

# 2019 Sustainability Report

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This is the 2019 Sustainability Report. Information contained in this report focuses on the company's operations and performance in 2019. 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 <u>"2019 AES Sustainability Report Supplement"</u>.

# An Organization with a Mission

# Improve lives by accelerating a safer and greener energy future

The AES Corporation (NYSE: AES) is a publicly traded Fortune 500 global power company founded in 1981, incorporated in Delaware and governed by a Board of Directors. The company's headquarters are in Arlington, Virginia, United States (US).

From our founding, The AES Corporation (AES) and our people have worked with one mission: providing customers with the energy they need, while having a positive impact on the stakeholders and communities we serve. Our work has always had a deeper purpose, which remains central to our business today. We are accelerating the evolution of the energy industry to improve people's lives in a responsible, clean and sustainable way.

Today, AES leads the industry through our deployment of renewable energy, utility-scale battery storage systems and cutting-edge digital technologies, including the use of data to make energy generation and usage more efficient. AES has invested in several companies that support our clean energy goals. Fluence, a collaboration between AES and Siemens, for example, is the world's leading developer of battery energy storage systems. Employing both digital technology and data, sPower allows consumers and business to increase the efficiency of their energy use. And Uplight offers the most comprehensive suite of customer-facing solutions for electric and gas utilities to help improve their energy efficiency.

Through our core businesses, investments, and partnerships, AES has committed to significantly lower our overall carbon footprint and reduce reliance of fossil fuels. We are well on our way toward our goal of reducing our coal-fired power generation to below 30 percent of total volume by the end of 2020, and we are committed to reducing that figure to less than 10 percent by the end of 2030. In addition, we remain on track to meet our goal of reducing our carbon intensity by 70 percent compared to our 2016 figures.

Our purpose as a company starts from the inside. We continually seek to help our people find meaning in the work that they do and feel part of AES' larger mission to improve lives. Together with our customers, we continue to lead the transformation in the energy sector. We work each day to shift our power generation mix, deploying new technologies that provide cleaner and affordable electricity. We seek to do what is best in the communities that we serve. These commitments have guided us in the past and will continue to guide us into the future.

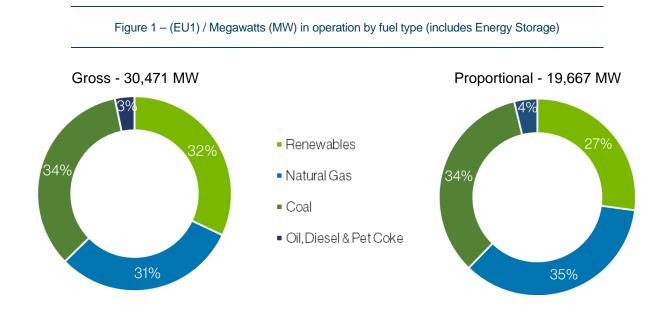
# Our values

| Safety First |  | Highest S                                    | Standards                       | AllTogether                                   |  |  |
|--------------|--|--|---------------------------------|---|--|--|
|              | In numbers <sup>1</sup>  |  |                                 |   |  |  |
| 4            |  | ed strategic business<br>AC (Mexico, Central |                                 | and Utilities; South<br>ribbean); and Eurasia |  |  |
| 2            | lines of busin   | ess: Generation and                          | Utilities                       |   |  |  |
| 14           | countries: Argentina, Brazil, Bulgaria, Chile, Colombia, Dominican Republic, El Salvador, India, Jordan, Mexico, Netherlands, Panama, United States, Vietnam |  |                                 |   |  |  |
| 8,000        | People   |  |                                 |   |  |  |
|              |  |  |                                 |   |  |  |
| 30,471       | gross MW in operation \$10.2 B total revenue 6 Utility companies   |  |                                 |   |  |  |
| 3,009        | MW under construction  |  | total assets owned<br>& managed | <b>2.5</b> million customers                  |  |  |
|              |  |  |                                 |   |  |  |

# Our leadership is recognized



<sup>1</sup> Complete details of sectors served, type of businesses and customers by country according to EUSS Organizational Profile protocols (EU1, EU3, EU5), can be found in our 2019 Annual Report. (pages 16-53)



# Targeting to reduce generation (MWh) from coal

|               | Target |
|---------------|--------|
| Year-End 2020 | < 30%  |
| 2030          | < 10%  |

#### Backlog of projects

| As of 12/31/2019         | Capacity MW |
|--------------------------|-------------|
| Under construction       | 3,009       |
| Signed long-term<br>PPAs | 3,136       |

# Leading the Transition to the Future of Energy



Energy fuels life, powers business and sustains growth. We believe it is our responsibility to create solutions that are both economically and environmentally viable. We partner with our customers to strategically transition to the future while continuing to meet their energy needs today. We are improving lives by delivering greener, smarter energy solutions the world needs.



# Financial Excellence

We are leading the energy transition by investing in sustainable growth and innovative solutions to deliver superior results

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 and risks are managed both at the corporate and SBU levels. Further details on risk management are available on our website and also our <u>2019 Annual Report</u> 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 2019, after reducing our parent debt by half, we were upgraded to an investment grade rating for the first time in AES' history. S&P raised our BB+ credit rating to positive outlook.



We also achieved other important strategic and financial goals and laid the foundation for strong growth in the coming decade:

- We earned \$1.36 of adjusted EPS, 10 percent higher than in 2018 and toward the top end of our range of \$1.30 to \$1.38.
- 2019 Parent free cash flow US\$726 million, compared to our expectation of US\$700-US\$750 million.
- Reduced our Parent debt by almost half compared to 2011. Since 2011, we have reduced our parent debt by \$3.1 billion. At year-end, our parent leverage was 3.7 times and our FFO to debt was 21 percent, comfortably within the investment grade thresholds of 4 times and 20 percent, respectively.
- Our share price, yielded a total return to shareholders of 97.6 percent over the past two years, compared to the S&P 500 Index total return of 25.7 percent and the S&P Utilities Index total return of 31.5 percent.

| 2019 Adjusted EPS <sup>2</sup> of 1.36 vs. guidance of<br>\$1.28-\$1.40 | 2019 Parent Free Cash Flow <sup>3</sup> of \$726 million vs expectation of \$700-\$750 million |  |  |
|---|--|--|--|
| \$1.284 \$1.40  | \$700M   |  |  |
| \$1.36  | \$726M   |  |  |
|   |  |  |  |
|   |  |  |  |

<sup>2</sup> Adjusted EPS (A non-GAAP measure) should not be construed as an alternate to Diluted EPS. See Non-GAAP Financial Information on page 78 for definition and reconciliation to the nearest GAAP number

<sup>3</sup> 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. See Non-GAAP Financial Information on page 78 for definition and reconciliation to the nearest GAAP number.

In 2019, the financing of the 306 MW Mesa La Paz wind facility in Mexico, was recognized by IJGlobal as the Latin America Deal of the Year for being a landmark transaction as the first project bond issued out of Mexico and directed towards US institutional investors. Mesa La Paz was the largest renewable contract signed between private companies after the energy reform in the country.

During 2019, AES businesses in Brazil and Chile also issued the first ever Green Bonds in their markets. With these financial instruments we are executing on our strategy to increase renewable generation in our portfolio while also helping countries and our customers achieve their decarbonization goals.

# Pioneering Green Bonds in the Americas



Green Bonds are debt instruments used for raising funds to be allocated for sustainability-related projects, such as renewable energy infrastructure, green transportation and projects enabling the reduction of emissions.

AES Tietê became the first company in Brazil to issue solar project debentures with Green Bond certification when issued a bond for BRL\$820 million. The proceeds will be allocated to AES' Guaimbê and Ouroeste solar plants, currently the biggest solar energy projects in São Paulo.

AES Gener's inaugural best in class Green Hybrid Bond transaction was Chile's first ever utility Green Bond and the first of its kind in the Americas. The transaction attracted the interest of more than 133 accounts of various investors who oversubscribed it more than 3 times. Part of the proceeds were used for the acquisition of Los Cururos Wind Farm.

#### Table 1 (GRI 102-7)- Beneficial ownership<sup>4</sup>

| BlackRock – 8.84%                                   | The Vanguard Group, Inc. – 13.32% |
|---|-----------------------------------|
| State Street Global Advisors - 5.20%                | Capital Group – 12.50%            |
| No family or government owns more than 5% of shares |                                   |

<sup>4</sup> All persons who are known by us to be the beneficial owner of more than five percent (5%) of our common stock (based on their public filings with the SEC as of February 27, 2020 or as otherwise known to us

# Corporate Governance

The AES Corporation is led and managed by our Chief Executive Officer and the Executive Leadership Team (ELT) with the guidance and oversight of our Board of Directors. All our actions, including those of AES ELT and the Board, are grounded in the three shared values that shape the company's culture: Safety, Integrity, Agility, Excellence, and Fun.

The Board oversees the Company's goal to improve lives by accelerating a safer and greener energy future in ways that benefit all of our stakeholders, to build long-term value for the Company's shareholders, and to assure sustained performance and viability of the Company for its owners, employees and other individuals and organizations who depend on the Company.

Our Corporate Governance Guidelines require the separation of the offices of the Chairman of the Board ("Chairman") and CEO. Whenever possible if the Chairman is independent, he or she will also serve as Lead Independent Director.

| Annual Election of All Directors   | 91% Average Attendance of Incumbent Directors at<br>Board and Committee Meetings  |
|--|---|
| Non-Executive, Independent Chair of the Board<br>Since 2003  | Audit, Compensation and Governance Committee<br>Members Are All Independent   |
| Nine of Ten Director Nominees Are Independent  | Directors Are Subject to Rigorous Stock Ownership<br>Requirements   |
| Annual Board and Committee Self-Evaluations and<br>Review of Director Qualifications   | Director Compensation Reviewed Annually   |
| Executive Sessions of Independent Directors Held<br>at Each Regularly Scheduled Board Meeting,<br>and Directors Meet Periodically Throughout the<br>Year with Individual Members of Management | Financial Audit Committee Members Are All<br>Financially Literate and Four of Five Are Audit<br>Committee Financial Experts |
| Directors Subject to Term Limits, Average Tenure<br>of Our Directors is Less than Seven Years  | No Increase in Director Compensation Since 2012   |

Our Corporate Governance Policies Reflect Best Practices

The Board maintains four standing Committees:

- Compensation Committee,
- Financial Audit Committee,

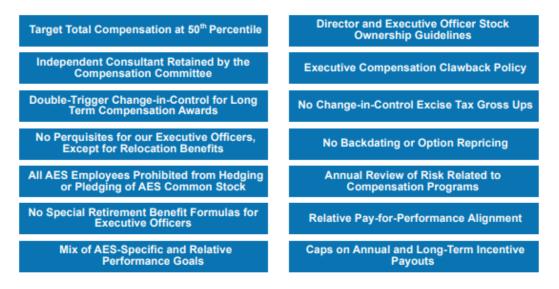
- Governance Committee and
- Innovation and Technology Committee.

The Board and Committees provide oversight over the risk management practices implemented by management. Three Committees are comprised solely of independent Directors, each with a different independent Director serving as Chairman of the Committee.

# Executive Compensation

AES' executive compensation philosophy emphasizes pay-for-performance. Our philosophy is to provide executive compensation opportunities that approximate the 50th percentile of survey data based on our revenue size and industry. Our incentive plans are designed to reward strong performance, with greater compensation paid when performance exceeds expectations and less compensation paid when performance falls below expectations.

AES' Compensation Committee has a practice of reviewing executive compensation program components, targets and payouts on an annual basis to ensure the strength of our pay-for-performance alignment. Our performance is evaluated against both short-term goals, which support AES' business strategy, and long-term goals, which measure the creation of sustainable Stockholder value.



# Director Characteristics

As of April 2020, our Board was comprised of ten members. Nine members, including the Chairman, are independent and one member is an Executive Director (AES' CEO). A number of our independent Board members are currently serving or have served as Directors or as members of senior management of other public companies.

When considering director nominees, the Governance Committee focuses on the development of a Board composed of directors that are aligned with the AES business strategy and measures against a set of 16 leadership attributes

#### **Board of Directors**

John B. Morse Jr. (Chairman) Retired Senior Vice President Finance and CFO Washington Post Company; former Partner Waterhouse (now PricewaterhouseCoopers); former Trustee and President Emeritus of the College Foundation of the University of Virginia

Janet Davidson Former Executive Vice President Quality Customer Care Alcatel Lucent S.A.

Andrés Gluski AES President & Chief Executive Officer

Charles Harrington Chairman and CEO of Parsons Corporation

#### Tarun Khanna Jorge Paulo Lemann Professor at the Harvard Business School

Holly K. Koeppel Former Partner and Global Head of Citi Infrastructure Investors; former EVP and CFO of American Electric Power Corporation.

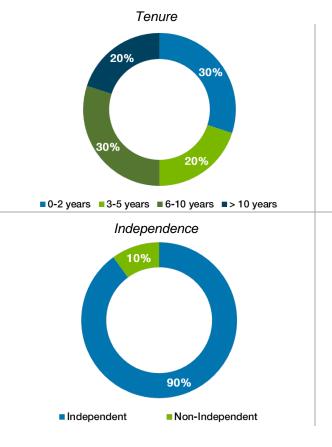
James Miller Former Chairman of PPL Corporation; former Executive Vice President of USEC Inc.; President for two ABB Group subsidiaries

Alain Monie CEO of Ingram Micro

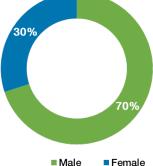
#### Moisés Nalm

Distinguished Fellow in the International Economics Program at the Carnegie Endowment for International Peace and international columnist and broadcaster; Former Editor in Chief for Foreign Policy magazine; Former Minister of Industry and Trade and the Central Bank for Venezuela; former Executive Director for the World Bank

Jeffrey Ubben Founder and former CEO and CIO of ValueAct Capital



Gender Diversity





# **Corporate Governance Practices**

AES is committed to best practices in corporate governance. Highlights for our corporate governance practices are described below:

- Independent Board. Nine out of ten Director nominees are independent.
- Separation of the Roles of CEO and Chairman. These roles are separate and our Chairman is an independent Director.
- Annual Elections of Directors by Majority Vote. All of our Directors are accountable to Stockholders through an annual election with a majority vote standard.
- No Supermajority Voting Provisions. Neither our Sixth Restated Certificate of Incorporation ("Charter") or our Amended and Restated By-Laws ("By-Laws") contain any supermajority voting provisions.
- *Proxy Access*. Stockholders may nominate Directors through proxy access.
- Stockholder Right to Call a Special Meeting. Stockholders holding 25% of the outstanding shares of the Company's stock have the right to call special meetings of Stockholders.
- Stockholder Right to Act by Written Consent. Stockholders have the right to act by a written consent signed by Stockholders holding no less than the minimum number of votes necessary to authorize an action at a meeting.
- Rigorous Director Stock Ownership Requirements. Non-employee Directors are expected to hold equity ownership in the Company of at least five times the Director's annual Board retainer within five years after election to the Board.
- Communication with the Board. Stockholders may communicate with any individual Director, any Board committee, or the full Board.
- *Director Engagement*. Our Directors attended an average of 91% of Board and committee meetings in 2019.
- Annual Say on Pay Vote. The Company's Say on Pay approval rating exceeded 94% at each of the last eight annual meetings.
- Annual Board and Committee Self-Evaluations. Through this process, the Board annually reviews the qualifications, experiences, and contributions of its Directors to provide for a Board that is comprised of the right mix to achieve AES' strategic goals.
- Limit on Director Tenure to Ensure Fresh Board Perspectives. Under our Corporate Governance Guidelines, we expect that Directors will serve for at least four consecutive one-year terms but no more than 15 cumulative one-year terms

For full details on our Corporate Governance practices please refer to the Supplement of this report and our <u>2020 Proxy Statement</u>, which includes details of: Corporate Governance, Board Committees and Structure: Director Characteristics and Biographies; Director and Executive Compensation; Audit Matters and Stock Ownership, among other aspects.

# **Operational Excellence**

# We are improving lives by delivering greener, smarter energy solutions the world needs.

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 work together with our customers to meet their 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.

# 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 2.5 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.

For the fifth consecutive year, AES Tietê received ISO 55001 certification in recognition of its standards in the operation and maintenance of hydroelectric plants.

# Generation

We currently own and/or operate a growing generation portfolio of 30,471 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 these 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 renewable sources such as wind, solar, hydro and energy storage, gas, coal, fuel oil and biomass. Our diversified generation portfolio reduces the risks associated with dependence on any one fuel source. During 2019, more than 14% of our revenues came from renewable generation, products or services.

Performance drivers of our generation businesses include types of electricity sales agreements, plant reliability and flexibility, availability of generation capacity (Table 13), fuel costs, seasonality, weather variations and economic activity, fixed-cost management, and competition. Table 8 and Table 14 show the efficiency of thermal plants and performance of our generation portfolio by technology in terms of commercial availability.

