

WORLDWIDE CONSTRUCTION UPDATE

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Listed are major construction projects by processing and pipeline categories. Contractors, estimated completion date, and added capacity are provided when available.

Construction project abbreviations:

Engr.	Engineer	PE	Procurement engineering
Contr.	Contractor	CS	Construction supervision
Tech.	Technology	PD	Process design
Dsgn.	Design	DD	Detailed design
Constr.	Construction	JV	Joint venture
PM	Project management	Lic.	License
CM	Construction management	FEED	Front-end engineering and design
EPC	Engineering procurement construction		

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Added capacity listed in barrels per day (b/d) unless otherwise specified.

Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
ALGERIA	Sonatrach SPA	Skikda	Catalytic reformer	80,329	Engineering	2019	KBR-E.PMC; China Petroleum Engineering & Construction Corp-EPC; Tecnicas Reunidas SA-PMC	
	Sonatrach SPA	Skikda	Gas oil hydrocracker	92,378	Engineering	2019	KBR-E.PMC; China Petroleum Engineering & Construction Corp-EPC; Tecnicas Reunidas SA-PMC	
	Sonatrach	Arzew	MTBE	3,446	Planning		Honeywell UOP LLC	
	Sonatrach SPA	Tiaret	Refinery	100,411	Planning		Amec Foster Wheeler-FEED; China Petroleum Engineering & Construction Corp-EPC	Grassroots project
	Sonatrach SPA	Skikda	Penex isomerization		-		Honeywell UOP-TL/E/D	
	Sonatrach SPA	Skikda	CCR Platforming		-		Honeywell UOP-TL/E/D	
	Sonatrach SPA	Skikda	Solvent deasphalter	24,100	-		Honeywell UOP-TL/E/D	
	Sonatrach SPA	Skikda	Unicracker	81,000	-		Honeywell UOP-TL/E/D	
	Sonatrach SPA	Hassi Messaoud	Refinery	100,411	Planning		Amec Foster Wheeler-FEED; China Petroleum Engineering & Construction Corp-EPC	Grassroots project
	Sonatrach SPA	Algiers	Revamp		Under constr.			Previously planned to expand capacity to 3.6 million tpy from 2.7 million tpy
Sonatrach SPA	Biskra	Refinery	100,411	Planning		Amec Foster Wheeler-FEED; China Petroleum Engineering & Construction Corp-EPC	Grassroots project	
ANGOLA	Sonangol EP	Luanda	Platforming unit		Planning			Part of financing agreement with Eni SPA; to boost gasoline production.
	Sonangol EP	Luanda	Refinery		Planning			
	Sonangol EP	Lobito	Refinery		Planning			
	Sonangol	Lobito	Refinery	200,000	Under constr.		KBR-E/PE/Cm	\$2 billion. Technip (60%), Sonangol (40%).
Sonangol EP	Cabinda	Refinery	60,000	Planning		United Shine Consortium	United Shine consortium 90% stake - Sonangol Fefinacion-Sonaref SA 10% stake	
AUSTRALIA	ExxonMobil Corp.	Altona,Victoria	Jet fuel treater	2,000	Under constr.			Expansion to 12,000 b/d from 10,000 b/d.
	ExxonMobil Corp.	Altona,Victoria	Crude distillation	10,000	Planning			Expansion, upgrading program.
AZERBAIJAN	State Oil Co. of Azerbaijan Republic	Heydar Aliyev,Baku	Sulfur recovery	1,205	Under constr.	2020	Maire Tecnimont-TL	
	State Oil Co. of Azerbaijan Republic	Heydar Aliyev,Baku	Refinery	30,123	Under constr.	2020	SOCAR-KBR-TL; Tecnicas Reunidas SA-EPC	Expansion. Modernization, upgrading.
	State Oil Co. of Azerbaijan Republic	Heydar Aliyev,Baku	Isomerization		Under constr.	2020	Honeywell UOP-TL	
	State Oil Co. of Azerbaijan Republic	Heydar Aliyev,Baku	MTBE		Under constr.	2020	Honeywell UOP-TL	
	State Oil Co. of Azerbaijan Republic	Heydar Aliyev,Baku	Fluid catalytic cracking		Under constr.	2020	Honeywell UOP-TL	
	State Oil Co. of Azerbaijan Republic	Heydar Aliyev,Baku	Sulfur removal		Under constr.	2020	Honeywell UOP-TL	
	State Oil Co. of Azerbaijan Republic	Heydar Aliyev,Baku	LPG Merox		Under constr.	2020	Honeywell UOP-TL	
	State Oil Co. of Azerbaijan Republic	Heydar Aliyev, Baku	PSA unit	30,100	Planning	2021	Honeywell UOP-TL	
	State Oil Co. of Azerbaijan Republic	Heydar Aliyev,Baku	Amine treatment		Under constr.	2020	Honeywell UOP-TL	
State Oil Co. of Azerbaijan Republic	Heydar Aliyev,Baku	Naphtha hydrotreating		Under constr.	2020	Honeywell UOP-TL		
BAHRAIN	Bahrain Petroleum Co.	Sitra	Refinery expansion	93,000		2022	TechnipFMC,Samsung Engineering,Tecnicas Reunidas-EPCCWorley Parsons-PM	Upgrade. \$56 million.
	Bahrain Petroleum Co.	Sitra	Diesel hydrotreating		Under const.	2022	Chevron Lummus Global-TL	
	Bahrain Petroleum Co.	Sitra	Delayed coking		Under const.	2022		
	Bahrain Petroleum Co.	Sitra	Vacuum gas oil hydrocracking		Under const.	2022	Chevron Lummus Global-TL	
	Bahrain Petroleum Co.	Sitra	Sulfur recovery		Under const.	2022		
	Bahrain Petroleum Co.	Sitra	Residue hydrocracking		Under const.	2022	Chevron Lummus Global-TL	
BANGLADESH	Eastern Refinery Ltd.	Chittagong	Crude distillation	60,247	Engineering		Engineers India-PMC	Expansion
CAMBODIA	Cambodian Petrochemical Co. Ltd.	Preah Sihanouk	Hydrocracker	100,411	Engineering		KBR-Tinajin Petrochemical Engineering Design Co. Ltd.-EPC,TL	2 million-tpy Phase 1 due in 2018.

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CAMEROON	SONARA	Limbe refinery	Effluent plant		Engineering	2018	Suez SA-TL; Sogea Satom,Ingenica-EPC		
	SONARA	Limbe refinery	Vacuum distillation		Engineering		Amec Foster Wheeler-EPC		
	SONARA	Limbe refinery	Crude distillation		Engineering		Amec Foster Wheeler-EPC	Expansion to 3.5 million tpy.	
	SONARA	Limbe refinery	Catalytic reformer		Engineering		Amec Foster Wheeler-EPC		
CANADA	Kitimat Clean Ltd.	Kitimat,BC	Refinery	400,000	Planning	2024		Proposed bitumen-processing refinery.	
CHECHNYA	OJSC Grozneftegaz	Grozny	Refinery	120,493	Planning		Genoil-TL/Constr.		
CHILE	Empresa Nacional del Petroleo (Enap)	Hualpen,Bio Bio	ROSE solvent deasphalting unit	30,000	Engineering		KBR Inc.-TL/E/D		
CHINA	Sinochem Hongrun Petrochemical Co. Ltd.	Weifang City,Shandong province	Residual upgrading	24,099	Engineering	2020	ExxonMobil Catalysts & Licensing Co.-TL		
	Hengli Petrochemical (Dalian) Co. Ltd.	Dalian	Refinery	400,000	Under constr.	2019	Axens-TL; DuPont-TL; Honeywell UOP-TL; Rotork PLC-Eq.		
	China Petrochemical Corp. [Sinopec (Maoming Petrochemical Co.)]	Maoming, Guangdong province	BOTB upgrading plant	46,000	Engineering	2020	Eni SPA-TL	Eni slurry technology.	
	Saudi Aramco, China North Industries Group Corp., Panjin Sincen	China's Liaoning province	Grassroots refining and petrochemical complex	300,000	Planning	2024			
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Alkylation unit		Engineering		McDermott-TL/E/D		
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	PSA unit (4)		Engineering		Honeywell UOP,HPS-TL/E/D	UOP's modular Polybed PSA unit.	
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	PSA unit (3)		Engineering		Honeywell UOP,HPS-TL/E/D	UOP's modular Polybed PSA unit.	
	PetroChina Co. Ltd. (Dalian Petrochemical Co.)	Dalian,Liaoning province	Alkylation unit		—		McDermott-TL/E/D	CDAlky units to ensure gasoline-diesel production complies with China 6-quality specifications capping sulfur content at maximum of 10 ppm starting in 2020.	
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Naphtha hydrotreater		Engineering		Honeywell UOP,HPS-TL/E/D	UOP's Unionfining process.	
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	RFCC	100,411	Engineering		Honeywell UOP,HPS-TL/E/D	UOP's RCD Unionfining and RFCC processes.	
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Diesel hydrocracker (2)		Engineering		McDermott-TL/E/D		
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	PSA unit (2)		Engineering		Honeywell UOP,HPS-TL/E/D	UOP's modular Polybed PSA unit.	
	PetroChina Co. Ltd. (Urumqi Petrochemical Co.)	Urumqi,Xinjiang Uygur Autonomous Region	Alkylation unit		—		McDermott-TL/E/D	CDAlky units to ensure gasoline-diesel production complies with China 6-quality specifications capping sulfur content at maximum of 10 ppm starting in 2020.	
	PetroChina Co. Ltd. (Jinzhou Petrochemical Co.)	Jinzhou,Liaoning province	Alkylation unit		—		McDermott-TL/E/D	CDAlky units to ensure gasoline-diesel production complies with China 6-quality specifications capping sulfur content at maximum of 10 ppm starting in 2020.	
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Continuous catalytic reformer (2)		Under constr.		Honeywell UOP,HPS-TL/E/D	UOP's CCR Platforming process.	
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Sulfuric acid regeneration unit		Under constr.		DuPont-TL/E/D		
	Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Diphenyl carbonate unit	4,418	Under constr.		McDermott-TL/E/D		
	Sinopec	Kuwait Petroleum Corp.	Kuwait	Refinery	300,000	Under constr.		DuPont Clean Technologies-TL/E/eq.; LyondellBasell Industries BV-TL,Kaji Technology Corp.-Eq.	Integrated refining and petrochemical complex.
	China Petrochemical Corp. [Sinopec (Wuhan Petrochemical Co.)]	Wuhan City, Hubei Province	Alkylation unit	6,025	Under constr.	2019	Well Resources Inc.-TL	Composite ionic liquid alkylation technology (ionikylation).	
	Shenghong Refining & Chemical (Lianyungang) Co. Ltd.	Lianyungang City, Jiangsu Province	H-Oil Hydrocracking Unit	64,263	Engineering		Axens-TL	Based on Axens' ebullated-bed residue hydrocracking technology (H-Oil).	
	Chemical (Lianyungang) Co. Ltd.	Lianyungang City, Jiangsu Province	HyK Distillates Hydrocracking Unit	69,283	Engineering		Axens-TL	Based on Axens' HyK distillates hydrocracking technology.	
	Sinochem Hongrun Petrochemical Co. Ltd.	Weifang City, Shandong Province	Alkylation Unit		Planning		Honeywell UOP-TL	Based on Honeywell UOP-licensed ISOALKY alkylation technology.	
Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Paraxylene unit	80,329	Under constr.		Honeywell UOP,HPS-TL/E/D	UOP's LD Parex process, including Sulofane, Isomar, and Tatoray technologies.		
Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Diesel hydrocracker (1)		Under constr.		McDermott-TL/E/D			
Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Continuous catalytic reformer (1)		Under constr.		Honeywell UOP,HPS-TL/E/D	UOP's CCR Platforming process.		
Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	PDH unit	12,049	Under constr.		Honeywell UOP,HPS-TL/E/D	UOP's Oleflex process.		
Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Hydrocracker		Under constr.		Honeywell UOP,HPS-TL/E/D	UOP's Unicracking process.		
China Petrochemical Corp. [Sinopec (Sinopec Anqing Co.)]	Anqing, Anhui Province	Alkylation Unit	6,025	Under constr.	2019	Well Resources Inc.-TL	Composite ionic liquid alkylation technology (ionikylation).		
Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	PSA unit (1)		Under constr.		Honeywell UOP,HPS-TL/E/D	UOP's modular Polybed PSA unit.		
Zhejiang Petrochemical Co. Ltd. (ZPC)	Zhoushan,Zhejiang Province	Refinery	803,288	Under constr.			New integrated complex to be built in two phases.		
Tianjin Petroleum & Chemical Corp.	Tianjin Binhai New Area,Tianjin	Alkylation unit	7,700	Under constr.		DuPont-TL/E/D	\$1.6 billion.		

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CROATIA	INA Industrija Nafta DD	Rijeka	Modernization		Planning	2023		
	INA Industrija Nafta DD	Urinj	Residual upgrading		Planning			\$400 million.
CURACAO	Refineria Di Korsou NV	Emmastad	Refinery modernization		Planning			Modernization planned under new proposed ownership by Guandong Zhenrong Energy Co. beginning Jan. 1, 2020.
CZECH REPUBLIC	Unipetrol RPA SRO - Rafinerie	Litvinov	Unit Upgrading Project		Planning	2020	McDermott International Inc. - EPCM	
	Unipetrol RPA SRO - Rafinerie	Litvinov	Energy efficiency study		Planning		Neste Jacobs Oy	
EGYPT	Suez Oil Processing Co.	Suez	Refinery upgrade		Planning			Increase crude flexibility; enable production of lower-sulfur fuels.
	Middle East Oil Refinery Co.	Alexandria	Refinery expansion	60,000	Under constr.	2022	TechnipFMC-EPC	
	Middle East Oil Refinery Co.'s Assiut Oil Refining Co.	El Amreya Free Zone Assiut	Refinery Hydrocracking complex	50,205	Under constr. Engineering	2022	TechnipFMC PLC, EPC WorleyParsons-PMC; ANOPC-Constr.; TechnipFMC-D	
	Assiut Oil Refining Co.	Assiut	Delayed coking		Engineering		Bechtel Corp.-TL	Bechtel ThruPlus coking technology.
FRANCE	Total SA	Donges	Sour-water stripping unit		Under constr.	2019	Amec Foster Wheeler- FEED	
	Total SA	Donges	Vacuum heavy oil hydrodesulfurization unit	40,000	Under constr.	2019	Axens-E/TL; Amec Foster Wheeler- FEED	
GERMANY	Royal Dutch Shell PLC (Shell Deutschland Oil GMBH)	Rheinland	Hydrogen plant	26	Planning	2020		Expansion of existing plant.
	Royal Dutch Shell PLC (Shell Deutschland Oil GMBH)	Rheinland	Residue processing plant		Planning	2020		Proposed expansion to boost production of fuels conforming the International Maritime Organization's 0.5% sulfur cap on marine fuels taking effect on Jan. 1, 2020.
GUINEA	Brahms Oil Refineries Ltd.	Kamsar	Refinery	10,000	Engineering		SNC-Lavalin Group Inc.-PM/FEED/EPC	Preliminary studies due by yearend 2017.
HUNGARY	MOL Group	Szazhalombatta, near Budapest	Duna Refinery desalting		Planning		Frames Group BV, Alphen aan den Rijn	
INDIA	Indian Oil Corp. Ltd.	Bongaigaon	Refinery	14,861	Planning			
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	PSA unit		Under constr.	2019	Honeywell UOP-TL	
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	Isomerization unit	924	Under constr.			Expansion.
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	Continuous catalytic reforming unit	3,615	Under constr.			Expansion.
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	Amine regeneration unit	33,425	Under constr.			New unit.
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	FCC gasoline desulfurization unit	14,058	Under constr.			New unit.
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	Hydrogen	1,456	Under constr.			New unit.
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	Diesel hydrotreater	40,164	Under constr.			New unit.
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	Sour-water stripping unit	9,676	Under constr.			New unit.
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	Vacuum gas oil hydrotreater	2,008	Under constr.			Expansion.
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	Diesel hydrodesulfurization unit	8,635	Under constr.			Expansion.
	Indian Oil Corp. Ltd.	Koyali, Vadadora, Gujarat	Diesel hydrotreater	13,254	Under constr.			Expansion.
	Indian Oil Corp. Ltd.	Barauni, Bihar	Prime G+ desulfurization unit	7,230	Engineering		Engineers India Ltd.-EPC; Axens-TL	New unit
	Indian Oil Corp. Ltd.	Barauni, Bihar	Naphtha splitter	5,944	Engineering		Engineers India Ltd.-EPC	New unit
	Indian Oil Corp. Ltd.	Barauni, Bihar	Diesel hydrotreater	22,090	Engineering		Engineers India Ltd.-EPC	Expansion
	Indian Oil Corp. Ltd.	Barauni, Bihar	Catalytic reformer	3,414	Engineering		Engineers India Ltd.-EPC	Expansion
	Indian Oil Corp. Ltd.	Barauni, Bihar	Naphtha hydrotreater	3,414	Engineering		Engineers India Ltd.-EPC	Expansion
	Indian Oil Corp. Ltd.	Barauni, Bihar	Refinery expansion	60,247	Engineering		Engineers India Ltd.-EPC	
	HPCL-Mittal Energy Ltd.	Guru Gobind Singh, Village Phullokhar, Bathinda, Punjab	BS 6 fuels project		Under constr.	2019	Engineers India Ltd.-EPCM	
	HPCL-Mittal Energy Ltd.	Guru Gobind Singh, Village Phullokhar, Bathinda, Punjab	Hydrogen	442	Engineering	2019		Unit revamp.
HPCL-Mittal Energy Ltd.	Guru Gobind Singh, Village Phullokhar, Bathinda, Punjab	Diesel hydrotreater	38,156	Engineering	2019	Haldor Topsoe AS-TL/Eq.		

