies help our extraordinary people harness their curiosity, problem-solving and analytical nature to improve our business so we can better execute on our mission of improving lives. The solutions we develop come in many forms that make our business better—from protecting the safety of our people and our contractors, to running our operations and better serving our customers.

Across the globe, APEX champions and leaders from various functions in the organization work to provide necessary support, guidance, and training to APEX/project team members. Since 2006, we have implemented over 4,300 APEX projects. In 2018 alone, 126 projects using APEX methodologies translated into over US $80 million in benefits. In addition to financial benefits, APEX projects added value through safety improvements, increased customer satisfaction, and more.

Each year, AES hosts an APEX Global Awards competition to select and recognize the most impactful continuous improvement projects. Award finalists share their success stories during roundtable discussions with company leaders and experts. In addition, subject matter experts discussed trends and disruptions in the power sector, such as drone technology, machine learning and operational flexibility, and how AES' businesses can continue to create and replicate excellence in our industry going forward. See the table below for the projects recognized during the 2018 Summit.

Table 20 - 2018 APEX Awards

<$0.5MM over first five years of implementation	$0.5MM - $2MM over first five years of implementation	>$2MM over first five years of implementation	REPLICATION AWARD
1st Place: AES El Salvador *Virtual Agent Powered by Artificial Intelligence*	**1st Place: Laurel Mountain, US** *Battery Bidding Model*	**1st Place: IT, South America** *Structuring of Investment Management – CapEx Webtool*	**1st Place: AES Tietê, Brazil** *Wind Turbine Generator Performance Improvement*
2nd Place: AES Warrior Run, US *Boiler Inspections Using Robotics*	**2nd Place: Saint Nikola, Bulgaria** *Compensation of Wind Farm Reactive Energy*	**2nd Place: AES Tietê, Brazil** *REC Implementation*	**2nd Place: Maritza, Bulgaria** *Maritza Manhole Safety Grating*
3rd Place: Mong Duong, Vietnam *Improvement of Job Environment Safety Analysis and Pre-Job Briefing Implementation*	**3rd Place: AES Itabo, Dominican Republic** *Mitigation of Forced Outages Caused by Solids Entering the Water Intake*	**3rd Place: AES TEG TEP, Mexico** *EFOR Recovery in CFB*	**3rd Place: Mountain View, US** *Planning and Scheduling Project*

Occupational Health and Safety

At AES our businesses always put safety first — for our people, contractors and communities. We are committed to protecting our employees from work-related hazards, as well as promoting their health while at work and at home. Ensuring safe operations at our facilities around the world, so each person can return home safely, is the cornerstone of our daily activities and decisions. We always put safety first, and we measure our successes by how safely we achieve our goals.

At AES we have established a Safety Management System (SMS) Global Safety Standard that applies to all AES people, as well as contractors working in AES facilities and construction projects. We expect contractors working at our facilities to be part of our safety culture by meeting our safety criteria and following all of our rules and procedures.

The foundation of our SMS is comprised of AES Safety Beliefs and Safety Principles established to continuously reinforce the importance of safety. The SMS requires continuous safety performance monitoring; risk assessment and performance of periodic integrated environmental, health and safety (EHS) audits. The SMS standard is consistent with the OHSAS 18001 standard, and during 2018 approximately 67 percent of our people were working at businesses that have elected to formally certify their SMS to the OHSAS 18001 international standard.

The SMS covers 18 functional elements in the areas of leadership, structure, processes and actions. It provides consistent framework for all AES operational businesses and construction projects to set expectations for risk identification and reduction, measure performance and drive continuous improvements.

For example, businesses have to establish and maintain a planning process to identify hazards, evaluate the occupational health and safety risks and implement effective control measures for its facilities and work activities. Additional risk identification and assessment needs are determined by the local Job Safety Analysis & Pre-Job Briefing safety program which requires job-specific safety risk assessments to be performed by any employee or contractor before any medium-risk or high-risk activity is undertaken. Additionally, the AES Nominating, Governance and Corporate Responsibility Committee maintains initial oversight of a diverse set of risks, including those related to workplace safety.