The future growth across our markets will be heavily weighted towards lower carbon emissions generation. We are systematically reducing coal in our fleet and replacing it with renewable energy. Since 2016 we have retired or sold over 6.5 GW of coal, diesel and oil capacity from our portfolio (Table 2).

To meet growing demand, our businesses are developing and constructing new generation facilities. Besides renewable growth, 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.

Having the right energy mix is key to our future success, so we are reducing our generation from coal and significantly growing our renewable portfolio. As of the end of 2019 over 70 percent of our backlog of signed Power Purchase Agreements (PPA) was from solar, wind and energy storage. We also have announced a target to reduce our generation from coal to below 30 percent of our total volume by the end of this year. Furthermore, we expect to reduce generation from coal to less than 10% by 2030.

# Target to reduce Coal Generation to Less Than 30 percent by 2020

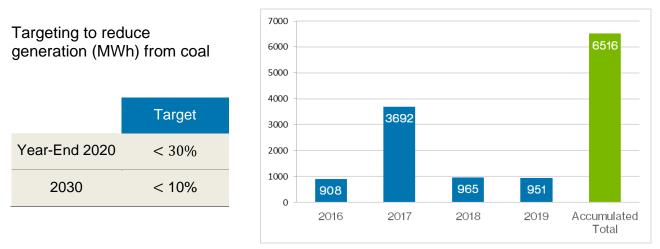


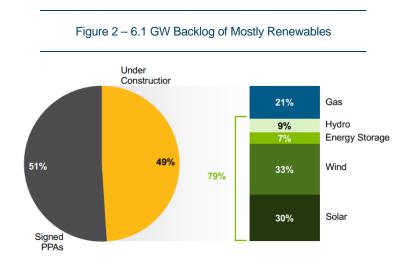
Table 2 - MWs of Coal, Oil & Diesel retired or sold

We decide to invest in new projects by evaluating the returns and financial profile against a fair riskadjusted return for the investment and against alternative uses of capital, including corporate debt repayment and share buybacks. We have 3,009 MW of capacity under construction (

Table 7). More than half of the capacity is from renewable sources like solar, wind, hydro and energy storage.

Growth in renewables not only provides an opportunity for direct investment in wind and solar generation but creates a market for energy storage. Through our strong presence in key markets, we are well-positioned to benefit from the global transition towards more sustainable energy. In these markets, we see growth in clean energy of 30 GW of annual new capacity.

By capitalizing on our competitive position and the dynamics favoring clean power generation, our robust backlog of projects with signed PPAs, which includes projects under construction, continues to increase. In 2019, we signed longterm PPAs for 2.8 GW, bringing our backlog to 6.1 GW. This pace puts us on track to nearly triple our portfolio of renewables to 22 GW by the end of 2024 versus 2016.



Our sPower and AES Distributed Energy businesses in the US maintained their momentum by adding more than 1 GW of new long-term contracted renewable projects to our backlog. The rate of growth from our Distributed Energy business is particularly impressive. In 2019, it signed 365 MW

under long-term PPAs, 3 times more than in 2018. One of the reasons for this business' success is its deep knowledge of customers and specific markets, including Hawaii and the Northeastern US.

During the year we completed 2.1 GW of new projects including, wind energy in Mexico and solar energy in Colombia, El Salvador, Brazil and the US.

AES EI Salvador and its partner Multi-Inversiones Corporation completed the 100 MW Bosforo solar project for US \$160 million. The project consists of 10 plants located in low-income rural areas that will generate renewable energy for nearly 100,000 homes and help EI Salvador to avoid 175,000 tons of CO2, contributing to the energy security and sustainability of the country.

AES Tietê completed construction of the Guaimbê and Ouroeste (Boa Hora) in Brazil. Together, they have a production capacity of 300 MW, enough to supply energy to a city of 500,000 people, making São Paulo one of the Brazilian states with the most available renewable energy. The Guaimbê complex is now the largest solar complex in AES Tietê portfolio. AES Dominicana broke ground on a 58 MW solar plant in the Dominican Republic. The Bayasol solar park will include 145,000 solar modules. Bayasol is scheduled to become operational in 12 months. AES Dominicana broke ground on a 58 MW solar plant on November 19. The Bayasol solar park will include 145,000 solar modules.

AES Colombia completed the construction in record time of the largest self-generating solar park in the country to our client Ecopetrol. The 21MW of Castilla solar park will supply sustainable energy to the Castilla oil field, generating savings of more 30 percent in energy costs and avoiding the emission of more 154 thousand tons of CO2 into the atmosphere

Our LNG infrastructure business is complementary to our renewables growth strategy as it brings cleaner, predictable and low-cost fuel that offers capacity and flexibility to the system. We are focusing our LNG business in three markets: the Caribbean, Central America, and Southeast Asia. In all these markets, we see rapidly growing demand for natural gas as it replaces higher cost and more carbon intensive diesel and fuel oil generation. During 2019, there were no significant or material gas leakages at our facilities in the Dominican Republic or Panama.

# Making Cleaner Fuel Available to Central America and the Caribbean

AES Andrés, the first LNG terminal in the Dominican Republic, received during 2019 its 200th LNG cargo load since its formal commissioning 15 years ago. This is significant milestone also because there have been no safety incidents during any of the operations, demonstrating how we put safety first.

LNG has positively impacted several sectors of Dominican economy. Today, power generated from LNG in the country is 34 percent of the total energy delivered to the grid, providing economic and environmental benefits to the country: the replacement of oil-based fuels with LNG represents US\$300 million in savings and a reduction of 1.1 million tons of CO2 emissions annually.





The first LNG hub in Panama and Central America, located at the AES Colón power plant in Panamá started operations. This is a significant milestone toward transforming the Central American energy sector and enabling a safer and more sustainable energy future since it will help both reduce CO2 emissions and increase renewable energy penetration. Furthermore, LNG conversion lowers electricity costs and provides greater price stability to support economic growth. The terminal will also allow for the use of LNG throughout the region and establish

Panama as the natural gas hub for the Central American region.

We are helping the Dominican Republic continue to transform its energy matrix through a joint venture with other local generators in the country to build a second LNG storage tank, expanding our capacity in the country by 80 percent, or an additional 50 TBTU. AES Dominicana's joint venture EnaDOM inaugurated the Eastern Gas Pipeline and broke ground on a new LNG tank. Electricity generated from gas will increase from 32 percent to roughly 70 percent by 2022 as a result of the partnership, providing more energy security to the Dominican Republic.

In addition to our 6.1 GW backlog, the 2 to 3 GW of annual renewables PPAs we expect to sign, and our expanding LNG infrastructure, we see opportunities for attractive investments that are not currently in our forecast, including potential rate base growth at our US utilities, DPL and IPL, as well as more renewables and energy storage.

We are using of data to make energy generation and usage more efficient. For example, in Chile, Brazil and Ohio we are developing innovative Smart Operations Centers, ushering in a new era of innovative energy solutions. Our center in Ohio will be the first of its kind in the United States and the facility represents our commitment to the digital transformation of the energy industry, accelerating a greener energy future in the United States and globally.

### Distribution

AES' six utility businesses distribute power to 2.5 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) (Table 6)

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. Revenue from utilities is classified as regulated on the Consolidated Statements of Operations.

We track the reliability of the distribution networks by the average number and duration of interruptions per customer (SAIFI Table 10 and SAIDI Table 11). 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 (Table 12).

At our utilities, we are accelerating growth through grid modernization and infrastructure investments to replace outdated networks. During the year, Indianapolis Power & Light filed a \$1.2 billion seven-year plan with the Indiana Utility Regulatory Commission. We see similar growth opportunities at DP&L in Ohio.

IPL will provide its customers with new, technology, equipment and systems such as a self-healing electric grid; "Smart" AMI meters and other corresponding technology that automatically let IPL know when the power is out and a foundation that allows further integration of electric vehicle charging infrastructure and Distributed Energy Resources into IPL's system, among other investments that are critical to upgrade, replace and modernize the infrastructure, technology and equipment. Because we understand the importance of access of energy as a cornerstone for social development, whenever possible we work with local governments and support their initiatives to provide access to energy, specially to low income communities. For many years, through our distribution companies we have provided access to energy for the first time to millions of families. In 2019 we benefited over 12,000 people.

# Powering quality of life for rural communities

Over 78,000 families from rural communities in El Salvador have received access to electricity for the first time through AES El Salvador's Rural Energy program, significantly improving its quality of life. 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.



The program provides low income families with free installation of electric power service and a basic system made up of a thermal box, an electrical outlet and efficient light bulbs.



AES Tietê volunteers in Brazil, in partnership with Litro de Luz, installed poles and lanterns for communities living near the Alto Sertão II Wind Park. The project has benefited 80 families that now have access to energy. Litro de Luz is an international organization that brings light to communities without access to electrical energy. The energy solutions developed by Litro de Luz are low cost and feature sustainable technology, including PET bottles, PVC pipes, solar panels and LED lamps.

# Energy Storage

Energy storage is a proven, cost competitive solution that not only can improve grid reliability but also support the integration of renewables on the grid and avoid the need, in some cases, for new thermal generation. AES' energy storage business enables a cleaner energy mix and helps our partners reduce their own environmental impacts.

AES has two separate energy storage businesses: an energy storage projects business that owns and operates projects, as well as Fluence, our joint venture with Siemens, that sells scalable energy storage systems to third parties. In 2019, Fluence won contracts for 961 MW and has tripled its backlog since 2018 to a record of 1.2 GW, which equates to roughly \$1 billion in revenue.

Today, we are seeing that nearly half of all solar projects in the US include a storage component. Across all of our platforms, we have also been incorporating innovative applications. An example is the 10 MW five-hour duration energy storage facility at AES Gener's Alfalfal hydro plant in Chile. This groundbreaking project will serve as the first virtual reservoir in the world, providing the run-of-theriver plant with capabilities similar to a traditional reservoir. The project will be inaugurated in 2020 and we have the potential to increase this virtual reservoir by another 240 MW.

AES' success as a leader in solar plus storage was recognized in 2019, when we were awarded our industry's top honor – the Edison Electric Institute's (EEI) Edison Award. We were honored for our innovation in advancing round the-clock renewables at our Lāwa'i project in Hawaii.

## A new model for renewable energy

By 2045, the state of Hawaii intends to utilize 100 percent renewable energy. In 2019, it moved one step closer to that goal. Together with Kaua'i Island Utility Cooperative (KIUC), we inaugurated the largest operational solar + storage project in the world — the Lāwa'i Solar and Energy Storage Project located on Kaua'i's south shore.

The new system will help Kaua'i top 60 percent renewables in the next five years. In the process, it will remove the annual cost and environmental impact of 3.5 million gallons of oil. The plant also avoids fossil fuels and herbicides used in traditional maintenance with 300 sheep on site to manage vegetation in an environmentally-friendly way.

In combining solar power with battery-based energy storage, we can harness a renewable and intermittent source of generation and convert it into safe, reliable and higher-quality power. This establishes a new model for renewable energy that we refer to as firm renewables.



### Our Customers

We face a deep transformation of the electricity markets. Customers are aware of the global trend for demanding greater energy generation based on renewable sources, have an increased aspiration of receiving a sustainable, reliable and value-added energy supply and solutions going beyond the electric supply.

We are an innovative and reliable partner combining our global resources and local expertise to deliver greener, smarter energy solutions that work for our customers and their priorities, to improve lives. We are actively working with customers today to support the transformation of electric grids all over the world through energy storage, renewables, LNG and energy efficiency. In addition to growing our core infrastructure business, we are also developing new solutions to meet increasing customer demand for 24/7 carbon free energy and greater energy efficiency.

Throughout our history, we have connected proven technologies with innovative commercial models to bring dependable, cost effective energy to more people. Our focus is on solutions that are scalable and relatively capital light, which allow us to work with our customers to co-create applications that meet their most critical energy needs.

# Partnerships to Accelerate Growth and Adoption of Clean Energy

Our strategic alliance with Google will allow collaboration on innovation across our business lines. We are actively working together to develop new solutions to accelerate a broader adoption of renewables and energy storage and to improve the experience of corporate customers. This alliance also encompasses energy management and

opportunities to develop own and operate projects in targeted markets to help Google meet its clean energy objectives



We take clear, strategic actions to ensure AES continues growing resiliently across a range of climate outcomes. We are shifting our portfolio and innovating customer solutions through both our Green Blend and Extend offering, which systematically replaces coal with renewables over time. With this solution we are enhancing some of our current contracts by blending and extending existing PPAs, by adding renewable energy.

Since AES Gener announced its "Green Blend and Extend" strategy in 2018, it has executed 2.5 GW of long-term renewable contracts. As a result, AES Gener has significantly diversified its generation mix and has positioned itself to deliver attractive long-term growth. Specifically, these new contracts will more than double its renewable capacity and largely offset the roll-off of legacy contracts in Chile through 2024.

Our utility businesses are also innovating to provide the best service to its customers, diversify communication channels, increase customer satisfaction and reduce operation costs.

DP&L launched its new webpage offering enhanced features to make it easy for customers to find essential information to power their lives. The new webpage continues to deliver a fully responsive experience with a seamless transition from desktop to mobile.

IPL introduced an enhanced online energy management platform for large commercial and industrial customers, so now they have the power to fully understand how their business uses energy and benchmark energy savings improvements AES EI Salvador's utility companies introduced "Billing on Site," to allow field crews to read the meter, enter the information into a portable device and print the invoice immediately to deliver it to the customer. This solution reduces business cycle to one day, the annual use of paper by up to eight tons and the use of fuels, avoiding 1.35 tons of CO2 emissions per year.

Additionally, AES EI Salvador launched an app that allows customers to conduct transactions through smart phones and tablets.

Our utilities were also recognized for their efforts. DP&L achieved its highest overall customer satisfaction ranking in company history in the 2019 J.D. Power study. Also, the company was one of utilities designated as a "2019 Most Trusted Brand" among residential customers.

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

| Energy Generated (GWH)                       | 2018 Gross Energy<br>(includes Steam) |              | 2019 Gross Energy<br>(includes Steam) |              |
|--|---------------------------------------|--------------|---------------------------------------|--------------|
|  | Full Basis                            | Equity Basis | Full Basis                            | Equity Basis |
| Total  | 139,311,105                           | 81,694,925   | 132,341,184                           | 75,140,111   |
| <b>Coal</b> (includes petcoke & Lignite)     | 80,078,930                            | 45,377,264   | 75,018,490                            | 41,196,318   |
| Gas  | 28,907,366                            | 20,207,433   | 27,987,599                            | 19,184,410   |
| Renewables (Hydro, Wind,<br>Solar & Biomass) | 30,003,001                            | 15,952,320   | 29,118,848                            | 14,653,422   |
| <b>Oil</b> (Diesel & PetCoke)                | 321,809                               | 157,909      | 216,247                               | 105,961      |

#### Table 3 - (EU2) / Gross Energy Generated (MWH) (Full and Equity Adjusted Values)

#### Table 4 - (GRI302-1) Energy consumption MWH

|                | Consumption of fuels   |                           | Energy from the | Self-generated non-   | Total Energy |  |
|----------------|------------------------|---------------------------|-----------------|-----------------------|--------------|--|
| SBU            | Renewable<br>(Biomass) | Non-Renewable<br>(Fossil) | grid            | fuel renewable energy | Consumption  |  |
| US & Utilities | 0                      | 20,390,868                | 2,881           | 49,822                | 20,443,571   |  |
| MCAC           | 0                      | 9,816,882                 | 32,910          | 1,024                 | 9,850,816    |  |
| Eurasia        | 0                      | 13,519,319                | 90,037          | 14,064                | 13,623,419   |  |
| South America  | 34,642                 | 17,274,987                | 72,092          | 77,576                | 17,459,297   |  |
| Total          | 34,642                 | 61,002,056                | 197,920         | 142,486               | 61,377,104   |  |

#### Table 5 - (EU3) / Number of Distribution Customers

| Business        | Customers | GWH sold |  |
|-----------------|-----------|----------|--|
| Total AES       | 2,476,000 | 34,363   |  |
| IPL             | 508,000   | 16,083   |  |
| DP&L            | 526,000   | 14,439   |  |
| AES El Salvador | 1,034,000 | 30,522   |  |

| Profile by SBU                 |             | Transmission Lines (Km)<br>(High Voltage) |             | Distribution Lines (Km)<br>(Low Voltage) |             |
|--------------------------------|-------------|---|-------------|--|-------------|
|                                | Country     | Overhead                                  | Underground | Overhead                                 | Underground |
| IPL                            |             | 1,921                                     | 12.39       | 5,929                                    | 6,695       |
| United States and<br>Utilities | DPL         | 2,762                                     | 13.34       | 16,809                                   | 6,073       |
|                                | Total US    | 4,683                                     | 26          | 22,738                                   | 12,768      |
|                                | El Salvador | 0   | 0           | 39,385                                   | 116         |
| South America                  | Chile       | 1,213                                     | 0           | 0  | 0           |
| Total AES                      |             | 5,896                                     | 26          | 62,123                                   | 12,884      |