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	Bharat Petroleum Corp. Ltd.	Mumbai	Gasoline hydrotreater	18,074	Under constr.	2019	Engineers India Ltd.–PMC	New unit
	Indian Oil Corp. Ltd.	Koyali,Vadadora, Gujarat	Refinery expansion	86,353	Engineering	2021	Amec Foster Wheeler–E/TL	McDermott International Inc. to provide proprietary technology and catalyst for new units.
	Mongol Refinery State Owned LLC	Altanshiree Soum	Refinery		Planning		Engineers India Ltd.	
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Propylene recovery unit	704	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Slurry hydrocracker	50,205	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Hydrogen generation unit (1)	2,269	Under constr.	2020	Engineers India Ltd.–EPC; TechnipFMC–TL/EPCC/PM	New unit
	Hindustan Petroleum Corp. Ltd.	Mumbai	Hydrogen generation unit	723	Engineering			New unit
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Amine regeneration unit (2)	94,997	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Sulfur recovery LPG treating unit	2,249	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Mumbai	Visbreaker	11,346	Engineering			New unit
	Hindustan Petroleum Corp. Ltd.	Mumbai	Diesel hydrotreater	44,181	Under constr.			
	Chennai Petroleum Corp. Ltd.	Nagappattinam, Tamilnadu	Refinery	180,740	Planning		Engineers India Ltd.; Chevron Lummus Global–TL	Proposed grassroots Cauvery Basin refinery; will include 50,200-b/d delayed coker licensed by McDermott's Chevron Lummus Global; total refinery project will require an investment of 274.5-274.6 billion rupees to complete.
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Vacuum gas oil hydrocracker	66,271	Under constr.	2020	L&T Hydrocarbon Engineering Ltd.–EPCC; Chevron Lummus–TL	New unit; LC-MAX, ISOTREATING technologies.
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Crude distillation unit	180,740	Under constr.	2020	L&T Hydrocarbon Engineering Ltd.–EPCC	New unit
	Hindustan Petroleum Corp. Ltd.	Mumbai	Continuous catalytic reformer		Engineering			Expansion
	Bharat Petroleum Corp. Ltd.	Kochi,Ambalmgal, Kerala	Refinery	120,493	Engineering		Petron Engineering Construction Ltd.–E	Expansion. \$34.4 million.
	Indian Oil Corp. Ltd.	Orissa	Refinery	301,233	Under constr.		Amec Foster Wheeler–E/Constr./D	
	Indian Oil Corp. Ltd.	Barauni,Bihar	Polypropylene unit		Engineering		Engineers India Ltd.–EPC	New unit. McDermott International Inc. to provide proprietary technology and catalyst for new units.
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Diesel hydrotreater	57,430	Under constr.	2020	Engineers India Ltd.–EPC	30% expansion to 2.86 million tpy.
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Solvent deasphalting unit	62,255	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Indian Oil Corp. Ltd.	Panipat	PSA unit		Under constr.	2019	Honeywell UOP–TL	
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Sulfur recovery unit (2)	2,639	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Naphtha isomerization unit	5,864	Under constr.	2020	Engineers India Ltd.–EPC; Honeywell UOP–TL/E/D	New unit
	Indian Oil Corp. Ltd.	Orissa	Delayed coker	82,337	Engineering		Jacobs Engineering–PM	\$350 million.
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Hydroprocessing sour water stripper	32,545	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Sulfur recovery unit (1)	2,639	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Hydrogen generation unit (2)	2,269	Under constr.	2020	Engineers India Ltd.–EPC; TechnipFMC–TL/EPCC/PM	New unit
	Hindustan Petroleum Corp. Ltd.	Mumbai	Diesel hydrotreater		Engineering			Revamp
	Hindustan Petroleum Corp. Ltd.	Mumbai	Isomerization unit		Engineering			Expansion
	Bharat Petroleum Corp. Ltd.	Mumbai	Diesel hydrodesulfurization unit		Under constr.	2019	Engineers India Ltd.–PMC	Revamp
	Hindustan Petroleum Corp. Ltd.	Maharashtra	Refinery	361,479	Planning			
	Chennai Petroleum Corp. Ltd.	Manali	Refinery	80,329	Planning			Expansion. \$29 million. Refinery III.
	Chennai Petroleum Corp. Ltd.	Manali	Refinery	70,288	Planning			Expansion. \$32 million. Refinery I.
	Bharat Petroleum Corp. Ltd.	Mumbai	Amine regeneration unit		Under constr.	2019	Engineers India Ltd.–PMC	Revamp
	Bharat Petroleum Corp. Ltd.	Mumbai	Sour water stripper		Under constr.	2019	Engineers India Ltd.–PMC	Revamp
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Amine regeneration unit (1)	94,997	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Fuel gas pressure-swing adsorption unit	723	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Mumbai	FCCU	28,115	Under constr.			
	Hindustan Petroleum Corp. Ltd.	Mumbai	Crude-vacuum distillation (Unit 1)	150,616	Engineering			Expansion
	Hindustan Petroleum Corp. Ltd.	Mumbai	Propylene recovery unit	2,008	Engineering			New unit
	Hindustan Petroleum Corp. Ltd.	Mumbai	Prime G+ unit		Engineering			Expansion
	Bharat Petroleum Corp. Ltd.,Hindustan Petroleum Corp. Ltd.,Indian Oil Corp. Ltd. Consortium	Maharashtra	Refinery	1,204,932	Planning		Engineers India Ltd.–Detailed feasibility study	Megarefinery project to be built in two phases.

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	Indian Oil Corp. Ltd.	Mathura	Vacuum residue upgrading unit		Engineering		Chevron Lummus Global–TL/E/D	Isocracking technology.
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Gasoline hydrotreater		Under constr.	2020	Engineers India Ltd.–EPC	30% expansion to 1.5 million tpy.
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Nonhydroprocessing sour water stripper	52,776	Under constr.	2020	Engineers India Ltd.–EPC	New unit
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Effluent treatment plant	150,955	Under constr.	2020	Engineers India Ltd.–EPC; Larsen & Toubro–EPC	New unit
	Numaligarh Refinery Ltd.	Assam	Refinery	120,500	Engineering		Engineers India Ltd.	Expansion to 180,750 b/d.
	Indian Oil Corp. Ltd.	Mathura	PSA unit		Under constr.	2019	Honeywell UOP–TL	
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	Continuous catalytic reformer	20,890	Under constr.	2020	Engineers India Ltd.–EPC	35% expansion to 1.04 million tpy.
	HPCL Rajasthan Refinery Ltd.	Barmer,Rajasthan	Refinery	181,000	Under constr.	2022	Engineers India Ltd.	McDermott will deliver license and basic engineering design of two 420,000-tonne/year polypropylene units that will use Lummus' proprietary Novolen process reactors and proprietary NHP catalyst to produce a full range of polypropylene products for the Indian and regional markets, the service provider said.
	Hindustan Petroleum Corp. Ltd.	Vishakhapatnam, Andhra Pradesh	FCC naphtha hydrotreater	30,125	Under constr.	2020	Engineers India Ltd.–EPC	Upgrade to enable BS V, BS VI-quality fuels.
INDONESIA	PT Pertamina (Persero)	Balikpapan	Hydrotreating	80,000	Under constr.	2020	Axens–TL	
	PT Pertamina (Persero)	Balikpapan	RFCC	90,000	Under constr.	2020	Axens–TL	
	PT Pertamina (Persero)	Balikpapan	Unionfining hydrotreater	13,000	Under constr.	2020	Honeywell UOP–TL/E/D	
	PT Pertamina (Persero)	Balikpapan	Continuous catalytic reforming	33,000	Under constr.	2020	Honeywell UOP–TL/E/D	
	PT Pertamina (Persero)	Balikpapan	Refinery expansion	100,000	Under constr.	2020		
	PT Kilang Kaltim Continental	Balikpapan	Refinery	24,000	Engineering	2020	Lone Star Technical Solutions Group–FEED	Modular refinery.
	PT Pertamina (Persero)	Balikpapan	Propylene recovery		Under constr.	2020	Axens–TL	
	PT Pertamina (Persero)	Cilacap	Hydrotreating	36,000	Engineering		Axens–TL	
	PT Pertamina (Persero)	Balikpapan	Alkylation		Under constr.	2020	McDermott–TL/E/D	
	PT Pertamina (Persero)	Balikpapan	Sulfrex LPG SRU		Under constr.	2020	Axens–TL	
	PT Pertamina Rosneft Pengolahan dan Petrokimia	East Java	Refinery	300,000	Planning			Integrated refining and petrochemical complex.
IRAQ	Iraqi Ministry of Oil	Karbala	Refinery	140,000	Under constr.	2020	Hyundai Engineering & Construction	
IVORY COAST	Societe Ivoirienne de Raffinage (SIR)	Abidjan	Refinery modernization		Planning			Proposed modernization of the refinery; SIR has secured a €577-million debt financing to enable the project.
JAMAICA	Petrojam Ltd.	Kingston	Vacuum distillation unit		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Refinery expansion	14,000	Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Tail gas treating		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Wastewater treatment		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Distillate hydrotreater		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Sour water stripper		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Delayed coker		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Continuous catalytic reformer		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Naphtha hydrotreater		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Sulfur recovery unit		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
	Petrojam Ltd.	Kingston	Amine treatment		Engineering	2020	Sinohydro Corp. Ltd.–EPC	
JORDAN	Jordan Petroleum Refinery Co.	Zarqa	CCR Platforming unit		Engineering		Honeywell UOP LLC–TL/FEED/E/D/Eq.	Preliminary engineering to be completed early 2018.
	Jordan Petroleum Refinery Co.	Zarqa	Hydrotreater		Engineering		Honeywell UOP LLC–TL/FEED/E/D/Eq.	Preliminary engineering to be completed early 2018.
	Jordan Petroleum Refinery Co.	Zarqa	Penex unit		Engineering		Honeywell UOP LLC–TL/FEED/E/D/Eq.	Preliminary engineering to be completed early 2018.
	Jordan Petroleum Refinery Co.	Zarqa	Selectfining unit		Engineering		Honeywell UOP LLC–TL/FEED/E/D/Eq.	Preliminary engineering to be completed early 2018.
	Jordan Petroleum Refinery Co.	Zarqa	Merox unit		Engineering		Honeywell UOP LLC–TL/FEED/E/D/Eq.	Preliminary engineering to be completed early 2018.
	Jordan Petroleum Refinery Co.	Zarqa	Polybed PSA unit		Engineering		Honeywell UOP LLC–TL/FEED/E/D/Eq.	Preliminary engineering to be completed early 2018.
	Jordan Petroleum Refinery Co.	Zarqa	Residue hydroprocessing unit		Engineering		KBR Inc.–E/D	Preliminary engineering to be completed early 2018.
	Jordan Petroleum Refinery Co.	Zarqa	MinAlk unit		Engineering		Honeywell UOP LLC–TL/FEED/E/D/Eq.	Preliminary engineering to be completed early 2018.

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	Jordan Petroleum Refinery Co.	Zarqa	Unicracking unit		Engineering		Honeywell UOP LLC–TL/FEED/E/D/Eq.	Preliminary engineering to be completed early 2018.
	Jordan Petroleum Refinery Co.	Zarqa	Refinery expansion	20,000	Engineering		Honeywell UOP LLC–TL/FEED/E/D/Eq.	Preliminary engineering to be completed early 2018.
KUWAIT	Kuwait National Petroleum Co.	Al-Zour	Sulfuric acid generation unit	513	Under constr.	2022	DuPont Clean Technologies–TL/D	MECS advanced SAR unit.
	Kuwait National Petroleum Co.	Al-Zour	Alkylation unit	9,100	Under constr.	2022	DuPont Clean Technologies–TL/D	STRATCO alkylation unit.
	Kuwait National Petroleum Co.	Al-Zour	Refinery	615,000	Under constr.	2019	Tecnicas Reunidas-Sinopec Eng.-Hanwha E&C–EPC	
	Kuwait National Petroleum Corp.	Southern Kuwait	Refinery		Planning			
LIBERIA	ECOWAS Refinery Liberia Ltd.	Buchanan	Refinery	100,000	Planning		KBR Inc.–PF	
MALAYSIA	Hengyuan Refining Co. Bhd.	Port Dickson	Clean Air Regulation refinery upgrade		Under constr.			\$135-million upgrade to install complex that will desulfurize cat-cracked gasoline to meet Euro 4M specs.
	Hengyuan Refining Co. Bhd.	Port Dickson	Euro 5 gas oil project		Under constr.	2020		Preliminary works to be under way by yearend 2018.
	Hengyuan Refining Co. Bhd.	Port Dickson	Hydrogen Manufacturing Unit		Under constr.	2020		
	Petronas	Melaka	Hydrogen generation unit		Planning		Hyundai Engineering–EPC; John Wood Group–E/Equip.; ABB Ltd.–Equip.	Steam methane reformer; Terrace Wall process technology; part of Diesel Euro-5 project.
MEXICO	Petroleos Mexicanos	Minatitlan	Vacuum distillation	1,100	Under constr.	2019	Amec Foster Wheeler–D	
	Petroleos Mexicanos	Minatitlan	Crude distillation	30,000	Under constr.	2019	Amec Foster Wheeler–D	
	Pemex	Dos Bocas	Refinery	340,000	Planning			
	Petroleos Mexicanos	Salamanca	Hydrodesulfurization	36,100	Under constr.		Samsung Engineering–E/PE	
	Petroleos Mexicanos	Tula	Heavy oil plant revamp		Under constr.		Saipem SPA,Saimexicana SA de CV–EPC	
	Petroleos Mexicanos	Tula	Refinery	86,000	Under constr.			
	Petroleos Mexicanos	Salamanca	Sour water stripping	4,500	Under constr.			
	Petroleos Mexicanos	Tula	Amine regeneration		Under constr.			
	Petroleos Mexicanos	Tula	Desulfurization	30,000	Under constr.			
MONGOLIA	Government of Mongolia	Altanshiree, Dornogovi province	Refinery	30,100	Under constr.		Engineers India Ltd.–FEED/EPC	
MOZAMBIQUE	Empresa Nacional de Hidrocarbonetos EP	TBD	Refinery		Planning			Feasibility study due.
NETHERLANDS	ExxonMobil Corp.	Rotterdam	Hydrocracker	85	Under constr.		Amec Foster Wheeler–EPC	Expansion
	Gunvor Group Ltd.	Rotterdam	Refinery upgrade		Planning			
	Zeeland Refinery	Vlissingen	Hydrocracker		Engineering		Amec Foster Wheeler–EPC	Upgrade
NEW ZEALAND	New Zealand Refining Co.	Marsden Point	Refinery upgrade		Planning			Emissions and energy reduction projects.
NIGERIA	Dangote Group	Lagos,Lekki Free Trade Zone	Refinery	650,000	Under constr.	2020	Engineers India Ltd.–EPC	
	Kaduna Refining & Petrochemical Co. Ltd.	Kaduna State	Refinery modernization		Planning			Nigerian National Petroleum Corp. rehabilitation program.
	Niger Delta Petroleum Resources Ltd.	Rivers State	Refinery	10,000	Engineering			Expansion
	Nigerian National Petroleum Corp.	Assah North Ohaji South Area,Imo State	Refinery	100,000	Planning			New condensate refinery.
	Nigerian National Petroleum Corp.	Western Forcados Area,Delta State	Refinery	100,000	Planning			New condensate refinery.
	Sinopec International Petroleum Service Corp. (SIPS), Peiyang Chemical Equipment Co. (PCC), and African Infrastructure Partners	Edo State	Refinery	5,500	Planning			Modular refinery.
	PT Intim Perkasa Nigeria Ltd.	Akwa Ibom State	Refinery	10,000	Planning			Modular refinery.
	Warri Refining & Petrochemical Co. Ltd.	Delta State	Refinery modernization		Planning			Nigerian National Petroleum Corp. rehabilitation program.
	Eko Petrochem & Refining Co. Ltd.	Tomaro Island,Lagos	Refinery	20,000	Planning			Modular refinery.
	Waltersmith Refining & Petrochemical Ltd.	Ibigwe,Imo State	Refinery	5,000	Under constr.		Lambert Electromec Ltd.,VFuels LLC–EPC	Modular refinery.
	Port Harcourt Refining Co. Ltd.	Rivers State	Refinery modernization		Planning		Maire Technimont SPA	Nigerian National Petroleum Corp. rehabilitation program.
NORWAY	Equinor	Mongstad	Gas residue debottlenecking project		Engineering		John Wood Group–FEED	
	Equinor	Mongstad	Low-sulfur gasoline unit		Engineering		John Wood Group–E/P/D	
OMAN	Duqm Refinery & Petrochemical Industries Co. LLC	Duqm	Delayed coker		Engineering		John Wood Group–FEED	FEED scheduled for completion in 2020.

