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Path Forward Action Plan Category	Emission Reduction Project	Administrative Entity	Description	Status	Implementation Schedule and/or Completion Date
Enhanced Public Outreach and Education Programs	Tulsa Area Ozone Alert! Program	INCOG	The Ozone Alert! Program takes a voluntary episodic approach to ozone pollution reduction and healthy air quality. The Tulsa region's award-wining website, OzoneAlert.com, continues to provide hourly ozone data, AQI information, daily allergy reporting, and much more information. **2019 Update: The Tulsa region's 29th Ozone Alert! Season was kicked off with its annual business, government and media partner event on May 6, 2019. 200 state and local government, industry, business and media partners attended. The event was emceed by Tulsa County Commissioner Karen Keith with City of Tulsa's Mayor Bynum and Steve Piltz of the National Weather Service Tulsa Office presenting on the importance of the Ozone Alert Program for the Tulsa Area.** **The 2019 campaign theme, "Care. Because It's Our Air", supported new x15 and x30 second TV, radio, and digital ads in the wide-range of formats needed for traditional and non-traditional advertising venues. $50,000 was spent for media placement. Additionally, real-time automated Ozone Alert! Program Widgets were active on local public and private websites throughout the season. The Program currently has 3,002 E-mail Alert! notification subscribers and 1,141 Text Alert! Subscribers.** **Next year's 2020 season is Ozone Alert's 30th Program Year. Outreach and marketing planning efforts will be ongoing during off-season building next year's campaign to bring special attention to the 30-year accomplishments.**	Ongoing	1991 -
	Tulsa Area Clean Cities Coalition (TACC)	Tulsa Area Clean Cities Coalition / INCOG	The U.S. Department of Energy's Clean Cities program's mission is to advance the energy, economic, and environmental security of the United States by supporting local decisions to adopt practices that reduce the use of petroleum in the transportation sector. Designated in 1997, the Tulsa Area Clean Cities Coalition (TACC) works with local businesses and governments through outreach and education, to promote alternative fuel vehicles. TACC works to advance alternative fuels, idle reduction, and to promote the education of alternative fuel fleets, vehicle availability, and refueling options. www.tulsacleancities.com. **2019 Update: The Tulsa Area Clean Cities coalition experienced a 12% improvement in petroleum displacement last year, from the previous year. Their 2018 Annual Report (dated March 2019) captured local alternative fuel projects and actions reducing more than six million gallons of gasoline (6,208,277), 95% of which is directly attributed to alternative fuel vehicles (AFVs).** **The AFLEET emission calculator quantifies the criteria pollutants emissions reduced by combined alternative vehicle/fuel type as follows: NOx: 56,728 lbs; VOC: 4,638 lbs; PM10: 150 lbs; PM2.5: 55 lbs. Additionally, AFVs were a significant part of the 9,094 tons of reduced Greenhouse Gas Emissions in 2018. TACC continues to expanded its work and partnership with the Tulsa EV Coalition to advance the use of electric vehicles in the Tulsa region. The goal of the Tulsa EV Coalition is to provide a place for advocates, industry, and utilities to discuss EVs and strategically work together to ensure the Tulsa area is ready for the growing number of EVs available to local consumers.**	Ongoing	1997 -

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	Public Outreach	Department of Environmental Quality	The Oklahoma Department of Environmental Quality (DEQ) participates in multiple public outreach and education programs, which emphasize the importance of informing individuals about the effects of ozone on citizens' health. This includes producing/supplying ozone education materials, creating online videos encouraging energy efficiency, and issuing ozone watches for the Tulsa MSA. DEQ began its Air Quality Health Advisory Program in 2006, issuing real time email notifications of unhealthy concentrations of ozone. In 2014 the Air Quality Division added an infographics gallery featuring original infographics with a local focus on the relationship between air quality and weather. **2019: DEQ moved to a new mobile-friendly website with completely redesigned pages that include searchable content, easy access to daily air quality forecasts, and streamlined education pages. Also, DEQ expanded its social media outreach with several video series including "Carpool Conversations" (air quality and other topics) and "Breath of Fresh Air" (ozone monitoring and prevention), campaigns which generated over 30,000 video views and 3,000 Facebook followers.**	Ongoing	2006 -
	Scor3Card	Sustainable Tulsa	Sustainable Tulsa's Scor3Card Program (www.Scor3card.com) is helping Tulsa area businesses assess, track, and expand their sustainability efforts. Patterned from studied successes in other regions, Tulsa's unique Scor3Card program is a proprietary sustainability framework developed by Sustainable Tulsa. Member businesses log into the Scor3Card online tool to identify and complete sustainable efficiency practices in materials management, energy, transportation, air quality, water conservation, a healthy work environment, and community stewardship. A Verification Board certifies completed Scor3Card items for Participation, Bronze, Silver, Gold, and Platinum Award Levels. **2019 Update: Tulsa's Scor3card continues to grow in business membership and in importance to the community. Beginning its fourth year, Scor3card launched an enhanced online reporting tool in November 2019. The Department of Environmental Quality participates in this program as well, and achieved the Silver Award level for 2019.**	Ongoing	2016-

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Energy Efficiency Strategies and Programs	Mandated Energy Efficiency Requirements	State of Oklahoma	61 O.S. § 213, enacted on 6/3/2008, requires the state to develop a high-performance building certification program for state construction and renovation projects; program must meet the certification guidelines of either the LEED system or the Green Globes rating system. The requirement applies to new construction or substantial renovation projects that begin the design phase after July 1, 2008 in buildings larger than 10,000 square feet. "Substantial renovations" is defined as projects that cost in excess of 50% of the value of the facility. In order to be considered a "state project" for purposes of the requirements, state funds or state-insured funds must constitute at least 50% of the project cost. State agencies are directed to meet the highest level of certification attainable under a payback period of 5 years or less. Public schools (K-12) and state archive buildings are exempted from the requirements.	Ongoing	2008 -
	The Oklahoma Energy Security Act	State of Oklahoma	The Oklahoma Energy Security Act (17 O.S., Section 801.2 et seq.), which became effective in 2010, set statewide goals for alternative and domestically produced energy, including 15% of energy from renewables by 2015, and CNG fueling stations every 100 miles by 2015 and every 50 miles by 2025. **2019 Update: Oklahoma's renewable electricity generation surpassed the 15% goal in 2012. As of 2018, 32% of Oklahoma's installed generating capacity uses renewable resources and Oklahoma is 2nd in the nation for wind power generation.**	Ongoing	2010 - 2025
	Oklahoma State Facilities Energy Conservation Program	State of Oklahoma	The Oklahoma State Facilities Energy Conservation Program, established in 2012 (27A O.S. Section 3-4-106.1), directs all state agencies and higher education institutions to achieve an energy and conservation improvement target of at least 20% by 2020 when compared with 2012 utility expenditures. Oklahoma state owned building energy usage is tracked with Energy CAP located at https://my.energycap.com/app/login. Reporting since 2014 can be accessed by logging in with the word "oklahoma" for Username, Password, and Data source. **2019 Update: Statewide building energy use tracking continues to indicate improvements, reflecting continued decline in energy use and increases in cost savings. Costs were reduced by 29.3% from 2018 to 2019.**	Ongoing	2012-2020

