2016 Supplemental Disclosure	
Introduction	
Please give a general description and introduction to your organization.	See Apache 2016 Sustainability Report
Please state the start and end date of the year for which you are reporting data. The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first. We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.	Thursday 01 Jan 2015 - Thursday 31 Dec 2015
Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.	See Apache 2016 Sustainability Report- Our Approach
Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.	See Apache 2015 Summary Annual Report and Form 10-K
Governance	
Where is the highest level of direct responsibility for climate change within your organization?	See 2016 Apache Sustainability Report- Health, Safety, Security and Environment Governance
Please identify the position of the individual or name of the committee with this responsibility.	See 2016 Apache Sustainability Report- Health, Safety, Security and Environment Governance
Do you provide incentives for the management of climate change issues, including the attainment of targets?	See 2016 Apache Sustainability Report- Health, Safety, Security and Environment Governance
Please provide further details on the incentives provided for the management of climate change issues.	Management group, business unit managers and facility managers are provided with an incentive through monetary rewards measured by Achievement of Apache Health, Safety, Security and Environment Performance Assessment goals which include a process to track and improve energy efficiency while reducing GHG emissions per unit of production or the emission intensity. Employees can be provided with an incentive through non-monetary rewards measured by specific local GHG reduction achievement or good ideas.
Strategy	
Please describe your risk management procedures with regard to climate change risks and opportunities.	Integrated into multi-disciplinary company wide risk management processes
Please provide further details on your risk management procedures with regard to climate change risks and opportunities.	Every six months or more frequently risk management results are reported for all of Apache's operation. Risks are considered 1 to 3 years into the future.
Please describe how your risk and opportunity identification processes are applied at both company and asset level.	Apache considers managing risk a core competency of its organization and this focus runs through our entire decision-making review process, from the commencement of engineering design for a new project or facility to the job safety analysis undertaken by employees for their day to day operational tasks. Formal risk reviews are undertaken for all our activities, including early design reviews and hazard assessments for new projects. Apache also maintains several key champion groups dedicated to risk evaluation and mitigation within our regional and corporate structure, as well as a VP - Planning and Risk Management who reports to Apache's Executive Vice President and Chief Financial Officer. Each of our risk focus areas benefits from the experience of different internal and invited external groups of professionals and stakeholders. Apache seeks guidance from a wide range of groups that can add value both internally and externally, including Apache's BOD and field foremen, and where appropriate, landowners, NGO's, community groups and government representatives.

How do you prioritize the risks and opportunities identified?	Our risk focus, in order of perceived materiality and impact is: 1) Preventing negative impacts to the natural environment (including minimizing greenhouse gas emissions) and neighboring communities and stakeholders 2) Physical risks to our employees and property (weather or otherwise) 3) Potential changes in markets for our products, especially expanding markets for natural gas 4) Impact of changing regulatory framework 5) Adaptations necessary to minimize emissions, operate efficiently and avoid negative impacts. 6) Risks associated with new lines of revenue such as emissions trading and carbon credit creation
Is climate change integrated into your business strategy?	Yes
Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process.	Apache's mission is to grow a profitable global exploration and production company in a safe and environmentally responsible manner for the long-term benefit of our shareholders. Consistent with our mission, all of Apache's regions are aligned with directives and incentives to operate as energy efficiently as possible, which in our business corresponds to minimizing energy use and reducing emissions. Apache is a diversified company with a 2015 production mix generated from its operations worldwide of 65 percent liquid hydrocarbons and 35 percent natural gas. One of our business strategies is to promote natural gas as the fuel of choice for alternative transportation and power generation as a goal to lower the greenhouse gas emissions of our customers. Several years ago Apache developed a vision to become a leader in promoting natural gas as an alternative fuel of choice. To this end, Apache looks to develop strong domestic natural gas markets in the areas in which it operates, displacing coal for natural gas as the main energy source for electricity production (coal and natural gas are the primary fuels used for the world's electricity generation market, where they often act as substitutes for each other). Such business cases exist in our operating regions of Canada, Egypt, the United Kingdom and the United States of America, where we focus on supplying natural gas to electric-power utility operators. Prior to the sale in early 2015 of its Australian assets, Apache was on pace to become the No. 1 domestic-gas supplier in Western Australia. These projects required long term financial commitments by the company and promote lower carbon emissions in international energy markets with clean-burning natural gas. To date Apache has converted approximately 40% of its U.S. fleet vehicles to compressed natural gas and constructed 18 compressed-gas refueling stations. CNG vehicles offer a cleaner alternative to gasoline and diesel transport fuels. Natural-gas vehicles emit less carbon dioxide (approximately 20-30 percent less) than liquid petroleum-fueled vehicles.
Does your company use an internal price of carbon?	Yes
Please provide details and examples of how your company uses an internal price of carbon.	We evaluate various GHG reduction scenarios for anticipated carbon price costs in the U.K., Canada and – until the asset sale – Australia to justify investments that are otherwise of marginal value.
Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following?	Direct engagement with policy makers Trade associations Funding research organizations