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	Duqm Refinery & Petrochemical Industries Co. LLC	Duqm	Refinery	230,000	Under constr.		Galfar Engineering & Contracting SAOG—Site preparation; Saipem SPA, McDermott—EPC Package 3; Petrofac International Ltd., Samsung Engineering Co. Ltd.—EPC Package 2; Tecnicas Reunidas SA, Daewoo Engineering & Construction Co. Ltd.—EPC Package 1; Amec Foster Wheeler—PM	
PAKISTAN	Falcon Oil PLC	Dera Ismail Khan, Khyber Pakhtunkhawa	Refinery	100,000	Engineering		Guandong Electrical Design Institute—EPC	
	Pakistan Refinery Ltd.	Karachi	Refinery		Planning		Amec Foster Wheeler—D	Upgrade and expansion project.
PHILIPPINES	Petron Corp.	Bataan	Unionfining unit		Engineering		Honeywell UOP—E/D/TL	Upgrading production capacity expansion project.
	Petron Corp.	Bataan	Merox unit		Engineering		Honeywell UOP—E/D/TL	Upgrading production capacity expansion project.
	Petron Corp.	Bataan	CCR Platforming unit		Engineering		Honeywell UOP—E/D/TL	Upgrading production capacity expansion project.
	Petron Corp.	Bataan	Naphtha hydrotreater		Engineering		Honeywell UOP—E/D/TL	Upgrading production capacity expansion project.
	Petron Corp.	Bataan	Condensate fractionation unit		Engineering		Honeywell UOP—E/D/TL	Upgrading production capacity expansion project.
	Petron Corp.	Bataan	Sulfolane unit		Engineering		Honeywell UOP—E/D/TL	Upgrading production capacity expansion project.
	Petron Corp.	Bataan	LPG unit		Engineering		Honeywell UOP—E/D/TL	Upgrading production capacity expansion project.
POLAND	Grupa Lotos SA	Gdansk	Hydrorefining	50,000	Under constr.			
	Grupa Lotos SA	Gdansk	Catalytic hydrocracking	4,000	Under constr.			Expansion
	PKN Orlen SA	Plock	Hydrogen		Engineering		Technip—EPC	
	Grupa Lotos SA	Gdansk	Crude/vacuum distillation unit	90,000	Under constr.			
	PKN Orlen SA	Plock	Hydrodesulfurization		Engineering		Technip—E/PE/TL	
QATAR	Qatar Petroleum	Messaieed	Refinery	250,000	Engineering		Axens—E	\$60 million. Lump sum contract.
ROMANIA	Rompetrol Rafinare SA	Navodari	Refinery modernization		Planning			
RUSSIA	NefteGazIndustriya LLC	Krasnodar	Hydrocracker	50,205	Engineering	2019	McDermott—EPC; Lummus—TL	
	NefteGazIndustriya LLC	Krasnodar	Crude distillation unit	15,062	Engineering	2019		
	PJSC Gazprom Neft	Omsk	Delayed coker	40,164	Under constr.	2020	Maire Technimont—EPCM	
	PJSC Gazprom Neft	Omsk	Process condensate purification plant	100	Under constr.	2018	Technological Engineering Peton—E/D	
	PJSC Lukoil	Kstovo	Deep conversion complex	42,173	Under constr.	2021	McDermott—EP/Eq.; Lummus—TL	
	PJSC Gazprom Neft	Moscow	Diesel hydrotreater	40,164	Under constr.			Euro+ CORU project.
	NefteGazIndustriya LLC	Krasnodar	Visbreaker		Engineering	2019		
	PJSC Gazprom Neft	Moscow	Gasoline reforming unit	20,082	Under constr.			Euro+ CORU project.
	PJSC Gazprom Neft	Moscow	Amine regeneration unit		Under constr.			Euro+ CORU project.
	PAO Novatek	Ust-Luga	Hydrocracker Upgrade		Engineering	2020	Haldor Topsoe AS	Hydrocracker upgrade—which will cost an estimated 19 billion rubles—are scheduled to begin in 2019 and be completed by mid-2020
	PJSC Lukoil	Kstovo	PSA unit		Under constr.	2021	KT-Kinetics Technology—EPC	Part of deep conversion complex.
	PJSC Lukoil	Kstovo	Hydrogen generation unit		Under constr.	2021	KT-Kinetics Technology—EPC	Part of deep conversion complex.
	PJSC Lukoil	Kstovo	Diesel fuel hydrotreater		Under constr.	2021	KT-Kinetics Technology—EPC	Part of deep conversion complex.
	PJSC Lukoil	Kstovo	Delayed coker	42,170	Under constr.	2021	McDermott—EPC	Part of deep conversion complex.
	PJSC Rosneft	Novokuibyshev, Samara Oblast	Delayed coker		Under constr.			Reconstruction.
	PJSC Rosneft	Novokuibyshev, Samara Oblast	Hydrotreater		Under constr.			New unit.
	PJSC Rosneft	Novokuibyshev, Samara Oblast	Crude distillation unit 2		Under constr.			New unit.
	PJSC Rosneft	Novokuibyshev, Samara Oblast	MDEA regeneration unit		Under constr.			New unit.
	PJSC Rosneft	Novokuibyshev, Samara Oblast	Hydrocracker		Under constr.			New unit.
	NefteGazIndustriya LLC	Krasnodar	Diesel hydrotreater		Engineering	2019		
	PJSC Gazprom Neft	Moscow	Gas fractionation unit		Under constr.			Euro+ CORU project.
	PJSC Gazprom Neft	Omsk	Hydrocracker	40,164	Under constr.		McDermott—FEED	
	PJSC Gazprom Neft	Moscow	Atmospheric-distillation unit	120,493	Under constr.			Euro+ CORU project.
	PJSC Gazprom Neft	Omsk	Wastewater treatment		Under constr.	2019	PJSC Omskneftekhimproekt—E/D	

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	PJSC Lukoil	Kstovo	Sulfur recovery unit		Under constr.	2021	KT-Kinetics Technology-EPC	Part of deep conversion complex.
	PJSC Lukoil	Kstovo	Gas fractionation unit		Under constr.	2021	KT-Kinetics Technology-EPC	Part of deep conversion complex.
SAUDI ARABIA	Saudi Aramco Total Refinery & Petrochemicals Co. (Satorp)	Jubail	Debottlenecking		Under constr.	2020	KBR-EPC	Debottlenecking of Train 2 to increase refinery throughput capacity by 15%.
	Saudi Aramco	Riyadh	Solvent Deasphalting Unit		Engineering	2020	KBR-TL	SDA ROSE technology.
	Rabigh Refining & Petrochemical Co.	Rabigh	Fuel oil upgrading		Planning		Jacobs Engineering Group Inc. Eng and FEED	
	Saudi Aramco	Ras Tanura	Continuous catalytic reformer		Engineering	2021	Tecnicas Reunidas-EPCC	
	Saudi Aramco	Ras Tanura	Naphtha hydrotreater		Engineering	2021	Tecnicas Reunidas-EPCC	
	Saudi Aramco	Ras Tanura	Isomerization unit		Engineering	2021	Tecnicas Reunidas-EPCC	
	Saudi Aramco Shell Refinery Co. (Sasref)	Jubail	Expansion		Engineering	2020	McDermott-EPCM	
SCOTLAND	Ineos AG	Grangemouth	Electric Power Plant		Under constr.		Fluor-EPCC	To support operations at Petroineos Refining Ltd.'s 180,700-b/d Grangemouth integrated complex.
SERBIA	Naftna Industrija Srbije JSC Novi Sad	Pancevo	Delayed coker	14,660	Engineering		McDermott-EPCm	BOTB project.
SICILY	Isab SRL	Priolo, Syracuse province	Revamp		Engineering		Amec Foster Wheeler-E	
SINGAPORE	ExxonMobil Corp.	Singapore	Group II Base Stock; Low-Sulfur Fuel	20,000; 48,000	Planning	2023	Tecnicas Reunidas-EPC; Wood-EPC (supporting installations)	
	Singapore Refining Co. Pte. Ltd.	Jurong	Group II base stock expansion		Under constr.	2019	-	
SOUTH AFRICA	Petro SA	Port Elizabeth	Refinery	400,000	Planning		WorleyParsons-E	
SPAIN	Repsol SA	La Coruna	Hydrodesulfurization	17,271	Engineering		Intecsa Uhde-E; Honeywell UOP-TL	Revamp
	Repsol SA	Murcia	Hydrocracker	50,000	Planning		Axens-TL	Expansion
	Compania Espanola de Petroleos SA	Huelva	Vacuum distillation	30,500	Under constr.		Amec Foster Wheeler-EPC	
	Repsol SA	Cartagena	Hydrodesulfurization	18,676	Engineering		Intecsa Uhde-E; Honeywell UOP-TL	Revamp
	Compania Espanola de Petroleos SA	Gibraltar	Hydrofluoric acid alkylation unit conversion		Engineering	2020	Honeywell UOP-E/D/TL	Conversion to UOP proprietary Detal-Plus technology for production of linear alkybenzene (LAB), which will increase 50,000 tpy to 250,000 tpy.
	BP PLC (BP Oil Espana SAU)	Castellon	Vacuum distillation unit		Engineering		Amec Foster Wheeler-EPC	
	Repsol SA	Cartagena	Refinery	100,000	Engineering		Fluor-PM	Expansion. \$4.8 billion. Final capacity: 200,000 b/d.
	Repsol SA	Puertollano	Hydrodesulfurization	28,918	Engineering		Intecsa Uhde-E; Honeywell UOP-TL	Revamp
	Repsol SA	Tarragona	Hydrodesulfurization	19,078	Engineering		Intecsa Uhde-E; Honeywell UOP-TL	Revamp
SRI LANKA	Ceylon Petroleum Corp.	Sapugaskanda	Refinery	50,000	Planning			Expansion.
	Ceylon Petroleum Corp.	Sapugaskanda	Hydrocracker		Planning			New unit.
SWEDEN	Preem AB	Lysekil	Vacuum Distillation Unit		Under constr.	2019		
	Preem AB	Lysekil	Carbon Capture Plant		Planning	2025	Aker Solutions-Feasibility	
THAILAND	Thai Oil Public Co. Ltd.	Sriracha	Diesel hydrodesulfurization unit		Engineering		Saipem,Petrofac,Samsung-EPCC	Part of Clean Fuels project.
	Thai Oil Public Co. Ltd.	Sriracha	Naphtha hydrotreater		Engineering		Saipem,Petrofac,Samsung-EPCC	Part of Clean Fuels project.
	Thai Oil Public Co. Ltd.	Sriracha	Electric power plant		Engineering		Saipem,Petrofac,Samsung-EPCC	Part of Clean Fuels project.
	Thai Oil Public Co. Ltd.	Sriracha	Sulfur recovery unit		Engineering		Saipem,Petrofac,Samsung-EPCC	Part of Clean Fuels project.
	Thai Oil Public Co. Ltd.	Sriracha	Hydrogen generation unit		Engineering		Saipem,Petrofac,Samsung-EPCC	Part of Clean Fuels project.
	Thai Oil Public Co. Ltd.	Sriracha	Residue hydrocracker		Engineering		Saipem,Petrofac,Samsung-EPCC	Part of Clean Fuels project.
	Thai Oil Public Co. Ltd.	Sriracha	Vacuum gas oil hydrocracker		Engineering		Saipem,Petrofac,Samsung-EPCC	Part of Clean Fuels project.
	Thai Oil Public Co. Ltd.	Sriracha	Crude distillation unit	220,000	Engineering		Saipem,Petrofac,Samsung-EPCC	Part of Clean Fuels project.
	Thai Oil Public Co. Ltd.	Chonburi	Refinery expansion	135,000	Engineering		Rotary Engineering Ltd.-Tank construction	Expansion and clean-fuels project.

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UGANDA	Albertine Graben Refinery Consortium	Kabaale, Hoima District	Refinery	60,000	Engineering	2023	Saipem SPA-FEED, EPC	\$3-4 billion grassroots project.
UNITED ARAB EMIRATES	Emirates National Oil Co.	Jebel Ali, Dubai	Condensate processing train	70,000	Under constr.	2019	Technip-EPC	New train.
	Abu Dhabi National Oil Co.	Ruwais	Refinery	600,000	Planning	2025	John Wood Group PLC - preliminary front-end engineering and design (pre-FEED)	New refinery construction to expand total Ruwais capacity to 817,000 b/d.
	Emirates National Oil Co.	Jebel Ali, Dubai	Isomerization unit		Under constr.	2019		
	Abu Dhabi National Oil Co.	Ruwais	Atmospheric desulfurization units (2)		Engineering	2022	Samsung Engineering, McDermott-EPC	
	Abu Dhabi National Oil Co.	Ruwais	Waste-heat recovery		Engineering	2022	Samsung Engineering-EPC	
	Abu Dhabi National Oil Co.	Ruwais	Crude flexibility		Engineering	2022	Samsung Engineering-EPC	
	Emirates National Oil Co.	Jebel Ali, Dubai	Diesel hydrotreater		Under constr.	2019		
	Emirates National Oil Co.	Jebel Ali, Dubai	LPG-naphtha hydrotreater		Under constr.	2019	Amec Foster Wheeler-E/Constr.; Axens-TL	
Emirates National Oil Co.	Jebel Ali, Dubai	Kerosine hydrotreater		Under constr.	2019			
UNITED KINGDOM	ExxonMobil Corp.	Fawley	Hydrotreating		Planning	2021		Will include a new hydrotreating unit and new hydrogen plant to increase ULSD production by 38,000 b/d.
UNITED STATES	Chevron Corp.	Salt Lake City, Utah	Alkylation unit	4,500	Under constr.	2020	Worley Parsons-EPCm; Honeywell UOP-TL	Hydrofluoric acid-to-ISOALKY unit conversion.
	Marathon Petroleum Co. LLC	Texas City, Tex.	South Texas Asset Relocation program		Under constr.	2021	Fluor Corp.-EP	
	Marathon Petroleum Co. LLC	Galveston Bay, Tex.	Tier 3 project		Under constr.	2019	Fluor Corp.-EPCm	Already under construction, the project will add a third crude unit within the refinery's existing footprint that will increase light crude refining capacity.
	Meridian Energy Group Inc.	Billings County, ND	Refinery	49,500	Under constr.	2020	Vepica-E/D; McDermott-FEED	
	ExxonMobil Corp.	Beaumont, Tex.	Crude		Under constr.	2022	KBR Inc.	
	ExxonMobil Corp.	Beaumont, Tex.	Crude distillation		Under constr.	2022		Proceeding with FEED; construction scheduled to begin in 2019, subject to final investment decision.
	Flint Hills Resources LP	Rosemount, Minn.	Refinery		Under constr.			Pine Bend Technology & Efficiency Improvement Projects.
	Valero Energy Corp.	Houston	Alkylation unit	13,000	Under constr.	2019		To support P66's 256,000-b/d Sweeny refinery in Old Ocean, Tex.
	Phillips 66	Old Ocean, Tex.	Hydrogen		Engineering	2021	Linde PLC	
	ArcLight Capital Partners LLC (Limetree Bay Refining)	St. Croix, US Virgin Islands	Refinery restart	200,000	Planning			Restart of portion of former Hovensa refinery by yearend 2019.
	Marathon Petroleum Co. LLC	Galveston Bay, Tex.	South Texas Asset Relocation program		Under constr.	2021	Fluor Corp.-EP	Emissions-compliance works.
	Valero Energy Corp.	Port Arthur, Tex.	Coker Unit; Sulfur Recovery Unit	55,000	Under constr.	2022		
	Flint Hills Resources LP	Rosemount, Minn.	Upgrading		Under constr.	2019		Polymer-grade propylene splitter.
	Marathon Petroleum Co. LLC	Detroit, Mich.	FCC-alkylation project		Planning			Emissions-compliance works.
	Flint Hills Resources LP	Rosemount, Minn.	Hydrocracker		Under constr.	2019		Diesel Selectivity Project.
	Flint Hills Resources LP	Rosemount, Minn.	Delayed coker		Under constr.	2019		Coker Improvement Project.
	Valero Energy Corp.	Norco, La.	Alkylation unit	17,000	Under constr.	2020	McDermott-TL/Eq.	Expansion project to add a third crude unit within the refinery's existing footprint, will also include a new atmospheric pipe still, kerosine hydrotreater, diesel hydrotreater, and benzene recovery unit.
	ExxonMobil Corp.	Beaumont, Tex.	Refinery Expansion	250,000	Under constr.	2022	TechnipFMC-EPC; KBR-EPC (offsites and interconnections)	
Flint Hills Resources LP	Rosemount, Minn.	Hydrotreater		Under constr.	2019		Naphtha-Processing Improvement Project	
CVR Refining LP	Wynnewood, Okla.	Hydrofluoric acid (HF) alkalation unit revamp		Planning		KBR Inc. engr	To be based on KBR's Solid Acid Alkylation Technology (K-SAAT) as part of a revamp of the existing HF alkylation unit.	
MMEX Resources Corp.	Pecos County, Tex.	Refinery	10,000	Planning	2020	Blanchard Industrial-EPC	Proposed grassroots refinery based on Meridian Energy's Davis refinery under construction in Billings County, ND.	
Delek US Holdings Inc	Krotz Springs, La.	Alkylation Unit	6,500	Under constr.	2019	E.I. DuPont de Nemours & Co. - Tech		
Meridian Energy Group Inc.	Winkler County, Tex.	Refinery	60,000	Engineering		Winkler Cos. LLC-Site control		
UZBEKISTAN	Jizzakh Petroleum JV LLC	Jizzakh	Refinery	100,411	Under constr.	2021	Amec Foster Wheeler, Hyundai Engineering, Enter Engineering-EPC	
	Jizzakh Petroleum JV LLC	Jizzakh	Mercox unit		Engineering	2021	Honeywell UOP-E/D/TL	
	Jizzakh Petroleum JV LLC	Jizzakh	CCR Platforming unit		Engineering	2021	Honeywell UOP-E/D/TL	
	Jizzakh Petroleum JV LLC	Jizzakh	Distillate Union-finishing unit		Engineering	2021	Honeywell UOP-E/D/TL	
	Jizzakh Petroleum JV LLC	Jizzakh	Par-Isom unit		Engineering	2021	Honeywell UOP-E/D/TL	
	Jizzakh Petroleum JV LLC	Jizzakh	Unicracking unit		Engineering	2021	Honeywell UOP-E/D/TL	

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Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
VIETNAM	PetroVietnam	Dung Quat	Refinery expansion	40,164	Engineering	2021	Amec Foster Wheeler-FEED	Expansion
	PetroVietnam	Dung Quat	Alkylation unit		Engineering	2021		New unit as part of expansion.
	PetroVietnam	Dung Quat	Diesel hydrotreater		Engineering	2021		New unit as part of expansion.
	PetroVietnam	Dung Quat	Sulfur removal unit		Engineering	2021		New unit as part of expansion.
	PetroVietnam	Dung Quat	Gasoline hydrotreater		Engineering	2021		New unit as part of expansion.
	PetroVietnam	Dung Quat	Naphtha hydrotreater		Engineering	2021		New unit as part of expansion.
	PetroVietnam	Dung Quat	Solvent deasphalting unit		Engineering	2021		New unit as part of expansion.
	PetroVietnam	Dung Quat	Hydrogen unit		Engineering	2021		New unit as part of expansion.