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	Demand Response Energy Performance Reduction Program – Residential and Commercial	Public Service Company of Oklahoma	Public Service Company of Oklahoma's (PSO) Energy Efficiency and Demand Response portfolio is multi-faceted portfolio of programs for residential and business customers encouraging and incentivizing the reduction in energy usage and peak energy demand. Since 2010, PSO has successfully implemented programs to help customers save energy, reduce peak demand and make the most efficient use of electricity. The programs attempt to successfully reach all demographics including limited income, hard to reach, new construction, existing construction, non-profit, state and local governments and business customers of all sizes. PSO continues to refine and update offerings for customers to enhance energy efficiency and demand response opportunities. **2019 Update: PSO's most recent 2018 Annual Report indicates an annual net EE Lifetime Energy Savings total of 1,325,050,270 kWh. PSO's Peak Demand reduction program reduced summer peak demand of the system by 57 MW. Using the eGRID annual emission rates for the SPP South (SPSO) sub region, the 2018 annual savings equates into water savings of 527 million gallons and emission reduction estimates of 999,245 tons of CO_2, 73 tons of CH_4, and 11 tons of NO_2. Since 2010, PSO estimates EE Lifetime Energy Savings net total of more than 8,500,000,000 kWh, lifetime water savings of 3.7 billion gallons, and lifetime emission reduction estimate of 5.1 million tons of CO_2.**	Ongoing	2010 -

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	Oklahoma Natural Gas (ONG) Energy Efficiency Program	Oklahoma Natural Gas (ONG)	ONG's energy efficiency programs provide incentives for residential and commercial customers. **2019 Update: ONG's latest Energy Efficiency Program Portfolio's reporting (dated March 2018) reflects a total cumulative energy savings from all programs of 23,460,739 Dth, with 17,570,944 Dth from Residential Sector Programs, 537,030 Dth from Small Commercial Sector Programs, and 5,352,765 Dth from Large Commercial Sector Programs.** **Annual energy savings by program and the resulting estimated emissions reductions** are:** **1) Low Income Heating System Checkup: 321,611 therms saved resulting in 4,346.17 CO2e, 1000 lbs and 5,074.96 lbs of NOx reductions;** **2) Water Heater Replacement Program: 57,364 therms saved resulting in 775.19 17 CO2e, 1000 lbs and 905.19 lbs of NOx reductions;** **3) Heating System Replacement Program: 1,522,511 therms saved resulting in 20,574.85 CO2e, 1000 lbs and 24,024.94 lbs of NOx reductions;** **4) Clothes Dryer Replacement Program: 93,151 therms saved resulting in 1,258.83 CO2e, 1000 lbs and 1,469.91 lbs of NOx reductions;** **5) Range Replacement Program: 31,901 therms saved resulting in 431.10 CO2e, 1000 lbs and 503.39 lbs of NOx reductions;** **6) New Homes Program: 1,213,218 therms saved resulting in 16,395.00 CO2e, 1000 lbs and 19,144.36 lbs of NOx reductions;** **7) Commercial Custom EE Program: 1,581,400 therms saved resulting in 21,370.66 CO2e, 1000 lbs and 24,954.20 lbs of NOx reductions.** ****Reduced emissions estimates use the Source Energy and Emissions Analysis Tool (SEEAT), developed by the Gas Technology Institute**	Ongoing	2012 - 2019
	OG&E Energy Efficiency Programs-Commercial	OGE Energy Corp.	System wide, OG&E currently projects energy efficiency and demand reductions of up to 549 MW and 1,130 MWh through 2024. **2019 Update: In 2018 Commercial Energy Efficiency Program (CEEP) generated total savings of 96,839,020 kWh. Includes:** **1) Commercial HVAC Tune-up and Plenum Seal** **2) C&I HVAC Equipment, Chillers, Air Compressor, motor rebates** **3) Midstream LED lighting discounts at commercial distributors** **4) Schools and Government, HVAC & Lighting rebates and assessments** **5) Small Business direct install measures and midstream point-of-sale inducements** **6) Continuous Energy Improvement (behavioral, operational improvements to save energy)**	Ongoing	2016 -

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	OG&E Energy Efficiency Programs-Residential	OGE Energy Corp.	Oklahoma Gas and Electric Company (OG&E) has the most widespread Smart Grid technology in the country, which offers variable pricing through their Smart Hours program. **2019 Update: In 2018 OG&E offered the following energy efficiency programs targeting Residential Customers:** **2018 Home Energy Efficiency Program (HEEP) savings of 53,942,199 kWh** **1) Residential HVAC Tune-up services (up to $175 value per system)** **2) OK Schools outreach; Educational Kit including install items for 5th grade students** **3) Upstream LED lighting discounts in select stores** **4) Insulation and HVAC equipment rebates** **5) Residential Solutions home energy advisors available to help customers improve knowledge of Energy Efficiency in their living spaces; includes multi-family direct install measures.** **Weatherization—Energy efficiency improvements provided for lower-income customers which includes ceiling insulation, general air infiltration improvements, LED lighting installations and performance testing; 2018 savings of 12,825,406 kWh.** **Positive Energy New Home Construction—certification for homes that are shown to be more efficient than code; 2018 savings of 3,952,106 kWh.**	Ongoing	2013

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	State Energy Program American Recovery & Reinvestment Act Revolving Loan Funds	Tulsa Area Clean Cities Program / INCOG	In 2013, the State Energy program - American Recovery and Reinvestment Act (SEP ARRA) revolving loan program, previously administered by the Oklahoma Department of Commerce, was transferred to INCOG for administration. The 1% interest rate for public entities and 2% private interest rate loan program provides capital necessary for the implementation of building energy efficiency retrofits, renewable energy and demand management projects, and alternative fuel infrastructure or fleet conversion. **2019 update:** **• Tulsa County parks: O'Brien Park, $320,000 for HVAC and lighting replacements and upgrades. Project construction completed August 2017. The total energy costs savings to date is $14,227.97.** **• Rogers County Sheriff's office: $310,000 to restore the County Courthouse Depression Era building. This project has experienced multiple delays. No additional update is available.** **• Tulsa County Courthouse: $1,055,000 for the purpose of updating the HVAC systems throughout the County Courthouse, Annex, and Administration buildings. The project was finished in Q4 2018 however energy savings have been less than anticipated due to various unforeseen issues. Current year to date reporting indicates the following:** **o Chilled Water: Data indicates the system is 26.85% less efficient than the baseline. The County reported that the chilled water system had several pumps and mechanical failures throughout Spring 2019. Despite the problems, the system has still worked better to cool the building than prior to the upgrade.** **o Steam: Current data indicates the new system is 8.39% less efficient than the baseline.** **o Electricity: 82,400 kWh of electricity saved, which is a 3.23% reduction in kWh of electricity consumed.**	Ongoing	2013 -