On what issues have you been engaging directly with policy makers?	Engagment regarding regulation of methane emissions specifically comments were provided to draft USEPA regulations regarding Subpart OOOOa regarding costs, record keeping, resource burden and exempt produced water/flowback water recycling efforts. The proposed legislative action included specifically exempting produced water/flowback water recycling efforts from the Subpart OOOOa regulations. Additional engagement occured egarding ONE Future. Apache Corporation is a charter member of Our Nation's Energy Future (ONE Future) Coalition. It is a group of eight companies representing the natural gas value chain from production to processing, transmission through distribution. ONE Future is working with USEPA and White House staff to develop and implement voluntary methane reduction programs that will reduce methane emissions to less than 1 percent of total methane production across the entire natural gas value chain. These voluntary programs would provide operators the flexibility to reduce methane emissions from their operations in the most efficient manner possible using innovative techniques and avoiding pitfalls of traditional command-and-control regulatory processes. Apache supports the position of the policy makers but with majot exceptions.
Are you on the Board of any trade associations or provide funding beyond membership?	Yes
Please enter the details of those trade associations that are likely to take a position on climate change legislation.	Apache engages with the Canadian Association of Petroleum Producers (CAPP) and Apache's Director of Environment, Health & Safety participates in CAPP activities. Apache is an active member of the Canadian Association of Petroleum Producers (CAPP). Apache supports CAPP's position on climate change. The Canadian oil and gas industry fully recognizes that it must continue to do its part in addressing greenhouse gas (GHG) emissions and advocates several key principles to guide the development of Canadian climate policy. Apache engages with Oil and Gas U.K. Apache's Health, Safety, Security & Environment Manager is involved in Oil and Gas U.K. activities on GHG and other topics. Oil & Gas U.K. recognizes the need, over time, to move toward a lower-carbon economy to satisfy the UK's energy needs. However, this transition cannot happen overnight; it needs to be managed carefully over not just years, but decades and we believe that the oil and gas industry can and must provide the foundations for the journey and the endpoint both in terms of energy, the economy and the environment. Apache's position on climate change is consitent with these groups.
Do you publicly disclose a list of all the research organizations that you fund?	No
Do you fund any research organizations to produce or disseminate public work on climate change?	Yes
Please describe the work and how it aligns with your own strategy on climate change.	Locking CO2 from oil and gas operations underground (geo-sequestration): Sequestration is seen as an opportunity to inject extracted CO2 or exhausts from other equipment back downhole, where it would be stored permanently. Apache is a part of research to support and validate safe, cost-effective injection of acid gas for the purpose of acid-gas disposal, CO2 storage and enhanced oil recovery. The research has wide-reaching benefits and will positively impact future CCS activities by providing information to ensure safe and low-risk injection and storage of CO2. This is in line with Apache's core policy of expecting top performance and innovation. The results from this research can be used by Apache at its operating facilities to lower our greenhouse gas emissions.

Please provide details of the other engagement activities that you undertake.	Apache is also actively involved in other national organizations in the United States supporting natural gas, including NGVAmerica. Apache is a charter member of the Greater Houston Natural Gas Vehicle Alliance, which was formed in August 2009 by Apache, Anadarko Petroleum Corp., Southwestern Energy and CenterPoint Energy in partnership with the University of Houston Hobby Center for Public Policy. The Greater Houston NGV Alliance is a broad-based collaboration of private and public interests dedicated to raising awareness of natural gas vehicles to policymakers and the public Apache's CNG-powered Chevrolet Tahoe helps spread the word about the benefits of switching to CNG. We actively display our CNG vehicle at public events where we can educate the public on the benefits of CNG as an alternative transportation fuel. On the January 29, 2016, Apache planted its 4-millionth tree. The effort is part of Apache Foundation's Tree Grant Program. The Apache Foundation Tree Planting Program supplies young trees for local communities. As a part of the Tree Planting Program, the Apache Foundation purchases native seedlings or young trees for projects coordinated by counties, municipalities, schools, churches, parks or other non-profits. The organization is then responsible for planting and caring for the young trees. This initiative has awarded to date over 4 million trees to organizations across the United States. It focuses on improving wildlife habitat, restoring natural damage/disaster, and improving communities.
What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?	Apache utilizes a combination of internal targets (converting more of our vehicle fleet, marketing natural gas to potential power generation customers, assessing and reviewing our own internal performance and emissions), participation and support in trade associations; either as an individual company or as part of an alliance, and pursuing the active promotion of natural gas as the clean fuel of choice in reducing greenhouse gas emissions. Apache actively promotes natural gas as the fuel of the future with elected members of government and other policy makers in all countries where we operate. Increased natural gas usage in the electric generation and transportation sectors offers the best near-term alternative towards meaningfully reducing carbon emissions. By promoting natural gas as the fuel of the future, Apache as a company has its greatest influence in reducing the generation of greenhouse gas emissions.
Would your organization's board of directors support an international agreement between governments on climate change, which seeks to limit global temperature rise to under two degree Celsius from pre-industrial levels in line with IPCC scenarios such as RCP2.6?	No opinion
Please describe your board's position on what an effective agreement would mean for your organization and activities that you are undertaking to help deliver this agreement at the 2015 United Nations Climate Change Conference in Paris (COP 21).	It is impossible to speculate on the effects an international agreement would have on our organization and activities without knowing the details of the "effective agreement".
Targets and Initiatives	
Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?	No
Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years.	(i) In 2015 we continued the roll out of the enterprise-wide Production Data Management System linked to a new Environmental Management Information System. The end product will enable the regions to easily extract GHG and other air emissions data to fulfill their individual reporting requirements and allow near real-time compilation of regional and worldwide GHG data for internal and external reporting. (ii) Apache does not provide forecasts of its emissions into the future. If our production base is growing because of acquisitions or capital investments in exploratory or development drilling, then our emissions will likely increase. Our business is dynamic, growing or contracting as a result of acquisitions, divestitures, commodity prices and other factors.
Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?	Yes

Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party.	Apache sells natural-gas production from each of the operating regions we maintained in 2015 into the local domestic market, mainly to power-utility companies for the generation of electricity. In 2015, Apache had a production commodity mix from its operations worldwide of 65 percent liquid hydrocarbons and 35 percent natural gas. This product mix of energy diversification is set to continue into the future. Natural gas used as a baseload-energy fuel burns cleaner than the dominant solid-fuel energy sources that historically have been used for power generation, resulting in 50 percent less CO2 emissions. Through the marketing efforts of our regions, getting our customers to use more natural gas as the primary fuel source for power generation is a cost benefit to them in terms of efficiency and a better outcome for reducing greenhouse gas emissions. The substitution of the company's natural gas for diesel or coal as the primary fuel source for power generation result in a significant reduction in the volume of GHG's emitted to the atmosphere. Beyond GHG, natural gas combustion emits significantly fewer criteria pollutants on an energy basis and this has important public-health benefits especially in densely populated regions and in areas near large power generation facilities. Apache is a supporter of natural gas and promotes it as the alternative fuel of choice by encouraging use of natural-gas fuel. The company built numerous CNG fueling stations and converted approximately 40% of its U.S. fleet of field vehicles to operate on CNG. Typically, vehicles emit 25 percent less CO2e when fueled by CNG instead of gasoline or diesel fuel. The conversion of vehicles to operate on CNG makes for an overall reduction in GHG emissions. When the company increases its natural-gas business and delivers more natural gas to the power generation markets, the environment and the economies where we operate both stand to benefit.
Did you have emissions reduction initiatives that were active within the reporting year?	Yes
Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.	Fourteen projects in implementation completed stage of development with total estimated CO2e reductions of 15,300 metric tonnes. One project in implementation ongoing stage of development with total estimated CO2e reductions of 120,000 metric tonnes.
What methods do you use to drive investment in emissions reduction activities?	Employee engagement- Every Apache region is tasked with specific goals to execute emissions-reduction projects that meet economic (financial) and operational efficiency criteria. There is also a focus on eliminating cold venting (methane discharge) and flare-reduction initiatives. An initial goal assigned to each region was to achieve "the most" reduction possible in GHG emissions within financial and efficiency criteria. The assigned goals ensured actions to reduce GHG emissions were targeted annually, preventing the postponing of any actions for future years. Achievement is tied to annual bonus at an asset level. Plans cover two years and are updated annually with accomplishment measured annually. The company focuses on an accurate numerator (measured reductions) instead of arguing about denominator values (where we started). This makes more sense to our business, especially as it is in a strong growing phase. We believe our approach will accelerate action on many cost-effective GHG reduction programs. Results achieved are annually compared internally across the board. We charge and reward our regional staff for driving these improvements in GHG performance. Financial optimization calculators- Economic evaluation is a core criteria for investment in GHG reduction projects. Compliance with regulatory requirements/standards- Most of our "investment' in this category concerns advanced metering systems on larger facilities in preparation for any regional specific “carbon tax” or emission trading schemes. Internal price of carbon- We evaluate various GHG-reduction scenarios for anticipated carbon-price costs in the U.K., Canada and – prior to the sale – Australia to justify investments that are otherwise of marginal value.

For those initiatives implemented in the reporting year, please provide details in the table below.

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (USD)	Investment required (USD)	Payback period	Estimated lifetime of the initiative	Comment
Process emissions reductions	Permian Region U.S.: Installed flares with auto-ignitors for emergency use at the LW Ward, SAU2-1 and SAU6-2, 3, and 4 batteries. This reduced the amount of field gas vented during emergency situations.	4,100	Scope 1	Voluntary	122,400	316,000	<1 year	Ongoing	A total of 45,000 MCF of fuel gas was routed to the emergency flares rather than vented to atmosphere.
Process emissions reductions	Permian Regiou U.S.: Installed an air compressor at WLU Tract 85 and State PA #7 batteries to replace instrument gas for valves and liquid level controllers.	6	Scope 1	Voluntary	20,200	6,600	<1 year	Ongoing	A total of 15 Mcf of instrument gas was routed to sales.
Process emissions reductions	Permian Region U.S.: Installed flares with auto-ignitors to eliminate venting of field gas at the CC 36, CC37 Chaney 43 and Weber 47 facilities.	58	Scope 1	Voluntary	3,500	340,000	4-10 years	Ongoing	Approximately 120 MCF of fuel and instrument gas was routed to sales.
Process emissions reductions	Permian Region U.S.: Constructed a new power line to the University 4 Taylor Draw facility to eliminate natural gas fired generator set.	10,700	Scope 1	Voluntary	60,500	94,000	1 -3 years	Ongoing	Approximately 22,500 MCF of fuel gas was routed to sales.
Process emissions reductions	Permian Region U.S.: Replaced natural gas fueled flare and burner pilots with electronic pilots at Lockhart B-12 and Northeast Drinkard Unit facilities.	440	Scope 1	Voluntary	2,500	14,500	4-10 years	Ongoing	Approximately 915 MCF of fuel gas was routed to sales.
Energy efficiency: Processes	Egypt Region: Substitute diesel-fired generators at WKAL-A, Buchis, Pepi facilities by connecting them to Over Head Transmission Lines (OHTL) using power generated from power houses running on natural gas at processing fields. Expansion of the Karama Power Plant provides additional electrical capacity to producing fields. Replaced 5 obsolete gas-fired turbine generators with 3 new and larger generators at Abu Gharadig. New turbine generators are more efficient and will reduce fuel consumption.	120,000	Scope 1	Voluntary	1,320,000	27,280,000	4-10 years	Ongoing	This is part of an ongoing electrification process utilizing high-efficiency gas turbine generators and OHTL to produce and transmit power to remote well site locations. Diesel generators at the numerous remote well sites are replaced thereby reducing emissions from the generators, diesel fuel transport and maintenance downtime.

Communication	
Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response?	Yes, through voluntary communications in the 2016 Apache Sustainability Report.
Climate Change Risks	
Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure?	Risks driven by changes in regulation Risks driven by changes in physical climate parameters Risks driven by changes in other climate-related developments
Further Information	Apache actively monitors and contributes effort to educate and influence policy and decision makers in the locations where it operates to ensure its exposure to changing regulations that may adversely impact the business operations, and revenue is minimized. This is assisted by having insurance for such issues as political risk, nationalizing the local petroleum industry, failure to pay, changing agreements and conditions, etc. Like our product commodity mix of oil and natural gas, Apache's production is also varied between offshore and onshore environments and in differing countries and climatic conditions ranging from sub-tropical to colder sub-arctic conditions. This diversification limits any potential risks in a particular geographic area from varied or adverse physical climatic parameters i.e., flooding, increase offshore storms, onshore storms etc. Like our product commodity mix of oil and natural gas, Apache's production is also varied between offshore and onshore environments and in differing countries and climatic conditions ranging from sub-tropical to colder sub-arctic conditions. This diversification limits any potential risks in a particular geographic area from varied or adverse physical climatic parameters i.e., flooding, increase offshore storms, onshore storms etc.