#### Table 6 – (EU4) / Length of Distribution and Transmission Lines (by SBU and Country)

#### Table 7 - (EU10) / Gross MW Under Construction at the End of 2019

| Business                          | Location                            | Fuel                | Gross MW |  |  |  |
|-----------------------------------|-------------------------------------|---------------------|----------|--|--|--|
| Highlander (sPower)               | US - VA                             | Solar               | 75       |  |  |  |
| East Line Solar (sPower)          | US - AZ                             | Solar               | 100      |  |  |  |
| AES Distributed Energy            | US - Various                        | Solar               | 100      |  |  |  |
| AES Distributed Energy            | US - Vallous                        | Energy Storage      | 49       |  |  |  |
| Alamitos Energy Center            | US - CA                             | Energy Storage      | 100      |  |  |  |
| Southland Repowering <sup>1</sup> | US - CA                             | Gas                 | 1,299    |  |  |  |
| Prevailing Winds (sPower)         | US - SD                             | Wind                | 200      |  |  |  |
| Na Pua Makani                     | US - HI                             | Wind                | 28       |  |  |  |
|                                   | U                                   | 1,951               |          |  |  |  |
| Vientos Bonaerenses 1             | Argentina                           | Wind                | 100      |  |  |  |
| Vientos Neuquinos                 | Argentina                           | Wind                | 100      |  |  |  |
| Los Olmos                         | Chile                               | Wind                | 110      |  |  |  |
| Mesamávida                        | Chile                               | Wind                | 67       |  |  |  |
| Alfalal Virtual Reservoir         | Chile                               | Energy Storage      | 10       |  |  |  |
| Alto Maipo                        | Chile                               | Hydro               | 531      |  |  |  |
| Andes Solar 2                     | Chile                               | Solar               | 80       |  |  |  |
| McDonalds                         | Brazil                              | Solar               | 5        |  |  |  |
| Farmácias São João                | Brazil                              | Solar               | 3        |  |  |  |
| Brazil Community Solar            | Brazil                              | Solar               | 2        |  |  |  |
|                                   | Sou                                 | th America Subtotal | 1,008    |  |  |  |
| Bayasol                           | Dominican Republic                  | Solar               | 50       |  |  |  |
|                                   | Generation Under Construction Total |                     |          |  |  |  |

| Efficiency (%or<br>BTU/kWh) | 2016  | 2017  | 2018  | 2019  |
|-----------------------------|-------|-------|-------|-------|
| Coal                        | 10181 | 10261 | 10310 | 10186 |
| Gas                         | 9037  | 8555  | 8406  | 8750  |

Table 8 – (EU11) / Generation Efficiency of Thermal Plants

Table 9 - (EU12) / Transmission and Distribution Technical Losses (%)

| Technical losses | 2016 | 2017 | 2018 | 2019 |
|------------------|------|------|------|------|
| Transmission     | 2.39 | 2.29 | 2.09 | 1.90 |
| Distribution     | 3.13 | 3.65 | 3.41 | 3.21 |

Table 10 – (EU28) / System Average Interruption Frequency Index (SAIFI)

| Business        | 2016 | 2017 | 2018 | 2019 | 2019<br>Target |
|-----------------|------|------|------|------|----------------|
| Actual AES      | 1.65 | 1.64 | 1.29 | 1.11 | 1.28           |
| AES El Salvador | 6.22 | 5.51 | 4.98 | 4.59 |                |
| DP&L            | 0.76 | 0.82 | 0.92 | 0.98 |                |
| IPL             | 0.74 | 0.86 | 0.95 | 0.82 |                |

Table 11 – (EU29) / System Average Interruption Duration Index (SAIDI)

| Business        | 2016  | 2017  | 2018  | 2019  | 2019<br>Target |
|-----------------|-------|-------|-------|-------|----------------|
| Actual AES      | 2.71  | 2.74  | 1.84  | 1.69  | 1.76           |
| AES El Salvador | 17.42 | 15.47 | 13.75 | 13.13 |                |
| DP&L            | 1.45  | 1.69  | 1.79  | 2.13  |                |
| IPL             | 1.03  | 0.99  | 1.12  | 1.24  |                |

|                            | 2016 | 2017 | 2018 | 2019 | 2019 Target |
|----------------------------|------|------|------|------|-------------|
| % of customer satisfaction | 88.5 | 86.3 | 87.5 | 86.4 | 86.8        |

Table 12- AES Consolidated Customer Satisfaction for Distribution Businesses<sup>5</sup>

#### Table 13 - (EU30) / Average Plant Availability Factor

| Average Availability<br>Factor (%) | 2018 | 2019 |
|------------------------------------|------|------|
| Coal                               | 90.7 | 90   |
| Gas                                | 93.6 | 89   |

#### Table 14 – (EU30) / Commercial Availability<sup>6</sup> by Energy Source

| Commercial<br>Availability (%) | 2016  | 2017  | 2018  | 2019  |
|--------------------------------|-------|-------|-------|-------|
| AES Total                      | 94.35 | 94.66 | 93.62 | 94.53 |
| Coal                           | 92.56 | 92.74 | 92.33 | 93.66 |
| Gas                            | 94.1  | 95.47 | 92.41 | 94.24 |
| Hydro                          | 99.85 | 98.13 | 99.93 | 92.88 |
| Wind <sup>7</sup>              | 92.79 | 90.19 | 92.32 | 92.93 |

<sup>5</sup> Residential retail and commercial results from all AES distribution business for the past four years.

<sup>6</sup> Commercial Availability: Actual variable margin, as a percentage of potential variable margin if the unit had been available at full capacity during outages.

<sup>7</sup> Commercial Availability of a wind farm is determined using a different methodology, that is why it is not included in the AES total.

# Environmental Stewardship

Our environmental management and performance approach reflects our values and our vision of being the world's leading sustainable power company that safely provides reliable, affordable energy. We encourage our businesses to go beyond simply meeting environmental standards and to develop the right energy solutions and operating practices for the markets in which we operate.

We work to develop the right energy solutions for the markets in which we operate. Our businesses lead the industry by expanding energy storage solutions and other renewables to make them more viable and relevant for the future. Our progress towards a greener future is presided over by a Governance Committee.

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 company policy, environmental regulation and managing their operations to minimize environmental impact.

AES has an <u>Environmental Policy</u> that is managed in accordance with our Environmental Management System (EMS) framework. Our policy is the foundation of our environmental management approach. The policy is comprised of four principles applicable to all our operating businesses and construction projects and sets the expectations for our AES employees and contractors.

To identify, prioritize and manager environmental risks we have based our EMS on industry best practices and ensured its consistency with the principles of the ISO 14001. Approximately 62 percent of AES people work at location that have voluntarily certified their EMS to the ISO 14001 international standard. These businesses require annual follow up audits to be conducted by international Certification Agencies.

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. This audit program applies to all operations and construction projects. In the case of businesses in operation, audits are conducted on a three-year cycle, and in case of construction projects, every year. 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.

One of AES four principles of environmental management is to meet or exceed the requirements of environmental rules and regulations imposed by local, regional, and national governments and by participating financial institutions. AES tracks all non-conformances with these rules and regulations. These non-conformance events and associated penalties (if applicable) are reviewed and remediation plans are put in place to prevent future occurrences. During 2019 Mong Duong had a significant<sup>8</sup> fine or penalty due to an elevated ammonia concentration in the discharge outlet of the ash pond. After the 2019 incident the facility put remediation plan in place.

#### Environmental objectives

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 2019 global environmental goals focused on identifying opportunities for improvement of our existing environmental programs and initiatives.

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.

#### External assurance

AES used the services of Lloyd's Register Quality Assurance Inc. (LRQA) to verify and conduct a limited assurance for 2013-2019 of AES businesses':

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

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 and social performance indicators covers all businesses where AES has operational control.

## Climate Scenario Report

<u>AES Climate Scenario Report</u> 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).

We were the first publicly traded owner of utilities and power companies based in the US to disclose its portfolio's resilience consistent with the TCFD recommendations and third-party scenarios.

<sup>8</sup> Significance is determined by a threshold and this only refers to fines that were equal to or less than US\$10,000 USD.

AES used TCFD recommendations for multiple scenarios to conduct its analysis, incorporating thirdparty inputs from the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC), including the 1.5-2° Celsius scenario outlined in the Paris Agreement. We are among the first to include these widely-accepted inputs in our analysis, which makes it easier for investors to evaluate and compare companies.

The resulting analysis highlighted the resiliency of AES' strategy across all assessed scenarios based on the actions the company has taken to date and continues to take to shift its portfolio to long-term contracts and clean energy solutions.

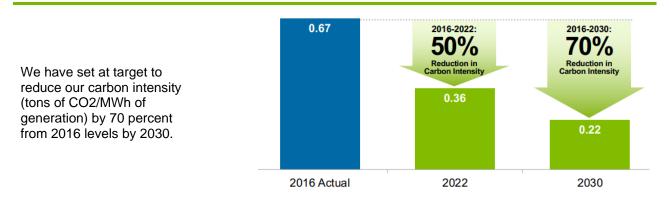
# Air Emissions

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.



## Targets to reduce carbon intensity

# 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 2019 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; and
- 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.

We have significantly reduced the CO2e emissions from our portfolio due to a combination of emission reduction activities, conversion of coal units to gas, retirements and portfolio changes. Table 15 shows direct (Scope 1) GHG emissions values on an ownership-adjusted basis.

| Direct GHG Emissions <sup>9</sup> | 2016   | 2017   | 2018   | 2019   | 2019 targ |
|-----------------------------------|--------|--------|--------|--------|-----------|
| Total Scope 1 (Thousand MT)       | 70,457 | 64,527 | 54,154 | 49,092 | 60        |
| Power Generation                  |        |        |        |        |           |
| CO2                               | 69,981 | 64,075 | 53,741 | 48,740 |           |
| CH4                               | 210    | 189    | 159    | 144    |           |
| N2O                               | 204    | 215    | 176    | 158    |           |
| Other Sources                     |        |        |        |        |           |
| CO2                               | 42     | 29     | 42     | 44     |           |
| SF6, HFCs and CH4                 | 19     | 19     | 36     | 8      |           |
| Emissions Intensity (MT / MWh)    | 0.67   | 0.67   | 0.64   | 0.65   |           |

#### Table 15 – (GRI 305-1 / 305-4) Direct GHG Emissions (Scope 1)

During 2019, 1,37 percent of our Scope 1 emissions (equity adjusted) were under the California Greenhouse Gas Cap and Trade Program.

## Direct SO2, NOx, and Other non GHG Emissions

The data in Table 16 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.

<sup>9</sup> Equity adjusted values.

<sup>10</sup> Targets account for any operational variations by factoring in portfolio changes (divestitures, shutdowns, acquisitions, growth, etc.) and are calculated by subtracting excluded sites from the highest target of the past three years.

| Emission        | 2016    | 2017   | 2018   | 2019   | 2019 Target |
|-----------------|---------|--------|--------|--------|-------------|
| NOx             | 68,561  | 57,094 | 46,628 | 41,815 | 52,781      |
| SO <sub>2</sub> | 111,305 | 97,186 | 77,192 | 76,231 | 84,538      |
| PM              | 7,602   | 5,766  | 3,807  | 3,519  | 4,590       |
| Mercury         | 0.42    | 0.45   | 0.52   | 0.51   | 0.46        |

Table 16 – (GRI 305-7) Metric Tonnes of SO<sub>2</sub>, NOx, PM and Mercury Emissions<sup>11</sup>

The primary reason for a decrease in NOx emissions since 2016 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 and the disposition of some coal-fired facilities. For example, the disposition of the Stuart, Killen and Shady Point coal-fired facilities in the United States, and the sale of the Kilroot coal power plant in Europe.

#### Emissions from Biologically-Sequestered Carbon

AES' 2019 CO2 emissions from biologically sequestered carbon include emissions from our landfill gas (Nejapa in El Salvador) and biomass (Laja in Chile) 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.

| Biogenic CO2 Emissions <sup>12</sup><br>Thousand metric tons | 2016 | 2017 | 2018 | 2019 |
|--|------|------|------|------|
| Biomass  | 63   | 71   | 87   | 75   |
| Landfill Gas   | 24   | 26   | 22   | 27   |
| TOTAL  | 88   | 97   | 109  | 102  |

## Indirect GHG Emissions

Our indirect GHG emissions includes tracking of:

• Electricity purchased from non-AES generated sources for a business's own use;

<sup>11</sup> Equity adjusted values.

<sup>12</sup> Equity adjusted values.

- 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); and
- 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 18 – (GRI 305-2) Indirect GHG Emissions (Scope 2) (Equity adjusted) |                           |      |      |      |             |  |
|---|---------------------------|------|------|------|-------------|--|
| Electricity-Related Indirect  | 2016                      | 2017 | 2018 | 2019 | 2019 target |  |
| Emissions   | Thousand metric tons CO2e |      |      |      |             |  |
| Location Based Method   | 306                       | 226  | 360  | 359  | 316         |  |
| Market Based Method   | 309                       | 230  | 362  | 360  | 318         |  |

#### Table 19 - (GRI 305-3) Indirect GHG Emissions (Scope 3)

| Other Indirect Emissions (Scope 3)                 | 2016  | 2017   | 2018   | 2019   |
|--|-------|--------|--------|--------|
| Emissions due to Sale of Electricity to End Users  | 5,864 | 15,421 | 10,893 | 10,138 |
| Emissions due to Business Air Travel <sup>13</sup> | 1.8   | 1.0    | 1.3    | 1.2    |

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 because 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 2019, AES operating businesses implemented diverse emission reduction

<sup>13</sup> Not Equity adjusted values

projects through process improvements, equipment replacements or low carbo energy installation, representing over 1 million metric tons of estimated annual CO2e reductions.

Some examples include the installation of solar panels in facilities, air conditioning replacements, installation of internal and external efficient lighting systems, among others. It also includes process and machine improvements at the generation facilities.

Business may also have programs to reduce other type of emissions, such as fugitive air emissions. For example, in 2019 Guacolda, in Chile, started the encapsulation of the belts and transfer towers of the coal management transport system.

IPL's Eagle Valley (CCGT) natural gas power plant has enabled IPL to significantly reduce its dependence on coal while still delivering safe, reliable, and sustainable energy. Eagle Valley 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.

We also support our customers' needs to reduce their energy footprint by providing distributed energy solutions. In Brazil, AES Tietê entered into a partnership with the McDonald's fast-food chain to build three solar farms with a total installed capacity of 5.3 MW to provide power to 39 stores in three Brazilian states while reducing CO2 emissions. Also, we partnered to offer energy management of 196 McDonald's restaurants.

AES Soluciones in El Salvador developed a unique solar photovoltaic energy generation project at the new Laboratorios Vijosa plant facilities. The cutting-edge rooftop photovoltaic systems provide a sustainable energy solution for the plant, substantially reducing its operating costs and minimizing its environmental impact, avoiding over 1,900 tons of CO2 emissions each year.

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.

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. DP&L and IPL are powering efforts to support green customer choices.

#### Energy Saving Programs

Energy saving programs to help reduce usage and save on customers' bills, such as LED Lighting Discounts, Heating & Cooling Rebates, Smart Thermostat Rebates or Shop Energy Saving Products, among others.

#### **Green Power Option**

Green power option allows customers to specify part or all of their monthly electricity use to be generated by an environmentally friendly, renewable resource.

#### Install Renewable Energy

Opportunity for customers to generate electricity at their home or business from renewable resources by installing, owning and operating their own generating system.

Also, customers that generate renewable energy, may be eligible to sell Renewable Energy Credits.

#### **Electric Vehicles**

Utilities offer information about charging stations, benefits of driving an electric vehicle and incentives available, including special rates.

AES El Salvador has an efficient public lighting system for municipalities and customers that have benefited with the replacement of older lighting of sodium and mercury for an efficient,

environmentally friendly LED lighting system. More than 22,000 lamps have been installed allowing our customers to avoid more than 2,400 metric tons of CO2 annually.

In 2019 we announced the merger of Simple Energy with Tendril to form Uplight, a new company that offers the most comprehensive suite of customer-facing solutions for electric and gas utilities. Uplight enables utilities to better engage their customers toward the efficient use of energy.

# Enabling others to create a more sustainable future

uplight

Uplight provides utilities with a suite of digital services, including an online marketplace and energy efficiency products. These solutions improve endcustomer experiences, while helping those utilities balance energy demand and reduce service costs. This business now works with over 80 electric and gas utilities and reaches over 100 million households and businesses in the United States.

Uplight had over \$100 million in sales in 2019 and is very well-positioned to benefit enormously from continued growth in cloud-based digital solutions in all aspects of energy management.