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	Tulsa International Airport Energy Efficiencies	Tulsa Airport Authority (TAA)	Tulsa International Airport (TIA) is a modest facility located approximately five miles northeast of downtown Tulsa. Facility operations for this 1961 era building are handled by the Tulsa Airport Improvement Trust (TAIT). In conjunction with the planning for major building renovations, TAIT took the opportunity to turn the Airport into a clean energy and environmentally resourceful model for the Tulsa region. Tulsa's attainment status precludes many funding opportunities intended to encourage voluntary emission reductions projects, such as the Federal Aviation Administration's Voluntary Aviation Low Emissions (VALE) Program which is only available to areas that are in non-attainment or maintenance of the NAAQS. However, even without funding incentive, TAIT's renovation efforts strategically included unique projects and achievements to reduce ground-level air emissions during the renovations and build clean air efficiencies into the Airport's future. **2019 Update:** **• In 2019, the Taxiway Juliet reconstruction project generated approximately 120,000 tons (67,000 cubic yards) of base material and concrete that was crushed on site and used as fill material to elevate airport property that would otherwise be unfit for business development. The same amount of weight and volume of base material and concrete used to rebuild the taxiway is being reconditioned (base material) or produced (concrete) on site at the mobile concrete batch plant. Both activities are preventing vehicle emission pollutants from trucks hauling materials off and onto the airport.** **• Estimated annual savings on TAIT's ongoing LED retrofit projects, which include the airport terminal, cargo buildings, and pole lights, is 187,354 kwh.** **• Savings from TAIT's utilization of the Flat Plate Heat Exchanger is 642,000 kwh.**	Ongoing	2012 -
	Oklahoma Commercial Property Assessed Clean Energy (C-PACE) Programs	**INCOG/Tulsa County/ Oklahoma Office of Energy and Environment/ Oklahoma Department of Commerce**	**Although Oklahoma has technically been a PACE enabled state since 2009, the original law contained a number of barriers to developing viable programs. However in May 2019, the Oklahoma state legislature passed a revision to the statute which effectively cleared the way for counties to establish commercial PACE programs throughout the state. Tulsa County became the first to pass a Resolution expressing intent to develop a C-PACE Program. By Memorandum of Understanding with Tulsa County, the Oklahoma Department of Commerce and the Oklahoma Office of Energy and Environment, INCOG is leading the design, development, and implementation of a C-PACE program for Tulsa County which can be replicated throughout counties state-wide. An optimistic timeline of Fall 2020 is set to have C-PACE up and running in Tulsa County with expected continued and ongoing county expansion throughout Oklahoma.**	**NEW**	**Ongoing**

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Wind/Solar Energy	Selected Wind Facilities (North Central) Project	Public Service Company of Oklahoma	Public Service Company of Oklahoma and Southwestern Electric Power Company (both subsidiaries of American Electric Power) have a planned wind project which, if approved and completed, will add 1,485 megawatts of electricity to the regional grid from three separate wind-powered facilities located across seven counties in north-central Oklahoma. PSO would own 45.5%, accessing 675 megawatts to its renewable mix for customers. Pending regulatory approvals, the wind generation farms would be online by December 2021.	NEW	2019-2021
	Oklahoma Net Metering Rule Changes	Oklahoma Corporation Commission	Oklahoma saw a significant rule change in July 2019 which will help grow Oklahoma's rooftop solar and small wind power generation. Changes to OK 17 O.S., Section 156, and Commission Rules (OAC 165:40-9) referencing distributed generation now finally include an additional provision whichrequires utilities to compensate net metering customers for any excess energy production. The compensation rate is equal to the utility's avoided energy cost and a production limit is set at 125% of peak load. Additionally the maximum participation level for net metering customers was increased from 100kW to 300kW. Generation facilities greater than 300kW are covered by separate rules. Oklahoma utility customers were not provided any compensation for excess production prior to this rule change.	NEW	2019-

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NOx Emission Reduction	Nitrogen Oxides Reduction	OGE Energy Corp.	As OG&E began 2019, in fulfillment of the ongoing commitment to emissions reduction, nitrogen oxides (NO_x) are expected to be lower by nearly 75 percent below 2005 levels. OG&E has taken a number of actions to achieve this, including: • Added more than 1,000 MW highly efficient combined-cycle natural gas units. These units employ NO_x emission reduction technologies, including low-NO_x combustion systems and, for the majority, post-combustion Selective Catalytic Reduction (SCR) systems. • Retired 630 MW of older, inefficient gas generation. • Added 460 MW of high-efficiency, quick start turbines which provide critical reliability support for Oklahoma's rapidly growing wind supply as well as help displace higher-emitting generation in the Southwest Power Pool. These natural gas-fired turbines employ state-of-the-art low-NO_x combustion systems. • Added 450 MW of OG&E-owned wind generation and 12.5 MW of pioneering solar generation, with Purchase Power Agreements for up to 400 MW of wind power. • Increased investment in energy efficiency and conservation. • Implemented 100% deployment of Smart Meters which has enabled and empowered customers to manage their usage, reducing annual demand on the grid by approximately 150 MW. • Created and implemented the Smart Hours program which incentivizes customer electricity use at "off-peak" times and delays the need for new peaking generation.	NEW	2019 -

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	Private Alternative Fuel Vehicle (AFV) Loans	State of Oklahoma	Private loan program with a 3% interest rate for the cost of converting private fleets to operate on alternative fuels, for the cost of purchasing an original equipment manufacturer AFV, and for the installation of AFV fueling infrastructure. Maximum repayment six-years.	Ongoing	2010 - **2025**
	Alternative Fuel Vehicle (AFV) Tax Credit	State of Oklahoma	For tax years beginning before January 1, 2015, a one-time income tax credit is available for 50% of the incremental cost of a new AFV or converting a vehicle to operate on an alternative fuel. The state also provides a tax credit for 10% of the total vehicle cost, up to $1,500, if the incremental cost of a new AFV cannot be determined or when an AFV is resold, as long as a tax credit has not been previously taken on the vehicle. Equipment used for conversions must be new. The alternative fuels eligible for the credit are compressed natural gas, liquefied natural gas, hydrogen, and liquefied petroleum gas (propane). Tax credits may be carried forward for up to five years. (68 O.S. §2357.22) **2019 Update: Hydrogen fuel cell vehicles are no longer eligible for the tax credit. Oklahoma extended tax incentives for CNG Vehicles and other "qualified clean-burning motor vehicle fuel property" which includes LNG and propane. There will be an annual limit of 20 million dollars. Tax credits are now extended from January 1, 2020 to December 31, 2027. Instead of 45% credit the credit amounts are as follows:** **a. $5,500 – vehicles up to or below 6,000 lbs,** **b. $9,000 – vehicles between 6,001 lbs to 10,000 lbs,** **c. $26,000 – vehicles of 10,001 lbs, but not in excess of 26,500 lbs,** **d. $50,000 – vehicles in excess of 26,501 lbs.**	Ongoing	1990-
	Alternative Fueling Infrastructure Tax Credit	State of Oklahoma	For tax years beginning before January 1, 2015, a tax credit is available for up to 75% of the cost of alternative fueling infrastructure. Eligible alternative fuels include compressed natural gas (CNG), liquefied natural gas, liquefied petroleum gas (propane), hydrogen, and electricity. The infrastructure must be new. A tax credit is also available for up to 50% of the cost of installing a residential CNG fueling system, for up to $2,500. The tax credit may be carried forward for up to five years. (68 O.S. §2357.22) **2019 Update: Oklahoma extended tax incentives for CNG Infrastructure with several modifications. Tax credits are now extended from January 1, 2020 to December 31, 2027. The per location credit was changed from 75% to 45% of the cost of the qualified clean-burning motor vehicle fuel property (CNG, LNG, propane), with a limit of 20 million dollars. Hydrogen infrastructure is no longer eligible for the tax credit.**	**Ongoing**	1990 - **2027**
	Alternative Fuels Incentive	Oklahoma Natural Gas Company	ONG offers rebates of $2,000 for the purchase of a dedicated or bi-fueled vehicle and $3,000 for the purchase of a residential home-fueling system. The program is expected to continue, with no set cut-off or termination date.	Ongoing	2012 -