Please describe your inherent risks that are driven by changes in regulation.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Carbon taxes	Direct taxes on carbon emissions especially on older assets	Increased operational cost	1 to 3 years	Direct	Likely	Low-medium	Apache pays carbon taxes in Canada (BC).	As with all taxes, higher rates and more inclusive coverage result in greater financial impacts. Apache has internally examined and forecasted greenhouse gas (GHG) emission profiles and identified the options that are available to reduce emissions given a range of carbon tax rates. Current rates in BC focus mostly on fuel, and are relatively modest. The company has chosen to switch to natural gas fuel wherever economically possible to do so because it is significantly cheaper when the tax is added to the price of diesel. Given government budget demands in several countries where Apache operates, it is considered a real possibility that "carbon taxes" will be introduced on the oil and gas industry.	Apache considers the financial risk of carbon taxes/cap and trade schemes to be limited to the U.K. and Canada regions. In the U.K., Apache has a surplus of carbon credits from emissions reduction at Forties Field. Other countries where the company operates have not as yet developed or implemented cap and trade mechanisms. Apache does not set aside expenditures for perceived risks of cap and trade. It budgets for known cost exposure.
Emission reporting obligations	Beyond standard reporting, the requirement for tracking details of emissions not related to standard measurements (e.g. advanced metering systems)	Increased operational cost	1 to 3 years	Direct	Very likely	Low	It is difficult to estimate the financial implications of future regulations without knowing the level of detail required for reporting or available technology and costs associated with measurement at the yet-to-be-determined regulatory thresholds.	Apache acknowledges that the possibility of new or additional GHG emission regulations might negatively impact the economic viability of certain company developments or proposed new projects or restrict existing production. The company will continue to engage with the political and regulatory process in order to ensure a balanced outcome is the result.	Reporting obligations change from year to year in our operating regions. Costs associated with managing these reporting obligations are part of exploration and production lease operating costs. Apache is in the process of implementing a new enterprise-wide production data management system. Attached to this data management system is an environmental management information system software package to calculate and report emissions information from detailed field-level data inputs.
General environmental regulations, including planning	Venting and flaring reduction mandates "beyond reasonable" attainment	Reduction/disruption in production capacity	1 to 3 years	Direct	Unlikely	Low-medium	Apache acknowledges that the possibility of new or additional GHG emission regulations might negatively impact the economic viability of certain company developments or proposed new projects or restrict existing production.	See response above for emissions reporting obligations	See response above for emissions reporting obligations
Uncertainty surrounding new regulation	Potential rules to minimize emissions beyond attainable limits, or not supportive of oil and gas production	Reduction/disruption in production capacity	1 to 3 years	Direct	Very unlikely	Low-medium	See responses above for emissions reporting obligations and general environmental regulations, including planning	See response above for emissions reporting obligations	See response above for emissions reporting obligations

Please describe your inherent risks that are driven by change in physical climate parameters.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Tropical cyclones (hurricanes and typhoons)	Major damage to production facilities caused by hurricanes or tropical cyclones	Reduction/disruption in production capacity	Up to 1 year	Direct	Virtually certain	Low	Apache' production facilities in the Gulf of Mexico are subject to hurricanes/cyclones. An event may disrupt production and damage/destroy individual facilities. The company cannot predict these events, and the industry has weathered substantial damage and recovered from it in the past. Financial implications include construction costs to prepare for potential flooding and building offshore facilities to resist storms, cyclones and hurricanes.	Detailed evacuation plans are in place to manage the safety of our employees at these facilities. Early warning forecasts are monitored to predict severe weather patterns and early evacuation plans ensure no risk to our employees occurs, with the strategy or removing personnel from this situation and isolating our equipment. Facilities in these locations are engineered to withstand the storm conditions typically encountered. The company also has a number of financial instruments, including insurance policies, to mitigate loss to any of its operating facilities. Apache also realizes that decommissioning of facilities in a timely manner also lowers any exposure to such risks, and the company remains proactive in this area. Additionally, our facilities are constructed according to accepted industry practices and standards to withstand natural forces in their areas of operations.	For new projects, we investigate the costs associated with potential weather related conditions and incorporate those costs into the project budget. We do not anticipate additional costs significantly above those we already incur for insurance coverage and construction costs in the near term.

Please describe your inherent risks that are driven by changes in other climate-related developments.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	Reduction in demand for oil and gas due to concerns about climate change	Reduced demand for goods/services	>6 years	Direct	Very unlikely	Unknown	We anticipate that any reduction in oil production or pricing will generally be offset by increases in natural gas and LNG demand and pricing, thus the emphasis on portfolio balancing.	Apache has held a long-term strategic position to have a balanced production-portfolio of oil and natural gas in equal proportions. Its production-commodity mix from its operations worldwide in 2015 was 65 percent liquid hydrocarbons and 35 percent natural gas. This mix has benefitted it greatly over the years as the focus on commodity favorites and economic conditions change. This product mix of energy diversification helps to shield the company from price volatility and also places it in a strong position to benefit from a potential future world transition to a low-carbon economy (i.e. increasing natural gas demand and pricing). Currently 82 percent of the company's revenue comes from liquids production which represents 65 percent of the company's production.	Managing our strategic positioning with a balanced production portfolio to shield the company from price volatility is part of our everyday business cost. We feel it positions Apache to be in a strong position to benefit from a potential future world transition to a low-carbon economy (i.e. increasing natural gas demand and pricing)

Climate Change Opportunities	
Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply	Opportunities driven by changes in regulation
Please explain why you do not consider your company to be exposed to inherent opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure	While Apache is aware of the range of forecasts and predictions associated with the possible physical effects of climate change, on a practical level it is extremely difficult to incorporate specific adjustments, such as engineering a design change to a selected facility when there is a degree of uncertainty about the actual extent of such longer-term impacts when lined up against the shorter-term field life of the facility. Future developments will have the benefit of additional time to incorporate any such accepted findings that may directly impact the design phase of any newly constructed facilities. Such design changes may include additional structural steel reinforcing in offshore structures or providing greater flood protection for onshore facilities.
Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure	See response provided above substituting "other climate-related developments" for "physical effects"