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Added capacity listed in tons per year (tpy) unless otherwise specified.

Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
ALGERIA	Sonatrach	Skikda	Benzene linear alkyl	100,000	Planning		Engineers India Ltd.–Feasibility study/PMC	
	Sonatrach Total Entreprise Polimeres	Arzew	Polypropylene	550,000	Planning			Sonatrach 51%–Total SA 49% joint venture; FEED scheduled to begin in November 2018.
	Sonatrach	Skikda	Polypropylene	600,000	Planning		Engineers India Ltd.–Feasibility study/PMC	
	Sonatrach	Skikda	Methanol	1,000,000	Planning		Engineers India Ltd.–Feasibility study/PMC	
	Sonatrach	Arzew	Ethylene	1,100,000	Engineering		Total SA–Constr.	
	Sonatrach	Skikda	Ethylene	1,000,000	Planning		Engineers India Ltd.–Feasibility study/PMC	
	Sonatrach	Arzew	Methyl tertiary butyl ether	200,000	Planning		Amec Foster Wheeler–E	
AZERBAIJAN	SOCAR GPC	Garadagh	Polyethylene	600,000	Engineering	2022	Univation Technologies–D/TL	
	SOCAR GPC	Garadagh	Propylene	120,000	Engineering	2022	Technip–D/TL	
	SOCAR GPC	Garadagh	Ethylene	610,000	Engineering	2022	Technip–D/TL	
	Azerikimya Production Union	Sumgait	Ethylene		Engineering	2019	Technip–EPC	Modernization and upgrading project.
BELGIUM	Borealis AG	Kallo	Propylene	740,000	Engineering	2021	Honeywell UOP–E/TL	
	Ineos AG	Antwerp	Propylene	750,000	Engineering	2023	McDermott–TL/D	CATOFIN dehydrogenation process technology.
	Borealis AG	Kallo, Belgium	Propane Dehydrogenation (PDH) plant	750,000	Planning	2022	Maire Technimont SPA - EPCM	
	BASF Antwerpen NV	Verbund, Antwerp	Ethylene oxide		Planning			Final investment decision due sometime in 2019.
	Ineos AG	Antwerp	Ethylene		Planning	2023		
CANADA	Canada Kuwait Petrochemical Corp.	Sturgeon County, Alta.	Propylene	550,000	Engineering	2023	Honeywell UOP LLC–TL/Eq.	FEED to be completed in late 2018; FID to follow.
	Inter Pipeline Ltd.	Strathcona County, Alta.	Polypropylene		Engineering	2021	W.R. Grace & Co.–TL/Catalyst	
CHINA	Zhejiang Satellite Petrochemical Co. Ltd.	Pinghu City, Zhejiang Province	Polypropylene	300,000	Engineering	2019	Siemens AG–Eq.	
	Zhejiang Satellite Petrochemical Co. Ltd.	Pinghu City, Zhejiang Province	Propylene	450,000	Engineering	2019	Siemens AG–Eq.	
	Nanjing Chengzhi Yongqing Energy Technology Co. Ltd.	Changlu area of Nanjing Chemical Industrial Park, Nanjing, Jiangsu Province	Methanol-to-olefins recovery	600,000	Engineering	2019	Honeywell UOP LLC–TL/Catalyst	Advanced MTO process technology to convert coal-derived methanol into ethylene and propylene.
	Hengli Petrochemical (Dalian) Co. Ltd.	Dalian, Liaoning Province	Polypropylene	450,000	Under constr.	2019	W.R. Grace & Co.–TL/Catalyst	Unipol PP process technology; SHAC Ziegler Natta PP catalyst
	ExxonMobil Corp.	Huizhou Dayawan Petrochemical Industrial Park, Guangdong Province	Ethylene	1,200,000	Planning	2023		
	Chenghong Refining & Technology Co. Ltd.	Lianyungang City in China's province of Jiangsu	Residue Hydro-cracking Process Technology		Planning		Axens	
	ExxonMobil Corp.	Huizhou Dayawan Petrochemical Industrial Park, Guangdong Province	Polyethylene		Planning	2023		Polyethylene Line 2.
	ExxonMobil Corp.	Huizhou Dayawan Petrochemical Industrial Park, Guangdong Province	Polypropylene		Planning	2023		Polypropylene Line 2.
	Hubei Sanning Chemical Industry Co. Ltd.	Xhijiang, Hubei Province	Polybed pressure-swing adsorption unit	165,000 cu m/hr	Planning		Honeywell UOP–TL	
	ExxonMobil Corp.	Huizhou Dayawan Petrochemical Industrial Park, Guangdong Province	Polypropylene		Planning	2023		Polypropylene Line 1.
	ExxonMobil Corp.	Huizhou Dayawan Petrochemical Industrial Park, Guangdong Province	Polyethylene		Planning	2023		Polyethylene Line 1.
	Dongguan Grand Resource Science & Technology Co. Ltd.	Dongguan City, Guangdong Province	Propylene	600,000	Under constr.		McDermott–E/D/TL	Part of phased propane dehydrogenation and polypropylene project.
	CNOOC & Shell Petrochemicals Co. Ltd.	Ningbo, Huizhou, Guangdong Province	Unidentified expansion		Planning			Unidentified petrochemical manufacturing installations.
Shandong Wonfull Petrochemical Co. Ltd.	Huantai Economic Development Zone, Shandong Province	Propylene	250,000	Engineering		Honeywell UOP–D/Equip./TL	C3 Oleflex propane dehydrogenation technology.	

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Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
	Lihuayi Lijin Refining & Chemical Co. Ltd.	Dongying, Shandong Province	Olefins		Engineering		KBR-TL/Catalyst/E/D	Catalytic Olefins Technology (K-OTC) and Selective Cracking Optimum Recovery (SCORE) technologies.
	Jinneng Science & Technology Co. Ltd.	Qingdao, Shandong Province	Propylene	900,000	Engineering			
	Jiangsu Jiarui Chemical Co. Ltd.	Taixing Industrial Zone, Jiangsu Province	Propylene	450,000	Engineering		Honeywell UOP-E/D/TL	C3 Oleflex propane dehydrogenation technology.
	CNOOC Ningbo Daxie Petrochemicals Co. Ltd.	Ningbo, Guangdong Province	Polypropylene	300,000	Engineering		McDermott-TL/D	
	Lianyungang Petrochemical Co. Ltd.	Lianyungang City, Jiangsu Province	Ethylene	1,250,000	Engineering		McDermott-TL/D; Honeywell UOP LLC -T	Plant 1.
	Wanhua Chemical Group Co. Ltd.	Yantai, Shandong Province	Propane Dehydrogenation (PDH) Unit	750,000	Planning		Honeywell UOP LLC	
	Jiangsu Sailboat Petrochemical Co. Ltd.	Lianyungang City, Jiangsu Province	Propylene	700,000	Planning		Honeywell UOP-TL	
	Sinochem Quanzhou Petrochemical Co. Ltd.	Quanzhou, Fujian Province	Ethylene	1,000,000	Planning		Wood-EPCM	New ethylene unit at SQPCL's 240,000-b/d Quanzhou refinery.
	Xuzhou HaiDing Chemical Technology Co. Ltd.	Pizhou, Jiangsu Province	Propylene	600,000	Under constr.		McDermott-TL/E/D; Clariant International Ltd.-Catalyst	Catofin catalytic dehydrogenation process technology; Catofin catalyst.
	Tianjin Bohua Chemical Development Co. Ltd.	Bohai Chemical Industry Park, Tianjin Port Economic Zone	Methanol-to-olefins recovery (1)	530,000	Engineering		McDermott-E/D/TL	
	Tianjin Bohua Chemical Development Co. Ltd.	Bohai Chemical Industry Park, Tianjin Port Economic Zone	Propylene oxide	200,000	Engineering		Repsol Quimica-TL	
	Tianjin Bohua Chemical Development Co. Ltd.	Bohai Chemical Industry Park, Tianjin Port Economic Zone	Styrene monomer	450,000	Engineering		Repsol Quimica-TL	
	Zhejiang Petroleum & Chemical Co. Ltd.	Zhoushan, Zhejiang Province	Ethylene	1,400,000	Under constr.		Wison Engineering (China) Ltd-EPC	Phase 1 of the complex is due for startup by December 2018, while Phase 2-which will double processing and production capabilities at the site-is scheduled for commissioning during first-quarter 2021.
	Tianjin Bohua Chemical Development Co. Ltd.	Bohai Chemical Industry Park, Tianjin Port Economic Zone	Methanol-to-olefins recovery (2)	1,800,000	Engineering		Luoyang Petrochemical Engineering-SYN Energy Technology-TL	
	Tianjin Bohua Chemical Development Co. Ltd.	Bohai Chemical Industry Park, Tianjin Port Economic Zone	Polypropylene	300,000	Engineering		McDermott-E/D/TL	
	SP Olefins (Taixing) Co. Ltd.	Taixing, Jiangsu Province	Ethylene	650,000	Engineering		Technip-D/TL	
	Tianjin Bohua Chemical Development Co. Ltd.	Bohai Chemical Industry Park, Tianjin Port Economic Zone	Ethylbenzene	530,000	Engineering		McDermott-E/D/TL	
	Fujian Petrochemical Co. Ltd.	Zhangzhou Gulei Petrochemical Base, Zhangzhou, Fujian Province	Ethylene	1,000,000	Under constr.	2019		
	Shandong Yuhuang Shengshi Chemical Inc. Ltd.	Heze City, Shandong Province	Polyethylene	200,000	Engineering	2019	LyondellBasell-TL	
	Lihuayi Lijin Refining & Chemical Co. Ltd.	Dongying, Shandong Province	Ethylene	1,250,000	Engineering		McDermott-TL/D	Plant 2.
	Jiangsu Jiarui Chemical Co. Ltd.	Taixing Industrial Zone, Jiangsu Province	Monoethylene glycol	600,000	Under constr.	2019		
CZECH REPUBLIC	Unipetrol RPA SRO	Chempark Zaluzi, Litvinov	Polyethylene	270,000	Under constr.	2019	Technip-EPC	PE3 production unit.
EGYPT	Sidi Kerir Petrochemicals Co.	Alexandria	Polypropylene	450,000	Engineering		W.R. Grace & Co.-TL/Catalyst	
INDIA	Indian Oil Corp. Ltd.	Koyali, Vadodara, Gujarat	Polypropylene	420,000	Planning		McDermott-TL, Eng.	Additional unit at Vadodara refinery.
	Indian Oil Corp. Ltd.	Barauni, Begusarai District, Bihar	Polypropylene	200,000	Planning		McDermott-TL, Eng.	Additional unit at Barauni refinery
	HPCL-Mittal Energy Ltd.	Guru Gobind Singh refinery, Village Phullokhari, Bathinda, Punjab State	Polypropylene	500,000	Engineering			Part of the Guru Gobind Singh Polymer Additions Complex.
	HPCL-Mittal Energy Ltd.	Guru Gobind Singh refinery, Village Phullokhari, Bathinda, Punjab State	Butene-1	55,000	Engineering			Part of the Guru Gobind Singh Polymer Additions Complex.

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Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
	HPCL-Mittal Energy Ltd.	Guru Gobind Singh refinery, Village Phullokhar, Bathinda, Punjab State	HDPE unit	450,000	Engineering			Part of the Guru Gobind Singh Polymer Additions Complex.
	HPCL-Mittal Energy Ltd.	Guru Gobind Singh refinery, Village Phullokhar, Bathinda, Punjab State	LLDPE-HDPE swing unit 2	400,000	Engineering			Part of the Guru Gobind Singh Polymer Additions Complex.
	HPCL-Mittal Energy Ltd.	Guru Gobind Singh refinery, Village Phullokhar, Bathinda, Punjab State	LLDPE-HDPE swing unit 1	400,000	Engineering			Part of the Guru Gobind Singh Polymer Additions Complex.
	HPCL-Mittal Energy Ltd.	Guru Gobind Singh refinery, Village Phullokhar, Bathinda, Punjab State	Ethylene	1,200,000	Engineering		McDermott-TL/E	New mixed-feed ethylene plant expandable to 1.5 million tpy as part of the Guru Gobind Singh Polymer Additions Complex.
	Indian Oil Corp. Ltd.	Paradip, Odisha	Monoethylene Glycol; Ethylene Recovery	357,000; 180,000	Planning		Larsen&Toubro-EPC	New units at the Paradip refinery.
	HPCL-Mittal Energy Ltd.	Bathinda, Punjab State	Polypropylene	500,000	Engineering		Tecnimont SPA, Tecnimont Private Ltd.-EPC	
	HPCL-Mittal Energy Ltd.	Bathinda, Punjab State	Ethylene	1,200,000	Planning			
	HPCL-Mittal Energy Ltd.	Bathinda, Punjab State	Polyethylene	450,000	Engineering		Tecnimont SPA, Tecnimont Private Ltd.-EPC	
	Bharat Petroleum Corp. Ltd.	Kochi, at Ambalamugal, Ernakulam district, Kerala State	Propylene		Under constr.		Essar Projects India Ltd.-EPC	Propylene derivatives petrochemical project to diversify the refinery's output of niche petrochemicals, which will be produced from polymer-grade propylene supplies resulting from increased crude processing at the integrated complex.
	Chennai Petroleum Corp. Ltd	Tamilnadu, India	Cauvery Basin Refinery delayed coking unit	50,200	Planning		Cevron Lummus Global	
INDONESIA	PT Chandra Asri Petrochemical Tbk	Ciwandan, Cilegon, Banten Province	Polyethylene	400,000	Engineering	2020	Univation Technologies LLC.-TL; Toyo Engineering Corp.-FEED	New unit; UNIPOL PE and XCAT metallocene PE process technologies.
	PT Chandra Asri Petrochemical Tbk	Ciwandan, Cilegon, Banten Province	Mixed C4s	15,000	Engineering	2020	McDermott-TL/E/D/Eq.	Expansion; construction to begin in third-quarter 2018.
	PT Chandra Asri Petrochemical Tbk	Ciwandan, Cilegon, Banten Province	Pygas	20,000	Engineering	2020	McDermott-TL/E/D/Eq.	Expansion; construction to begin in third-quarter 2018.
	PT Chandra Asri Petrochemical Tbk	Ciwandan, Cilegon, Banten Province	Propylene	20,000	Engineering	2020	McDermott-TL/E/D/Eq.	Expansion; construction to begin in third-quarter 2018.
	PT Chandra Asri Petrochemical Tbk	Ciwandan, Cilegon, Banten Province	Ethylene	40,000	Engineering	2020	McDermott-TL/E/D/Eq.	Expansion; construction to begin in third-quarter 2018.
	PT Chandra AsriPerkasal (CAP2)	Ciwandan, Cilegon, Banten Province	Butadiene	175,000	Engineering		McDermott-TL/E	
	PT Chandra AsriPerkasal (CAP2)	Ciwandan, Cilegon, Banten Province	Propylene	600,000	Engineering		McDermott-TL/E	
	PT Chandra AsriPerkasal (CAP2)	Ciwandan, Cilegon, Banten Province	Ethylene	1,100,000	Engineering		McDermott-TL/E	
	PT Chandra Asri Petrochemical Tbk (PT Petrokimia Butadiene Indonesia)	Ciwandan, Cilegon, Banten Province	Butadiene	37,000	Engineering	2019		
IRAN	Kangan Petro Refining Co.	Pars Special Economic Energy Zone, Tonbak, Boushehr Province	Monoethylene glycol	500,000	Engineering		Hyundai Engineering Co. Ltd.-Hyundai Engineering & Construction Co. Ltd.-EPC	
	Kangan Petro Refining Co.	Pars Special Economic Energy Zone, Tonbak, Boushehr Province	Polyethylene	700,000	Engineering		Hyundai Engineering Co. Ltd.-Hyundai Engineering & Construction Co. Ltd.-EPC	
	Kangan Petro Refining Co.	Pars Special Economic Energy Zone, Tonbak, Boushehr Province	Ethylene	1,000,000	Engineering		Hyundai Engineering Co. Ltd.-Hyundai Engineering & Construction Co. Ltd.-EPC	
JAPAN	Tosoh Corp.	Yokkaichi, Mie Prefecture	Ethylene		Engineering	2019	Toyo Engineering Corp.-EPC; Chevron Lummus Global-TL	Expansion of existing 527,000-tpy naphtha cracker.
KAZAKHSTAN	Kazakhstan Petrochemical Industries Inc. LLP	Atyrau	Polypropylene	500,000	Engineering		McDermott-TL/D/PM	
KOREA	Hanwha Total Petrochemicals Co. Ltd.	Chungnam Province	Ethylene	400,000	Planning	2019		Expansion
	LG Chem Ltd.	Daesan, Chungcheong Province	Ethylene	230,000	Engineering	2019	KBR-E/D/TL	Expansion