Uplight has the ambitious goal of reducing CO2 emissions by more than 100 million metric tons and saving consumers more than \$10 billion on their energy bills in the next 5 years. This is the equivalent to removing more than 21 million cars from the road for a year.

Our businesses have been recognized for their efforts. DP&L was named a 2019 Utility Environmental Champion by Cogent Reports' Utility Trusted Brand & Customer Engagement<sup>™</sup>: Residential. DP&L's ranking reflects the extent to which customers believe DP&L supports environmental causes, is committed to being environmentally conscious, encourages green initiatives and offers 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.

The quality of discharged water of our operations are important, since its parameters can impact the environmental quality of the receiving body. Therefore, the discharge parameters are monitored on a periodical and permanent basis, and such quality is detailed in specific environmental authorizations and general regulations, and frequently supervised by the environmental authorities.

We work to lower water consumption and withdrawals especially freshwater in arid areas. This work involves the improving consumption in cooling towers by carefully monitoring water levels, installation of flow meters and routine maintenance of air handler coils. As an example, of lower water consumption one of our locations collect rainwater to use for irrigation and other watering purposes.

Some of our businesses recycle or reuse the water their use Table 24, while others use third party recycled water for their operations.

We have hydroelectric power plants in our inventory that uses the water stored in dams, as well as flowing in rivers to create electricity. During the creation of this renewable energy we consume a lot of water. The beautiful thing about this use of water is that the waters are immediately returned to the environment at similar or higher quality as raw water extracted.

## Risk Management

It is important to study the movement, distribution and management of water. This includes the water cycles such as evaporation, evapotranspiration, rainfall, runoff, water resources and environmental watershed sustainability. AES has a Weather Risk Committee. This committee monitors and determines best practices around hydrology risk on in our portfolio. The implementation of the risk management plan is left to the local management team at each facility.

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 Resources Institute (WRI) Aqueduct 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. AES proactively monitors the water situation as it pertains to risks such as water shortages.

Protecting all diminishing resources and maintaining compliance with regulatory requirements is high on our priority list. Through a series of internal and external EHS audits any finding or foreseeable issues are documented and addressed with an agreed upon action plan at the facility level.

## Water Withdrawal and Discharge

Our water inventories include:

- Cooling water, including those from once-through and recirculating cooling water systems;
- Process water; and
- Potable/drinking water (apart from 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.

| Million m3  | 2016     | 2017     | 2018     | 2019     | 2019 target |
|---|----------|----------|----------|----------|-------------|
| Total water withdrawn   | 7,511.80 | 6,617.70 | 5,264.94 | 4,985.30 | 5,201       |
| Surface   | 2,135.51 | 1,745.24 | 950.22   | 855.79   |             |
| Seawater  | 5,355.02 | 4,836.63 | 4,287.51 | 4,097.47 |             |
| Municipal   | 3.5      | 7.28     | 4.03     | 2.52     |             |
| Groundwater   | 17,72    | 28.54    | 23.17    | 29.50    |             |
| Total water discharged/returned to the<br>source (at similar or higher quality as<br>raw water extracted) | 7,386.13 | 5,569.85 | 4,271.43 | 4,875.86 |             |
| Water consumption   | 125.67   | 1,047.85 | 993.51   | 109.44   |             |

#### Table 20 – (GRI 303-3 & 303-4) Total Water Withdrawal and Discharge

#### Table 21 - (GRI 303-3) Water Withdrawal by source and by SBU

| SBU           | Source          | 2016          | 2017          | 2018          | 2019          |
|---------------|-----------------|---------------|---------------|---------------|---------------|
| 000           | Surface water   | 1,395,740,895 | 1,042,907,029 | 689,406,326   | 490,137,441   |
| US            |                 |               |               |               |               |
|               | Groundwater     | 5,989,099     | 16,689,387    | 15,851,850    | 16,021,734    |
| & Utilities   | Seawater        | 791,412,527   | 1,078,485,940 | 764,638,888   | 725,756,931   |
| -             | Municipal water | 3,040,432     | 4,580,985     | 2,460,195     | 1,838,961     |
|               | Total           | 2,196,182,953 | 2,142,663,342 | 1,472,357,258 | 1,233,755,067 |
|               | Surface water   | 15,584,778    | 13,259,536    | 6,871,027     | 9,338,439     |
|               | Groundwater     | 2,694,727     | 7,281,762     | 3,984,781     | 2,138,598     |
| MCAC          | Seawater        | 350,773,925   | 31,241,901    | 3,019,508     | 210,980,589   |
|               | Municipal water | 55,305        | 0             | 0             | 60            |
|               | Total           | 369,108,734   | 51,783,199    | 13,875,316    | 222,457,686   |
|               | Surface water   | 101,337,835   | 42,932,922    | 18,222,224    | 29,344,642    |
|               | Groundwater     | 124,318       | 1,699,402     | 77,846        | 4,438,952     |
| Eurasia       | Seawater        | 2,712,108,701 | 2,076,036,677 | 1,827,692,413 | 1,526,706,027 |
|               | Municipal water | 340,540       | 2,087,649     | 810,636       | 353,627       |
|               | Total           | 2,813,911,395 | 2,122,756,649 | 1,846,803,119 | 1,560,843,248 |
|               | Surface water   | 622,848,770   | 646,140,745   | 235,720,949   | 326,976,611   |
|               | Groundwater     | 8,919,520     | 2,876,044     | 3,256,192     | 6,908,354     |
| South America | Seawater        | 1,500,725,889 | 1,650,869,688 | 1,692,162,376 | 1,634,027,790 |
|               | Municipal water | 112,708       | 617,574       | 768,480       | 333,961       |
|               | Total           | 2,132,606,887 | 2,300,504,051 | 1,931,907,997 | 1,968,246,715 |
|               | TOTAL           | 7,511,809,970 | 6,617,707,241 | 5,264,943,690 | 4,985,302,716 |

| SBU            | Source                     | 2016          | 2017          | 2018          | 2019          |
|----------------|----------------------------|---------------|---------------|---------------|---------------|
| _              | Surface water              | 1,859,348,294 | 860,267,370   | 623,121,745   | 861,992,423   |
|                | Groundwater                | 11,575,789    | 10,867,203    | 10,316,999    | 11,533,950    |
| US & Utilities | Seawater                   | 333,125,724   | 1,078,703,342 | 662,050,826   | 337,121,536   |
|                | Offsite Water<br>Treatment | 0             | 4,254         | 7,836         | 74,085        |
|                | Total                      | 2,204,049,807 | 1,949,842,170 | 1,295,497,407 | 1,210,721,993 |
|                | Surface water              | 9,173,517     | 10,955,391    | 3,149,055     | 738,088       |
|                | Groundwater                | 538,285       | 443,142       | 644,115       | 601,150       |
| MCAC           | Seawater                   | 349,156,302   | 25,067,298    | 1,954,822     | 210,024,544   |
|                | Offsite Water<br>Treatment | 0             | 0             | 0             | 878           |
|                | Total                      | 358,868,104   | 36,465,832    | 5,747,992     | 211,364,660   |
|                | Surface water              | 2,047,740,918 | 20,506,850    | 692,566       | 452,336       |
|                | Groundwater                | 0             | 0             | 0             | 0             |
| Eurasia        | Seawater                   | 726,142,350   | 1,277,786,108 | 1,078,505,583 | 1,537,837,130 |
|                | Offsite Water<br>Treatment | 218,517       | 415,917       | 255,408       | 356           |
|                | Total                      | 2,774,101,785 | 1,298,708,875 | 1,079,453,557 | 1,538,289,822 |
|                | Surface water              | 798,541,364   | 600,154,598   | 226,442,594   | 293,578,972   |
|                | Groundwater                | 0             | 1,503,276     | 56,072        | 287,227       |
| South          | Seawater                   | 1,250,557,235 | 1,682,140,475 | 1,664,197,694 | 1,621,547,355 |
| America        | Offsite Water<br>Treatment | 18,082        | 1,043,525     | 39,118        | 78,286        |
|                | Total                      | 2,049,116,681 | 2,284,841,874 | 1,890,735,478 | 1,915,491,840 |
|                | TOTAL                      | 7,386,136,377 | 5,569,858,751 | 4,271,434,434 | 4,875,868,316 |

Table 22 – (GRI 303-4) Water discharged by destination and by SBU

### Table 23 – (GRI 303-5) Water consumption from areas with water stress

| Water consumption (m3)                         | 2016        | 2017          | 2018        | 2019        |
|--|-------------|---------------|-------------|-------------|
| Total Water Consumption                        | 125,673,593 | 1,047,848,490 | 993,509,257 | 109,434,400 |
| Water consumption from areas with water stress | 18,088,406  | 15,020,840    | 59,547,344  | 10,402,405  |
| Water consumption from areas with water stress | 14.4%       | 1.4%          | 6.0%        | 9.5%        |

| Business / Location     | %<br>recycled | Business / Location                         | %<br>recycled |
|-------------------------|---------------|---|---------------|
| Chivor - Colombia       | 6             | Alamitos CCGT Project –<br>CA – USA         | 6             |
| Amman East              | 9             | Huntington Beach CCGT<br>Project – CA - USA | < 1           |
| Nueva Tocopilla - Chile | < 1           | Alto Maipo Project – Chile                  | 13            |
| OPGC                    | 98            | · · · · ·                                   |               |

#### Table 24 - Water recycled / reused

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.

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.

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 21 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.

AES Dominicana received a recognition from the Santo Domingo Water Fund, entity that promotes the recovery and conservation of the water producing basins that supply the great Santo Domingo area in the Dominican Republic. AES Dominicana was recognized for its contribution, commitment and support in guaranteeing the water security of the Dominican capital city through the restoration of the water producing ecosystems.

Improving operational processes to optimize water use

The Alamitos power plant in California updated their reverse osmosis process to optimize efficiency of water usage. Reverse osmosis is a water purification process that uses a partially permeable membrane to remove ions, unwanted molecules and larger particles from water. This project resulted in a reduction of discharge water from 117,000 gallons to 45,630 gallons per year for an estimated annual water recovery of 46,470,485 gallons over a 5-year period.

# ASPECT: Effluents and Byproducts

Fossil fuel-fired generation plants may produce coal combustion byproducts (CCBs), solid wastes (for example, 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.

Environmental standards established by AES along with local laws governing the city/state in which we operate dictates the management of all waste material. Waste is defined as eliminated or discarded as no longer useful or required after the completion of a process. We have multiple waste streams at AES up to and including hazardous and special wastes, chemical and raw material. Some of the material we categorize as waste (for example used oil) is considered product to the waste receiver as it is used in their process to make a final product. All AES businesses are required to have an emergency response plan. These plans outline the management of spill prevention and containment as well as reporting. 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. CCPs represent almost 99 percent of our non-hazardous waste.

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 (CCRs) 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 CCR 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 25 - CCPs Generation and Recycling/Reuse<sup>14</sup>

|                                | 2016      | 2017      | 2018      | 2019      | 2019<br>target |
|--------------------------------|-----------|-----------|-----------|-----------|----------------|
| CCPs generated (metric tonnes) | 9,024,417 | 8,879,824 | 7,931,714 | 7,978,046 | 7,590,005      |
| CCPs recycled/reused (%)       | 31.9      | 38.2      | 21.7      | 19.0      | 21.5           |

Our 2019 reuse/recycle data showed a decrease because we divested/sold diverse businesses that were large reuse/recycle facilities.

## Non-Hazardous waste

According to our EHS Standard, physical disposal at AES locations of non-hazardous waste is prohibited unless performed in a manner that is both protective of the environment and has all required local regulatory approvals/permits.

#### A business waste recycling program

Many AES facilities participate in recycling programs to benefit the communities in which we operate. For example, AES Hawaii accumulates aluminum cans throughout the facility to donate to a local church. AES Warrior Run recycles co-mingled plastic/aluminum, paper and scrap metal with the local general trash hauler. This co-mingled collection reduces hauling expenses and eliminates the need to purchase multiple waste receptacles.

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 encourage the practice of recycling, AES México supported the RETO RecicIAES (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.

#### Waste Management Program

AES takes waste management seriously in order to protect both public health and the environment. For example, AES Hawaii has a robust program in place that addresses prevention, reuse, recovery, collection, transfer, treatment and or disposal or waste at the facility. A big component of this program is the education/training of employees and contractors that operate on the site. The training focuses

<sup>14</sup> The values in the table are not equity adjusted. Data above is consolidated using an operational control approach.

on the proper use and disposal of Personal Protective Equipment (PPE), waste segregation and proper labeling.

| Table 26 - Non-Haza    | Table 26 - Non-Hazardous waste generated and recycled |         |        |  |  |  |
|------------------------|---|---------|--------|--|--|--|
| Non-Hazardous<br>waste |   |         |        |  |  |  |
| Metric tonnes          | 430,142   | 109,600 | 50,561 |  |  |  |
| % recycled/reused      | 25.8  | 14.7    | 19.9   |  |  |  |

## Hazardous Waste

Hazardous waste has unique characteristics such as being explosive, flammable, oxidizing, poisonous, infectious, corrosive, toxic and/or ecotoxic which, if not properly managed and disposed, would result in significant impact to the public and/or the environment. According to AES standards, a waste is deemed to be hazardous if (1) it is so classified by local applicable rules and regulations, or (2) it qualifies as being hazardous under the "Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal" sponsored by the United Nations Environment Program and adopted on 22 March 1989."

The purpose of the AES Hazardous and Special Waste Requirements standard is to set minimum hazardous waste and special waste management requirements at all operational locations. In accordance with the standard, all businesses have to Identify and comply with all local regulatory requirements associated with the management of hazardous waste and special waste. In addition, A hazardous waste and special waste management program must be in place unless regulatory exemptions apply.

| Table 27 - Hazardous Waste     |       |        |       |       |  |  |
|--------------------------------|-------|--------|-------|-------|--|--|
| Hazardous Waste<br>Metric tons | 2016  | 2017   | 2018  | 2019  |  |  |
| US & Utilities                 | 1,146 | 656    | 629   | 923   |  |  |
| MCAC                           | 53    | 3,641  | 312   | 1602  |  |  |
| Eurasia                        | 307   | 880    | 736   | 252   |  |  |
| South America                  | 4,554 | 5,811  | 1497  | 2023  |  |  |
| TOTAL                          | 6,061 | 10,988 | 3,174 | 4,800 |  |  |

Whenever possible, AES businesses try to minimize hazardous waste, in accordance with AES' environmental Hazardous and Special Waste Requirements policy and local state and federal

government regulations for the handling of such waste. The Resource Conservation and Recovery (RCRA), EPA encourages the minimization of all wastes.

For example, some of our IPL power plants are part of a used oil recycling program where a thirdparty vendor tests and recycles the used oil generated at the facility are sent off for recycling. If this oil was not recycled it would be disposed of as hazardous waste. AES Petersburg has a Waste Minimization Program, an approach that focuses on reducing the amount and toxicity of hazardous waste and all wastes generated.

In many of our facilities, universal waste (e.g. batteries and spent bulbs) are packaged and sent off site for recycling. These efforts avoid a hazardous waste shipment.

## Spills & Environmental Incidents

Our EMS and environmental standards enable our organization to reduce our environmental impact and increase our operation efficiency. We identify and monitor conditions of compliance and events 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/chemical spills and permit limit exceedances. In 2019, AES businesses recorded a total of twenty-six significant events (caused primarily by equipment leaks or failures).

## **ASPECT: Biodiversity**

Biodiversity also called biological diversity is the variety of life found in a place on earth or, often the total variety of life on earth. With a synergistic approach AES environmental Team monitors and reacts to situations that would disturb this balance. We do what is best to protect our facility grounds and the neighboring properties as we construct, operate, distribute and sell our energy across large geographical areas with diverse ecosystems, landscapes and species.

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 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. This unprecedented study was conducted in partnership with CEPTA (National Center for Continental Aquatic Biodiversity Research and Conservation).

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. For example, prior to the construction of a wind farm, different type of environmental impact assessments are performed, for biodiversity, wildlife impacts, migration pattern of birds, among others. Depending the results of such assessments, if needed, different mitigation measures are put in place including location and pattern of wind turbines. Also, during the development and operational stage the location is also monitored to minimize any potential impact to birds.

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.

| Major Construction Project / link | Country       |
|-----------------------------------|---------------|
| Alto Maipo                        | Chile         |
| <u>Colón</u>                      | Panama        |
| Alamitos Energy Center            | United States |
| Southland Huntington Beach        | United States |
| Bósforo                           | El Salvador   |
| Na Pau Makani                     | Hawaii        |

Table 28 - Links to the Public Websites containing EIA/AIA Results

## 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

 AES EI Salvador, and its distribution companies in El Salvador, held the fourth 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

- In the United States, our people participated in clean up events: AES Buffalo Gap and Laurel Mountain people picked up trash as part of the adopt-a-highway litter prevention program; and AES Ohio people picked up litter along the Great Miami River as part of the Five Rivers MetroParks Adopt-a-Park Earth Day event.
- AES Panamá volunteers, including family and friends, participated in an annual beach cleaning event, collecting over 4,000 plastic bottles and other kinds of waste.