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	Fleet Conversion	Metropolitan Tulsa Transit Authority (MTTA)	MTTA maintains a fleet of approximately 100 vehicles. These include full-size, fixed-route passenger and smaller lift program buses. In 2011, MTTA made the commitment to move toward a 100% CNG fleet and began a concentrated effort to locate and secure funding to do so. In 2012, they completed a $1.7 million dollar CNG filling station on the property. Within the next several years, funding is being sought to complete the fixed route transition to 100% CNG. **2019 Update: Through recent strategic planning efforts, MTTA is additionally pursuing zero emission Electric Bus and Charging Infrastructure. To this end, they recently applied for and were awarded a $2,991,000 grant through the Federal Transit Authority's FY19 Low No Bus Grant Program. Funds will be used to replace four 35' and 40' model year 2005 diesel buses, which reached the end of their usefulness in 2017, with four Protera Catalyse 40-ft. E2 MAX electric buses and four chargers for overnight depot charging.**	Ongoing	2011 -
	CNG Fleet Conversion	City of Owasso	In 2010, the City of Owasso chose to incorporate CNG vehicles into their city fleet. By 2011, they had opened their first public-private CNG station in their downtown area and are now well on the way to converting the fleet. The City of Owasso remains committed to CNG and purchased their first fully dedicated CNG Refuse Truck in 2013. In 2014, the City's Public Works Department added three dedicated CNG Ford Pickup Trucks to their fleet (one F250 and two F350s). **2019 Update: The City of Owasso now has one heavy-duty CNG truck and 13 light-duty vehicles, and continues to maintain their downtown Owasso public CNG fueling station.**	Ongoing	2010 -
	CNG Fleet Conversion	Tulsa Public Schools	Tulsa Public Schools (TPS) plans to convert 100% of their bus and car fleet to CNG by 2020. In 2014, TPS fully upgraded a compressor station at the fleet's McBirney bus lot, and operated nearly 150 CNG school buses.	Ongoing	1988 -
	Idle Reduction Program	Tulsa Public Schools	In 2014, TPS implemented a fleet Idle Reduction Program. **2019 Update: Tulsa Public Schools continues to implement an Idle Reduction Program throughout their 179 vehicle fleet. The 2018-19 reporting year identifies 10 min/day, 173 days/year of reduced idling per vehicle, eliminating an estimated 8,566 gallons of burned fuel and its equivalent emissions.**	Ongoing	2014-
	Electric Vehicles and Charging Infrastructure Strategic BuildOut	INCOG/ Tulsa Area Clean Cities/ Public Service Company of Oklahoma	Strategic Planning for Accelerated Deployment of Electric Vehicles and Charging Infrastructure in the Tulsa Area. **2019 Update: Two charging stations have been installed at the Tulsa zoo. PSO and INCOG are working together to install 3 DC fast chargers in the Tulsa area, in order to fill in the gaps prior to the completion of the EV and Charging Infrastructure Strategic Build Out.**	Ongoing	2016 -
	Francis Network	**Francis Renewable Energy, LLC**	**Francis Renewable Energy, LLC is currently developing the first comprehensive statewide EV network in the country with over 100 fast-charging stations, operating under the "Francis Network." Network subscribers will enjoy the use of the fast-charging network and other select membership benefits. Non-network members will have access to the network.**	**NEW**	**2019-**

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	Low Emission Bus Program	Cherokee Nation	Announced August 2018, Oklahoma's Cherokee Nation has been awarded $1,318,600 from the Department of Transportation under the Low No-Emission (Low-No) Bus Program. They will be purchasing two Proterra electric buses and four new charging stations to transport employees and tribal citizens to work and health centers across eastern Oklahoma. The award makes Cherokee Nation the first tribal government to purchase electric transit buses, the first tribal nation to receive Low-No funding from USDOT, and places them among the first operators of electric buses in rural applications in the nation. Cherokee Nation anticipates the buses and equipment to be serving the region within the next two years. **2019 Update: At this time, three electric buses are expected to be delivered in 2020 with the award from the Low-No Bus Grant Program.**	Ongoing	2018-
	City of Tulsa Strategic Mobility Plan	City of Tulsa/ INCOG	City of Tulsa Urban Mobility Innovation Team **2019 Update: The City of Tulsa's Urban Mobility Innovation Team, in collaboration with INCOG, is leading the development of a Mobility Innovation Strategy to lay the groundwork for new mobility options to thrive in the City. The strategy will focus on providing an actionable path forward for state and local government, universities, venture capital, manufacturers, and related industries to collaborate on developing and beta testing solutions that lead to increased access to jobs, education, healthy food, and healthcare services. The strategy will also focus on a diagnosis of the problems of access, evaluation of current and developing technology, relationship-building between public and private sector, and stimulation of testing and measurement of new mobility solutions. The project consultant has been selected and a 12-month date research and analysis process is underway.**	Ongoing	2018 -