The SMS also includes specific operational and construction safety standards that are based on global electric utility best practices. These standards cover areas such as fall prevention, electrical grounding, contractor safety management, job safety analyses, incident management and more. As an example, all AES businesses have implemented an "incident management" safety program that requires safety incidents, ranging from occupational fatalities down to near miss events, to be reported via a global data management and reporting system. It also requires the businesses to investigate, conduct a root cause analysis and develop corrective action plans. Findings are also communicated internally to disseminate lessons learned to help us deliver on our goal to create a workplace free of incidents.

Part of our safety program includes a culture in which all people are responsible and empowered, able to speak freely and ask questions and voice concerns when it comes to safety. The Speaking Safely Helpline is available to all AES people anywhere in the world and is a secure and anonymous way to report safety concerns or violations.

During 2018, our efforts in safety were recognized by diverse external organizations and institutions, which is the highest accolade to our businesses and construction projects for leading the way in improving safety in our industry. Some examples include:

- DPL, in Ohio, was recognized by the Southeastern Electric Exchange (S.E.E.) for Top Performance for Fleet Safety.

- Merida III and TEG-TEP, in Mexico, were recognized by the State Secretary of Work and Social Prevision with the Safe Company Award.
- Kilroot and Ballylumford in Northern Ireland, were recognized by The Royal Society for the Prevention of Accidents with the Gold Medal Award.

2018 Global Safety Goals

Our annual safety goals represent our commitment to our people, our contractors and the communities in which our businesses operate. Another mechanism used to instill leadership commitment to Environmental Health and Safety (EHS) goal progress is the AES Leadership EHS KPIs program — under which 7 separate KPIs, related to safety, are continuously tracked and whose attainment support accomplishment of EHS management and performance improvement. In addition to the EHS KPIs, the global safety goals established for 2018 were:

Goal	Result
1) Achieve greater than 95% attendance at Monthly Safety Meetings.	**Goal Achieved**
Monthly safety meeting is a forum where a common safety related topic is shared and discussed with team. Every month Global EHS&S team issues a safety meeting slide deck (to ensure consistent delivery of message across all businesses), that contains topic pertaining to recent safety events and recent safety incident trend. We achieved attendance rate of 96.6% across AES.	
2) Achieve 100% leadership participation in the Safety Walk eLearning Course (refresher).	**Goal Achieved**
Since 2010, the Safety Walks program is one of the cornerstones of our proactive safety management program. Safety walks help us to assess the safety of our work environments through real-time observations and interactions with people on the job. To ensure our people know what it takes to conduct a good safety walk, during 2018 we set a global goal to extend training on quality safety walks to our leaders.	
3) Achieve a Significant Incident and Potential (SIP) Near Miss and Workplace Hazard reporting rate of 0.459 or better during 2018 where at least 50% of the reports will be Near Miss events.	**Goal Achieved**
The non-Injury SIP program was launched to more proactively identify and rectify a non-injury SIP event, so we can lower our injury SIP events. We were able to beat our target and achieve a rate of 1.149 at the end of the 2018. Our businesses have shown continued progress with a 42% improvement reflected in 2018 compared to 2017.	

Reactive Safety Performance

AES businesses calculate lost time incident (LTI) rates for their employees and contractors based on OSHA standards, so they are comparable across any industry or group. The standard is based on 200,000 labor hours, which equates to 100 workers who work 40 hours per week and 50 weeks per year. Our target for LTI rates was set to be below the U.S. utility industry´s top quartile benchmark LTI rates.