#### Planting, Reforestation and Native Species to Rangeland Activities

- Volunteers from AES Dominicana, together with the AES Dominicana Foundation and the government organization FONPER, participated in a local reforestation effort designed to improve the quality of local water sources.
- The Mãos na Mata Program in Brazil is an initiative launched in 2016 that with the support of SOS Mata Atlântica, and other 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.
- The Bósforo project in El Salvador organized a reforestation effort to plant more than 1,000 trees, including timber and fruit species. The effort covered three hectares of land and benefited three communities surrounding one of the project's solar power plants in the area of La Unión, in Eastern El Salvador.

#### Habitat Restoration, Monitoring and Conservation

- Volunteers from AES in Panamá participated in the fifth "Great National Day of Reforestation." The initiative is led by Panamá's Ministry of the Environment and helps the country meet its goal of reforesting one million hectares in 20 years.
- AES Tietê works for the protection of animal life with two specific conservation projects "Lobos do Pardo" and "Pardas do Tietê". These initiatives involve the examination and monitoring of the habits of both animals, so that we can better understand how they move in the areas maintained by the company and what the habits of the species are.

- AES Tietê also runs 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. As a part of the program, each year, 2.5 million fingerlings are released, including 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 EI Salvador and SalvaNATURA have partnered facilitate the donation of over 45,000 sea turtle eggs, contributed to the construction of hatcheries and supported the release of more than 2,000 turtle hatchlings.
- In California, AES and Kiewit, along with family and friends, joined forces to help restore the Bolsa Chica wetlands. The Bolsa Chica Conservancy (BCC) is a private, non-profit organization dedicated to preserving the Bolsa Chica wetlands through science-based education on wetland ecology and marine biology, scientific research and habitat restoration.

# Stakeholder Management

A trusted partner committing to be an active, invested member of the communities, sharing their goals of being part of a greener, smarter future that improves lives.

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, among others, each one possibly impacting our ability to conduct business.

Engagement with our stakeholders is necessary for our business to function, both daily and to achieve our long-term strategic objectives. 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.

AES businesses engage with diverse stakeholders across the globe. Non-governmental organizations, 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 our 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.

AES businesses actively engages with relevant stakeholders before, during and after construction of new projects. Prior to the construction and approval of the projects, there is an initial approach with relevant authorities and communities located in the influence area, followed by informal and formal consultations phases to provide more detailed information about the project, impacts, benefits, mitigation measures, among others. During the construction phase, there is a permanent dialogue with the communities surrounding the projects as well as local authorities, with special focus to communicate works, possible impacts and also to start developing social investment programs.

Our Global Stakeholder Engagement guidelines, available internally to all of 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: i identifying and

prioritizing stakeholders; deciding on the appropriate engagement methodology; performing risk assessments; evaluating progress of engagement actions and others.

As part of the management approach we anticipate and prepare for stakeholder risks, map stakeholders and effectively manage each stakeholder engagement strategy. We identify 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.

## 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.

Table 29 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 of our businesses.

| AES Stakeholders       | Engagement   | Key Issues   | How Issues are<br>Addressed  |
|------------------------|--|--|--|
| Investors/Shareholders | <ul> <li>We regularly communicate with<br/>our investors regarding our<br/>business strategy and plan, risk<br/>management, financial returns,<br/>growth and governance via:</li> <li>Quarterly earnings<br/>presentations</li> <li>Investor relations website</li> <li>Investor calls</li> <li>Rating agency discussions</li> <li>Investor and public forum<br/>events such as the Annual<br/>Shareholder Meeting</li> <li>Annual and other corporate<br/>reports</li> <li>Proxy communications</li> <li>Traditional and social media</li> </ul> | <ul> <li>Strategy and growth plans</li> <li>Company management</li> <li>Return on investment</li> <li>Capital allocation</li> <li>Governance</li> <li>Financial performance and liquidity</li> <li>Shareholder returns, including dividends</li> <li>Risk management</li> <li>Environmental performance</li> </ul> | <ul> <li>Healthy balance sheet<br/>and sufficient liquidity</li> <li>Timely information on<br/>key issues</li> </ul> |

#### Table 29 – (GRI 102-40 / 102-43 / 102-44) Main Stakeholders

| AES Stakeholders | Engagement   | Key Issues  | How Issues are<br>Addressed  |
|------------------|--|---|--|
| Customers        | <ul> <li>We are invested in<br/>understanding our customers'<br/>perspectives and in addressing<br/>their concerns via:</li> <li>Customized energy<br/>management solutions</li> <li>Wholesale and retail power<br/>and gas market participation</li> <li>Internet-based feedback<br/>interface</li> <li>Customer satisfaction surveys</li> <li>24/7 customer call centers</li> <li>Publications and reports</li> <li>Energy efficiency and demand<br/>response programs</li> <li>Residential customer<br/>education programs</li> <li>Sustainable energy solutions</li> <li>Traditional and social media</li> <li>Participation in public events</li> </ul>   | <ul> <li>Managing energy use<br/>with new technologies</li> <li>Lowering energy costs</li> <li>Using cleaner energy<br/>sources, including<br/>renewables</li> <li>More efficient energy<br/>use</li> <li>Safety</li> </ul>   | <ul> <li>Provide information and<br/>energy management<br/>tools via our websites</li> <li>Develop peak demand<br/>management programs</li> <li>Conduct advanced<br/>metering and dynamic<br/>pricing pilot</li> <li>Deploy on-site<br/>renewable energy<br/>systems for commercial<br/>customers</li> <li>Conduct energy-<br/>efficiency audits, and<br/>provide incentives for<br/>numerous energy<br/>efficiency measures</li> <li>Provide risk<br/>management services<br/>for wholesale and retail<br/>customers</li> </ul> |
| Suppliers        | We promote suppliers' success<br>through clear policies,<br>procedures, terms and<br>conditions. it is important to<br>ensure our suppliers are aligned<br>with our values and standards.<br>We hold our suppliers and<br>contractors to the same high<br>ethical standards we have.   | <ul> <li>Direct contact between<br/>vendors and AES<br/>supply chain buyers and<br/>sourcing specialists</li> <li>Supplier performance<br/>score cards</li> <li>Published policies and<br/>guidelines such as<br/>safety requirements and<br/>environmental guiding<br/>principles</li> </ul>   | <ul> <li>Centralized<br/>management of key<br/>supply chain categories<br/>such as fuel sourcing</li> <li>Developed and<br/>communicated safety,<br/>environmental<br/>guidelines to existing<br/>and prospective<br/>suppliers</li> </ul>   |
| Governments      | <ul> <li>We communicate with local, state<br/>and federal government officials<br/>in the countries where we<br/>operate to ensure that we<br/>develop energy policies that<br/>balance reliability, affordability<br/>and environmentally sound<br/>practices via:</li> <li>Meetings with elected officials<br/>in communities surrounding<br/>power plants or utilities</li> <li>Power plant tours</li> <li>Emergency planning exercises<br/>with local/state agencies</li> <li>Policy white papers, testimony<br/>and briefings</li> <li>Regulatory proceedings and<br/>rate cases</li> <li>FERC and NERC reporting</li> <li>Reporting in compliance with<br/>national and local requirements<br/>across the globe</li> </ul> | <ul> <li>Reliability</li> <li>Security, affordability<br/>and sustainability of<br/>electricity supply</li> <li>Energy market structure<br/>and regulation</li> <li>Job creation</li> <li>Environmental<br/>compliance</li> <li>Federal policies</li> <li>Financial/OTC<br/>derivatives</li> <li>Safety</li> <li>Fuel diversity and<br/>balanced energy matrix</li> </ul> | <ul> <li>Investment in new technologies to keep long-term electricity supply reliable, affordable and cleaner</li> <li>Engage in discussions with federal governments, partnership groups and EPA about environmental performance and policy</li> <li>Engage directly on financial reform legislation, GHG policy, Clean Energy Standard and federal loan guarantees</li> </ul>  |

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| AES Stakeholders   | Engagement   | Key Issues  | How Issues are<br>Addressed   |
|--------------------|--|---|---|
| Community          | <ul> <li>We invest in, support and ensure dialogue with the communities where we conduct business via:</li> <li>Periodic community meetings in communities surrounding our facilities</li> <li>Career fairs</li> <li>Volunteer projects and social investment programs</li> <li>Participation in community events</li> <li>Website</li> <li>Traditional and Social Media</li> </ul>  | <ul> <li>Employment of local talent</li> <li>Business development in local community</li> <li>Infrastructure</li> <li>Environmental performance and policies</li> <li>Job creation</li> <li>Safety</li> <li>Skilled workforce development</li> <li>Social benefits</li> </ul> | <ul> <li>Updates on key issues<br/>and projects and<br/>feedback mechanisms<br/>on website</li> <li>Skilled workforce<br/>development programs<br/>with industry and labor<br/>stakeholders at<br/>community educational<br/>locations</li> <li>Social sustainable<br/>programs</li> <li>Education on safe,<br/>adequate and efficient<br/>use of energy</li> </ul> |
| Industry Observers | <ul> <li>We engage in dialogue with<br/>NGOs and other industry<br/>observers:</li> <li>Industry organizations,<br/>conferences and direct<br/>dialogue</li> <li>Participation in advisory<br/>councils, business alliances of<br/>NGOs</li> <li>Collaboration with NGOs in<br/>facilitating policy-making<br/>dialogues</li> <li>Website,</li> <li>Traditional and social media</li> </ul>  | <ul> <li>Employment</li> <li>Business development</li> <li>Infrastructure</li> <li>Trends in the sector</li> <li>Environmental<br/>performance and<br/>policies</li> <li>Job creation</li> <li>Safety</li> <li>Skilled workforce<br/>development</li> </ul>                   | <ul> <li>Engage in many NGO-<br/>sponsored dialogues on<br/>energy and<br/>environmental policy<br/>topics, including GHG<br/>policy, Clean Energy<br/>Standard and renewable<br/>energy incentives.</li> <li>Participate in events as<br/>expert in the field to<br/>discuss trends in the<br/>sector</li> </ul>   |
| AES People         | <ul> <li>Engaging with our people is<br/>critical to our business success<br/>and our employees expect open<br/>discussions about workplace<br/>safety, career opportunities, job<br/>satisfaction, diversity and<br/>inclusion, and benefits via:</li> <li>Company intranet</li> <li>Multi-lingual update<br/>communications from company<br/>executives</li> <li>Electronic newsletters</li> <li>Employee Helpline</li> <li>Yearly performance reviews</li> <li>Online courses, classroom<br/>training and college degree<br/>programs</li> <li>Leadership and employee<br/>development opportunities</li> <li>Employee surveys</li> </ul> | <ul> <li>Workplace safety</li> <li>Career opportunities</li> <li>Job stability</li> <li>Diversity and inclusion</li> <li>Salary and benefits</li> <li>Company strategy and<br/>leadership</li> <li>Positive corporate<br/>image</li> </ul>                                    | <ul> <li>Promote two-way communications</li> <li>Increase feedback mechanisms</li> <li>Increase involvement in company-related activities</li> </ul>  |

## Impacts on Education and Living Standards in Our Communities

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 businesses implement varying levels of engagement with local communities through a permanent dialogue with relevant stakeholders to build and strengthen relationships based on respect, trust and collaboration.

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.

The guidelines also define priority areas of action, and even though each country has different programs set to address local realities and needs, the priorities include: capacity building and education to support the social and economic development; support local communities to help improve quality of life and access to basic needs; alignment with business strategy and programs connected to the greatest extent possible to the business of AES (increasing understanding of power generation or distribution; developing skills required to work at an energy company, access to reliable and cleaner energy) and to identify reliable, effective, well-established partners with which to undertake the sustainable programs and activities.

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.

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, benefitting over 2 million people directly and indirectly. Some of these programs include: access to electricity and basic services; vocational training and employment opportunities; and safety education; among others.

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 to support national disaster relief programs in the form of immediate assistance.

Social Investment programs are aligned with diverse Sustainable Development Goals (SDGs) set by the United Nations. For example:



Since 2012, Alto Maipo, a construction project in Chile, has partnered with Proforma OTIC (Intermediate Technical Training Organizations) to implement trainings that improves participants' skills and increases their employability. Over the years, more than 75 percent of the people trained have found permanent work.

The Pulsar Project, developed by AES Tietê in Brazil provides training workshops and other activities focused on strengthening the entrepreneurial culture of social impact and energy in technical schools in São Paulo, in partnership with Impact Hub and Centro Paula Souza.

AES EI Salvador's AES Mujer program provides training to women through partnerships with the Ministry of Local Development and FUDEMAS (a business organization for social action). Since 2016 the Residential Electrical Installations program trains women to perform reliable, safe and efficient installations of residential electrical systems, supporting and strengthening their professional development in a market traditionally dominated by men.



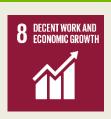
The program also allows the graduates to improve their quality of life, providing them with new income, and opening paths to continued professional development.



In India, OPGC, works directly with low income villages to provide potable water, renovating water bodies for harvesting and providing financial support for construction of irrigation facilities. OPGC works to ensure the sustainability of the project by promoting community management and ownership of this project including the monitoring and supervision of periphery pipelines and day to day repairing and maintenance.

The Mesa La Paz wind farm, in Mexico helped install a wind turbine with an energy storage battery to provide the area's local elementary school access to supplemental energy to meet its needs during blackouts, an ongoing problem for the school. Mesa La Paz worked with wind-turbine manufacturer Vestas and the 500RPM organization, which helps bring sustainable wind power to rural areas. It also partnered with the Polytechnic University of Victoria, who trained more than 30 students and teachers on installing the turbine and battery.





The Fostering Innovative Entrepreneurship program is developed in partnership with the Trust for the Americas (an organization affiliated with the Organization of American States), in Puerto Rico and the Dominican Republic, to provide entrepreneurs trainings and tools to strengthen business ideas that can contribute to the socioeconomic development of their communities.

DP&L works closely with local communities and economic development partners and supporting business chambers to attract, support, and retain businesses in the state of Ohio. The Dayton Development Coalition and OneColumbus are regional partners working closely with JobsOhio to promote economic development in the DP&L service area.

Since 2006 IPL has been the title sponsor of IPL Project GreenSpaceSM, a program of Keep Indianapolis Beautiful, Inc. (KIB) that help neighborhood-based organizations with expertise and resources to revitalize neighborhoods and public spaces. This effort improves the quality of neighborhoods and homes and helps to create vibrant communities by increasing and beautifying vacant lots and underused areas into appealing and functional areas





In Colombia, in partnership with Selva, the Cocoa Productive Project was developed as an agroforestry strategy to generate ecological connectors and favor biodiversity of the area, linking the associations of cocoa producers from the municipalities of Santa María and Campohermoso.

AES Tietê in Brazil developed the Sustainable Beekeeping program to strengthen the management of the Polo Cuesta Beekeepers Association, to expand the commercialization of their products and use the areas of the Atlantic Rainforest and Cerrado restored by AES Tietê.

AES businesses engage in partnerships with various stakeholders to share knowledge, expertise, technology, maximize the benefits of 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.



During 2019, over 60 percent of our community-related activities, programs, donations and sponsorships were in education, social welfare and safety. Also, over 25 percent of the money allocated to community-related activities, programs, donations and sponsorships was for education and safety, and 35 percent was for social welfare (Table 30). This includes safety education, community infrastructure, vocational training and provision of school supplies, among others.

| Table 30 - Social Investment by Area of Focus |                      |                        |  |  |  |  |
|---|----------------------|------------------------|--|--|--|--|
| Are of focus                                  | Total of<br>programs | Total of<br>investment |  |  |  |  |
| Culture                                       | 11%                  | 17%                    |  |  |  |  |
| Education & Safety                            | 35%                  | 27%                    |  |  |  |  |
| Environmental                                 | 8%                   | 13%                    |  |  |  |  |
| Health  | 9%                   | 6%                     |  |  |  |  |
| Infrastructure                                | 6%                   | 3%                     |  |  |  |  |
| Social Welfare                                | 31%                  | 35%                    |  |  |  |  |

The contribution to the communities of some of these programs was recognized during 2019, including:

- In Vietnam, the American Chamber of Commerce awarded AES Vietnam with the Corporate Social Responsibility Recognition and Award.
- AES Mexico was place in the top 10 of CEMEFI's (Mexican center for philanthropy) Socially Responsible Companies ranking.
- In El Salvador, Cerca Group granted the CSR Print Award to AES El Salvador for its responsible use and energy efficiency program, which promotes the safe use of energy in communities and companies throughout the country.
- IPL was recognized as a Top Community Investor by the United Way of Central Indiana.
- AES Dominicana and the AES Dominicana Foundation were recognized by the Dominican Rehabilitation Association (ADR) for its contributions supporting its programs.
- Forbes magazine recognized AES Panama and AES El Salvador for their Corporate Social Responsibility Programs.