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	Clean Diesel / DERA Program Funding	DEQ	Approximately $704,000 in funding toward diesel or gasoline school bus replacement projects to reduce vehicle emissions. **2019 Update: No new schools in the Tulsa area received DERA funding for the last year. However, since the Clean Diesel program began, more than 43 schools districts in Oklahoma have been able to replace and/or retrofit more than 287 diesel school buses. Currently DEQ is taking applications for new projects that reduce diesel emissions.** 2018 Completed projects include: Broken Arrow Public Schools: Awarded $88,000 (20% of total project cost) to replace five 1996 diesel buses with five EPA-certified 2019 school buses. The project began with the execution of a Memorandum of Agreement (MOA) with DEQ on April 24, 2018. Vehicles were received on August 20, 2018, and the project was completed on September 17, 2018. Broken Arrow PS went through a competitive bidding process to replace five 71-passenger International Type C school buses with new 2019 International school buses. Catoosa Public Schools: Awarded $85,000 (35% of total project cost) to replace one 1999 diesel school bus with one CARB-certified 2020 school bus. The project began with the execution of an MOA with DEQ on May 16, 2018. Vehicles were received on September 10, 2018, and the project was completed on October 25, 2018. Catoosa PS went through a competitive bidding process to replace one 77-passenger Bluebird 1999 school bus with a new International 2020 school bus. Both projects successfully removed harmful air pollutants from the air by replacing old diesel buses that excessively polluted with new diesel buses, with the help of DEQ funds. As a requirement of the program, both school districts implemented idle reduction policies in order to reduce excess emissions, and increase the fuel efficiency and lifespan of their current, active school bus fleet.	Ongoing	2018-

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Transportation System Strategies and Projects	Peoria Ave. Bus Rapid Transit	City of Tulsa/MTTA/ INCOG	The MTTA's board of trustees voted February 26, 2013 to recommend implementation of a plan to replace regular bus service along a 15-mile stretch of Peoria Avenue with rapid transit bus service. The rapid transit system would replace Tulsa Transit's 105 Route, which accounts for 15% of the organization's passenger trips. Funding for the project was approved by Tulsa voters in November 2013. The $18.8 million price tag would cover the cost of seven dedicated CNG buses equipped with various technology components and accessibility enhancements that reduce passenger loading times and interact with traffic signals to hold a green light, allowing buses to pass through intersections and maintain reliable schedules. **2019 Update: Tulsa's AERO Bus Rapid Transit (BRT) line, the first of two of Tulsa's planned BRT lines, started operating on November 17th, 2019. The AERO represents Tulsa's first step at investing in high-quality convenient public transportation. Beyond the new branding and nicer stations, with the 15 minute frequency, most riders will have less than a 5 minute wait for a bus to arrive. Tulsa's new AERO provides exceptional service, efficiency, and is located within a 10 min walk of 20% of Tulsa residents and 1 in 7 jobs.**	Ongoing	**2019**
	Bus Rapid Transit Expansion	**City of Tulsa/MTTA/ INCOG**	**A second Bus Rapid Transit line is underway and will be an east-west route across the City of Tulsa, complementing the north-south Peoria Avenue AERO. Tulsa voters just passed partial funding ($5.3M) in the Improve Our Tulsa 2 sales tax package on November 12th, 2019. The route will begin in downtown Tulsa and end at East Gate Metroplex, using a combination of 11th and 21st streets (Historic Route 66). Preliminary analysis studies are complete and official planning will begin January 2020. The two Bus Rapid Transit's together will ultimately reduce average trip time by 15 minutes (25%) and compliment a host of 2019 system redesign improvements to improve quality of life, mobility, and air quality for the citizens of Tulsa.**	**NEW**	**Ongoing**
	Comprehensive Transit Operations Analysis	**MTTA/City of Tulsa/ INCOG**	**During FY18, MTTA conducted a Comprehensive Operations Analysis (COA) to support the successful launch of AERO BRT, while simultaneously reviewing and improving the rest of the local bus network. The study effectively provided MTTA a roadmap for determining optimal deployment of the Fall 2019 Bus Rapid Transit through reorganizing resources to best serve existing and future transit customers while also improving trip speed, frequency, connections, and overall system access. New route signage was installed at 1,800 bus stop locations and MTTA successfully launched the new improved route network on September 23, 2019.**	**NEW**	**Complete**

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Path Forward Action Plan Category	Emission Reduction Project	Administrative Entity	Description	Status	Implementation Schedule and/or Completion Date
	Tulsa Bike Share System	INCOG/Tulsa Tough/Tulsa Bike Share This Machine	Tulsa's Bike Share System, This Machine, is a 501c3 missioned to transform Tulsa by providing a high quality, convenient, and affordable bicycle transit system connecting people to more places where they live, work, and play in the region. And since the Tulsa Regional Comprehensive GO Plan was made final in 2015, progress to this end has continued. This Machine dramatically compliments the small yet still operational Tulsa Townies bikeshare program along the Tulsa River Parks Trail. **2019 Update: From July 2018 through June 2019, 160 This Machine bikes in a 25 station network (https://thismachine.bcycle.com/) throughout downtown Tulsa and along Route 66 logged a total of 9,963 trips covering 26,768 miles and offsetting approximately 25,449 lbs of greenhouse gas emissions. Planning continues for Phase II to provide additional bikes and stations in key locations throughout the region in the near future.**	Ongoing	2016 -
	Transportation Management System Considerations	INCOG	The Tulsa Transportation Management Area will research, analyze, select, and implement a variety of emission reducing Transportation System Management (TSM) projects. These may include expressway on-ramp congestion traffic flow system projects, intersection improvement projects, signal improvements, signal coordination efforts, Intelligent Transportation System (ITS) enhancements, and more. TSM improves traffic flow, reduces congestion and thereby reduces emissions. **2019 Update: INCOG is now tracking pedestrians, bikes and all alternative modes of transportation in the region's general planning model.**	Ongoing	2013 -
	Transportation Alternative Program	INCOG	Transportation Alternatives Program: INCOG will be administering approximately $2.7 million for FFY 2017-2018 Urbanized Area Transportation Alternatives Program (TAP), as allocated through the FAST Act. Eligible projects include diverse types of on and off-road bicycle and pedestrian projects such as recreational trails, safe routes to school programs, and environmental mitigation relating to stormwater and habitat connectivity. The funding was awarded to the communities of Broken Arrow, Collinsville, Sand Springs, and Tulsa for Transportation Alternative projects all which fully align with the Tulsa Regional Bicycle & Pedestrian Master GO Plan. **2019 Update: Projects are in the process of completion.**	Ongoing	2014-