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Cap and trade schemes	Monetization of emissions reduction	Investment opportunities	1 to 3 years	Direct	Very likely	Low	In a transition to a low-carbon economy, Apache would be well positioned in terms of natural gas reserves and its product mix to take advantage of any future change in energy demand as well as supporting the move to a greater dependency on a cleaner natural gas. The total potential revenue to Apache from potential GHG emission trading schemes and their associated credits resulting from emissions reductions projects is estimated to be in the order of millions of dollars.	The company is managing this opportunity by creating, verifying and eventually selling credits partnered with third party consolidators, as well as undertaking its own trading	The company's associated costs for monetizing this opportunity are relatively minor. In all the Apache cases to date where credits have been realized the GHG reduction projects undertaken, generated credits for reasons completely independent of the resultant credit value (i.e. driven by achieving greater energy efficiency). The company presently has no business directive that drives any such projects where the primary focus or sole economic benefit is to generate revenue from credits.
Other regulatory drivers	Regulation required to eventually achieve a low-carbon economy	Increased demand for existing products/services	>6 years	Direct	Virtually certain	Low	See response above concerning demand for cleaner natural gas		

Emissions Methodology	
Please provide your base year and base year emissions.	2015 scope 1 emissions of 6,590,000 metric tonnes CO2e 2015 scope 2 emissions of 1,180,000 metric tonnes CO2e
Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions .	IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2003 US EPA Mandatory Greenhouse Gas Reporting Rule American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009 Canadian Association of Petroleum Producers, Calculating Greenhouse Gas Emissions, 2003 European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations In past years, Apache has used the IPIECA guidelines which are almost identical to the API Compendium. In mid-2009 API updated its recommended calculation factors and methodologies. GHG emissions reported for the U.K. Sector of the North Sea are calculated using the EU-ETS protocol. Canada operations reporting utilizes the IPIECA guidelines, the CAPP guidelines and provincial methodologies for Alberta and British Columbia.
Please give the source for the global warming potentials you have used.	Methane, carbon dioxide and nitrous oxide referenced from IPCC Second Assessment Report (SAR - 50 year)
Please give the emissions factors you have applied and their origin.	Report distillate fuel oil No 2, natural gas and methane in units of 'source and fuel specific factors' referenced from API Compendium 2009 and USEPA 40CFR98 Subparts C and W
Further Information	Emission factors for fuels used in hydrocarbon production depend essentially on British Thermal Unit (BTU) values and the type of combustion equipment. For all calculations specific factors described in the API Compendium were used. For United States based operations, emissions calculations and factors in 40CFR98 Subparts C and W were utilized.
Emission Data	
Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory.	Operational control
Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e.	6,590,000
Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e.	1,180,000
Are there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?	No
Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations.	Scope 1 emissions have more than 20% but less than or equal to 30% uncertainty due to data gaps, assumptions and metering/ measurement constraints. Calculating the uncertainty associated with Apache's GHG emissions is difficult in the absence of a specified and agreed emissions calculation protocol. In our larger facilities we closely measure fuel usage, in the case of smaller stand-alone facilities where the company has tens of thousands of well sites and associated equipment that use field gas, presently the company can only estimate consumption and associated emissions. For these facilities emission calculations are based on industry factors applied to more easily obtained production data. Scope 2 emissions have more than 5% but less than or equal to 10% uncertainty due to data gaps, assumptions and published emissions factors. We have used standard emissions factors based on published regional power grid assumptions that might over-estimate emissions especially in areas where coal power usage is lower due to increased use of natural gas.
Please indicate the verification/assurance status that applies to your reported Scope 1 emissions.	Third party verification or assurance complete
Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.	High assurance on 5% of scope 1 emissions through European Union Emissions Trading System (EU ETS). Reasonable assurance on 14% of scope 1 emissions through Alberta Specific Gas Emitters Regulation (SGER).
Please indicate the verification/assurance status that applies to your reported Scope 2 emissions.	No third party verification or assurance
Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported above.	No additional data verified
Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?	No
Further Information	Emissions from our North Sea facilities are verified per the European Union Emission Trading Scheme (EUETS). Canadian emissions are verified to meet provincial reporting requirements.