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Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
	Lotte Chemical Corp.	Yeosu, Jeollanam-do Province	Ethylene	200,000	Engineering	2019		Expansion
	Lotte Chemical Corp.	Yeosu, Jeollanam-do Province	Propylene	100,000	Engineering	2019		Expansion
KUWAIT	Petrochemical Industries Co. KSC	Al-Zour	Paraxylene	1,400,000	Engineering	2022		
	Petrochemical Industries Co. KSC	Al-Zour	Polypropylene	940,000	Engineering	2022	Amec Foster Wheeler–FEED/PMC	Integration project with Al-Zour refinery.
	Kuwait Petroleum Corp.	Al-Zour	Propylene	330,000	Planning		McDermott–TL, Eng.	
MALAYSIA	Petronas	Pengerang	Naphtha cracker	3,000,000	Under constr.	2019		\$20 billion. Petrochemical and polymer complex.
NIGERIA	Dangote Group	Lekki Free Trade Zone, Lagos	Polypropylene		Engineering	2019	Engineers India Ltd.–EPC	
NORWAY	Ineos AG	Rafnes	Ethylene	450,000	Planning			Part of European ethylene, propylene growth plans announced in June 2017.
OMAN	Oman Oil Refineries & Petroleum Industries Co.	Sohar Industrial Port Area	Ethylene	880,000	Engineering	2019	McDermott–FEED	\$40 million.
	Projects Development & Management International LLC	Muscat	Chloralkali polyvinyl chloride	225,000	Engineering		SNC-Lavalin Group–EPCm	
PHILLIPINES	JG Summit Petrochemicals Group	Barangay Simlong, Batangas City	Propylene	50,000	Engineering	2020	Fluor Corp.–EPCm	
	JG Summit Petrochemicals Group	Barangay Simlong, Batangas City	Ethylene	160,000	Engineering	2020	Fluor Corp.–EPCm	
POLAND	PKN Orlen SA	Plock	Paraxylene	400,000	Engineering		Technip–EPC; Honeywell UOP–TL	\$221.9 million.
QATAR	Qatar Petrochemical Co. Ltd.	Ras Laffan Industrial City	Ethylene		Engineering	2019	Bechtel–PM	
RUSSIA	PJSC Nizhnekamskneftekhim	Nizhnekamsk, Tatarstan	Ethylene	600,000	Engineering	2022	Linde AG–TL/D/P/E consulting	Expansion to double existing capacity; will include additional 600,000 tpy of other chemicals; further planned expansions to boost overall ethylene capacity to 1.8 million tpy by 2025.
	Irkutsk Oil Co. Ltd. (Irkutsk Polymer Plant)	Irkutsk Region of East Siberia	Ethylene;	650,000;	Planning	2022	Toyo Engineering Corp - Eng., Proc., TL; McDermott–TL, Eng.	
	PJSC Nizhnekamskneftekhim	Nizhnekamsk, Tatarstan	Polyethylene	650,000	Planning		Haldor Topsoe AS - Tech	
	SIBUR	Tobolsk	Methanol Unit	500,000	Engineering			
	SIBUR	Tobolsk	Polyethylene	1,500,000	Engineering		Linde AG–FEED	
	SIBUR	Tobolsk	Butadiene	100,000	Engineering		Linde AG–FEED	
	SIBUR	Tobolsk	Ethylene	1,500,000	Engineering		Linde AG–FEED	
	SIBUR	Tobolsk	Propylene	500,000	Engineering		Linde AG–FEED	
	SIBUR	Tobolsk	Polypropylene	500,000	Engineering		Linde AG–FEED	
	PJSC Kazanorgsintez	Kazan, Tatarstan	Ethylene		Engineering		Technip–E/P/TL	Modernization project.
	JSC Gazprom Neftekhim Salavat	Salavat, Bashkortostan	Ethylene		Planning		Wilson Engineering Services Co. Ltd.–Prefeasibility studies	
	PJSC Kazanorgsintez	Kazan, Tatarstan	Propylene		Planning		Wilson Engineering Services Co. Ltd.–Prefeasibility studies	
SAUDI ARABIA	Saudi Aramco–SABIC	Yanbu	COTC complex	9,000,000	Engineering	2025	KBR–FEED; John Wood Group–pre-FEED, PM	Proposed crude oil-to-chemicals complex; FID due upon completion of FEED.
	Huajin Aramco Petrochemical Co. Ltd.	Panjin, Liaoning Province	Ethylene;	1,500,000;	Planning	2024		JV of Saudi Aramco and China North Industries Group Corp. as part of the proposed integrated 300,000-b/d refinery and petrochemicals complex.
	National Petrochemical Industrial Co.	Yanbu Industrial City	Paraxylene	1,300,000	Planning		Maire Tecnimont–EPC	
	Saudi Kayan Petrochemical Co.	Al-Jubail	Propylene-Polypropylene	400,000	Planning			
	Saudi Aramco Total Refinery & Petrochemicals Co.	Jubail	Ethylene	93,000	Engineering		Technip–E	Expansion
			Ethylene	1,500,000	Planning			FEED under way.
SCOTLAND	Ineos AG	Grangemouth	Ethylene	450,000	Engineering	2020	Selas-Linde GMBH–Const.	Part of European ethylene, propylene growth plans announced in June 2017; construction to begin in 2019.
SOUTH KOREA	S-Oil Corp.	Ulsan	Ethylene	1,500,000	Planning	2023		Feasibility study under way.
	PolyMirae Co. Ltd.	Ulsan	Polypropylene	400,000	Engineering	2021		Scheduled to begin construction in 2019.
	Hanwha Total Petrochemicals Co. Ltd.	Daesan, Chungnam Province	Polyethylene	400,000	Engineering	2020		Expansion of polyethylene capacity to 1.1 million tpy. W.R. Grace & Co. will license its proprietary UNIPOL PP process technology as well as its CONSISTA catalyst for the 400,000-tonne/year unit.

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Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
	S-Oil Corp.	Ulsan	Polypropylene		Planning	2023		Feasibility study under way.
	S-Oil Corp.	Ulsan	Polyethylene		Planning	2023		Feasibility study under way.
	GS Caltex Corp.	Yeosu, Jeollanam-do Province	Ethylene	700,000	Engineering		KBR-TL/E/D/Equip.	Scheduled to begin construction in 2019.
	GS Caltex Corp.	Yeosu, Jeollanam-do Province	Polyethylene	500,000	Engineering		KBR-TL/E/D/Equip.	Scheduled to begin construction in 2019.
THAILAND	Map Ta Phut Olefins Co. Ltd.	Rayong Province	Ethylene	350,000	Engineering	2021	McDermott-E/D/TL	Debottlenecking project to increase ethylene production.
	IRPC PLC	Rayong Province	Benzene	495,000	Engineering	2022	Honeywell UOP-TL/D/Equip./Catalyst	
	IRPC PLC	Rayong Province	Paraxylene	1,200,000	Engineering	2022	Honeywell UOP-TL/D/Equip./Catalyst	
	Bangkok Synthetics Co. Ltd.	Map Ta Phut, Rayong	Butadiene; Butene-1	80,000; 34,000	Engineering	2021	Toyo-EPC	
	PTT Global Chemical PCL	Map Ta Phut, Rayong Province	Propylene	250,000	Engineering		McDermott-TL/E; Samsung Engineering,TTCL-EPC	
	PTT Global Chemical PCL	Map Ta Phut, Rayong Province	Ethylene	500,000	Engineering		McDermott-TL/E; Samsung Engineering,TTCL-EPC	
UNITED ARAB EMIRATES	Abu Dhabi Polymers Co. Ltd.	Ruwais	Polypropylene	480,000	Engineering	2021	Tecnimont SPA-EPC	Proposed PP5 plant to be equipped with Borstar proprietary polyolefin multimodal process technology; tender planned to launch after July 2017; FID due by yearend 2018.
	Abu Dhabi Polymers Co. Ltd.	Ruwais	Ethylene	1,800,000	Planning	2023	WorleyParsons-PMC	Proposed Bourouge 4 expansion; entering FEED phase as of July 2017; FID due by yearend 2018.
UNITED KINGDOM	SABIC UK Petrochemicals Ltd.	Teeside, Wilton, UK	Ethylene	250,000	Planning			Olefins 6 plant Phase 2 expansion; feasibility study under way, with final investment decision to follow upon completion.
UNITED STATES	Total SA	Port Arthur, Tex.	Polyethylene	625,000	Engineering	2020	Borealis AG-TL	
	Total SA	Port Arthur, Tex.	Ethylene	1,000,000	Engineering	2020	McDermott-FEED/TL	
	MEGlobal International FZE	Freeport, Tex.	Monoethylene glycol	700,000	Under constr.	2019	Jacobs Engineering-EPCm	
	LyondellBasell Industries NV	La Porte, Tex.	Polyethylene	1.1 billion lb/year	Under constr.	2020	LyondellBasell-TL	
	LyondellBasell Industries NV	Channelview, Tex.	Propylene oxide	1 billion	Under constr.	2021		
	Lotte Chemical Corp.	Lake Charles, La.	Monoethylene glycol	700,000	Under constr.	2019	Taiyo Nippon Sanso-Air separation unit	
	IGP Methanol LLC	Plaquemines Parish, La.	Methanol	1.8 million	Engineering	2020	McDermott-FEED,EPC; Haldor Topsoe-TL	Plant 1.
	LAAC LLC	Lake Charles, La.	Ethylene	1,000,000	Engineering	2019	McDermott-EPC/TL	
	ExxonMobil Chemical Co	Beaumont, Tex.	Polyethylene	650,000	Engineering	2021		Proposed project still under review; FID due in late 2018.
	Bayport Polymers LLC	Bayport, Tex.	Polyethylene	625,000	Engineering	2021	McDermott-EPC	
	Bayport Polymers LLC	Port Arthur, Tex.	Ethylene	1,000,000	Under constr.	2020	McDermott-EPC	
	Bayport Polymers LLC (Bastar)	Pasadena, Tex.	Polyethylene unit		Under Constr.	2020		
	Ineos AG	US Gulf Coast	Ethylene Oxide (EO) and Ethylene Oxide Derivatives (EOD) plant	520,000	Planning	2023		
	South Louisiana Methanol LP (SLM)/Saudi Arabian Basic Industries Corp. (SABIC)	St. James Parish	Methanol Complex	2,000,000	Planning			
	LyondellBasell Industries NV	La Porte, Tex.	Tertiary butyl alcohol	2.2 billion lb/year	Under constr.	2021		
	ExxonMobil Corp.	Baton Rouge, La.	Polypropylene unit	450,000	Planning	2021		
	Ineos AG	TBD at USGC	Ethylene Oxide; Ethylene Oxide Derivatives	520,000	Planning	2023		
	Ineos AG	Chocolate Bayou, Alvin, Tex.	Polyalphaolefin	120,000	Under constr.	2019	SNC-Lavalin Group,JV Driver Group-EPC	
	Ineos AG	Chocolate Bayou, Alvin, Tex.	Propylene	20,000	Under constr.	2019		Restart of idled cracker.
	Braskem America Inc.	La Porte, Tex.	Polypropylene	450,000	Engineering		Linde AG-EPC; W.R. Grace & Co.-TL	The Delta PP plant project will more than double Braskem's capacity at La Porte to 804,000 tpy; Unipol PP process technology. Awaiting final investment decision; environmental permitting process under way.
	Saudi Arabian Basic Industries Corp.-ExxonMobil Chemical Co.	San Patricio County, Tex.	Polyethylene		Planning			Awaiting final investment decision; environmental permitting process under way.
	Saudi Arabian Basic Industries Corp.-ExxonMobil Chemical Co.	San Patricio County, Tex.	Monoethylene glycol		Planning			Awaiting final investment decision; environmental permitting process under way.

PETROCHEMICALS CONT.

Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
	DowDupont	Freeport, Tex.	Ethylene	500,000	Planning			Expansion of September 2017-commissioned 1.5 million-tpy Freeport ethylene plant; part of \$4-billion wave of comprehensive growth investments over the next 5 years to expand its US petrochemicals manufacturing business.
	Shintech Inc.	Palqueme, La.	Ethylene	500,000	Engineering	2019	Toyo Engineering Corp-C; Lummus-TL	\$1.4 billion.
	Saudi Arabian Basic Industries Corp.-ExxonMobil Chemical Co.	San Patricio County, Tex.	Ethylene	1,800,000	Planning		Amec Foster Wheeler-EPC; Bay Ltd.-Civil,site maintenance	Awaiting final investment decision; environmental permitting process under way.
	Methanex Corp.	Geismar, La.	Methanol	5,000 tonne/day	Planning		KBR-FEED; Johnson Matthey-TL	Final investment decision due in mid-2019.
	IGP Methanol LLC	Plaquemines Parish, La.	Methanol	1.8 million	Engineering		McDermott-FEED,EPC; Haldor Topsoe-TL	Plant 4.
	IGP Methanol LLC	Plaquemines Parish, La.	Methanol	1.8 million	Engineering		McDermott-FEED,EPC; Haldor Topsoe-TL	Plant 3.
	Indorama Ventures Olefins LLC	Lake Charles, La.	Ethylene	420,000	Under constr.	2019		Restart of idled cracker.
	IGP Methanol LLC	Plaquemines Parish, La.	Methanol	1.8 million	Engineering		McDermott-FEED,EPC; Haldor Topsoe-TL	Plant 2.
	Royal Dutch Shell PLC (Shell Chemical Appalachia LLC)	Potter Township, Beaver County, Pa.	Ethylene	1,500,000	Under constr.		McDermott-FEED/TL	
	PTT Global Chemical	Belmont County, Ohio	Ethylene	1,000,000	Planning			FID in 2016-17.
	Formosa Plastics Corp.	St. James Parish, La.	Ethylene		Planning			Construction could begin as soon as 2019 pending approvals.
	Formosa Plastics Corp.	Point Comfort, Tex.	Polyethylene	625,500	Engineering		ThyssenKrupp Industrial Solutions AG-E/TL	Expansion
	Formosa Plastics Corp.	Point Comfort, Tex.	Propylene	545,000	Engineering		ThyssenKrupp Industrial Solutions AG-E/TL	Expansion
	Yuhuang Chemical Inc.	St. James Parish, La.	Methanol	1,700,000	Under constr.	2019	China Huanqiu Contracting & Engineering Corp.-E; Air Liquide Global E&C Solutions-TL; Amec Foster Wheeler-D	
UZBEKISTAN	JSC Uzneftgazdobycha (Shurtan Gas Chemical Complex LLC)	Guzar District, Kashkadarya Region	Polyethylene	325,000	Engineering	2020		Project to increase the complex's current 125,000-tpy polyethylene production capacity to 450,000 tpy from 431,000 tpy of synthetic naphtha produced by NHC Uzbekeftegaz subsidiary Uzbekistan GTL LLC's Oltin Yo'l gas-to-liquids plant at Shurtan beginning in second-half 2020.
	JSC Uzneftgazdobycha (Shurtan Gas Chemical Complex LLC)	Guzar District, Kashkadarya Region	Ethylene		Engineering		McDermott-TL/E	Grassroots ethylene plant to be built at existing Shurtan petrochemical complex.
	JSC Uzneftgazdobycha (Shurtan Gas Chemical Complex LLC)	Guzar District, Kashkadarya Region	Hexene-1		Engineering		McDermott-TL/E	Part of grassroots ethylene plant to be built at existing Shurtan petrochemical complex.
	JSC Uzneftgazdobycha (Shurtan Gas Chemical Complex LLC)	Guzar District, Kashkadarya Region	Polypropylene		Engineering		McDermott-TL/E	Part of grassroots ethylene plant to be built at existing Shurtan petrochemical complex.
VIETNAM	Long Son Petrochemical Co. Ltd.	Long Son Island in Vung Tau City, Ba Ria Province	Propylene	400,000	Engineering	2021	TechnipFMC,SK E&C-EPC	
	Long Son Petrochemical Co. Ltd.	Long Son Island in Vung Tau City, Ba Ria Province	Ethylene	950,000	Engineering	2021	TechnipFMC,SK E&C-EPC	
	Phu My Plastics Production JSC	Vung, Tau Province, Vietnam	Propane Dehydrogenation (PDH) Unit	306,000	Planning		Honeywell UOP LLC	
	Vung Ro Petroleum Ltd.	Phu Yen Province	Polypropylene	900,000	Engineering		Ineos-TL	\$4 billion.

GAS PROCESSING

Added capacity listed in millions of cubic feet per day (MMcfd) unless otherwise specified.

Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
ALGERIA	Sonatrach	Alrar	NGL automation		Planning		Emerson Electric Co. - engineering, procurement, commissioning, testing. Fores Engineering SRL	
	Sonatrach	Adrar Province	Gas plant	141.3			Larsen & Toubro Ltd., EPCC	Tinerkouk field
	Sonatrach	Adrar Province	Gas plant	211.9			Larsen & Toubro, EPCC	Hassi Ba Hamou and Reg Mouaded field
	Sonatrach	Hassi Messaoud, ZCINA LPG Complex	LPG Train 4	282.5	Development		Maire Technimont SPA (Technimont SPA), EPC	
	Sonatrach	Adrar Province	Gas plant	141.3			Larsen & Toubro Ltd., EPCC	Hassi Tidjerane field
AUSTRALIA	Senex Energy Ltd.	Garadagh	Gas plant	40	Planning			Project to accelerate proposed Atlas coal seam gas project in Surat basin of southeast Queensland for delivery of gas to domestic market by late 2019.
	Australian Gas Infrastructure Group (AGIG)	Western Australia	Gas Storage Facility		Planning			
AZERBAIJAN	SOCAR GPC	Garadagh	Gas plant	10	Engineering	2022	Technip-E/D/TL	
BAHRAIN	National Oil & Gas Authority	Bahrain field	Gas dehydration plant	500	Engineering		Petrofac-EPC	
BRAZIL	Petroleo Brasileiro SA	Itaboraí, Rio de Janeiro	Gas plant	21	Engineering	2020	Shandong Kerui Petroleum Equipment Co. Ltd.,Metodo Potencial Engenharia SA-EPC	
CANADA	Tidewater Midstream & Infrastructure Ltd.	Grande Prairie, Alta.	Sour Gas Processing Plant	20,000	Planning		WorleyParsons Ltd.	
	Keyera Corp.	Grand Prairie, Alta.	Gas plant	150	Engineering	2020	Jacobs Engineering Group Inc.-EPC	Phase 2 of the Wapiti development project to add another 150 MMcfd of sour gas processing capacity.
	Keyera Corp.	Grand Prairie, Alta.	Gas plant	150	Under constr.	2019	Jacobs Engineering Group Inc.-EPC	Phase 1 of the Wapiti development project to create 150 MMcfd of sour gas processing capacity.
	SemCAMS ULC	Alberta	Gas plant	280	Planning			Pipestone Central plant; to serve Montney producers in the Pipestone region of the Western Canadian Sedimentary Basin.
CHINA	Sinochem Quanzhou Petrochemical	Quanzhou	Refinery Ethylene Project		Planning		John Wood Group PLC - EPC	
EGYPT	ENI SPA	Port Said	Gas plant	350	Under constr.		Frames Group-Equipment	
	ENI SPA	Port Said	Gas plant	350	Under constr.		Frames Group-Equipment	
	ENI SPA	Port Said	Gas plant	350	Under constr.		Frames Group-Equipment	
	ENI SPA	Port Said	Gas plant	350	Under constr.		Frames Group-Equipment	
INDONESIA	PT Pertamina EP Cepu	Bojonegoro, East Java	Gas plant	330	Engineering		JGC Corp.-EPC	
KUWAIT	Kuwait Oil Co.	Jurassic field	Gas plant		Engineering		Black & Veatch Corp.-FEED	
MOROCCO	Sound Energy PLC	eastern Morocco	Gas plant		Engineering		Enagas SA,Electron SA,Fomento-FEED	FEED activities scheduled to conclude late 2018-early 2019.
NIGERIA	Chevron Nigeria Ltd.	Western Niger Delta region	Gas plant		Engineering		Frames Group BV-EPC	Part of Okan field debottlenecking project.
	Southfield Petroleum Ltd.	Utorogu field	Gas plant	250	Engineering		China Machinery Engineering Corp.-EPC	
OMAN	BP PLC	Khazzan	Gas plant	500	Engineering	2020	Petrofac-EPCC	Phase 2, adding a third gas train to expand capacity to 1.5 bcf/d.
ROMANIA	Winstar Satu Mare SA	Pannonian basin, Romania	Gas plant	15	Under constr.		Confind SRL-EPCC	To accommodate first production from the Moftinu gas development project on the Satu Mare concession in northwestern Romania's Pannonian basin, along the borders with Hungary and Ukraine.
RUSSIA	PJSC Gazprom	Amur region	Gas plant	42	Under constr.	2021	NIPGazpererabotka-Contr.; China Petroleum Engineering & Construction Corp.-EPC; China Gezhoubu Group Corp.-Constr.; Linde AG-TL; Technimont SPA,Sinopec Ningbo Engineering Corp.-EPCC (utilities,infrastructure,off sites)	Subsidiary OOO Gazprom Pererabotka Blagoveshchensk's grassroots Amur gas processing plant near Svobodny in Russia's far-east Amur region.
SAUDI ARABIA	Saudi Arabian Oil Co.	Wasit, Jubail	Gas plant	3	Under constr.	2019	SNC-Lavalin Group-C	
	Saudi Arabian Oil Co.	al-Fadhili	Gas plant	3	Under constr.	2019	Foster Wheeler-FEED	

GAS PROCESSING CONT.

Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
UAE	Abu Dhabi Gas Development Co. (Al Hosn Gas)	Shah onshore field	Gas plant	500	Engineering		Amec Foster Wheeler–FEED	Expansion of Al Hosn sour gas plant; October 2018 proposal to increase sour gas processing by 50% of existing 1-bcfd capacity.
UNITED STATES	Lone Star NGL LLC	Mont Belvieu, Tex.	Fractionator	150,000 b/d	Planning	2020		Lone Star NGL LLC is a subsidiary of Energy Transfer LP
	WTG Gas Processing LP (WTG South Permian Midstream LLC)	Glasscock County, Tex.	Gas plant	200	Engineering	2019	Honeywell UOP LLC–Modular turnkey plant	UOP Russell technology.
	Williams Cos. Inc.–Crestwood Equity Partners LP	Converse County, Wyo.	Gas plant	25	Planning	2019		Expansion of Bucking Horse plant to 145 MMcfd from 120 MMcfd.
	Valiant Midstream LLC	Arkoma STACK play, southeast Oklahoma.	Gas plant	200	Under constr.	2018		
	Targa Resources Corp.	West Texas	Gas plant	250	Engineering	2020		Peregrine plant.
	Targa Resources Corp.	West Texas	Gas plant 2	250	Engineering	2019		Unidentified location
	Targa Resources Corp.	West Texas	Gas plant 1	250	Engineering	2019		Unidentified location
	Targa Resources Corp.	West Texas	Gas plant	250	Under constr.	2018		Wildcat plant, Delaware basin.
	Targa Resources Corp.	West Texas	Gas plant	200	Under constr.	2018	KP Engineering LP–EPC	Johnson plant in Reagan County, Tex., near Midkiff, in the Permian basin; will include a 5,000 b/d condensate stabilizer.
	Summit Midstream Partners LP	Eddy and Lea Counties, NM	Gas plant	60	Under constr.	2018		To service ExxonMobil Corp. subsidiary XTO Energy Inc.'s acreage in the northern Delaware basin; complex will be expandable to more than 600 MMcfd.
	Phillips 66 Partners LP	Old Ocean, Tex.	Fractionation	150,000 b/d	Engineering	2020	S&B Engineers & Constructors Ltd.–EPC	\$1.5-billion expansion to increase overall NGL fractionation capacity at Sweeny hub to 400,000 b/d and enable access to 15 million bbl of total storage capacity.
	Phillips 66 Partners LP	Old Ocean, Tex.	Fractionation	150,000 b/d	Engineering	2020	S&B Engineers & Constructors Ltd.–EPC	\$1.5-billion expansion to increase overall NGL fractionation capacity at Sweeny hub to 400,000 b/d and enable access to 15 million bbl of total storage capacity.
	Oneok Inc.	McKenzie County, ND	Gas plant	200	Planning	2020		Demicks Lake II plant.
	Oneok Inc.	Mont Belvieu, Tex.	Fractionation	125,000 b/d	Engineering	2021		MB-5 fractionator.
	Oneok Inc.	Canadian County, Okla.	Gas plant	200	Under constr.	2018		Canadian Valley II project; expansion of 200-MMcfd Canadian Valley natural gas processing facility in the Sooner Trend Anadarko basin Canadian and Kingfisher counties (STACK) play.
	Oasis Petroleum Inc.	McKenzie County, ND	Gas plant	200	Engineering	2018		Expansion of Wild basin plant.
	Matador Resources Co.	Eddy County, Tex.	Gas plant	200	Engineering	2018		Expansion of Black River plant.
	MarkWest Energy Partners LP	Loving County, Tex.	Gas plant	200	Planning	2019		Tornado plant.
	MarkWest Energy Partners LP–Antero Midstream Partners LP	Ohio	Fractionator	60,000 b/d	Under constr.	2018	Honeywell UOP LLC–Modular turnkey plant	Expansion at Hopedale complex; UOP Russell fractionation plant.
	Lucid Energy Group LLC	Eddie County, NM	Gas plant	200	Under constr.	2018		Roadrunner 1 plant.
	Linn Midstream LLC (Blue Mountain Midstream LLC)	Central Oklahoma	Gas plant	250	Planning	2019		Further expansion of Chisholm Trail system in the Merge play.
	Enterprise Products Partners LP	Mont Belvieu, Tex.	Fractionation	150,000 b/d	Engineering	2020		Eleventh fractionator.
	Enterprise Products Partners LP	Mont Belvieu, Tex.	Fractionation	150,000 b/d	Under constr.	2020		Tenth fractionator.
	Enterprise Products Partners LP	Orla, Reeves County, Tex.	Gas plant	300	Engineering	2019		Orla III plant.
	Enterprise Products Partners LP	Mentone, Loving County, Tex.	NGL recovery	40,000 b/d	Under constr.	2020		
	Enterprise Products Partners LP	Mentone, Loving County, Tex.	Gas plant	300	Under constr.	2020		
	Discovery DJ Services LLC	Weld County, Colo.	Gas plant	225	Under constr.	2019	BCCK Holding Co.–EPC	
	Cureton Midstream LLC	Weld County, Colo.	Gas plant	60	Engineering	2018	Honeywell UOP LLC–Modular turnkey plant	Niobrara basin
	Crestwood Equity Partners LP–First Reserve JV	Orla, Tex.	Gas plant	200	Under constr.	2018		
			Gas plant	200	Under constr.	2019	Saulsbury Industries Inc.–EPC	Train 3.
			Gas plant	200	Under constr.	2019	Saulsbury Industries Inc.–EPC	Train 2.
	Apache Corp.	Reeves County, Tex.	Gas plant	200	Under constr.	2019	Saulsbury Industries Inc.–EPC	Train 1.
	Cogent Midstream LLC	Reagan County, Tex.	Gas plant	200	Engineering	2019	Honeywell UOP LLC–Modular turnkey plant and UOP Russell modular cryogenic plant with refrigeration and dehydration units	UOP Russell technology; Big Lake II plant.
	Enterprise Products Partners LP	Nueces County, Tex.	Shoup Fractionator	25,000 b/d	Planning	2019	Enterprise Products Partners LP	
	Tall Oak Midstream LLC	Southeast Oklahoma	Gas plant		Planning			To be built as part of subsidiary Tall Oak III LLC's East STACK system.
	Hess Midstream Partners LP	North Dakota	Gas plant expansion	150	Development	2021		Expanding capacity of 250-MMcfd Tioga gas plant to 400 MMcfd
	Raven Petroleum LLC	Duval County, Tex.	Fractionator	30,000 b/d	Development			Approved by Texas Commission on Environmental Quality
	Hess Midstream Partners LP	North Dakota	Gas Plant	100	Under construction	2019		Little Missouri 4 gas plant in McKenzie County; JV with Targa Resources Corp.; due for completion in third-quarter 2019

GAS PROCESSING CONT.

Country	Company	Location	Project	Added capacity	Status	Expected completion	Contractor/ contract type	Project notes
	Evolution Midstream LLC	Converse County, Wyo.	Gas plant	40	Under constr.		John Wood Group-Const.	Expandable to 100 MMcfd in 2019.
	Enterprise Products Partners LP	Mont Belvieu, Tex.	Butane isomerization Fractionation	30000 4500	Planning Under constr.			
	Brazos Midstream Holdings LLC	Southern Delaware basin	Gas plant	200	Engineering		Honeywell UOP LLC-Modular turnkey plant	UOP Russell technology.
	Oneok Inc.	McKenzie County, ND	Gas plant	200	Under constr.			Demicks Lake 1 plant.
	Oneok Inc.	Mont Belvieu, Tex.	Fractionation		Planning	2021		MB-6 fractionator.
VIETNAM	ExxonMobil Exploration & Production Vietnam Ltd.		Ca Voi Xanh (Blue Whale)		Planning	2020		

LNG

Added capacity listed in millions of tons per year (million tpy) unless otherwise specified.

Country	Company	Project	Location	Project type	Added capacity	Status	Completion	Contractor/ contract type	Project notes
AUSTRALIA	AGL Energy	—	Crib Point, Victoria	LNG terminal	—	Planning	2021	—	Delayed as State of Victoria calls for full environmental assessment
	Australian Industrial Energy	—	Port Kembla, NSW	LNG terminal	—	Planning	2020	Hoegh LNG	Contract for permanently berthed FSRU let August 2018
	Venice Energy	—	Port Adelaide	LNG terminal	—	Planning	2020	—	Construction could start June 2019 pending regulatory approvals
	ExxonMobil EPIK	—	Gippsland basin Port of Newcastle	LNG terminal LNG terminal	— —	Planning Planning	2022 —	— —	Offshore, pipe to Victoria FSRU to supply New South Wales.
BAHRAIN	National Oil & Gas Authority of Bahrain, Teekay, Gulf Investment, Samsung	Bahrain LNG	Offshore Khalifa bin Salman port	LNG terminal	3	Under constr.	2019	—	Expandable to 6 mtpy. 173,400-cu m FSU delivered Jan. 2019
BANGLADESH	Petrobangla/Gunvor	—	Chittagong	LNG terminal	2	Planning	2020	Exmar	FSRU being modified in Singapore, Sept. 2018
BRAZIL	CELSE	—	Porto de Sergipe	LNG terminal	—	Planning	2020	Golar	Golar Nanook, 170,000 cu m
CANADA	Chevron, Woodside	Kitimat LNG	Bish Cove	LNG	11	Engineering	2027	KBR-FEED, Fluor-EPC	Woodside moved to 2027 or later (August 2018)
	RGE Group	Woodfibre LNG	Squamish	LNG	2	Engineering	—	KBR/JGC-FEED	Removal of old pulp mill contracted Sept. 2018. Squamish Nation approved project Dec. 2018. Expect FID by summer 2019.
	Steelhead LNG	Kwispa LNG	West coast of Vancouver Island	LNG	—	Planning	—	HHI	Steelhead put project on hold Feb. 2019
	Shell, Petronas, PetroChina, Mitsubishi, Kogas	LNG Canada	Kitimat	LNG	24	Engineering	2025	JGC-Fluor EPC	FID made October 2018. NEB considering jurisdictional challenge to supply pipeline
	Liquefied Natural Gas Ltd.	Bear Head LNG	Strait of Canso	LNG	12	Planning	2024	—	Signed First Nations, labor agreements Feb. 2019.
Pieridae Energy Ltd.	Goldboro LNG	Nova Scotia	LNG	10	Planning	2024	KBR	Pieridae expects to begin construction 2019.	
CHINA	CNOOC	Shanghai LNG	Shanghai	LNG terminal	—	Under constr.	2020	—	200,000-cu m storage expansion
	CNOOC	Rudong LNG Phase 3	Binhai, Jiangsu	LNG terminal	—	Under constr.	2021	—	2 x 200,000 cu m storage, pipe most gas 156 km to Anhui
	CNOOC	Zhangzhou LNG	Zhangzhou, Fujian	LNG terminal	3	Engineering	2021	—	Design received final approval March 2019.
	Sinopec, Zhejiang Energy Group Co. Ltd.	Wenzhou LNG	Wenzhou, Zhejiang	LNG terminal	—	Planning	2021	—	Reached supply agreement with ExxonMobil April 2019. 4 x 200,000 cu m storage, 16 mile pipeline
CONGO-BRAZZAVILLE	NewAge LNG	—	Block Marine XII	LNG	1	Planning	2021	SBM Offshore-JGC	FSRU
CROATIA	LNG Croatia	—	Island of Krk	LNG terminal	2	Planning	2020	—	Community, environmental protests March 2019.
GHANA	Quantum Power Ghana Gas Ltd., GNPC	Tema LNG	12 km off Tema	LNG terminal	2	Under constr.	2020	Micoperi, HR Wallingford, China Harbour Engineering Co.	FSRU anchored offshore due to project delays.
INDIA	Adani Group/IOC/GAIL	Dharma LNG	Dharma, Odisha	LNG terminal	5	Planning	2020	—	IOC booked 3 mtpy capacity
	Swan Energy	Swan LNG	Jafrabad, Gujarat	LNG terminal	5	Under constr.	2020	NMIPL	FSRU. Expandable to 10 mtpy.
	AG&P	Karaikal LNG	Karaikal port	LNG terminal	1	Planning	—	Stolt-Nielsen	Environmental approval May 2017. PNGRB approval Dec. 2018.
	Petronet LNG	—	Dahej, Gujarat	LNG terminal	5	Under constr.	2019	—	Expand capacity to 20 from 15, add seventh storage tank
	SNOC/Uniper	Sharjah LNG	Hamriyah port, Sharjah	LNG terminal	4	Planning	—	—	Supply Sharjah Electricity and Water Authority. EPC award delayed March 2019.
H-Energy	—	Jaigarh port, Maharashtra	LNG terminal	4	Under constr.	2019	L&T	FSRU launched May 2018. Full commercial operations to begin this year (2019).	
H-Energy	—	West Bengal LNG	Hooghly River, East Medinipur	LNG terminal	5	Planning	2021	—	Initial capacity of 1.5-3.0 mtpy
INDONESIA	Inpex	Abadi LNG	Masela block	LNG	9	Engineering	2027	GE Oil & Gas	Onshore plant, gas delivered by pipeline. Shell left project May 2019.
	BP	Tangguh LNG	Papua Barat province	LNG	4	Under constr.	2020	GE Oil & Gas/Tripatra/Chiyoda/Saipem/Suluh Ardhi/ABB	Third train. Will raise total capacity to 11.4 million tpy
LEBANON	Lebanon LNG	—	Offshore Beddawi, Selaata, and Zahrani	LNG terminal	—	Planning	2021	—	Three FSRU along coast. Petronas short-listed July 2018
MALAYSIA	Petronas	FLNG 2	Rotan gas field	LNG	2	Under constr.	2020	JGC, Samsung Heavy Industries-EPC/C	240 km off Sabah
MAURITANIA-SENEGAL	BP/Kosmos	Tortue LNG	Offshore both countries	LNG	3	Engineering	2022	Black & Veatch, Keppel	Gimi FLNG will develop.
MEXICO	Pemex	Pajaritos LNG	Coatzacoalcos, Veracruz	LNG terminal	—	Planning	—	—	Project indefinitely halted Jan. 2019
MOZAMBIQUE	Eni	Coral South LNG	—	LNG	3	Under constr.	2022	Samsung, Technip-FMC, JGC	FID made June 2017
	ExxonMobil, Eni, CNPC, ENH, Kogas, Galp	Rovuma LNG	Area 4	LNG	15	Engineering	—	Mitsubishi, Hitachi	Offtake agreements with partner affiliates Dec. 2018.