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Path Forward Action Plan Category	Emission Reduction Project	Administrative Entity	Description	Status	Implementation Schedule and/or Completion Date
	Bus & Bus Facilities Infrastructure Investment Program	ODOT	Federal Transit Administration (FTA) Bus & Bus Facilities Infrastructure Investment Program: On September 25, 2018, FTA announced approximately $366.2 million in project selections to improve the safety and reliability of America's bus systems and enhance mobility for transit riders across the country. A total of 107 projects in 50 states and territories will receive funding from FTA's Buses and Bus Facilities Infrastructure Investment Program. OKLAHOMA TOTAL: $4,281,796 Of that total, the Oklahoma Department of Transportation (ODOT) will receive $3,874,200 to purchase replacement and expansion vehicles throughout the state. The new vehicles will help replace existing vehicles that have exceeded their useful life and help expand service to rural and tribal areas in 51 of Oklahoma's 77 counties. The remainder of the funds, $407,596, will be used by ODOT to rehabilitate bus facilities throughout the state. The project will improve transit accessibility in rural areas. The Bus & Bus Facilities Infrastructure Investment Program (49 U.S.C. 5339) makes federal resources available to states and direct recipients to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities. Funding is provided through formula allocations and competitive grants. A sub-program, the Low- or No-Emission Vehicle Program, provides competitive grants for bus and bus facility projects that support low and zero-emission vehicles.	Ongoing	2018-
	Electric Scooters	City of Tulsa	City of Tulsa's ordinance established rules for the many new Lime and Bird electric scooters that have been introduced all over the City since summer 2018.	Ongoing	2018-
	Gilcrease Expressway Extension Project	**ODOT/ Turnpike Authority/ FHWA/ City of Tulsa**	**Gilcrease Expansion and System Completion -- October 22, 2019 saw a groundbreaking for a significant transportation project to improve the region's transportation system. The five-mile Gilcrease Expressway extension will finally connect two major Oklahoma roadways I-44 and US 412, and complete a Tulsa Expressway Master Plan project identified as needed more than five decades ago. The $330 million dollar project is possible through an innovative and creative public-private partnership involving INCOG, the City of Tulsa, Tulsa County, ODOT and the OK Turnpike Authority, and will include five miles of protected trails connecting and expanding the Tulsa Area Trails System. This critical project for economic development in the western portion of the metro area is equally important to traffic mitigation efforts and continued improvements in regional air quality. The project broke ground late October 2019 and is scheduled for Summer 2023 completion.**	**NEW**	**2019-**

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Path Forward Action Plan Category	Emission Reduction Project	Administrative Entity	Description	Status	Implementation Schedule and/or Completion Date
Energy Efficiency	City of Tulsa Energy Efficiency Conservation Block Grant (EECBG)	City of Tulsa	The Energy Efficiency Conservation Block Grant (EECBG) program is administered by the U.S. Dept. of Energy. The City of Tulsa has received over $3.8 million in EECBG funding for programs that increase energy efficiency, reduce dependence on foreign energy and create or retain jobs. Projects include long term energy & sustainability plan development, OSU medical center retrofit project, Brady Village geothermal project, building LED lighting upgrades, and energy efficient LED traffic and pedestrian lighting.	Complete	2013
	Building Efficiency Improvements	Tulsa City-County Library	The Tulsa City-County Library system's Central Library is undergoing a renovation aimed at improving functionality, safety and energy efficiency. The new building is expected to reduce energy consumption by 40%, enough energy to power 56 Oklahoma homes, and reduce water consumption by 91,000 gallons. The final building is expected to meet LEED Silver certification. The completely renovated Downtown Tulsa Central Library held its grand opening October 1, 2016. Building LEED Silver Certification is in progress. Please refer to Appendix B for details about the Library's renovation achievements and energy efficiencies.	Complete	2010-2016
	Energy Efficiency and Conservation Block Grants	Tulsa County	Tulsa County, with the assistance of INCOG, has created an integrated energy strategy to provide actions that will reduce annual energy consumption by 15-25%. This energy strategy will utilize funds from a Department of Energy Block grant.	Complete	2010 - 2013
	OKC – Tulsa Commuter Rail Program Initiative	ODOT	The Tulsa-Oklahoma City Corridor Investment Plan will identify and evaluate a full range of alternatives (FRA) to meet the region's long-term transportation needs. The study will provide sufficient information to support an FRA decision to fund and implement a major investment, or investment in a series of projects, in a passenger rail corridor. Planning for this long-term project continues.	**Complete**	**2019**
	Project Green Arm	City of Tulsa	The City of Tulsa has secured funding for an aggressive LED traffic light retrofit project totaling $2,344,030. Expected to initiate in the Spring 2017, a significant number of old technology traffic lights will be replaced throughout the City. Additional information will be provided in future Ozone Advance annual updates. 2018 Update: This project was significantly modified and funding reallocated to incorporate the development of a new City of Tulsa GIS traffic assets database and conditional analysis system. LED traffic signal retrofits continue throughout the City of Tulsa and the originally intended project is no longer planned.	Complete	2016 - 2018
	Wind Catcher Energy Connection	Public Service Company of Oklahoma	Public Service Company of Oklahoma (PSO) and Southwestern Electric Power Company (SWEPCO) are embarking on an unprecedented $4.5 billion project to bring 2,000 megawatts (MW) of renewable energy from the nation's largest wind farm in the Oklahoma panhandle to customers in Oklahoma, Arkansas, Louisiana, and Texas. The Wind Catcher Energy Connection project involves 800 GE wind turbines at an under-construction partner wind farm in the panhandle, building approximately 360-miles of dedicated extra high-voltage 765 kilovolt (kV) power line to connect the renewable energy to two new substations, one located at the wind facility and a second near Tulsa. PSO currently has 1,137 MW of wind energy (22%) and the additional capacity will make up 40% of PSO's generating capacity by 2021. 2018 Update: This 5-state project was cancelled in July 2018 primarily due to the Public Utility Commission of Texas' decision to deny approval.	Cancelled	2017-2018

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Path Forward Action Plan Category	Emission Reduction Project	Administrative Entity	Description	Status	Implementation Schedule and/or Completion Date
CNG/Alternative Fueled Vehicle & Infrastructure Projects	CNG Fleet Conversion	Tulsa Authority for the Recovery of Energy (TARE)	The Tulsa Authority for the Recovery of Energy (TARE) is the agency responsible for establishing and contracting the City of Tulsa's residential refuse. The City of Tulsa, home to nearly 400,000 citizens, requires approximately 50 refuse trucks operating daily through city streets. In 2012, TARE established and awarded a 10-year refuse hauler contract which required 50% of the vehicles to be fueled by CNG upon startup and 100% of Tulsa's trash trucks to be CNG fueled by the summer of 2013.	Complete	2012-2013
	Tulsa Area Clean Cities I-40 Grant Projects	Tulsa Clean Cities/ INCOG	In conjunction with partners at Arkansas Clean Cities, Tulsa Area Clean Cities (TACC) was awarded a grant by the United States Department of Energy titled the I-40 Collaboration. Projects undertaken by the I-40 grant will help to displace the use of fuels, like diesel and petroleum, by addressing pervasive problems in the Oklahoma alternative fuels market. Specifically, the projects funded by this grant will help reduce ozone levels in Tulsa by advancing the use of cleaner alternative fuels, facilitating the construction of alternative fuel stations, and promoting safety in the alternative fuel market. The educational video covering "CNG Myths" is completed and distributed throughout the DOE Clean Cities national network (https://youtu.be/GzvfQGcsr3A). A 'Planning for Alternative Fuel Infrastructure' resource has been developed, distributed regionally, and is being used to assist local governments with issues relating to zoning code regulations and other development issues accommodating alternative fuel infrastructure. A copy of this document is in the Supplemental Documentation section of this update. Additionally, the national AFV Safety Training curriculum for law enforcement and EMS responders has been completed and the course premiere, a train-the-trainer course, will be presented in Tulsa in December 2015. The grant was completed 12/2015.	Complete	2012 - 2015
	Tulsa Region Bicycle/Pedestrian Master Plan	INCOG	INCOG is working to prepare a Bicycle and Pedestrian Master Plan for the Tulsa Region. INCOG proposes the development of a transportation assessment process that will identify and evaluate short-, medium- and long-term transportation system needs to enhance bicycle and pedestrian mobility while considering automobile and bus transit operations. The plan area will include the municipalities of Bixby, Broken Arrow, Catoosa, Claremore, Collinsville, Coweta, Glenpool, Jenks, Owasso, Sand Springs, Sapulpa, Skiatook, and Tulsa. The Bicycle and Pedestrian 'GO Plan' master plan for the Tulsa Region was completed, released at a Public Forum on September 15th, and adopted by the eleven community governments. This exciting initiative is the region's first comprehensive bicycle and pedestrian master plan to equip and connect the region with the vision to make biking and walking convenient for our residents, communities and visitors. The GO Plan is comprehensive and provides bicycle network recommendations, pedestrian design approaches, policy and funding recommendations, design guidance and a clear path toward achieving the vision. The results and recommendations from the recently completed bike share feasibility study (below) have also been incorporated into the GO Plan. During 2016, numerous sections and components of the GO Plan (Tulsa Regional Bicycle and Pedestrian Master Plan) were initiated - some are described as stand-alone projects within this Ozone Advance annual update. Additionally, Collinsville, Broken Arrow and Owasso have each adopted their own community sections of the comprehensive regional GO Plan.	Complete	2015