Scope 1 Emissions Breakdown- 2015	
Do you have Scope 1 emissions sources in more than one country?	Yes
Please break down your total gross global Scope 1 emissions by country/region.	Canada- 820,000 metric tonnes CO2e Egypt- 3,530,000 metric tonnes CO2e United Kingdom- 1,220,000 metric tonnes CO2e United States of America- 1,020,000 metric tonnes CO2e
Please indicate which other Scope 1 emissions breakdowns you are able to provide.	By GHG type By activity
Please break down your total gross global Scope 1 emissions by GHG type.	CO2- 4,500,000 metric tonnes CO2e, CH4- 2,280,000 metric tonnes CO2e
Please break down your total gross global Scope 1 emissions by activity.	Oil and Gas Exploration and Production- 6,590,000 metric tonnes CO2e
Scope 2 Emissions Breakdown- 2015	
Do you have Scope 2 emissions sources in more than one country?	Yes
Please break down your total gross global Scope 2 emissions and energy consumption by country/region.	Canada- 250,000 metric tonnes CO2e, 300,000 MWh Egypt- 0 United Kingdom- 0 United States of America- 930,000 metric tonnes CO2e and 1,390,000 MWh
Please indicate which other Scope 2 emissions breakdowns you are able to provide.	By activity
Please break down your total gross global Scope 2 emissions by activity.	Purchased electricity for operated properties excluding buildings- 1,180,000 metric tonnes CO2e
Further Information	For clarity, for Scope 2 emissions we are reporting only electrical purchases to run Apache-operated properties. We do not include electricity usage for leased office buildings. Apache generates its own electricity for all operations in Egypt and the United Kingdom and these are reported under Scope 1 emissions.
Energy	
What percentage of your total operational spend in the reporting year was on energy?	More than 0% but less than or equal to 5%
Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year.	Fuel- 3,280,000 MWh, electricity- 1,690,000 MWh, heat- 0, steam- 0, cooling- 0
Please complete the table by breaking down the total "Fuel" figure entered above by fuel type.	Distillate fuel oil No 2- 328,000 MWh Natural gas- 2,952,000 MWh
Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported above.	Not applicable- low carbon emission factor applied on a 'other' basis. While some low-carbon electricity is purchased in Canada, it is a small volume compared to total electricity purchases for Apache Corporation.
Emissions Performance	
How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?	Decreased
Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.	There was a five percent decrease in emissions value as a result of divestment. Calendar year 2015 was the first full operating year without Australia operations. There was a nine percent decrease in emissions due to change in ouput. 2015 operated gross production in BOEs decreased 9 percent compared to 2014. Oil production was down 2 percent and natural-gas production decreased 10 percent overall. Total CO2e emissions (Scope 1and 2) decreased a corresponding 9 percent. Production figures are Apache-operated gross production, which differ from net production from all sources that are typically reported in Security and Exchange Commission (SEC) filings. There was no change in emissions value due to acquisitions, mergers, change in methodology, change in boundary, change in physical operating conditions or unidentified.
Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue.	0.000614 metric tonnes CO2e per unit USD total revenue. This particular intensity metric is not able to be used for comparing the oil and gas sector to any other business sectors. The denominator (revenues based upon oil and gas commodity pricing) can change drastically from year to year. Even if significant reductions in emissions can be achieved (decreasing the numerator), the intensity metric is essentially controlled by market forces (the denominator) and not emissions improvements.
Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee.	Not applicable

Please provide an additional intensity (normalized) metric that is appropriate to your business operations.	23.9 metric tonnes CO2e per tonnes CO2e per 1,000 barrel of oil equivalent, which was a 3% decrease from previous year. Operated gross production decreased 9 percent during 2015. Emissions also decreased 12 percent over the previous year. This particular intensity metric allows meaningful comparisons among companies in the oil and gas industry sector while allowing for improvements in emissions year over year and business growth. Note: Production figures in SEC Form 10-K are total net production-- indifferent of operatorship, and that number would be inappropriate for this calculation. Apache's emissions data and calculations continued to improve during calendar year 2015. The company continues to collect more comprehensive data from our operations each year and a substantial portion of our improvements can be attributed to better data collection and characterization of emissions. Overall emissions also decreased due to improved accounting controls on fuel and electrical power purchases. This demonstrates that Apache is producing actual year-over-year improvements in its GHG emissions by reducing total CO2e tonnages, not just by divesting itself of older assets.
Further Information	Apache's emissions data and calculations continued to improve during calendar year 2015. The company continues to collect more comprehensive data from our operations each year and a substantial portion of our improvements can be attributed to better data collection and characterization of emissions. Overall emissions also decreased due to improved accounting controls on fuel and electrical power purchases. This demonstrates that Apache is producing actual year-over-year improvements in its GHG emissions by reducing total CO2e tonnages, not just by divesting itself of older assets.
Emissions Trading	
Do you participate in any emissions trading schemes?	Yes
Please complete the following table for each of the emission trading schemes in which you participate.	Participated in the European Union ETS in 2015 and had 546,000 allowances allocated and purchased 513,000 allowances.
What is your strategy for complying with the schemes in which you participate or anticipate participating?	Apache intends to fully comply with the requirements of the GHG emission schemes functioning or proposed for the countries in which it operates. Presently the only GHG emissions scheme Apache participates in is the EU-ETS which applies to the company's Forties Field in the UK North Sea. There, the company presently has an excess of emissions credits for several years to come. The expected cost of permits and credits is a relatively minor transaction in the larger scheme of managing Forties production.
Has your organization originated any project-based carbon credits or purchased any within the reporting period?	No
Scope 3 Emissions	
Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.	No emissions data provided
Please indicate the verification/assurance status that applies to your reported Scope 3 emissions.	No emissions data provided
Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?	No, we don't have any emissions data
Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies?	No, we do not engage
Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future.	Apache does not have the means to track or verify emissions resulting from our many tens of thousands of global suppliers. We believe our efforts are much better focused on addressing our own emissions. Relative emissions play no direct role in our decisions to select suppliers and it is difficult to rationalize doing so or influence their performance. Given the nature of our business, we focus on safety, quality and dependability of our suppliers and their products. In some locations simple availability of essential products or services can be an issue.
Oil and Gas Reference Information	
Please identify the significant petroleum industry components of your business within your reporting boundary.	Exploration, production & gas processing
Further Information	Apache's focus is on the exploration and production of hydrocarbons. We operate a limited number of gas processing facilities serving our production, but processing does not provide a significant portion of our revenue stream.
Production & Reserves by Hydrocarbon Type	
Is your organization involved with oil & gas production or reserves?	Yes
Please provide values for annual production by hydrocarbon type (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization. The values required for the next reporting year are forward-looking estimates.	See Apache 2015 Summary Annual Report and Form 10-K. Apache does not provide forecast volumes for 2016.