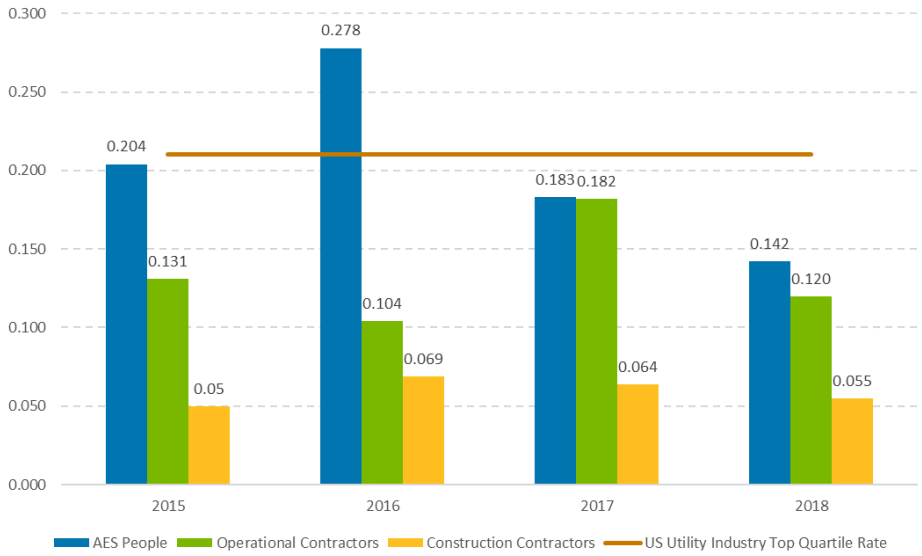

Figure 5 – Lost Time Incident Rate for AES People and Contractors 2015-2018[12]

The improvements experienced over the past two years is a result of an action plan that was put in place in 2017, to address our 2016 performance, and updated in 2018. Building upon the foundations of the SMS, Safety Beliefs and Safety Principles, AES businesses took six system-wide targeted actions throughout the year to enhance its overall occupational safety performance and that of its contractors. These included:

- **Incident Investigation Standard** – A new Incident Investigation Standard was created with a focus given to root cause analysis, incident investigation techniques, and training incorporating a TapRooT as systematic and standardized tool for the identification of them and implement effective corrective action plan to help to prevent recurrences.
- **External EHS Audits** – We created an external EHS audit process focusing on addressing significant EHS risks which bring the opportunity to the Businesses to have a SMART opportunity to improve in their own Safety Performance and Systems.
- **Global Training** – We increased the collective EHS-related knowledge base by using a comprehensive and consistent approach in an interactive e-Learning environment where our people can have the opportunity to self-evaluate their learned knowledge.
- **Accountability and Recognition** – We established a new standard regarding safety accountability and recognition within AES.
- **EHS Management Information System (EMIS)** – as part of our digitalization strategy we identified a comprehensive, commercially available EHS Management Information System capable of supporting AES global operations and construction.
- **Safety Management System** – We focused efforts to optimize the Safety Management System for consistent implementation and use.

12 2015-2018 LTI rates for AES people and contractors have been verified by Lloyd's Register Quality Assurance Inc. (LRQA), which conducted a limited assurance of our LTI rate data and results.

Along with the execution of our ongoing SMS elements such as conformance to our global safety standards, conducting leader-led Safety Walks, work teams preparing Job Safety Analyses (JSAs), conducting safety audits and training as well as sending leadership communications the action plan led to positive safety results in 2018 with zero fatalities for AES people and a 58% decrease in Lost Time Incident (LTI) cases. E

We are also looking into new ways to use technology to reduce to improve safety at our operations.

Using Drones to Improve Safety and Efficiency

We now have technology available to further reduce exposure to the risks present around electricity infrastructure: drones and robotics. Applying this innovative technology to the field enables safer, smarter work processes. AES has been experimenting with drones in the power industry for many years, officially launching its program in 2014 to enable electrical infrastructure inspections from a safe distance.