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Path Forward Action Plan Category	Emission Reduction Project	Administrative Entity	Description	Status	Implementation Schedule and/or Completion Date
	Electric Vehicle Charging Stations	Electrify America	Electrify America funding will be placing DC Fast EV Charging Station Equipment at public Walmart parking lot locations in Bristow and Vinita. **2019 Update: There have been a total of 7 DC Fast EV charging stations installed in Oklahoma so far. The locations are in Bristow, Vinita, Moore, and Weatherford, and Ardmore in Walmart parking lots, and additionally, one in Erick, Oklahoma in a Love's Convenience Store parking lot and in Blackwell, OK, at Casey's parking lot.**	**Completed**	2018 - **2019**
	Tulsa Area Clean Cities Vehicle and Infrastructure Grant Program	Tulsa Clean Cities/ INCOG	The Public Fleet Conversion Program, funded by the Congestion Mitigation and Air Quality (CMAQ) Program, provides grants for converting fleets to alternative fuel vehicles, the purchase of original equipment manufactured (OEM) alternative fuel vehicles, and development of the alternative fuel vehicle infrastructure within the Tulsa area. TACC anticipates this grant program will award a total of approximately $875,000 in project funding for Clean Vehicle and Infrastructure Projects in the Tulsa area. In 2014, AFV and Infrastructure grants totaling $271,621 were awarded to Tulsa area municipalities including City of Sand Springs, City of Sapulpa, City of Tulsa, Pelivan Transit, Town of Mannford, and Tulsa County. Projects include: 9 Alternative Fuel Vehicle purchases (CNG Bi Fuel vehicles for Incident Command, Utility and Code Enforcement, Utility Collections, Engineering and motor pool vehicles, Sheriff's Office, and Para-transit); 5 CNG conversion kits; and Town of Mannford CNG fueling infrastructure equipment. 2015 Update: The 9 projects awarded last year are now completed (with the exception of Mannford's CNG station, currently 90% completed). 2016 Update: A new round of Clean Vehicle and Infrastructure Project funding totaling $239,162.00 was issued for the following projects: City of Broken Arrow - Idle Reduction equipment on 1 ambulance (Stealth Power Smart Mobile Systems, $32K); City of Owasso - Purchase of 3 new CNG/Bi-Fuel fleet vehicles ($55,114); City of Sapulpa - Purchase of 2 new CNG/BiFuel 3/4 ton trucks ($52,048); City of Tulsa - Purchase and installation of Level 2 public access EV Charging stations around the Tulsa metro ($50K); Tulsa City County Central Downtown Library - Purchase and installation of Level 2 EV chargers in downtown library garage ($50K). 2017 Update: With some exceptions, the 2016 CMAQ funded projects generally remain in progress and will be reported on in a future update. The Downtown Central Library's Level 2 EV chargers have been installed, are operational and are regularly used by patrons. Because the EV chargers were completed significantly (and surprisingly) under budget, the Library intends to purchase its own electric vehicle with the excess funding. 2018 Update: All 2016 CMAQ-funded projects have been completed and Tulsa's Central Library purchased a plug-in hybrid.	Completed	1997 - 2018
	Bike share Feasibility Study	INCOG	INCOG has committed to fund a feasibility study and business plan for a comprehensive downtown focused bike share system. Using Congestion Mitigation & Air Quality (CMAQ) funding, a consultant was retained to determine the long-term feasibility of a bike share program and implementation plan. Funding options and liability are focus areas of the plan. The Bikeshare Feasibility study was completed and a resulting business plan for a downtown Tulsa bikeshare program has been developed. Additionally, results and recommendations from the study have been incorporated into the Tulsa Regional Bicycle & Pedestrian Master Plan.	Complete	2014

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Path Forward Action Plan Category	Emission Reduction Project	Administrative Entity	Description	Status	Implementation Schedule and/or Completion Date
	Public-fill CNG Station	Sparq Natural Gas, Timmons Oil Company, Dericks Leasing & Financial Company, and J-W Power	This Tulsa area CNG Station was completed and opened on May 18, 2018, marking Oklahoma's 121st public-fill CNG station.	Complete	2018
Department of Environmental Quality Programs and Rulemakings	Open Burning Rule	Department of Environmental Quality	This rule will reduce PM, VOC and NOx emissions within the Tulsa and Oklahoma City Metropolitan Statistical Areas (MSAs) by requiring the use of an air curtain incinerator (ACI) in place of open burning. This will significantly reduce the amount of ozone precursors generated by the burning of wood waste, with an approximate 90% reduction in total air pollutants. Additionally, this rule prohibits open burning of waste in areas for which an ozone or PM alert is in effect. In 2014, DEQ performed outreach to the fire departments in the OKC and Tulsa Metropolitan areas to explain the rule. These fire departments are now assisting in enforcement of this rule, and as a result, many land clearing operations that would have just piled and burned in years past are either using an ACI, chipping, or having the waste removed from their property.	Complete	2013
	Oil & Natural Gas Permit By Rule (O&NG PBR)	Department of Environmental Quality	DEQ has updated its permitting rules (OAR 252:100-7) to include an Oil and Gas permit by rule (O&NG PBR). The main purpose of this rule is to streamline the permitting process for these numerous small sources and reduce associated permitting fees; however, this measure will also provide better emissions data about the oil and natural gas sector which could be used to develop future control strategies. The Department has registered 2,907 O&NG facilities under the PBR, of which 222 were conversions from the Area Source NESHAP and Small NSPS facilities General Permit (GP), 798 were conversions from the Oil and Gas GP and 19 were conversions from individual permits. From those numbers, there are 1868 facilities previously unpermitted that were permitted under the O&NG PBR.	Complete	2019
	Low NOx Burner Install	Oklahoma Gas and Electric	OG&E Muskogee Power Plant – Low NOx burner installation. Low NOx burners are required on units 4 & 5 to be installed for compliance with the Regional Haze SIP in Jan 2017. OG&E anticipates installation before then. As of the fall 2015, all Low NOx burner systems have been installed on Units 4 and 5 at the Muskogee Power Plant. This equipment reduces average lb/mmBtu NOx rates by over 50%.	Complete	2016