# Human Rights

We strive to create ethical working relationships both internally and with our stakeholders. As a global power industry leader, we operate under a broad range of economic, political, social and cultural customs, and traditions as well as different local, regional, and international laws and regulations. We believe it is our duty and responsibility to conduct business with the highest level of integrity, ethics and compliance in all situations, and we support the Universal Declaration of Human Rights.

Our <u>Human Rights Policy</u> formalizes the tools AES is already using to conduct business, including encouraging our businesses to perform risk assessments, engage with business suppliers, and work with local communities. As a result, many of our businesses proactively participate in local initiatives and trade associations in the areas of corporate governance, ethics and compliance and corporate responsibility.

#### Due diligence process

In line with the guidelines of the UN Guiding Principles on Business and Human Rights, during 2019 we conducted an internal due diligence process in human rights on our operations in Chile, Colombia and Argentina (TermoAndes) (GRI 412-1). The evaluation sought: to assess actual and potential human rights impacts, to integrate the findings in a risk map and to act on those findings to prevent or mitigate potential impacts.

As part of the evaluation and analysis of findings, we found that thanks to the policies and procedures in place, there are no elements that would represent a risk of high likelihood of occurrence, so it has not been necessary to develop any mitigation plans. From those findings, we observed that, due to the characteristics and risks inherent in the business, certain topics such as safety (the right to life and integrity of persons) should be permanently monitored. For this reason, safety is at the core of everything we do and we always identify potential risks to our people, contractors, customers, partners and communities, and measure success by how safely we conduct our work together while contributing to a greener energy future.

Although it was not raised as a risk factor, it was evidenced that as a result of the development of new energy projects, there is a need to update AES Gener Community Engagement Policy-- to address indigenous rights in accordance with the scope of ILO Convention 169 on Indigenous and Tribal Peoples.

#### Global Compact Network and other initiatives

Several of our businesses are signatories to the United Nations Global Compact and have adopted the Ten Principles with respect to Human Rights, Labor, Environment and Anti-Corruption (El Salvador, Colombia, Brazil, Panamá).

AES Gener participates in the "Human Rights Laboratory of Companies in the Mining and Energy Generation Sector", a program developed by Acción Empresas, the Mining Council and the Chilean Association of Generating Companies. The objective of this program is to strengthen the capacities of companies to integrate human rights issues into business management.

The initiative includes participation in multi-stakeholder dialog roundtables, where representatives of trade unions, community members and suppliers are invited to participate and discuss human rights topics.

# 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 have instituted controls and preventive measures, such as 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 can be hazardous when used without care and caution due to lack of knowledge, our businesses communicate these risks to the public in different proactive manners. 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 energized systems and suffers a fatal injury.

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.

During 2019, unfortunately we experienced two public fatal incidents across our businesses. The first one was related to hanging an advertising material during a local campaign and the second one was a person trying to release a kite from the network.

As a part of our safety management system 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.

| Table 31 – (EU25) Public Fatal Incidents |      |      |      |      |
|--|------|------|------|------|
| Fatal Incident Cases <sup>15</sup>       | 2016 | 2017 | 2018 | 2019 |
| General Public                           | 27   | 26   | 0    | 2    |

Our 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. Inspired by our first value of putting safety first, we always 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.

<sup>15</sup> Fatalities that occurred in the 2016-2017 period also include distribution businesses in Brazil that the company doesn't own anymore.

For 12 years, the AES EI Salvador program Magic Energy has educated more than 600,000 children in schools and communities on how to use electricity safely and efficiently. The Magical Energy program has received recognition from important international institutions such as the Organization of American States (OAS), Platts Global and the US Embassy in El Salvador.

For over 10 years IPL's Safety 101 program has been teaching students, police and fire personnel, businesses and community groups in a visual, entertaining way about how electricity is produced, how to use it safely and how to avoid risks. IPL began offering Safety 101 demonstrations in 2004 and more than 10,000 people have attended a Safety 101 demonstration

To promote electric safety in the Miami Valley, DP&L developed the Think Hot! Stay Safe! program with schools (K-12 and community colleges), fire and police departments, and several organizations across its service territory, to deliver an electric safety presentation and demonstration. Led by our linemen, the program explains how electricity is produced and how to use it safely.

AES Vietnam people provided educational lectures on electric safety for communities in Cam Pha city. The activity also included the renovation of electric systems for 50 low-income households and nine public facilities. All sockets, electric lines, light bulbs and appliances that posed an electric shock risk were replaced or reinforced to ensure user safety for the users.

# Our People

One team working together globally and locally, in partnership with our stakeholders and with each other shaping the future of energy together.

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.

With approximately 8,000 people working in 14 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 (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 35)

At AES, work-life balance is achieved by providing the flexibility people need to integrate their work and personal lives. In addition to providing paid time off benefits which meet or exceed market benchmarks, we maintain Remote Working Guidelines and provide necessary technology resources so that leaders can offer flexible working arrangements to our people. In addition to cultivating professional development for our people, we care about our people and work to create an environment where they can be successful in all facets of their lives.

While we work diligently to minimize workforce restructuring resulting in the elimination of positions, we also ensure that any such necessary actions are affected with minimal disruption to our business and our people. In the unfortunate cases where restructuring results in position eliminations, we provide separation/severance benefits which are designed to meet or exceed statutory requirements and market benchmarks. We always treat people with dignity and respect and often provide extended notification periods in order to ensure people can adequately prepare for their transition.

AES maintains many global relationships with labor unions and where we have unionized workforces, we work diligently to participate in effective collective bargaining efforts which are mutually beneficial to our people, the company and the unions (GRI 407-1). As of the end of 2019, 59 percent of our permanent full-time people were covered by collective bargaining agreements (GRI 102-41).

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

The energy industry is changing at an unprecedented pace. These changes are a result of declining energy prices, new technologies, evolving 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 light of this ever-changing environment, to enable this transformation, while consistently improving our people's experience in the workplace.

Each year, our senior leaders both at the global and SBU levels engage with people in business locations to discuss our corporate 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.

## **Global Talent Management**

We have a comprehensive approach to managing our talent and developing our 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 utilize 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 people to reach their potential, we use three primary mechanisms, as well as challenge and enhance their personal growth:

- 1. Experience and exposure to new career development opportunities.
- 2. Assessment and career planning, including development planning, objective-setting and regular feedback; and
- 3. Formal learning, by means of our ACE Academy for Talent 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 2019, each AES person averaged 23 hours of training.

As a part of leadership training, we have a partnership with recognized educational institutions 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. In 2019, we piloted a Front Line Leadership Program which is part of the ACE Academy and is designed to be an early career feeder program to the Executive Leadership Development Program. By the end of 2019, more than 100 leaders have participated in the ACE Academy for Talent Development leadership development programs.

## 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 2019, more than 95% of the eligible employees (representing over 70% of the workforce) 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. This process involves reviewing performance and potential for over 1,200 people, and reviewing and building succession plans for key roles in our top 3 levels of leadership, annually

## 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.

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.

## Trainee program

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 2019, the program included 27 trainees in five countries in three SBUs.

## 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 building diversity, inclusion and belonging allows us to unlock additional value and create a competitive advantage by fully leveraging the diverse workforce we have, broadening perspectives for better decision making 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.



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. The 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 through 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:

- Offering 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.



We have 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.

As part of our people efforts to achieve diversity, some of our businesses have adapted their selection and hiring processes to remove bias and have targeted selection; efforts include ensuring 50/50 gender balance in candidate pools and the use of "blind" resumes, whereby names are removed from resumes in the selection process.

AES is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to sex, sexual orientation, gender, gender identity and/or expression, race, national origin, ethnicity, age, religion, marital status, genetic information, physical or mental disability, or protected military or veteran status.

#### Anti-harassment and discrimination policy

As a global company, we operate in many different economic and political environments and do business in the context of a wide range of social and cultural customs and traditions. Regardless of location, we are committed to maintaining a work environment where we embrace our diversity and value the work of our colleagues. It is our policy to treat all employees with respect and dignity and to maintain a work environment free from harassment. We will abide by laws that prohibit discrimination everywhere that we do business and we actively work to remove unconscious bias from our decision making.

Along with our Code of Conduct, we have an Anti-Harassment Policy that clearly states that we do not tolerate discrimination, harassment or mistreatment of any individual in the AES work environment, including unlawful harassment on the basis of sex, sexual orientation, gender, gender identity and/or expression, race, national origin, ethnicity, age, religion, marital status, physical or mental disability, pregnancy, childbirth, or related medical condition, military or veteran status, or any other characteristic protected under applicable law.

## 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.

Table 32 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.

#### Great Place to Work

One of our strategic objectives in 2019 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 programs, policies and benefits. During 2019 over 62 percent of our people participated in employee engagement assessments from the Great Place to Work Institute (Table 36) that showed an overall 79 percent of satisfaction

| Location           | Ratio | Increase |
|--------------------|-------|----------|
| Argentina          | 14    | 1.0      |
| Brazil             | 22    | 2.8      |
| Bulgaria           | 17    | 1.0      |
| Chile              | 32    | 0        |
| Colombia           | 14    | 1.1      |
| Corporate          | 41    | 0        |
| Dominican Republic | 19    | 1.0      |
| El Salvador        | 27    | 0        |
| India              | 8     | 1.0      |

| Location       | Ratio | Increase |
|----------------|-------|----------|
| Jordan         | 8     | 0        |
| Mexico         | 25    | 0.8      |
| Netherlands    | 5     | 0        |
| Panama         | 30    | 0        |
| Puerto Rico    | 7     | 1.0      |
| United Kingdom | 2     | 1.0      |
| US             | 118   | 0        |
| Vietnam        | 39    | 1.0      |

Table 32 – (GRI 102-38 / 102-39) Annual Compensation Ratios & Compensations Increases by Country

| CD11           | Permanent - Full time Employees |      |  |
|----------------|---------------------------------|------|--|
| SBU            | Female                          | Male |  |
| Eurasia        | 158                             | 716  |  |
| MCAC           | 141                             | 594  |  |
| South America  | 567                             | 1939 |  |
| US & Utilities | 845                             | 3157 |  |
| Total          | 1711                            | 6406 |  |

#### Table 33 - (GRI 405-1 / 102-8) AES People Demographics by SBU

#### Table 34 – (GRI 405-1) Percentage of employees by age group

| Age          | % Total |
|--------------|---------|
| 30 and under | 13.98   |
| 31 - 50      | 57.11   |
| 51 and over  | 28.97   |

#### Table 35 – Percentage of women in management positions

| Management level            | % Women |
|-----------------------------|---------|
| Management positions        | 21      |
| Top management positions    | 20      |
| Junior management positions | 16      |

#### Table 36 - Employee Satisfaction %

| 2016 | 2017 | 2018 | 2019 |
|------|------|------|------|
| 81   | 81   | 79   | 79   |

#### Table 37 – (GRI 401-1) Employee turnover rate

| Turnover  | 2016 | 2017 | 2018 | 2019 |
|-----------|------|------|------|------|
| Total     | 9.1  | 10   | 23   | 10.7 |
| Voluntary | 3.5  | 4.9  | 6    | 7.2  |

#### Table 38 - HR and Workplace Recognitions

| Country               | Business                           | Recognition, Category   | Institution  |
|-----------------------|------------------------------------|---|--|
| Argentina             | AES Servicios<br>América           | Top 20 Great Place to work for Women  | Great Place to work<br>Institute   |
|                       | AES Tietê                          | Among the best in Human and Organizational<br>Development Index   | Group Gestao RH  |
| Brazil                | AES Tietê                          | Certificate Great Place to Work in Brazil   | Great Place to work<br>Institute   |
|                       | AES Tietê                          | 150 Best Companies to Work For  | Você S/A   |
| Dominican<br>Republic | AES<br>Dominicana                  | Great Place to Work in the Dominican Republic, #6<br>Great Place to Work in the Caribbean, #7   | Great Place to work<br>Institute   |
| El Salvador           | AES El Salvador                    | Great Place to Work in El Salvador, #15<br>Great Place to Work in Central America #21<br>Great Place to Work in El Salvador, 1,000+ people<br>category #6   | Great Place to work<br>Institute   |
|                       |                                    |   |  |
|                       | AES El Salvador                    | Most Attractive Enterprises to Work In  | Tecoloco Market Study  |
| Panama                | AES El Salvador                    | Most Attractive Enterprises to Work In<br>Great Place to Work in Panama #4<br>Great Place to Work in Central America, 100-1,000 people<br>category #11<br>Great Place to Work in 100-1,000 people category in<br>Panama #1                              | Tecoloco Market Study<br>Great Place to work<br>Institute  |
| Panama                |                                    | Great Place to Work in Panama #4<br>Great Place to Work in Central America, 100-1,000 people<br>category #11<br>Great Place to Work in 100-1,000 people category in   | Great Place to work  |
| Panama<br>Puerto Rico | AES Panama                         | Great Place to Work in Panama #4<br>Great Place to Work in Central America, 100-1,000 people<br>category #11<br>Great Place to Work in 100-1,000 people category in<br>Panama #1  | Great Place to work<br>Institute<br>European Institute of  |
|                       | AES Panama<br>Panama<br>AES Puerto | Great Place to Work in Panama #4<br>Great Place to Work in Central America, 100-1,000 people<br>category #11<br>Great Place to Work in 100-1,000 people category in<br>Panama #1<br>Work & Life Balance award<br>Great Place to Work in Puerto Rico, #1 | Great Place to work<br>Institute<br>European Institute of<br>Social Capital<br>Great Place to work |







## AES Performance Excellence: Improving Lives by Improving the Business

Consistently running for over 14 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.

Since 2006, we have implemented over 4,400 APEX projects. In 2019 104 projects using APEX methodologies translated into over US \$18 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 2019 Summit.

| <\$0.5MM over first five years of implementation   | \$0.5MM - \$2MM over first<br>five years of<br>implementation   | >\$2MM over first five years<br>of implementation   | REPLICATION AWARD  |
|--|---|---|--|
| 1st Place: AES Tietê, Brazli<br>Customer Experience  | 1st Place: AES Tamuín,<br>Mexico<br>Raw Water & Risk Mitigation   | 1st Place: AES El Salvador<br>On-Site Billing   | 1st Place: AES Gener, Chile,<br>and IPL Petersburg, US<br>Boiler Inspections Using<br>Robotics |
| 2nd Place: AES Gener, Chile<br>Tree Trimming with Drones   | 2nd Place: AES Tietê, Brazil<br>Remotely Operated<br>Underwater Vehicles for<br>Intake Screen Inspections   | 2nd Place: Energy Storage<br>Operations, US<br>Battery Energy Storage<br>System Binning Process | 2nd Place: AES Palm<br>Springs, US<br>Yaw Caliper Reliability<br>Improvement                   |
| 3rd Place (tie):<br>AES Saint Nikola, Bulgaria<br>Improved Wind Farm<br>Communication & Monitoring<br>Implementation<br>AES Laurel Mountain, US<br>Pitch Battery Enhancement | 3rd Place: AES Southland<br>Redondo Beach, US<br>Boiler Supply Tubes –<br>Fitness for Service<br>Evaluation | 3rd Place: AES Argentina<br>Power & Gas Market<br>Simulation Web Tool                           | 3rd Place: AES Mong Duong,<br>Vietnam<br>Optimization of Air<br>Compressor System              |

#### Table 39 - 2019 APEX Awards

## 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 meet our safety criteria and follow all of our rules and procedure.

The foundation of our SMS is comprised of <u>AES Safety Beliefs and Safety Principles</u> 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 2019 approximately 62 percent of our locations have elected to formally certify their SMS to the OHSAS 18001/ISOS 45001 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.

Businesses must 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 before any medium-risk or high-risk activity is undertaken. Additionally, the AES Governance Committee of the Board of Directors 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.

In 2019 we incorporated the Renewable Safety Manual for Projects. This manual focuses on the development and construction stages of new energy projects. This is highly important considering the growth AES is having.

As an example, all AES businesses have implemented an "incident management" safety program that requires safety incidents, ranging from occupational fatalities 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, empowered, and 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.

The AES Leadership EHS KPIs program — includes 7 separate KPIs, related to safety, that are continuously tracked. Our annual safety goals for the year were:

| Goal  | Result   |
|---|----------|
| 1) Achieve greater than 95 percent attendance at Monthly Safety Meetings.   | Achieved |
| 2) Achieve 100 percent of Safety Walk Targets   | Achieved |
| 3) Achieve a Significant Incident and Potential (SIP) Near Miss and Workplace Hazard reporting rate of 0.459 or better during 2019 where at least 50 percent of the reports will be Near Miss events. | Achieved |

During 2019, our efforts in safety were recognized by diverse external organizations and institutions, for leading the way in improving safety in our industry (Table 43).