Please provide values for reserves by hydrocarbon type (in units of BOE) for the reporting year. Please indicate if the figures are for reserves that are proved, probable or both proved and probable. The values required are aggregate values for the reporting organization.	See Apache 2015 Summary Annual Report and Form 10-K. Total Proved Reserves are provided for all Apache operating regions. Proved reserves follow the standard SEC conventions for Proved Developed and Proved Undeveloped reserves. In that filing, gas reserves are reported in Billion Cubic Feet (Bcf). For all BOE gas values stated here the conversion factor is 6000 cf = 1 BOE. Reserve values depend directly on commodity prices. Normally, reserves are reported in millions of barrels and production in thousands of barrels.
Please explain which listing requirements or other methodologies you have used to provide reserves data in OG1.3. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.	Apache production reporting does not differentiate between associated gas, non-associated gas, shale gas and tight gas. All gas production, regardless of source, is reported as conventional natural gas. Additionally, our production reporting does not differentiate between light, medium, heavy, extra-heavy, tight or shale oils. All oil production, regardless of source, is reported as conventional oils.
Please provide the average breakeven cost of current production used in estimation of proven reserves.	Apache's proved reserves are estimated at the property level and compiled for reporting purposes by a centralized group that is independent of the operating groups. Annually, each property is reviewed in detail by our corporate and operating-region engineers to ensure forecasts of operating expenses, netback prices, production trends, and development timing are reasonable. Each of these individual properties has its own unique breakeven cost/BOE, which changes over time with production and commodity pricing. Reporting an average breakeven cost/BOE by hydrocarbon type, or an average of all of the Apache properties is meaningless. Each property is evaluated on its own merits and that data is considered confidential business information.
In your economic assessment of hydrocarbon reserves and resources, do you conduct scenario analysis consistent with global developments to avoid dangerous climate change by reducing GHG emissions?	No
Please explain why you have not conducted any scenario analysis based on a low-carbon scenario.	In the event the predictions for rising temperatures and sea levels suggested by reports of the United Nations Intergovernmental Panel on Climate Change do transpire, we do not believe those events by themselves are likely to impact our assets or operations. However, any increase in severe weather could have a material adverse effect on our assets and operations in offshore environments. For low-carbon scenario analyses to have meaning, the input assumptions must have some basis in reality. Forecasting production, depletion, business growth, demand, production costs, commodity pricing and advances in technological innovation to the year 2050 would produce meaningless results.
Emissions by Segment in the O&G Value Chain	
Please indicate the consolidation basis (financial control, operational control, equity share) used to report the Scope 1 and Scope 2 emissions by segment in the O&G value chain.	Operational control was used as the consolidation basis for calculation of all scope 1 and 2 emissions.
Please provide clarification for cases in which different consolidation bases have been used and the level/focus of disclosure.	None
Please provide masses of gross Scope 1 GHG emissions in units of metric tonnes CO2e for the organization's owned/controlled operations by value chain segment.	6,590,000 metric tonnes CO2e gross scope 1 emissions for value chain segment (exploration, production and gas processing). Apache does not provide forecast volumes for 2016.
Please provide masses of gross Scope 2 GHG emissions in units of metric tonnes CO2e for the organization's owned/controlled operations by value chain segment.	1,180,000 metric tonnes CO2e gross scope 2 emissions for value chain segment (exploration, production and gas processing). Apache does not provide forecast volumes for 2016.
Scope 1 Emissions by Emissions Category	
Please confirm the consolidation basis (financial control, operational control, equity share) used to report Scope 1 emissions by emissions category.	Scope 1 emissions are reported using operational controls for the consolidation basis
Please provide clarification for cases in which different consolidation bases have been used to report by emissions categories.	None
Please provide masses of gross Scope 1 GHG emissions released into the atmosphere in units of metric tonnes CO2e for the whole organization broken down by emissions categories: combustion, flaring, process emissions, vented emissions, fugitive emissions.	Combustion 3,120,000 metric tonnes CO2e Flaring 1,560,000 metric tonnes CO2e Process emissions 460,000 metric tonnes CO2e Vented emissions 410,000 metric tonnes CO2e Fugitive emissions 1,040,000 metric tonnes CO2e Apache does not provide forecast volumes for 2016
Transfers and Sequestration of CO2 Emissions	
Is your organization involved in the transfer or sequestration of CO2?	Yes
Please indicate the consolidation basis (financial control, operational control, equity share) used to report transfers and sequestration of CO2 emissions.	Transfers and sequestration of CO2 emissions are consolidated on a operational control basis
Please provide clarification for cases in which different consolidation bases have been used.	Transfers = Permian region's CO2 purchased for Enhanced Oil Recovery (EOR) and Midale Field in Canada. Sequestration = CO2/Acid Gas generated at Zama for injection at Zama, Hope Creek Carbon Capture and Sequestration (CCS) pilot project for EOR