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Path Forward Action Plan Category	Emission Reduction Project	Administrative Entity	Description	Status	Implementation Schedule and/or Completion Date
	Low NOx Burner Systems, and other Air Pollution Control Systems	American Electric Power (AEP) - Public Service Company of Oklahoma (PSO)	AEP-PSO Northeastern Power Station - Low NOx Burner Systems, and other Air Pollution Control Systems. Unit retirement, and air pollution control projects: • After the installation of the Low-NOx Concentric Firing System (LNCFS) in both the Unit 3 and the Unit 4 coal-fired boilers in 2012, the Unit 4 boiler was retired-in-place in April 2016, eliminating all air emissions from that unit. • Also, the completion of the Refined Tuning project for the LNCFS has resulted in the Unit 3 boiler meeting the NOx limit of 0.15 lb/MMBtu since June 2015 (the project completion date was originally scheduled for April 2016). • Additionally, the Activated Carbon Injection, Dry Sorbent Injection, and Fabric Filter (ACI/DSI/FF) systems have been in operation on Unit 3 since April 2016, lowering the air emissions of mercury, sulfur dioxide, acid gases, and particulate matter. • Furthermore, the Unit 2 natural gas-fired boiler has been meeting the NOx limit of 0.28 lb/MMBtu since the Low-NOx Burner/Overfire Air (LNB/OFA) installation in March 2014.	Complete	2012-2016
Green Infrastructure and Sustainable Development	Tulsa Urban Forest Master Plan	Up with Trees	A 2-year process beginning in early 2015, the project will engage public and private stakeholders within the greater Tulsa area to plan, build and fund a comprehensive urban forest master plan that will identify the current needs of Tulsa's urban forest, outline potential challenges and opportunities and ultimately define what Tulsa's urban forest will be in the decades to come. Tulsa's Urban Forest Master Plan was officially completed in 2017 and its resulting resources, strategies and recommendations will help to assure a resilient, safe and connected urban forest for Tulsa's generations. The complete Master Plan is online at: https://www.upwithtrees.org/about-trees/master-plan/	Complete	2015-2017
Major Tulsa Area Facility Industrial Retrofits	Reduced Coal Generation NOx Reduction	Grand River Dam Authority	Grand River Dam Authority's 60-hertz natural gas and steam turbine went online in October 2017, replacing a coal-fired unit. The 495-megawatt capacity unit is one of the most efficient and cleanest in the world with a 62 percent combined cycle efficiency. The $500 million project, in conjunction with emission control equipment retrofits on their Unit 2 coal-generator and newly completed wind generation capacity, fully diversifies GRDA's renewable energy portfolio using natural resources found within Oklahoma's boarders: natural gas, coal, hydro, and wind.	Complete	2017
	Alternative Fueling Infrastructure Tax Credit	State of Oklahoma	For tax years beginning before January 1, 2015, a tax credit is available for up to 75% of the cost of alternative fueling infrastructure. Eligible alternative fuels include compressed natural gas (CNG), liquefied natural gas, liquefied petroleum gas (propane), hydrogen, and electricity. The infrastructure must be new. A tax credit is also available for up to 50% of the cost of installing a residential CNG fueling system, for up to $2,500. The tax credit may be carried forward for up to five years. (68 O.S. §2357.22) In 2014, this credit was extended to tax years beginning before Jan 1, 2020. The tax credit remains in place through 2019.	Complete	1990 - 2019

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Path Forward Action Plan Category	Emission Reduction Project	Administrative Entity	Description	Status	Implementation Schedule and/or Completion Date
	DERA Grants	DEQ/EPA	Broken Arrow Public Schools: Awarded $88,000 (20% of total project cost) to replace five 1996 diesel buses with five EPA-certified 2019 school buses. The project began with the execution of a Memorandum of Agreement (MOA) with DEQ on April 24, 2018. Vehicles were received on August 20, 2018, and the project was completed on September 17, 2018. Broken Arrow PS went through a competitive bidding process to replace five 71-passenger International Type C school buses with new 2019 International school buses. Catoosa Public Schools: Awarded $85,000 (35% of total project cost) to replace one 1999 diesel school bus with one CARB-certified 2020 school bus. The project began with the execution of an MOA with DEQ on May 16, 2018. Vehicles were received on September 10, 2018, and the project was completed on October 25, 2018. Catoosa PS went through a competitive bidding process to replace one 77-passenger Bluebird 1999 school bus with a new International 2020 school bus. Both projects successfully removed harmful air pollutants from the air by replacing old diesel buses that excessively polluted with new diesel buses, with the help of DEQ funds. As a requirement of the program, both school districts implemented idle reduction policies in order to reduce excess emissions, and increase the fuel efficiency and lifespan of their current, active school bus fleet.	Complete	2018
	Oklahoma First Energy Plan	State of Oklahoma	The Oklahoma First Energy Plan lays out policy guidance for a diverse energy portfolio that includes energy efficiency and encourages technologies such as combined heat and power (CHP) and geothermal. https://www.ok.gov/governor/documents/Governor%20Fallin's%20Energy%20Plan%20-%20Jan%202012.pdf	**Completed (due to change in leadership)**	2011 - **2018**
Enhanced Public Outreach and Education Programs	Tulsa Transportation Resource Center	INCOG	The Tulsa Transportation Resource Center (TRC) is a dynamic program designed to connect people to available transportation options. The website, www.tulsatrc.org, highlights resources for Tulsa Metro Area biking, walking, and riding (transit and rideshare). Tulsa TRC outreach efforts include working at community events, local company partnership and training, organizational meetings to present information, and more. 2018 Update: To effectively assess how best to manage the outreach efforts of Tulsa's rapidly emerging transportation resources, INCOG will be ending the TRC Program within the upcoming year. INCOG will determine next steps for possible revamping of this program and future initiatives in partnership with Tulsa Regional Bicycle and Pedestrian planning groups, Metropolitan Tulsa Transit Agency, Tulsa Bike Share, and other regional alternative transportation agencies.	Complete	2013 - 2018