We are also looking into new ways to use technology to improve safety at our operations like virtual reality or drones. AES has been experimenting with drones in the power industry for many years, officially launching its program in 2014. Today, drones have eliminated more than 62,000 hours of risk jobs and generated US\$14,2 million in benefits

AES Southland, in California is working with virtual reality to create an immersive experience within the Lock Out Tag Out (LOTO) program. The goal is to increase retention for AES team members by providing a more engaging training method and clearly demonstrating the consequences of not adhering to LOTO procedures

By using drones, AES is setting new standards for safety, efficiency and performance in its generation and distribution businesses. Drones allow a reduction in the number of hazardous hours that it takes to do certain types of maintenance, as well as enhancing the efficiency of the business.

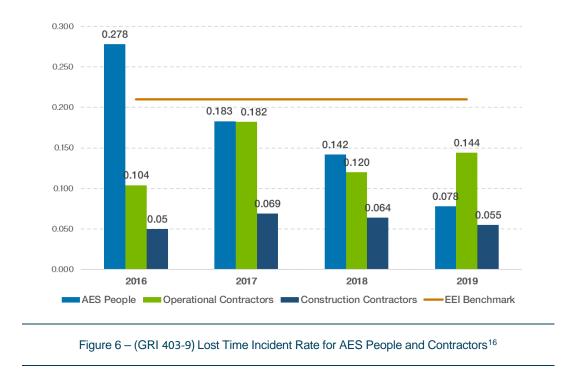
AES Gener in Chile, during a planned maintenance at a power plant used drones to perform the visual inspection of the main steam pipeline and the reheating steam pipelines in just two days. Previously this inspection involved scaffolding for each portion of the assessment, resulting in a 14-day inspection.

IPL's Petersburg plant in the US successfully executed their first laser profilometry robotic boiler inspection. Laser profilometry is a non-contact inspection technique that utilizes a low-powered laser to profile the surface of an object and record it with high-resolution cameras. DP&L is working with Measure and AiRXOS to advance drone operations to extend aerial inspections beyond the visual line of sight. This technology is particularly useful in areas where our crews are not able to easily patrol lines, such as through private right of way

In Chile, the transmission lines team modified a tree trimming drone so that it is now able to cut branches near energized lines avoiding safety risks to our people

## 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 US utility industry's top quartile benchmark LTI rates (Figure 6). In 2019 there was a 23 percent decrease in Lost Time Incident (LTI) cases.



The improvements experienced over the past three years is a result of a strategic action plan updated on annual basis. 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 include: EHS Management Information System (EMIS); Accountability and Recognition Standard; External EHS Audits Program; e-Learning; Incident Investigation Standard; EHS&S Standard Revision as part of the SMS.

Though one fatality is one too many, we have seen a gradual decline in the number of fatalities. Unfortunately, in 2019 we experienced two fatalities - one AES person operational employee, and one operational contractor (Table 40). Both incidents were investigated using our newly deployed methodology of TapRooT, which allowed us to identify the right root causes, and to develop the corrective actions plans to mitigate these root causes.

| Table 40 – (GRI 403-9) Occupational Fatality Cases |      |      |      |      |
|--|------|------|------|------|
| Occupational Fatalities                            | 2016 | 2017 | 2018 | 2019 |
| AES People   | 3    | 0    | 0    | 1    |
| Contractors  | 5    | 2    | 3    | 1    |

<sup>16</sup> 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.

## Proactive Safety Performance

AES businesses take a proactive approach to safety management. Proactive safety metrics include Safety Walk performance, identification of unsafe behaviors and conditions, reporting and investigation of near-miss incidents, and setting of and tracking the progress of SMS goals and action plans. (Table 41) (Table 42)

| Table 41 - Proactive Safety Measures |         |        |        |        |
|--------------------------------------|---------|--------|--------|--------|
| Proactive Safety<br>Indicator        | 2016    | 2017   | 2018   | 2019   |
| Safety Walks                         | 101,289 | 94,952 | 50,719 | 49,651 |
| Workplace Hazards                    | 93,005  | 63,106 | 46,392 | 53,017 |

Table 42 - Near Miss frequency rate<sup>17</sup>

|                          | 2016 | 2017 | 2018 | 2019 |
|--------------------------|------|------|------|------|
| Near Miss frequency rate | 1.54 | 2.72 | 2.81 | 3.18 |

## Integration of contractors

The company has developed and implemented the Contractor Safety Management Standard to specify the safety management requirements for the entire contracting cycle: from the requisition of work to the contract closure, including a Site Safety Specific Plan. For this part of the process, for example, all US SBU businesses are using different platforms like Avetta System.

Once the contractor company has been Pre-Qualified, it is granted access to our facilities where it is required to attend a Site Safety Orientation Training Session together with a test that should be passed before being authorized to start any job. In addition, a Site Safety Specific Plan should be developed and presented to an AES Safety Person for his review and validation.

The process is coordinated by a contractor administrator who is responsible to conduct daily coordination meetings where a Job Safety Analysis will be reviewed to ensure that all the safety

<sup>17</sup> Number of reported near misses multiplied by 200,000 divided by total hours worked in the period

mitigation controls and procedures are identified and implemented. Also, he is responsible for conducting safety daily meetings with the contractors to review their performance. Once the contractor finalizes the job, a final evaluation of its safety performance should be completed.

AES also has implemented the EHS&S Renewable Energy Construction Projects Manual which defines minimum Environment, Health, Safety and Security (EHSS) related practice requirements applicable for all AES Renewable Energy construction projects.

The objective is to ensure an effective EHSS Management System, supported by standards, policies, procedures and processes that allows to proactively manage risks and establish an Incident free workplace.

## 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.

The performance of the business is communicated on a monthly basis through Monthly Safety Meetings with the participation of all the AES people and contract employees. During these meetings, participants 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. Based on that, during 2019 we completed the development of the Company Recognition Standard where the main scope is implementing a standardized process across the Company to increase the type and frequency of recognitions by each SBU, Company, Team, and Individual.

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 for AES businesses.

#### 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 2019.

| Country     | AES Business   | Recognition   | Granted by   |
|-------------|--|---|--|
| Bulgaria    | Maritza<br>St. Nikola  | International Safety Award - Merit                                  | British Safety Council   |
| El Salvador | CAESS, CLESA, EEO,<br>DEUSEM, AES Nejapa,<br>AES Next, Bosforo | 3M AWARD for Occupational Health,<br>Special Recognition for Career | 3M of El Salvador  |
| India       | OPGC   | Kalinga Safety Award  | Institute of Quality and<br>Environment Management<br>Services & Institute of Public<br>Enterprises, Hyderabad |
| Country     | AES Business   | Recognition   | Granted by   |
|             | AES Jordan PSC   | International Safety Award-Merit                                    | British Safety Council   |
| Jordan      | AES Jordan PSC   | Golden Medal Award  | Royal Society for the Prevention<br>of Accidents (RoSPA)   |
| Jordan      | AES Levant   | International Safety Award-Merit                                    | British Safety Council   |
|             | AES Levant   | Golden Medal Award  | Royal Society for the Prevention<br>of Accidents (RoSPA)   |
| Vietnam     | Mong Duong II  | Golden Medal Award  | Royal Society for the Prevention<br>of Accidents (RoSPA)   |
|             | Gener - Central Nueva<br>Tocopilla (Norgener)                  | Excellence Award  | Safety Labor Institute (IST)   |
| Chile       | Gener - Guacolda   | Tucapel Gonzalez Garcia Safety<br>Award                             | Social Security Superintendence<br>(SUSESO)  |
|             | Gener - Laja   | Living Prevention Regional Award –<br>Safety Video                  | Safety Labor Institute (IST)   |

| Table 43 - External Safety Recognitions, 2019 |
|---|
|---|

## 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.

# 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.

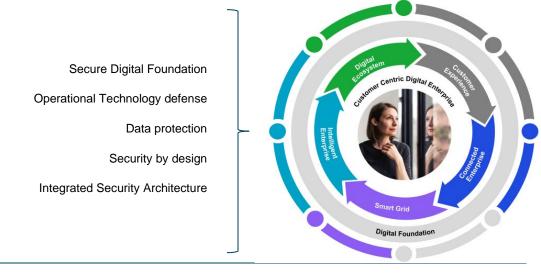


Figure 7 - AES Cybersecurity Strategic Initiatives

We regularly communicate this strategy with corporate leadership, the Board of Directors and our global cybersecurity team through weekly cybersecurity council meetings, quarterly Chief Information Security Officer (CISO) updates, and an annual 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 14 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.

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.

While the Global Cybersecurity team regularly triages events, as a result of these efforts, AES has not had a significant cybersecurity event —including the capture of a control system, unauthorized exposure of sensitive company data, or breach of customer records.



AES is part of The Charter of Trust (CoT), a cybersecurity initiative founded by Siemens. CoT calls for binding rules and standards to build trust in cybersecurity and further advance digitalization. Members are establishing a risk-based methodology for implementing these requirements in their own supply chains, involving supply chain partners in the process. This aligns with our core belief that cooperative digital security norms are central to the future of companies that support critical infrastructure AES Cybersecurity Awareness Program was recognized with the CSO50 award for the innovative ways we have tied cybersecurity to our first value of safety, through interactive security exercises, user-friendly materials, and global training, all delivered across multiple. Over the past 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.



#### Awareness and Education

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.

#### Intelligence and Advocacy

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).

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

Led by a cross-functional steering committee, the Data Protection Officer, a 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.

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.

Volunteer firefighters and brigade members of Termoandes, Cabra Corral and El Tunal in Salta Province in Argentina participated in a joint drill with other companies, the police department and local hospital. As part of the activities diverse training was provided such

as care for snake bites, use of fire extinguishers and firefighting techniques, and the use of rescue and first aid equipment, among others.

As part of the Meet the Helpers initiative, DP&L joined community first responders to educate children and Miami Valley families on emergency preparedness, how to prepare and what to do in an emergency.

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.

During 2019 DP&L crews helped with power restoration following Hurricane Dorian in Virginia and IPL crews were deployed to Tampa. Fortunately, the hurricane did not cause damage and the crews were able to return home.

#### AES' US utilities recognized by Edison Electric Institute



AES' US utilities DP&L and IPL received two Edison Electric Institute (EEI) awards. DP&L received the Emergency Recovery Award in recognition of a job well done following the US Memorial Day tornados in the Dayton, Ohio (15 confirmed tornados crossed DP&L's service territory, causing extensive damage for more than 20 miles and resulting in 101,748 outages). IPL earned the Emergency Assistance Award for outstanding recovery assistance.

The EEI award honors utilities for their extraordinary efforts to restore power to customers after service disruptions caused by severe weather conditions

### Forward Looking - Information

The information presented here is meant to provide an overview of The AES Corporation and is not meant to be precise or inclusive of all the Company's inputs and outputs. Please see The AES Corporation's <u>2019 Annual Report on Form 10-K</u> for detailed notes and further explanations of financial information and this Sustainability Report for more social and environmental information.

In this document we make statements concerning our expectations, beliefs, plans, objectives, goals, strategies, and future events or performance. Such statements are "forward-looking statements" within the meaning of the Securities Act of 1933 and of the Securities and Exchange Act of 1934. Forward-looking statements are based on management's beliefs and assumptions and can often be identified by terms and phrases that include "anticipate," "believe," "intend," "estimate," "expect," "continue," "should," "could," "may," "plan," "project," "predict," "will," "potential," "forecast," "target," "guidance," "outlook" or other similar terminology. Although we believe that these forward-looking statements and the underlying assumptions are reasonable, we cannot assure you that they will prove to be correct.

Forward-looking statements involve a number of risks and uncertainties, and there are factors that could cause actual results to differ materially from those expressed or implied in our forward-looking statements. Some of those factors (in addition to others described in our Annual Report on Form 10-K and in subsequent securities filings) include:

- the economic climate, particularly the state of the economy in the areas in which we operate and the state of the economy in China, which impacts demand for electricity in many of our key markets, including the fact that the global economy faces considerable uncertainty for the foreseeable future, which further increases many of the risks discussed in our Annual Report on Form 10-K;
- changes in demand for power and changes in the price of electricity at which our generation businesses sell into the wholesale market and our utility businesses purchase to distribute; to their customers, and the success of our risk management practices;
- changes in the prices and availability of coal, gas and other fuels (including our ability to have fuel transported to our facilities);
- the impact of the COVID-19 pandemic;
- our ability to meet targets to increase our renewables portfolio, reduce coal generation, and reduce carbon intensity;
- our ability to compete in markets where we do business;
- our ability to operate power generation, distribution and transmission facilities, including managing availability, outages and equipment failures;
- our ability to manage our operational and maintenance costs and the performance and reliability of our generating plants, including our ability to reduce unscheduled down times;
- our ability to enter into long-term contracts, which limit volatility in our results of operations and cash flow, such as PPAs, fuel supply, and other agreements and to manage counterparty credit risks in these agreements;

- variations in weather, especially mild winters and cooler summers in the areas in which we
  operate, the occurrence of difficult hydrological conditions for our hydropower plants, as well
  as hurricanes and other storms and disasters, wildfires and low levels of wind or sunlight for
  our wind and solar facilities;
- the performance of our contracts by our contract counterparties, including suppliers or customers;
- severe weather and natural disasters;
- our ability to raise sufficient capital to fund development projects or to successfully execute our development projects;
- the success of our initiatives in renewable energy projects and energy storage projects;
- the availability of government incentives or policies that support the development of renewable energy generation projects;
- our ability to keep up with advances in technology;
- changes in number of customers or in customer usage;
- changes in laws, rules and regulations affecting our international businesses, particularly in developing countries;
- changes in laws, rules and regulations affecting our utilities businesses;
- changes in law resulting from new local, state, federal or international energy legislation and changes in political or regulatory oversight or incentives affecting our wind business and solar projects, our other renewables projects and our initiatives in GHG reductions and energy storage, including government policies or tax incentives;
- changes in environmental laws, including requirements for reduced emissions, GHG legislation, regulation, and/or treaties and CCR regulation and remediation;
- the effects of litigation and government and regulatory investigations;
- our ability to maintain adequate insurance;
- changes in accounting standards, corporate governance and securities law requirements;
- our ability to maintain effective internal controls over financial reporting;
- our ability to attract and retain talented directors, management and other personnel;
- cyber-attacks and information security breaches; and
- data privacy.

Additional risks and uncertainties are identified and discussed in AES' reports filed with the Securities and Exchange Commission and are available on the SEC's website (sec.gov). In light of these risks, uncertainties and assumptions, the events described in the forward-looking statements might not occur or might occur to a different extent or at a different time than described. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise. If one or more forward-looking statements are updated, no inference should be drawn that additional updates will be made with respect to those or other forward-looking statements.

### Non-GAAP Financial Information

#### Non-GAAP Measures

Adjusted Earnings Per Share, a non-GAAP financial measure, is defined as diluted earnings per share from continuing operations excluding gains or losses of both consolidated entities and entities accounted for under the equity method due to (a) unrealized gains or losses related to derivative transactions and equity securities; (b) unrealized foreign currency gains or losses; (c) gains, losses, benefits and costs associated with dispositions and acquisitions of business interests, including early plant closures, and the tax impact from the repatriation of sales proceeds, and gains and losses recognized at commencement of sales-type leases; (d) losses due to impairments; (e) gains, losses and costs due to the early retirement of debt; (f) costs directly associated with a major restructuring program, including, but not limited to, workforce reduction efforts, relocations and office consolidation; and (g) tax benefit or expense related to the enactment effects of 2017 U.S. tax law reform and related regulations and any subsequent period adjustments related to enactment effects.

Parent Free Cash Flow (a non-GAAP financial measure) should not be construed as an alternative to Net Cash Provided by Operating Activities, which is determined in accordance with US GAAP. Parent Free Cash Flow is the primary, recurring source of cash that is available for use by the Parent Company. Parent Free Cash Flow is equal to Subsidiary Distributions less cash used for interest costs, development, general and administrative activities, and tax payments by the Parent Company. Management uses Parent Free Cash Flow to determine the cash available to pay dividends, repay recourse debt, make equity investments, fund share buybacks, pay Parent Company hedging costs and make foreign exchange settlements.