LNG CONT.

Country	Company	Project	Location	Project type	Added capacity	Status	Completion	Contractor/ contract type	Project notes
	Anadarko/ONGC/BPRL/Oil/PTT	Mozambique LNG	Onshore plant on the Afungi peninsula, Cabo Delgado	LNG	13	Planning	2023	TechnipFMC, VanOord-Subsea	Subsea EPCI awarded Dec. 2018.
NIGERIA	Brass LNG Ltd.	Brass LNG	Bayelsa State	LNG	10	Engineering	—	Bechtel-Engr/Contr/PD/DD/PE/CS/PM	Two trains: 5 million tpy/train, \$20 billion. NNPC (49%), ConocoPhillips (17%), ENI (17%), Total SA (17%). Corruption investigation underway.
	Nigeria LNG	Bonny Island Trains 7-8	Bonny Island	LNG	8	Engineering	—	Chiyoda-FEED	Stalled. FID scheduled for Dec. 2018 did not happen. Rescheduled to Oct. 2019.
PAKISTAN	Pakistan GasPort Ltd.	Gwadar LNG	Gwadar	LNG terminal	9	Planning	—		Two FSRU at jetty. Delayed, likely to be revived by new gov't.
	Younus Bros., Sapphire, Halmore Power Generation	Energas LNG	Port Qasim, Karachi	LNG terminal	6	Planning	—		Awaiting site allocation at Port Qasim.
PAPUA NEW GUINEA	Total SA, Oil Search, ExxonMobil	Papua LNG	Caution Bay, Port Moresby	LNG	—	Planning	2024		FID in 2020. Develop Elk and Antelope fields.
PHILIPPINES	SK E&S	—	—	LNG terminal	5	Planning	2023		Includes 600 mw power, 150 km pipeline
	Energy World Corp.	Pagbilao LNG	Pagbilao Grande Island	LNG terminal	3	Under constr.	2020		Permitted Dec. 2018.
	CNOOC, Phoenix Petroleum	Batangas Energy Hub	Batangas Bay	LNG terminal	—	Planning	2023		Construction slated to begin 2019.
POLAND	Gaz-System	Polskie LNG	Swinoujscie	LNG terminal	3	Planning	—		Expansion from 5 mtpy to 7.5. Permitted Jan. 2019.
QATAR	Qatar Petroleum	Expansion	Ras Laffan	LNG	33	Planning	2024	McDermott, Consolidated Contractors, Chiyoda	Four-train expansion to existing plant
RUSSIA	Gazprom/Shell/Mitsui/Mitsubishi	Sakhalin II Train 3	Sakhalin Island	LNG	—	Planning	2024		Discussions between Gazprom, Mitsubishi ongoing
	ExxonMobil/Rosneft	Far East LNG	Port of De Kastri, Kharbarovsk	LNG	6	Planning	—		FID 2019. Capacity expandable
	Total SA/Novatek	Arctic LNG 2	Gydan Peninsula	LNG	20	Planning	2023		FID 2019. Saudi Arabia considering 30% share
	Novatek	—	Kamchatka	LNG terminal	—	Planning	2022		Transshipment point for Russian exports to Asia
	Gazprom/Shell	Baltic LNG	Ust-Luga port	LNG	10	Planning	2021		Pre-FEED signed Oct. 2018. Shell left project April 2019.
Gazprom	Portovaya LNG	Portovaya	LNG	2	Under constr.	2019	SRDI Oil & Gas Peton	Nord Stream branch to supply feedgas completed March 2018. Onshore storage, offshore terminal in progress	
TAIWAN	CPC Corp.	—	Kuantan Industrial Zone, Taoyuan	LNG terminal	—	Planning	2023		Passed environmental review October 2018. Construction to start mid-2019.
TANZANIA	Equinor/Shell/ExxonMobil/Ophir	Lindi LNG	Lindi region	LNG	—	Planning	2024		Partners plan to build onshore plant. Tanzania says talks to conclude Sept. 2019.
THAILAND	PTT LNG Co. Ltd.	Rayong LNG	Nong Fab, Rayong	LNG terminal	8	Planning	2022		EPC awarded to Saipem/GTCI Corp. JV, August 2018
	PTT LNG Co. Ltd.	Expansion	Map Ta Phut, Rayong	LNG terminal	2	Planning	2019		Expansion. 99% complete as of Dec. 2018. EGAT (utility) say will take first cargo May-June 2019.
UNITED STATES	Alaska Gasline Development Corp.	Alaska LNG	Nikiski, Alas.	LNG	—	Planning	2025		AGDC to supply 75% of production to Sinopec, Oct. 2018
	Liquefied Natural Gas Ltd.	Magnolia LNG	Lake Charles, La.	LNG	8	Engineering	2024	KBR-SKE&C	FID delayed to early 2019
	Energy World USA	Fourchon LNG	Port Fourchon, La.	LNG	5	Planning	2021		FERC pre-filing submitted August 2017
	Venture Global	Plaquemines LNG	Plaquemines Parish, La.	LNG	20	Planning	2022		New funding August 2018
	Venture Global	Calcasieu Pass LNG	Cameron Parish, La.	LNG	10	Planning	2022		2 mtpy purchase agreement with BP May 2018. FERC issued FEIS October 2018.
	Fairwood	Delfin LNG	Cameron Parish, La.	LNG	13	Planning	2022		Non-FTA DOE approval June 2017
	SCT&E LNG	Monkey Island LNG	Cameron Parish, La.	LNG	16	Planning	2022		FID Q4 2020
	Veresen Inc.	Jordan Cove LNG	Coos Bay, Ore.	LNG	8	Planning	2024	KBJ	FERC application filed September 2017
	Commonwealth LNG	Commonwealth LNG	Cameron Parish, La.	LNG	8	Planning	2024	TechnipFMC	FID Q3 2020
	Pointe LNG	Pointe LNG	Plaquemines Parish, La.	LNG	6	Engineering	2025	KBR	Asked FERC to begin pre-filing review Sept. 2018
	NextDecade	Galveston Bay LNG	Galveston, Tex.	LNG	17	Planning	2027		FERC filings expected Q4 2019. EIS anticipated 2022.
	Michael Smith	Freeport LNG	Freeport, La.	LNG	14	Under constr.	2019	CB&I, Zachry Industrial, Chiyoda International Corp.	Fourth train by 2021. Permission to introduce feed to Train 1 granted March 2019.
	Kinder Morgan	Elba Liquefaction Project	Elba Island, Ga.	LNG	3	Under constr.	2019	IHI E&C International Corp.	Initial service yearend 2018, full Q3 2019
	Sempra	Cameron LNG	Cameron Parish, La.	LNG	12	Under constr.	2019		Train 1 startup begun Feb. 2019. Trains 2-3 to follow later that year.
	Energy Transfer/BG LNG	Lake Charles LNG	Lake Charles, La.	LNG	16	Planning	—		Shell, ETPR reached commercial agreement Mar. 2019.
Qatar Petroleum, ExxonMobil	Golden Pass LNG	Sabine Pass, Tex.	LNG	16	Planning	2024		FID reached Feb. 2019	
Annova	Texas LNG	Brownsville, Tex.	LNG	4	Planning	2023		Final EIS issued April 2019. FID expected late 2019.	
Tellurian	Driftwood LNG	Carlyss, La.	LNG	28	Planning	2022		FERC approved April 2019.	

LNG CONT.

Country	Company	Project	Location	Project type	Added capacity	Status	Completion	Contractor/ contract type	Project notes
	Sempra	Port Arthur LNG	Port Arthur, Tex.	LNG	11	Planning	—	Bechtel	FERC approved April 2019.
	Cheniere	Corpus Christi LNG Stage III	Corpus Christi, Tex.	LNG	9	Under constr.	2022		EIS issued April 2019.
	NextDecade	Rio Grande LNG	Brownsville, Tex.	LNG	27	Planning	2023		New EPC bid invitations made Sept. 2018. McDermott/Eni to submit jointly. 20-year SPA with Shell for 2 mtpy reached April 2019.

PIPELINES

Diameter of pipe is listed in inches.

C Crude
G Gas
P Products
CN Condensate
COMP Compressor station
PUMP Pumping station
STOR Gas storage
JV Joint venture

Country	Company	Project	From Where	To Where	Pipeline Type	Project Miles	Diameter	Status	Expected Completion	Contractor	Project notes
ALGERIA	Sonatrach	EGDPF 48	El Aricha	Beni Saf	G	122	48	Planning	2020		Link two existing export pipelines (GPDF and Medgaz) to improve efficiency of shipments to Europe via Spain.
ARGENTINA	TGS	Vaca Muerta gathering	Bajada de Anelo	Sierra Chata	G	57	36	Under constr.	2019		Spanning areas from Bajada de Anelo to Sierra Chata
AUSTRALIA	Newmont Mining Co.	Tanami Gas Pipeline	Alice Springs-Darwin pipeline	Newmont Tanami mine	G	112	8	Under constr.	2019	Australian Gas Infrastructure Group	Supply gas from the existing Alice Springs-Darwin line
	Jemena	Project Atlas	Surat basin	Wallumbilla hub	G	37	—	Under constr.	2019		Transport Surat basin gas to Wallumbilla hub
	Woodside Petroleum Ltd.	Scarborough export	Scarborough field	Pluto LNG, Karratha gas plant	G	233	Large	Engineering	2023	Subsea Engineering Associates	Deliver gas to Pluto LNG and Karratha gas plant
BANGLADESH	Bangladesh Navy	A-1	Narayangaj	Dhaka	P	11	8	Planning	2020		Ship A-1 jet fuel to international airport
	Bangladesh Army	Dhaka-Chittagong	Chittagong	Dhaka	P	147	0	Planning	2020		Ship diesel to capital
BRAZIL	Alvopetro Energy Ltd.	Transfer pipeline	Cabure production	Enerflex gas treatment plant	G	7	—	Engineering	2019	Tecmester	Treated gas will be sold to Bahiagas
	Petrobras	Rota 3 export	6 miles offshore	Marica terminal	G	6	—	Engineering	2019	McDermott	214 miles of line already laid
BULGARIA	BEH, DEPA, Edison	Gas Interconnector Greece-Bulgaria (IGB Pipeline)	Greece	Bulgaria	G	113	32	Engineering	2020		Provide gas from Turkey-Greece-Italy interconnector to Bulgaria and the Balkans.
CANADA	NGTL	2021 System Expansion	—	—	G	200	48	Planning	2021		Eight separate looping sections. Service starting Nov. 2020, full April 2021
	NGTL	West Path Delivery	Saddle Hills, Alta.	Clear Hill, Alta.	G	15	42	Engineering	2019		Expansion between Saddle Hills and Clear Hills, Alta.
	Pembina	Peace Phase VI expansion	LaGlace, Alta.	Wapiti, Alta.	P	—	16	Planning	2020		Condensate, NGL, 16-in. LaGlace to Wapiti, Alta.; 20-in. Kakwa to Lator
	Plains, SemGroup	Montney to Market	Montney	Market	C/P	—	—	Planning	2020		Transport NGL, condensate, light crude from Wapiti and maybe Pipestone to Edmonton and Fort Saskatchewan
	Gazoduq	Gazoduq	NE Ontario	Saguenay, Que.	G	465	42	Planning	2024		Part of system delivering from Alberta to Energie Saguenay
	Enhance, Wolf Carbon Solutions	Alberta Carbon Trunk Line	Sturgeon refinery, Redwater fertilizer	Enhance EOR, Clive, Alta.	G	149	16	Planning	2020		Deliver CO2 from Sturgeon Refinery and Redwater Fertilizer to Enhance EOR project in Clive, Alta.
	Enbridge	Line 3 Replacement segments	Morden, Man. (loop)	Brandon, Man. (loop)	C	117	36	Under constr.	2020	SA Energy Group	Two segments: 60 miles near Morden, Man.; 57 miles near Brandon, Man.
	NGTL	North Montney Mainline	Eastern BC	NGTL Groundbirch mainline	G	128	42	Under constr.	2019		Connect eastern BC to NGTL Groundbirch Mainline. Approved May 2018
	TransCanada	Coastal GasLink	Dawson Creek, BC	LNG Canada near Kitimat, BC	G	415	48	Engineering	2023	JGC, Fluor	Granted interim injunction to start pre-construction Jan. 2019.
Government of Canada	Trans Mountain expansion	Edmonton	Westridge, BC	C	612	36	Planning	2022		NEB reapproved project Feb. 2019. Federal government to decide by June 2019 whether to build.	
CHINA	CNOOC	Jiangsu to Anhui province	Jiangsu	Anhui province	G	98	—	Planning	2021		Move gas from Binhai LNG terminal to Anhui
	Sinopec	Xinjiang-Guangdong-Zhejiang	Xinjiang	Guangdong-Zhejiang	G	5,563	40	Planning	2020		Move gasified coal east
CYPRUS	Energean	—	Karish field	Cyprus	G	124	—	Planning	2021		FPSO serving Karish and Tanin fields to Cyprus, up to 1 bcm/y.
GERMANY	Gascade	European Gas Pipeline Link (EUGAL)	Nord Stream landfall	Czech border	G	300	56	Under constr.	2020		Nord Stream to Czech border
	E.ON, OMV, Royal Dutch Shell, Gazprom	Nord Stream 2	Ust-Luga, Russia	Greifswald, Germany	G	759	48	Under constr.	2020		Offshore pipeline underway in Germany, Finland EEZs. Pipeline threatening to sue EU over perceived interference. Leading conservative candidate in EU elections says he would stop project (April 2019).
GHANA	Ghana Gas	Tema	Aboadze	Tema (Greater Accra)	G	172	24	Engineering	2020	Yantai Jereh Group	Chinese contractor will build-own-operate on 15-year initial term
GREECE	BP, SOCAR, Snam, Fluxys, Enagas, Axpo	Trans Adriatic Pipeline (TAP)	Kipoi, Greece	San Foca, Italy	G	544	48	Under constr.	2020	Bonatti, J&P Avax, Spiecapag, Saipem	Could be twinned in the future.
INDIA	Bharat Petroleum Corp.	West Bengal to North Bangladesh	West Bengal	North Bangladesh	P	81	22	Under constr.	2021		Supply diesel to Bangladesh from India
	Indian Oil Corp., Nepal Oil Corp.	Motihari to Chitwan	Motihari	Chitwan	P	82	11	Under constr.	2019		LPG from India to Nepal
	Indian Oil Corp.	Indian Oil Corp.	Ennore	Tuticorin	G	729	28	Under constr.	2019		Facing local opposition along route
	Gas Authority of India	Jagdishpur to Dhamra	Jagdishpur	Dhamra	G	2,111	24, 36	Under constr.	2021	MECON	241-mile Phase 1 completed Feb. 2019. Phase 2 (1,178 miles) to be complete by December 2020.
GAIL (India) Ltd.	—	Barauni, Bihar	Guwahati, Assam	G	453	24	Engineering	2021		Part of spurs for the 2,111-mile Jagdishpur-Haldia-Bokaro-Dhamra system under construction in northeastern India.	

PIPELINES CONT.