By using drones, AES is setting new standards for safety, efficiency and performance in its generation and distribution businesses. Drones allows to reduce the number of hazardous hours that it takes to do certain types of maintenance as well as can also enhance the efficiency of the business. For example, AES Dominicana in the Dominican Republic used drones to successfully perform an internal inspection of a power plant boiler. The effort increased efficiency by two days and avoided safety risks associated with human inspection.

Even though the actions implemented during the year, the efforts made were not reflected in the number of fatalities of our contractors. We experienced two construction contractor- and one operational contractor-related fatal incident. We believe this is due to the higher level of work activity at the facilities. All three incidents were investigated, and corrective actions plans were developed.

Table 21 – Occupational Fatality Cases, 2015-2018

Occupational Fatalities	2015	2016	2017	2018
AES People	1	3	0	0
Contractors	1	5	2	3

Proactive Safety Performance

AES believes that all occupational incidents are preventable, which is why we have developed diverse proactive initiatives to identify actual and potential risks and hazards.

Proactive safety metrics include quality safety walks, safety inspections, and internal and external audits. By identifying near miss events and workplace hazards, including those having a potential to lead to a serious incident as Significant Incident and Potential (SIP events), AES businesses seek opportunities for incident prevention through knowledge sharing across all locations.

Table 22 – Proactive Safety Indicators, 2015-2018

Proactive Safety Indicator	2015	2016	2017	2018
Safety Walks	104,294	101,289	94,952	50,719
Workplace Hazards	75,602	93,005	63,106	46,392

As we shift focus on the quality of the Safety Walks, we expect to see a decrease in the number of Safety Walks performed. In addition, the decrease in the proactive indicators is consequence of the sale of various businesses in our portfolio.

AES Safety System Upgrade

During 2018, a big focus within the Global EHS Team was to push towards the wide-spread digitalization of our Environmental, Health and Safety data and metrics.

The Global EHS team began developing and publishing applications in Qlik Sense, a business intelligence tool, and fostered the adoption of this tool through continuous trainings and webinars. Using Qlik Sense, EHS professionals in all our businesses can now track their safety performance in real time and in visual way deriving useful insights to impact their decisions and strategy going forward. Additionally, we improved and upgraded our EHS Management Information System (EMIS).

We implemented many changes to our current platform, AESOnline, to make it more user-friendly for our multi-national and diverse user group. Ease-of-use ensures a high degree of data quality, which is paramount to providing actionable and effective insights for EHS performance.
To further strengthen our EMIS, the groundwork for upgrading to a commercial EMIS provider was laid out in 2018 .

Safety Training, Committees and Recognition

Because of the potential safety risks at electric generation plants, transmission and distribution networks, and construction projects, workforce training and competency building are fundamental parts of individual AES location EHS management systems.

Under the AES SMS framework, all AES people and contractors must undergo training to mitigate work-related risks and occupational health hazards. This type of training is occasionally coordinated at the global and strategic business unit level, but it is principally managed locally by business leadership and safety professionals.

AES businesses and construction projects are responsible for ensuring that all regulatory and AES EHS standard required safety training is planned and performed.

Operating businesses and construction projects must maintain an EHS training matrix that outlines training requirements for AES employees. The extent and type of training is dictated by the safety and health exposure each individual has – from operational and maintenance employees attending a substantial number of hours of training annually to administrative staff participating in at least monthly local safety meetings, where safety and health performance updates and awareness are conveyed.

Safety committees at each AES location, with representation by all levels of staff, are in place at all operational and construction locations. These committees work on a variety of local safety management, culture and performance initiatives ensuring by their active participation the implementation, monitoring and measurement of the SMS implementation through inspections, observations and internal audits processes resulting in the improvement of the safety culture across the sites.

All the performance of the Business is communicated on Monthly Bases by the Monthly Safety Meetings with the participation of all the AES people and contractors' employees. During these meetings they have the opportunity not only to know the safety performance of the company, but also learn about a different safety topic to help to address or improve the trend of the safety performance in a proactive manner.