Using the units of metric tonnes of CO2, please provide gross masses of CO2 transferred in and out of the reporting organization (as defined by the consolidation basis).	Over 1,100,000 metric tonnes CO2* transferred in Zero CO2 transferred out
Please provide clarification on whether any oil reservoirs and/or sequestration system (geological or oceanic) have been included within the boundary of the reporting organization.	CO2 transferred into Apache's Canadian operations are a part of a pilot carbon capture and storage (CCS) project at the company's Midale facility. Apache also purchases CO2 for EOR operations in our U.S. facilities. This CO2 originates from natural CO2 producing formations. CO2 from acid gas reinjection at Apache's Zama and Hope Creek facilities, for the purpose of EOR ,was produced by the company's operations and is not considered 'transferred in'.
Please explain who (e.g. the reporting organization) owns the transferred emissions and what potential liabilities are attached. In the case of sequestered emissions, please clarify whether the reporting organization or one or more third parties owns the sequestered emissions and who has potential liability for them.	Apache Corporation owns and is responsible for all of the 'transferred in' CO2. The company also produced and owns the CO2 used for acid gas injection EOR.
Please provide masses in metric tonnes of gross CO2 captured for purposes of carbon capture and sequestration (CCS) during the reporting year according to capture pathway. For each pathway, please provide a breakdown of the percentage of the gross captured CO2 that was transferred into the reporting organization and the percentage that was transferred out of the organization.	Natural CO2 production formations captured over 1,100,000 metric tonnes CO2*- 100% transferred in, 0% transferred out CO2/acid gas injection captured over 10,000 metric tonnes CO2*- 0% transferred in, 0% transferred out
Please provide masses in metric tonnes of gross CO2 injected and stored for purposes of CCS during the reporting year according to injection and storage pathway.	Over 10,000 metric tonnes of CO2/acid gas was injected into a production reservoir. The entirity of this volume was injected for long term storage. The project began in 2004 and to date over 650 thousand metric tonnes of CO2* have been injected and stored. Over 1,100,000 metric tonnes of CO2* was used for enhanced oil recovery (EOR) or enhanced gas recovery (EGR). The entirity of this volume was injected for long term storage. The project began in 1985 and to date over 35 million metric tonnes of CO2* have been injected and stored.
Please provide details of risk management performed by the reporting organization and/or third party in relation to its CCS activities. This should cover pre-operational evaluation of the storage (e.g. site characterization), operational monitoring, closure monitoring, remediation for CO2 leakage, and results of third party verification.	The EOR and CCS operations at Zama and Hope Creek continued through 2015 following requirements set by provincial regulators for such operations. The Energy & Environmental Research Center (EERC), through the Plains CO2 Reduction (PCOR) Partnership, one of the U.S. Department of Energy (DOE) National Energy Technology Laboratory's Regional Carbon Sequestration Partnerships, is working with Apache Canada Ltd. on a program of field-based activities to support and validate safe, cost-effective injection of acid gas into selected reservoirs of the Zama oil field for the purposes of acid gas disposal, CO2 storage, and enhanced oil recovery. The capture, transportation, and injection processes and subsequent hydrocarbon recovery operations are conducted by Apache in its Zama oil field. The Apache/PCOR partnership developed a comprehensive monitoring, mitigation and verification (MMV) plan for the Zama Field to determine the effect of acid gas injection for the purposes of disposal, storage of CO2 and enhanced oil recovery. Research activities are conducted at multiple scales of investigation in an effort to validate the ultimate fate of the injected gas. Geological, geomechanical, geochemical, and engineering work is used to fully describe the injection zone and adjacent strata. Certifying the integrity of the caprock is a critical research area, with additional tests on the formations to determine the nature of potential geochemical and geomechanical changes that may occur because of acid gas exposure. Fluids are sampled at the producing horizon and directly above the horizon to ensure containment through active and inactive wells in the pinnacle. A perfluorocarbon tracer is used to track fluid flow throughout the system and to identify leakage should it occur. All these activities with PCOR are additional to what is required by ERCB of Alberta Environment.
Sales and emissions intensity	
Please provide values for annual sales of the hydrocarbon types (in units of BOE) for the years given in the following table. The values required are aggregate values for the reporting organization.	See Apache 2015 Summary Annual Report and Form 10-K. Apache does not provide forecast volumes for 2016.
Please provide estimated emissions (Scope 1 + Scope 2) intensities for the a) exploration, production and gas processing, b) storage, transportation and distribution, and c) refining associated with current production and operations.	23.9 metric tonnes CO2e per thousand BOE emission intensity for exploration, production and gas processing. Zero metric tonnes CO2e per thousand BOE emission intensity for storage, transporation and distribution and refining. Storage and transportation emissions are included in the emissions intensity calculation for exploration and production activities. Apache is not involved in oil and gas distribution and refining operations. The emissions intensity is calculated based on total CO2e emissions divided by total gross Apache-operated production. Emissions intensities are NOT calculated using annual sales volumes.

Please clarify how each of the emissions intensities has been derived and supply information on the methodology used where this differs from information already given in answer to the methodology questions in the main information request.	Production figures are net production from all sources that are reported in SEC filings. Apache production reporting does not differentiate between associated gas, non-associated gas, shale gas and tight gas. All gas production, regardless of source, is reported as conventional natural gas. Additionally, our production reporting does not differentiate between light, medium, heavy, extra-heavy, tight or shale oils. All oil production, regardless of source, is reported as conventional oils.
Development Strategy	
For each relevant strategic development area, please provide financial information for the reporting year.	See Apache 2015 Summary Annual Report and Form 10-K
Please describe your future capital expenditure plans for different strategic development areas.	Apahce does not report future capital expenditure plans.
Please describe your current expenses in research and development (R&D) and future R&D expenditure plans for different strategic development areas.	No R&D capital expenditures reported
Methane from the natural gas value chain	
Please indicate the consolidation basis (financial control, operational control, equity share) used to prepare data.	Segment- production Consolidation basis- operational control
Please provide clarification for cases in which different consolidation bases have been used.	None
Does your organization have written operating procedures and/or policies covering the reduction of methane leakage and venting?	No
Please indicate the proportion of your organization's methane emissions inventory estimated using the following methodologies (+/- 5%).	Direct detection and measurement is used to estimate >0% to <5% of total methane emissions. Engineering calculations are used to estimate >75% of total methane emissions. Source-specific emission factors (IPCC Tier 3) and IPCC Tier 1 and/or Tier 2 emission factors are not used to calculate any methane emissions. The answers relate to all areas of Apache's operations.
Do your operations include the production, gathering and processing stages?	Yes
Please report the proportion of your organization's natural gas production that is emitted into the atmosphere during production (differentiating if possible between production from hydraulically-fractured wells and non-hydraulically-fractured wells), gathering and processing.	The overall figure for the etimate of gas leaked or vented during production (all wells), gathering and processing as a % of gas produced is 0.4970%. The CDP Online Reporting System did not allow figures less than 1 percent. In calendar year 2015, Apache reported total methane emissions from all sources in accordance with regulation from USEPA, EU-ETS, Canada (Alberta, Saskatchewan and British Columbia), and emissions for Egypt. Total methane emissions released to the atmosphere accounted for 0.4970 percent of our total gross gas production for the year, adjusted for average methane content. Apache aggregates its methane emissions from several different sources to arrive at a total volume of methane released to the atmosphere. Methane from incomplete combustion, storage/loading/transport, tank flashing emissions, incomplete combustion from flaring, dehydration operations, fugitive emissions and direct venting to the atmosphere are included in the total volume of methane released to the atmosphere. This volume of methane is then compared to our total gross Apache-operated gas production which is adjusted for average methane content. We directly compare methane released to methane produced for a more accurate representation of our emissions.
Does your organization participate in voluntary methane emissions reduction programs?	Yes
Please describe your organization’s participation in voluntary methane emissions reduction programs.	See 2016 Sustainability Report- Air Emissions

*Based on previous years information. The 2015 figure is being validated and will be updated as soon as it is available.