Country	Company	Project	From Where	To Where	Pipeline Type	Project Miles	Diameter	Status	Expected Completion	Contractor	Project notes
	Gas Authority of India	Jagdishpur to Dhamra spurs	Jagdishpur	Dhamra	G	699	12, 30	Under constr.	2021		Spur and feeder lines for above.
	Gujarat State Petronet Ltd.	Mallavaram to Bhilwara	Mallavaram	Bhilwara	G	992	24	Under constr.	2020		30 MMscmd from India's east coast to central and northern parts of the country.
	Gas Authority of India	Jaigarh-Mangalore	Jaigarh	Mangalore	G	394	0	Under constr.	2019	H-Energy Pvt. Ltd.	Building from both ends towards the middle
	Numaligarh Refinery Ltd. (NRL)	Paradip to Numaligarh	Paradip	Numaligarh	C	868		Planning	2023		—
	Numaligarh Refinery Ltd. (NRL)	—	Numaligarh	Siliguri	P	406		Planning	2023		—
	Gujarat State Petronet Ltd., Indian Oil Corp., HPCL, Bharat Petroleum Corp.	Mehsana-Srinagar	Mehsana	Srinagar	G	1,525	42	Under constr.	2020		Construction tendered Jan. 2019.
IRAN	National Iranian Gas Co.	IGAT IX	Asalouyeh	West Azerbaijan province	G	1,147	56	Under constr.	2020	Kogas	Export gas to Europe.
	National Iranian Gas Co.	Iranshahr to Chabahar	Iranshahr	Chabahar	G	124	56	Engineering	2020		Interministerial construction contract signed April 2018
	National Iranian Gas Co.	Iran to Oman	Iran	Oman	G	236	36, 56	Engineering	—		Progress curtailed by sanctions.
IRAN-JORDAN	NIOC	Basra-Aqaba pipeline	Basra, Iraq	Aqaba, Jordan	C	1,043	56	Planning	2021		Iraq, Jordan agreed to revive project December 2018
ISRAEL-GREECE	IGI Poseidon SA	EastMed	Eastern Mediterranean	Greece	G	1,178	24	Planning	2025		10 bcm. Connect with Poseidon pipeline for continued shipment to Italy.
JORDAN	National Electric Power Co.	Israel to Jordan	Israel	Jordan	G	40	36	Under constr.	2019		Supply power plants in Mafrqa from Leviathan field
MEXICO	TransCanada	Tula-Villa de Reyes	Tula	Villa de Reyes	G	261	36	Under constr.	—		Construction stopped Nov. 2018 due to "social and legal uncertainty."
NIGERIA	NNPC	AKK	Ajaokuta-Abuja	Kaduna-Kano	G	403	40	Under constr.	2020		Phase 1 of Trans-Nigeria Gas Pipeline. Extension to Algeria discussed March 2019.
	NNPC	OB3	Obiafu	Obrikom-Oben	G	79	48	Under constr.	2019		Boost domestic supply, reduce flaring.
NORWAY	Statoil	Johan Sverdrup export	Johan Sverdrup	Karsto gas terminal	G	97	18	Engineering	2019	Saipem	Export North Sea gas to shore
PAKISTAN	Pakistan Government	Karachi to Lahore	Karachi	Lahore	G	682	42	Planning	2023	Rostec	Financing approved early 2018
	Pakistan Government	Machike-Taru Jabba Oil Pipeline Project	Machike	Taru Jabba	P	182	14, 18	Planning	2021	Frontier Oil Co.	Follow same route as Inter-State Gas Systems line. 109 miles of 14-in., balance 18.
	Pakistan Government	Balochistan to Nawabshah	Balochistan	Nawabshah	G	192	42	Planning	—	ISGS	1.2 bcf/d from Bahria Foundation LNG terminal. Petroleum Division plans to revive (Jan. 2019).
	Pakistan Government	Gwadar to Nawabshah, Sind province	Gwadar	Nawabshah, Sind province	G	434	42	Planning	2020	China Petroleum Pipeline Bureau	Transport LNG terminal output. Shelved 2017. Revived Jan. 2019.
POLAND	PGNiG	Baltic Pipe	Norway	Poland	G	171	40	Planning	2022		10 bcm. Construction to start Q2 2020.
QATAR	Qatar Petroleum	Qatar	Ras Laffan	Hamad Int'l Airport	P	50	24	Engineering	2019	Consolidated Contractors, Teyseer Contracting Co.	Move jet fuel to Hamad Int'l Airport
RUSSIA	Gazprom	Power of Siberia 2 (former Altai)	Western Siberia	Xinjiang, China	G	1,612	56	Planning	2021		Negotiations still under way between Russia and China
	Gazprom	Power of Siberia	Kovyktinskoe field	Blagoveshchensk (and China)	G	2,465	56	Under constr.	2019	Stroygazmontazh, China Petroleum Pipeline	5 bcm initially, 38 bcm by 2024. 95.5% laid, Oct. 2018
SAUDI ARABIA	Saudi Aramco	Marjan field development	Offshore Saudi Arabia	Shore	G	40	0	Under constr.	2019	McDermott	Work to be completed by DB50 and DB27.
TANZANIA	TPDC	Gas pipeline	Dar es Salaam	Uganda	G	1,100	24	Planning	2024		Pass through Tanga to Mwanza. Second proposal would use Hoima-Tanga crude line corridor
TURKEY	Gazprom	TurkStream	Russkaya compressor	Kiyikoy, Turkey	G	676	32	Under constr.	2019		Offshore pipelay completed Nov. 2018. Onshore construction ongoing.
TURKMENISTAN	Turkmengaz, Afghan Gas Enterprise, Inter-State Gas Systems (Private) Ltd., GAIL (India) Ltd.	TAPI	Galkynysh field	Fazilka, India	G	1,125	56	Under constr.	2021		Pakistan construction to begin early 2019. Saudi-German JV supplying pipe to Turkmenistan, which began arriving Nov. 2018. No Afghan construction yet.
UGANDA	Total/Tullow/CNOOC	East African Crude Oil Pipeline (EACOP)	Hoima, Uganda	Tanga, Tanzania	C	899	24	Engineering	2021		Allow export of Ugandan crude via the Indian Ocean through Tanzania
UKRAINE	UkrTransGaz	Gas Interconnector Poland-Ukraine	Hermanowice, Poland	Bliche Volytsia, Ukraine	G	62	40	Planning	2020		Construction delayed until January 2019

PIPELINES CONT.

Country	Company	Project	From Where	To Where	Pipeline Type	Project Miles	Diameter	Status	Expected Completion	Contractor	Project notes
UNITED KINGDOM	Shell	Penguins	Penguins	FLAGS pipeline	G	6	16	Engineering	2021	Subsea 7	Export line. Part of greater field redevelopment.
UNITED STATES	Wolf Midstream Partners LLC	Red Wolf Crude Connector	Big Spring, Tex.	Colorado City, Tex.	C	40	16	Under constr.	2019		Move Midland basin crude to terminal and interconnections
	Tellurian	Haynesville Global Access	Haynesville shale	Gillis, La.	G	200	42	Planning	2022		Haynesville shale to Gillis
	Sempra Energy Corp./ Boardwalk	P2K	Permian basin	Katy, Tex., Coastal Bend header	G	475	42	Planning	2019		Move Permian basin gas to Katy, south Coastal Bend header
	Plains All American	Cactus II	Permian basin	Corpus Christi	C	515	24	Under constr.	2019		Permian to Corpus Christi. Full service April 2020
	Oneok Inc.	West Texas LPG Expansion	Delaware basin	Arbuckle II interconnections	P	0	16	Under constr.	2019		Looping. Supported by production from six planned third-party gas plants
	NAmerico Partners LP	Pecos Trail Pipeline	Permian basin	Corpus Christi	G	468	42	Under constr.	2019		Link production to existing lines delivering to Mexico and Corpus Christi.
	Midcoast Energy	CJ Express	Carthage, Tex.	Houston Ship Channel	G	150	36	Planning	2020		Carthage, Tex., to Houston Ship Channel
	Medallion Delaware Express/Medallion Pipeline Co. LLC	Delaware Express	Southern Delaware basin	Crane County, Tex.	C	93	16	Planning	2019		90,000 b/d. 30 miles gathering. 63 miles, 16-in mainline. Successful open season closed August 2018
	Liberty Utilities	Granite Bridge	Manchester, NH	Strathan, NH	G	27	16	Planning	2021		Manchester to Strathan, NH
	Enterprise Products Partners	Gulf Coast Ethylene	Mont Belvieu	Bayport, Tex.	P	24	24	Planning	2020		Connect producing and consuming sites with Houston Ship Channel.
	Enbridge Inc.	Line 3 Replacement Project	Neche, ND	Superior, Wisc.	C	364	36	Planning	2020		Minnesota PUC approved summer 2018, petitions for reconsideration filed
	Enable Midstream	Gulf Run	NW Louisiana	SW Louisiana	G	165	42	Planning	2022		NW to SW Louisiana for LNG exports
	DCP Midstream, Targa Resources, Kinder Morgan	Gulf Coast Express	Waha, Tex.	Agua Dulce hub	G	430	42	Under constr.	2019		Waha, Tex., to Agua Dulce hub
	Crimson Midstream, MPLX	Swordfish Pipeline	St. James, Raceland, La.	LOOP	C	60	30	Planning	2020		Connect St. James and Raceland, La., terminals to LOOP
	Consumers Energy	Saginaw Trail	Zilwaukee City Gate	Clawson Control	G	78	24	Planning	2022		Replace 1940s-era pipe
	Alaska Gasline Development Corp.	Alaska LNG	North Slope	Nikiski, Alas.	G	800	42	Planning	2024		Transport natural gas for liquefaction and export. Sales agreements with BP, ExxonMobil. Talks with ConocoPhillips. FERC EIS expected November 2019. AGDC plans to build construction camps and access roads starting Q2 2020
	Energy Transfer Partners	Lone Star Express expansion	Permian basin	Fort Worth, Tex.	P	352	24	Planning	2020		Existing pipeline network extends to Mont Belvieu
	Williams	Leidy South expansion	Clinton County, Pa.	Lycoming County, Pa.	G	12	36, 42	Planning	2021		Replacement and looping to increase capacity by 580 MMcf/d
	Oneok Inc.	Arbuckle II	Oklahoma	Mont Belvieu, Tex.	P	530	24, 30	Planning	2020		Oklahoma to Mont Belvieu
	Permico Energia LLC	Companero	Permian	Corpus Christi, Tex.	P	510	24	Planning	2020		Also includes 350-mile downstream system, 8-million bbl storage
	Energy Transfer Partners LP, Magellan, MPLX, Delek	Permian Gulf Coast	Wink, Crane, Midland, Tex.	Nederland, Tex., East Houston	C	600	24	Planning	2020		Wink, Crane, and Midland to Nederland and East Houston terminals
	Veresen Inc.	Pacific Connector	Malin hub	Jordan Cove LNG	G	232	42	Planning	2024		Supply gas to Jordan Cove LNG plant
	Phillips 66, Bridger Pipeline LLC	Liberty Pipeline	Bakken	Corpus Christi, Tex.	C	1,300	0	Planning	2020		350,000 b/d. Likely use at least some existing pipeline.
	Magellan Midstream Partners LP/Plains All American Pipeline LP	BridgeTex expansion	Midland-Colorado City, Tex.	East Houston	C	—	—	Under constr.	2019		Expansion to 440,000 b/d
	Tallgrass Pony Express Pipeline LLC	Pony Express expansion	Guernsey, Wyo	Cushing, Okla.	C	—	—	Planning	2020		—
	Saddlehorn Pipeline Co. LLC, ARB Midstream LLC	Matador Pipeline	Platteville, Colo.	Cushing, Okla.	C	38	20	Under constr.	2019		—
	SemGroup Corp., DCP Midstream	Gladiator Pipeline	Cushing, Okla.	Houston, Tx	C	—	—	Engineering	2020		Mostly conversion of existing NGL pipeline
	Crimson Midstream LLC, MPLX LP	Swordfish Pipeline	St. James, La. and Raceland, La.	Louisiana Offshore Oil Port LLC (LOOP) Clovelly, La.	C	50	16, 20, 30	Engineering	2020		—
	Kinder Morgan, EagleClaw, Apache, ExxonMobil	Permian Highway	Waha, Tex.	Katy, Tex.	G	430	42	Planning	2020		Waha to Katy, Tex.
	Transcontinental Gas Pipe Line Co. LLC	Northeast Supply Enhancement	Northeast Supply	NY citygate	G	34	26, 42	Planning	2020		Includes 23.5 miles of 26-in. in New York Bay. FERC pushed EIS release back to Jan. 2019
	Oryx Midstream Services	Northern Delaware basin	New Mexico	Texas	C	500	—	Under constr.	2019		Permian crude gathering system expansion
	Shell Pipeline Co. LP	Falcon Ethane Pipeline System	Falcon Ethane	—	P	94	12	Engineering	2019		All ROW acquired. Permits filed.
	Summit Midstream Partners	Double E Pipeline	Delaware basin	Waha hub	G	120	30	Planning	2021		Delaware basin to Waha hub
	Tallgrass Energy LP	Seahorse	Cushing, Okla.	St. James, La.	C	700	30	Planning	2021		Anchor shipper named November 2018
	Tellurian	Driftwood	Gillis, La.	Driftwood LNG	G	96	48	Planning	2023		Gillis to Driftwood LNG
	Phillips 66 Partners, Harvest Midstream Co., and PBF Logistics LP	ACE Pipeline system	St. James, La.	Belle Chasse, Meraux, and Chalmette, La.	C	—	—	Planning	2020		—

PIPELINES CONT.

Country	Company	Project	From Where	To Where	Pipeline Type	Project Miles	Diameter	Status	Expected Completion	Contractor	Project notes
	National Fuel Gas Co.	Northern Access Pipeline	Sergeant Township, Pa.	Elma, NY	G	97	24	Planning	2022		New York appellate court ruled against eminent domain process November 2018. US appeals court vacated state's water quality certificate denial February 2019. FERC granted 3-year extension to complete project.
	ExxonMobil Corp., Plains All American Pipeline LP, Lotus Midstream LLC	Wink to Webster Pipeline LLC	Wink and Midland, Tex.	Webster, Baytown, Tex., with connectivity to Texas City and Beaumont, Tex.	C	650	36	Planning	2021		The partners said existing pipeline corridors would be used when possible to limit potential community and environmental disruptions.
	Permian Global Access Pipeline LLC (PGAP)	PGAP line	Permian basin	Southwestern Louisiana	G	—	42	Planning	2023		—
	Targa	Grand Prix	Permian	Mont Belvieu	G	—	24	Under constr.	2019		—
	Tellurian	Permian Global Access	Waha, Tex.	Gillis, La.	G	625	42	Planning	2023		Waha hub to Gillis, La. Interconnect to Creole Trail Pipeline and others
	Targa	Grand Prix extension	Southern Oklahoma	Kingfisher County, Okla., Bluestem	P	110	24	Planning	2021		—
	Williams Cos.	Bluestem NGL	Overland Pass Pipeline	Grand Prix NGL	G	188	16	Planning	2020		—
	Oneok	Elk Creek	Bakken shale	Kansas	P	900	20	Under constr.	2019		Roughly follows Bakken Pipeline's route. 240,000 b/d of NGL
	Magellan Midstream Partners LP, Navigator Energy Services	Voyager Pipeline	Cushing, Okla.	Houston, Tx.	C	500	20 or 24	Planning	2020		Open season extended April 2019
	EagleClaw Midstream	Delaware Link	Delaware basin	Waha hub	G	40	30	Planning	—		Starts at gas processing sites in Reeves County, Tex. 1.2 bcfd.
	Concho, Frontier	Beta Crude Connector	Andrews, Martin, Midland counties, Texas	Transmission interconnects, local refineries	C	100	—	Under constr.	2019		Initial capacity of 150,000 b/d
	Cheniere Energy	Midship Pipeline	Kingfisher County, Okla.	Bennington, Okla.	G	199	36	Under constr.	2019		FERC approved August 2018. Permission to start building granted Feb. 2019.
	JupiterMLP LLC	Jupiter Pipeline	Permian basin	Brownsville, Tex.	C	650	36	Engineering	2020		Permian to Brownsville. Also building export terminal. Open season extended Feb. 2019 to May 31.
	Williams	Constitution	NE Pennsylvania	Interconnect in Schoharie County, NY	G	124	30	Engineering	2020		Granted 2-year extension to enter service by FERC, Nov. 2018. US appeals court said FERC can revisit March 2019.
	EQM Midstream Partners	Mountain Valley	Wetzel County, WV	Pittsylvania County, Va.	G	303	42	Under constr.	2019		Federal appeals court vacated Clean Water Act permit Oct. 2018. Two other waterway permits also suspended. Federal appeals courts upheld eminent domain and FERC approval February 2019.
	Dominion Energy, Duke Energy, Piedmont Natural Gas, Southern Gas	Atlantic Coast Pipeline	Benson, WV	Prospect, NC	G	599	20, 36, 42	Under constr.	2020		Dominion asked in Nov. 2018 that three water crossing permits be voluntarily suspended until any outstanding issues are resolved. 330 miles, 42-in.; 186 miles, 36-in.; an 83-mile, 20-in. lateral. Dominion suspended work Dec. 2018 due to court stay of environmental ruling. Hope to restart work Q3 2019.
	EPIC, Noble, Altus, Rattler	EPIC Crude Oil Pipeline	Permian basin	Corpus Christi	C	650	30	Under constr.	2020		Permian to Corpus Christi, Final US ACE permits issued Feb. 2019 for both this and NGL line.
	EPIC, Noble	EPIC Y Grade	DLK Black River Midstream	Corpus Christi	P	700	24	Under constr.	2019		Parallels EPIC Pipeline. Will ship crude over third phase from Benedum, Tex., to Corpus Christi until EPIC Crude Line starts.
	PennEast Pipeline Co. LLC	PennEast	Luzerne County, Pa.	NJ	G	116	36	Planning	2020		Plan to start construction in 2019 despite outstanding permits. March 2019 stay allowed surveying and testing to continue.
	TransCanada Corp.	Keystone XL	Keystone		C	1,179	36	Planning	2020		US State Dept. announced need for Supplemental EIS Nov. 30, 2018. Judge blocked preconstruction work Dec. 2018. DOJ appealed ruling Jan. 2019. NEB approved winter clearing work for north section Jan. 2019. Ruling upheld March 2019. Pres. Trump issued new permit April 2019.
	Sunoco Logistics Partners LP	Mariner East 2	Mariner		P	300	16, 20	Under constr.	2020		New plans announced Nov. 2018 would include existing 12-in. line as well. Pennsylvania DEP suspended review of permits Feb. 2019.
	Phillips 66, Andeavor	Gray Oak	Helena hub, Three Rivers terminal	Corpus Christi, Sweeny-Freeport, Tex.	C	900	30	Under constr.	2019		Helena hub and Three Rivers terminal to Corpus Christi, Sweeny/Freeport, and HSC.
	MDU Resources Group Inc.	North Bakken Expansion Project	Tioga, ND	McKenzie Contry, ND	G	67	20	Engineering	2021		Dependent on regulatory and environmental permitting and finalization of transportation agreements with customers, construction is expected to begin in early 2021 and be completed late that year.
	WhiteWater	Steady Eddy	Eddy County, NM	Culberson County, Tex.	G	25	24	Engineering	2019		—
	Williams	Bluebonnet Market Express	Waha	Katy, Tex.	G	—	—	Engineering	2020		2 bcfd
	Targa, NextEra, WhiteWater, MarkWest/MPLX	Whistler	Waha, Tex.	Agua Dulce hub	G	477	42, 30	Planning	2020		450 miles of 42-in. 27-mile 30-in. extension into Midland basin.
	Kinder Morgan	Texas Intrastate Crossover expansion	KM Tejas mainline	Freeport LNG Pipeline	G	40	—	Engineering	2019		Lateral