### Financial Measures: Non-GAAP Financial Measures Reconciliation (Unaudited)

|   |                        | Year Ended<br>December 31 |            |
|---|------------------------|---------------------------|------------|
| (\$ in millions, except per share amounts)                            | 2019                   | 2018                      | 2017       |
| Reconciliation of Adjusted Earnings Per Share <sup>(1)</sup>          | \$0.45                 | \$1.48                    | \$(0.77)   |
| Diluted Earnings (Loss) Per Share From Continuing Operations          | <b>ФО.4</b> 5          | <b>ψ1.40</b>              | \$(0.77)   |
| Effect of anti-dilutive securities                                    | _                      | _                         | 0.01       |
| Non-GAAP diluted earnings (loss) per share from continuing operations | 0.45                   | 1.48                      | (0.76)     |
| Unrealized derivative and equity securities losses                    | 0.17(2)                | 0.05                      | _          |
| Unrealized foreign currency losses (gains)                            | 0.05(3)                | 0.09(4)                   | (0.10)     |
| Disposition/acquisition losses (gains)                                | 0.02(5)                | (1.41) <sup>(6)</sup>     | 0.19(7)    |
| Impairment expense  | 0.61 <sup>(8)</sup>    | 0.46 <sup>(9)</sup>       | 0.82(10)   |
| Loss on extinguishment of debt  | 0.18(11)               | 0.27(12)                  | 0.09(13)   |
| Restructuring costs   | -                      | -                         | 0.05       |
| U.S. Tax Law Reform Impact  | (0.01)                 | 0.18(14)                  | 1.08(15)   |
| Less: Net income tax expense (benefit)                                | (0.11) <sup>(16)</sup> | 0.12(17)                  | (0.29)(18) |
| Adjusted Earnings Per Share <sup>(1)</sup>                            | \$1.36                 | \$1.24                    | \$1.08     |

| Reconciliation of Adjusted Pre-Tax Contribution <sup>(16)</sup>           | \$302   | \$985   | \$(507) |  |
|---|---------|---------|---------|--|
| Income (Loss) From Continuing Operations, Net of Tax, Attributable to AES | \$30Z   | 4900    | ə(507)  |  |
| Income tax expense attributable to AES                                    | 250     | 563     | 828     |  |
| Pre-tax contribution  | 552     | 1,548   | 321     |  |
| Unrealized derivative and equity securities losses (gains)                | 113     | 33      | (3)     |  |
| Unrealized foreign currency losses (gains)                                | 36      | 51      | (59)    |  |
| Disposition/acquisition losses (gains)                                    | 12      | (934)   | 123     |  |
| Impairment expense  | 406     | 307     | 542     |  |
| Loss on extinguishment of debt  | 121     | 180     | 62      |  |
| Restructuring costs   | —       | —       | 31      |  |
| Adjusted Pre-Tax Contribution <sup>(19)</sup>                             | \$1,240 | \$1,185 | \$1.017 |  |

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- (1) We define Adjusted Earnings Per Share ("Adjusted EPS"), a non-GAAP measure, as diluted earnings per share from continuing operations excluding gains or losses of both consolidated entities and entities accounted for under the equity method due to (a) unrealized gains or losses related to derivative transactions and equity securities; (b) unrealized foreign currency gains or losses; (c) gains, losses, benefits and costs associated with dispositions and acquisitions of business interests, including early plant closures, the tax impact from the repatriation of sales proceeds, and gains and losses recognized at commencement of sales-type leases; (d) losses due to impairments; (e) gains, losses and costs due to the early retirement of debt; (f) costs directly associated with a major restructuring program, including, but not limited to, workforce reduction efforts, relocations and office consolidation; and (g) tax benefit or expense related to the enactment effects of 2017 U.S. tax law reform and related regulations and any subsequent period adjustments related to enactment effects. The GAAP measure most comparable to Adjusted EPS is diluted earnings per share from continuing operations. AES believes that Adjusted EPS better reflects the underlying business performance of the Company and is considered in the Company's internal evaluation of financial performance. Factors in this determination include the variability due to unrealized gains or losses related to derivative transactions or equity securities remeasurement, unrealized foreign currency gains or losses, losses due to impairments and strategic decisions to dispose of or acquire business interests, retire debt or implement restructuring initiatives, which affect results in a given period or periods. Adjusted EPS should not be construed as an alternative to diluted earnings per share from continuing operations, which is determined in accordance with GAAP.
- (2) Amount primarily relates to unrealized derivative losses in Argentina of \$89 million, or \$0.13 per share, mainly associated with foreign currency derivatives on government receivables.
- (3) Amount primarily relates to unrealized FX losses in Argentina of \$25 million, or \$0.04 per share, mainly associated with the devaluation of long-term receivables denominated in Argentine pesos, and unrealized FX losses at the Parent Company of \$12 million, or \$0.02 per share, mainly associated with intercompany receivables denominated in Euro.
- (4) Amount primarily relates to unrealized FX losses of \$22 million, or \$0.03 per share, associated with the devaluation of long-term receivables denominated in Argentine pesos, and unrealized FX losses of \$14 million, or \$0.02 per share, on intercompany receivables denominated in Euro and British pounds at the Parent Company.
- (5) Amount primarily relates to losses recognized at commencement of sales-type leases at Distributed Energy

of \$36 million, or \$0.05 per share, and loss on sale of Kilroot and Ballylumford of \$31 million, or \$0.05 per share; partially offset by gain on sale of a portion of our interest in sPower's operating assets of \$28 million, or \$0.04 per share, gain on disposal of Stuart and Killen at DPL of \$20 million, or \$0.03 per share, and gain on sale of ownership interest in Simple Energy as part of the Uplight merger of \$12 million, or \$0.02 per share.

- (6) Amount primarily relates to gain on sale of Masinloc of \$772 million, or \$1.16 per share, gain on sale of CTNG of \$86 million, or \$0.13 per share, gain on sale of Electrica Santiago of \$36 million, or \$0.05 per share, gain on remeasurement of contingent consideration at AES Oahu of \$32 million, or \$0.05 per share, gain on sale related to the Company's contribution of AES Advancion energy storage to the Fluence joint venture of \$23 million, or \$0.03 per share, and realized derivative gains associated with the sale of Eletropaulo of \$21 million, or \$0.03 per share; partially offset by loss on disposal of the Beckjord facility and additional shutdown costs related to Stuart and Killen at DPL of \$21 million, or \$0.03 per share.
- (7) Amount primarily relates to loss on sale of Kazakhstan CHPs of \$49 million, or \$0.07 per share, realized derivative losses associated with the sale of Sul of \$38 million, or \$0.06 per share, loss on sale of Kazakhstan HPPs of \$33 million, or \$0.05 per share, and costs associated with early plant closures at DPL of \$24 million, or \$0.04 per share; partially offset by gain on Masinloc contingent consideration of \$23 million, or \$0.03 per share, and gain on sale of Miami Fort and Zimmer of \$13 million, or \$0.02 per share.
- (8) Amount primarily relates to asset impairments at Kilroot and Ballylumford of \$115 million, or \$0.17 per share, and Hawaii of \$60 million, or \$0.09 per share; impairments at our Guacolda and sPower equity affiliates, impacting equity earnings by \$105 million, or \$0.16 per share, and \$21 million, or \$0.03 per share, respectively; and other-than-temporary impairment of OPGC of \$92 million, or \$0.14 per share.
- (9) Amount primarily relates to asset impairments at Shady Point of \$157 million, or \$0.24 per share, and Nejapa of \$37 million, or \$0.06 per share, and other-than-temporary impairment of Guacolda of \$96 million, or \$0.14 per share.
- (10) Amount primarily relates to asset impairments at Kazakhstan CHPs of \$94 million, or \$0.14 per share, Kazakhstan HPPs of \$92 million, or \$0.14 per share, Laurel Mountain of \$121 million, or \$0.18 per share, DPL of \$175 million, or \$0.27 per share, and Kilroot of \$37 million, or \$0.05 per share.
- (11) Amount primarily relates to losses on early retirement of debt at DPL of \$45 million, or \$0.07 per share, AES Gener of \$35 million, or \$0.05 per share, Mong Duong of \$17 million, or \$0.03 per share, and Colon of \$14 million, or \$0.02 per share.
- (12) Amount primarily relates to loss on early retirement of debt at the Parent Company of \$171 million, or \$0.26 per share.

- (13) Amount primarily relates to losses on early retirement of debt at the Parent Company of \$92 million, or \$0.14 per share, AES Gener of \$20 million, or \$0.02 per share, and IPALCO of \$9 million, or \$0.01 per share; partially offset by a gain on early retirement of debt at AES Argentina of \$65 million, or \$0.10 per share.
- (14) Amount relates to a SAB 118 charge to finalize the provisional estimate of one-time transition tax on foreign earnings of \$194 million, or \$0.29 per share, partially offset by a SAB 118 income tax benefit to finalize the provisional estimate of remeasurement of deferred tax assets and liabilities to the lower corporate tax rate of \$77 million, or \$0.11 per share.
- (15) Amount relates to a one-time transition tax on foreign earnings of \$675 million, or \$1.02 per share, and the remeasurement of deferred tax assets and liabilities to the lower corporate tax rate of \$39 million, or \$0.06 per share.
- (16) Amount primarily relates to the income tax benefits associated with the impairments at OPGC of \$23 million, or \$0.03 per share, Guacolda of \$13 million, or \$0.02 per share, Hawaii of \$13 million, or \$0.02 per share, and Kilroot and Ballylumford of \$11 million, or \$0.02 per share, and income tax benefits associated with losses on early retirement of debt of \$24 million, or \$0.04 per share; partially offset by an adjustment to income tax expense related to 2018 gains on sales of business interests, primarily Masinloc, of \$25 million, or \$0.04 per share.
- (17) Amount primarily relates to the income tax expense under the GILTI provision associated with the gains on sales of business interests, primarily Masinloc, of \$97 million, or \$0.15 per share, and income tax expense associated with gains on sale of CTNG of \$36 million, or \$0.05 per share, and Electrica Santiago of \$13 million, or \$0.02 per share; partially offset by income tax benefits associated with the loss on early retirement of debt at the Parent Company of \$36 million, or \$0.05 per share, and income tax benefits associated with the impairment at Shady Point of \$33 million, or \$0.05 per share.
- (18) Amount primarily relates to the income tax benefits associated with asset impairments of \$148 million, or \$0.22 per share.

#### THE AES CORPORATION NON-GAAP FINANCIAL MEASURES

#### **Reconciliation of Parent Free Cash Flow<sup>1</sup>**

| \$ in Millions   | De       | cember 31, Dec<br>2019 | ember 31,<br>2018 |
|--|----------|------------------------|-------------------|
| Net Cash Provided by Operating Activities at the Parent Company <sup>2</sup>                           | \$       | 583 \$                 | 409               |
| Subsidiary Distributions to QHCs Excluded from Schedule 1 <sup>3</sup>                                 | \$       | 183 \$                 | 117               |
| Subsidiary Distributions Classified in Investing Activities <sup>4</sup>                               | \$       | 60 \$                  | 267               |
| Parent-Funded SBU Overhead and Other Expenses Classified in Investing Activities <sup>5</sup><br>Other | \$<br>\$ | (97)\$<br>(3)\$        | (84)<br>(20)      |
| Parent Free Cash Flow <sup>1</sup>   | \$       | 726 \$                 | 689               |

<sup>1</sup> Parent Free Cash Flow (a non-GAAP financial measure) should not be construed as an alternative to Net Cash Provided by Operating Activities which is determined in accordance with GAAP. Parent Free Cash Flow is equal to Subsidiary Distributions less cash used for interest costs, development, 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.

<sup>2</sup> Refer to Part IV—Item 15—Schedule I—*Condensed Financial Information of Registrant* of the Company's 2020 10-K filed with the SEC on May 6, 2020.

- <sup>3</sup> Subsidiary distributions received by Qualified Holding Companies ("QHCs") excluded from Schedule 1. Subsidiary Distributions should not be construed as an alternative to Net Cash Provided by Operating Activities which is determined in accordance with GAAP. Subsidiary Distributions are important to the Parent Company because the Parent Company is a holding company that does not derive any significant direct revenues from its own activities but instead relies on its subsidiaries' business activities and the resultant distributions to fund the debt service, investment and other cash needs of the holding company. The reconciliation of the difference between the Subsidiary Distributions and Net Cash Provided by Operating Activities consists of cash generated from operating activities that is retained at the subsidiaries for a variety of reasons which are both discretionary and non-discretionary in nature. These factors include, but are not limited to, retention of cash to fund capital expenditures at the subsidiaries, retention of cash related to sufficiency of local GAAP statutory retained earnings at the subsidiaries, retention of cash for working capital needs at the subsidiaries, and other similar timing differences between when the cash is generated at the subsidiaries and when it reaches the Parent Company and related holding company.
- <sup>4</sup> Subsidiary distributions that originated from the results of operations of an underlying investee but were classified as investing activities when received by the relevant holding company included in Schedule 1.
- <sup>5</sup> Net cash payments for parent-funded SBU overhead, business development, taxes, transaction costs, and capitalized interest that are classified as investing activities or excluded from Schedule 1.

#### The AES Corporation Parent Financial Information

| Parent only data: last four quarters                          |                             |                                 |                                  |                            |  |
|---|-----------------------------|---------------------------------|----------------------------------|----------------------------|--|
| (in millions)   | 4 Quarters Ended            |                                 |                                  |                            |  |
| Total subsidiary distributions & returns of capital to Parent | March 31,<br>2020<br>Actual | December 31<br>. 2019<br>Actual | September 3<br>0. 2019<br>Actual | June 30,<br>2019<br>Actual |  |
| Subsidiary distributions1 to Parent & QHCs                    | \$<br>1,180                 | \$ 1,191                        | \$ 1,185 \$                      | 1,034                      |  |
| Returns of capital distributions to Parent & QHCs             | 217                         | 217                             | 197                              | _                          |  |
| Total subsidiary distributions & returns of capital to Parent | \$<br>1,397                 | \$ 1,408                        | \$ 1,382 \$                      | 1,034                      |  |
| Parent only data: quarterly                                   |                             |                                 |                                  |                            |  |

| (in millions)   | Quarter Ended |                             |                                 |                                  |                            |
|---|---------------|-----------------------------|---------------------------------|----------------------------------|----------------------------|
| Total subsidiary distributions & returns of capital to Parent | N             | larch 31,<br>2020<br>Actual | December 31<br>. 2019<br>Actual | September 3<br>0. 2019<br>Actual | June 30,<br>2019<br>Actual |
| Subsidiary distributions1 to Parent & QHCs                    | \$            | 189 \$                      | S 396 S                         | <b>326</b> \$                    | 269                        |
| Returns of capital distributions to Parent & QHCs             |               | —                           | 19                              | 198                              | _                          |
| Total subsidiary distributions & returns of capital to Parent | \$            | 189 \$                      | 5 415 <b>\$</b>                 | 5 524 \$                         | 269                        |

| (in millions)                              | Balance at |                             |                                 |                                  |                            |  |
|--|------------|-----------------------------|---------------------------------|----------------------------------|----------------------------|--|
| Parent Company Liquidity <sup>2</sup>      |            | March 31,<br>2020<br>Actual | December 31<br>. 2019<br>Actual | September 3<br>0. 2019<br>Actual | June 30,<br>2019<br>Actual |  |
| Cash at Parent & Cash at QHCs <sup>3</sup> | \$         | 346                         | \$ 13                           | \$ 28 \$                         | 169                        |  |
| Availability under credit facilities       |            | 181                         | 801                             | 723                              | 719                        |  |
| Ending liquidity                           | \$         | 527                         | \$ 814                          | \$751 \$                         | 888                        |  |

<sup>(1)</sup> Subsidiary distributions received by Qualified Holding Companies ("QHCs") excluded from Schedule 1. Subsidiary Distributions should not be construed as an alternative to Net Cash Provided by Operating Activities which is determined in accordance with GAAP. Subsidiary Distributions are important to the Parent Company because the Parent Company is a holding company that does not derive any significant direct revenues from its own activities but instead relies on its subsidiaries' business activities and the resultant distributions to fund the debt service, investment and other cash needs of the holding company. The reconciliation of the difference between the Subsidiaries for a variety of reasons which are both discretionary and non-discretionary in nature. These factors include, but are not limited to, retention of cash to fund capital expenditures at the subsidiary, cash retention associated with non-recourse debt covenant restrictions and related debt service requirements at the subsidiaries, retention of cash related to sufficiency of local GAAP statutory retained earnings at the subsidiaries, retention of cash for working capital needs at the subsidiaries, and other similar timing differences between when the cash is generated at the subsidiaries and when it reaches the Parent Company and related holding companies.

(2) Parent Company Liquidity is defined as cash available to the Parent Company, including cash at qualified holding companies (QHCs), plus available borrowings under our existing credit facility. AES believes that unconsolidated Parent Company liquidity is important to the liquidity position of AES as a Parent Company because of the non-recourse nature of most of AES' indebtedness.

(3) The cash held at QHCs represents cash sent to subsidiaries of the company domiciled outside of the US. Such subsidiaries have no contractual restrictions on their ability to send cash to AES, the Parent Company. Cash at those subsidiaries was used for investment and related activities outside of the US. These investments included equity investments and loans to other foreign subsidiaries as well as development and general costs and expenses incurred outside the US. Since the cash held by these QHCs is available to the Parent, AES uses the combined measure of subsidiary distributions to Parent and QHCs as a useful measure of cash available to the Parent to meet its international liquidity needs.

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