AES also recognizes that its people are the foundation of its ability to achieve its long-term goals. This is the main reason why recognition of our people's efforts is paramount to our success.

As part of the overarching theme of being "I'm Always On for Safety", AES celebrated, during 2018, everyday "safety heroes" – people who do the right thing, the safe thing, at work, at home and in the community –. Throughout 2018, our people were recognized for their flagship commitment to safety, leadership and ability to influence other people's safety perception and behaviors in a positive way.

Golden Hard Hat Award

Created in 2009, the Golden Hard Hat Award honors an AES business that makes significant improvements in comparison to prior safety performance, develops and rolls out new safety techniques or practices, or implements systematic proactive practices.

This is the highest safety recognition, and in 2018 it was granted to AES Mexico which include two power plants. AES Mexico has had zero operational fatalities in the last ten years and a good low injury rate. AES Mexico have implemented a staggering array of programs, each designed to make safety an inherent part of the work culture. Past winners include AES Dominicana in the Dominican Republic, Mong Duong II in Vietnam, AES Chivor in Colombia, AES Tiete in Brazil, AES Palm Springs in California United States, Amman East Construction Project in Jordan, and IP&L's Eagle Valley Construction Project in Indiana United States.

External Safety Recognition

Awards and recognition are external markers of the achievement we have made in safety. They reinforce our programs and initiatives, and they validate that we are on the right path to reaching a workplace free of incidents. Our businesses have received numerous external safety awards as recognition of their strong safety culture and performance. The following list identifies awards received during 2018.

Table 23 - External Safety Recognitions, 2018

Country	AES Business	Recognition	Granted by
US	DPL	Top Performance for Fleet Safety	Southeastern Electric Exchange (S.E.E.)
Mexico	Merida III	Safe Company	State Secretary of Work and Social Prevision
	TEG-TEP	Safe Company	State Secretary of Work and Social Prevision
	AES Mexico	OHSAS 18001	ANAB by Orion

Country	AES Business	Recognition	Granted by
Northern Ireland	AES Kilroot	Gold Medal Award (10 consecutive)	The Royal Society for the Prevention of Accidents
	AES Ballylumford	Gold Medal Award (5 consecutive)	Royal Society for the Prevention of Accidents (RoSPA)
Jordan	AES Jordan PSC	International Safety Award-Merit	British Safety Council
	AES Jordan PSC	Golden Medal Award	Royal Society for the Prevention of Accidents (RoSPA)
	AES Levant	International Safety Award-Merit	British Safety Council
	AES Levant	Golden Medal Award	Royal Society for the Prevention of Accidents (RoSPA)
Vietnam	Mong Duong II	Golden Medal Award	Royal Society for the Prevention of Accidents (RoSPA)
Bulgaria	Maritza	International Safety Award - Merit	British Safety Council
	St. Nikola	International Safety Award - Merit	British Safety Council
India	OPGC	Golden Medal Award	Royal Society for the Prevention of Accidents (RoSPA)
El Salvador	CAESS	National Contribution to Red Cross in the Health Campaigns	Red Cross of El Salvador

Health and Wellness Management

AES believes that good health and disease prevention is a mindset. AES businesses are committed to protecting its employees from work-related hazards, as well as promoting their health so they can be fit and lead healthy lives, both at work and at home. Wellness initiatives, which are locally and culturally relevant for our diverse portfolio of businesses, are available to employees through our business locations and cover topics such as nutrition, stress management and employee assistance, mental health, life-work balance, smoking prevention, ergonomics assessment, vaccinations, and musculoskeletal disorders prevention.

Similarly, to tracking occupational incidents, AES businesses use its data management system to track new cases of occupational diseases based on the requirements of its Incident Management Standard. Additionally, AES' safety standards on hearing protection and noise reduction as well as heat and cold stress prevention establish requirements for each business on identifying work hazards and selecting appropriate levels of control to prevent hearing issues and temperature-related illnesses.

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