
GLOSSARY OF TECHNICAL TERMS

This glossary contains certain technical terms used in this prospectus in connection with our Group and businesses. Such terms and their meanings might not correspond to standard industry definitions or usage of those terms:

“ADU/VDU”	atmospheric crude distillation unit / vacuum distillation unit is usually used for the atmospheric crude distillation of crude oil, which is generally heated before being separated into distillates such as gasoline, kerosene, diesel and heavy diesel fuel by atmospheric distillation column
“anchor”	a metal anchor for fixing heat-insulating materials in place
“basic design”	a stage of the engineering phase that is mainly for confirming the technical principles and plans for the engineering phase. Basic design documents are mainly prepared to facilitate clients’ approvals and the development of the detailed design
“bracket”	a steel plate for supporting fire-resistant and heat-insulating materials
“butadiene”	a basic organic chemical material that is used for the production of synthetic rubber
“CCR”	continuous catalytic reforming, the process by which gasoline is distilled into base oil
“CMDI”	crude MDI
“convection coils”	heat transferring coils by convection
“CTP”	coal-to-propylene
“detailed design”	a stage of the engineering phase that is based on the basic design. Detailed design documents are mainly prepared to facilitate the procurement of general materials, manufacture of equipment, construction and operation of facilities
“DMTO”	Dalian methanol-to-olefins, a chemical technology that produces low carbon olefins using coal or natural gas-based synthetic methanol as raw materials
“EDC”	ethylene dichloride, a chemical compound chiefly used to produce polymers, primarily PVC
“EM”	an acronym for engineering management consulting, a business model whereby the project owners enter into separate agreements with the engineering company as well as an engineering management consulting company

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“EP”	an acronym for engineering and procurement, a business model widely adopted in the international energy industry
“EPC”	an acronym for engineering (E), procurement (P) and construction management (C), a business model widely adopted in the international energy industry, under which the EPC provider bears the cost for engineering, procurement and construction and E, P and C shall be construed accordingly
“E+PsCm”	an acronym for engineering, procurement service and construction management service, a business model widely adopted in the international energy industry, under which the E+PsCm provider bears the cost for engineering but does not bear the cost for procurement or construction
“ethylene”	a basic organic chemical material that is mainly obtained through high temperature cracking of ethane and naphtha. Ethylene can be used in the production of resins and various intermediates of organic chemical products, including epoxy, ethane, glycol, chloroethylene, styrene, acetaldehyde and ethanol
“ethylene cracking furnace” or “cracking furnace”	a furnace in which hydrocarbons are heated and cracked into such products as ethylene and propylene and which is composed of convection coils and radiant coils
“ethylene downstream products”/“downstream products”	various products that are made of ethylene
“EVA”	ethylene vinyl acetate, a chemical compound used in the production of polyvinyl alcohol and synthetic fibers
“facilities”/ “production facilities”	the equipment and facilities in relation to the production of petrochemicals and coal-based chemicals, including oil refining complexes
“FCC”	fluid catalytic cracking, a major conversion process adopted in secondary processing of petroleum to convert heavy hydrocarbon fraction into gasoline, diesel and other valuable products
“FDPE”	full-density polyethylene, the main raw material of ethylene
“fixed price contract”	a contract between the overall contractor and its client at a fixed contract value whereby the overall contractor is responsible for the overall cost control and could profit from any fixed contract price in excess of the actual overall costs of a project

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“guide plate”	a steel plate that has a guiding function
“initial start-up”	with respect to the commissioning of an ethylene cracking furnace, the first time a new or reconstructed ethylene cracking furnace commences production
“insulating materials”	refractory and adiabatic materials used in refractory lining
“ISO”	the International Organization for Standardization, an international agency for standardization comprising national standard bodies of a number of countries
“ISO 9001”	a series of international standards on quality management and assurance developed and published by ISO Technical Committee 176 in 1987 and subsequently revised in 1994 and 2000
“kta”	kilo tons per annum
“LDPE”	low-density polyethylene, a plastic material that has been principally used to produce film and plastic products, medical devices, packaging materials for medicines and food as well as other products with hollow cavity
“LLDPE”	linear low-density polyethylene, a copolymer made of ethylene and a small amount of high quality alpha-olefin
“MDI”	methylene diphenyl diisocyanate, a compound that is mainly used in the manufacturing of soft polyurethane foam and elastic fibers. The products of MDI are extensively used in various aspects of the economy, such as aviation, aerospace, refrigeration and construction
“MMDI”	a standard abbreviation for “pure” MDI
“MNB”	mononitrobenzene
“MTBE”	methyl tert butyl ether, a compound commonly used as an anti-knock agent in unleaded petrol and also widely used in the chemical and biological industries
“MTO”	methanol-to-olefins
“MTP”	methanol-to-propylene
“Mtpa”	million tons per annum
“PC”	an acronym for procurement and construction, a business model widely adopted by the international energy industry

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“PET”	polyethylene terephthalate, a thermoplastic polymer resin of the polyester family, which is principally used in the production of synthetic fiber
“petrochemicals”	chemical products derived from petroleum
“plate guard”	a steel plate for protecting the materials in the inner lining
“PM”	an acronym for procurement management consulting, a business model whereby the project owners procure raw materials and equipment directly while engaging a procurement management consultant for consulting services
“PMC”	an acronym for project management contracting, whereby a contractor or consultant is appointed to assist the client in supervising a project, managing project schedules and quality, and coordinating the work of other contractors in the project, without the risks of cost overruns that could affect EPC contractors
“polyethylene”	a derivative petrochemical produced through polymerization of ethylene. Polyethylene can be applied in producing different plastic products like films, pipes and containers
“polypropylene”	a derivative petrochemical produced through the polymerization of propylene. Polypropylene can be applied in, for example, producing house wares, automobile parts and fibers
“production efficiency”	a major indicator for economic benefits of production operation
“PTA”	purified terephthalic acid, one of the major organic raw materials and is widely used in various industries, including chemical fiber, light industry, electronics and construction
“PVA”	polyvinyl alcohol, a kind of resin in solid form. Vinyl acetate is polymerized to form polyvinyl acetate that further reacts with methanol to turn into polyvinyl alcohol with the effect of alkali. Polyvinyl alcohol can be used in processing of textile and paper, production of adhesion agents, films and like products, pharmaceuticals, emulsification stabilizers and soil enhancing chemicals
“PVB”	polyvinyl butyral, a resin usually used for applications that require strong binding, optical clarity, adhesion to many surfaces, toughness and flexibility
“PVC”	polyvinyl chloride, a type of synthetic resin that can be used in the production of films, plates, man-made grass, pipes, sections and protective layer of wires

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“radiant coils”	heat transferring coils by radiant
“recovery system”	a system that can collect reusable materials after certain chemical processes
“renovation”	the advanced technology or process applied in modifying present systems and equipment, with the aim of increasing production capacity while reducing consumption of materials and energy
“SBS”	styrene-butadiene-styrene thermoplastic elastomers, the most common synthetic rubber. It has similar performances to natural rubber in respect of physical structure, manufacturing process and usage of products
“SSBR”	solution polymerization styrene-butadiene rubber, a compound widely used in the production of high performance tires, such as environment-friendly tires and anti-skid tires
“styrene”	a basic organic chemical material made from ethylene and benzene. Styrene can be used in producing PVC, SSBR, SBS, ABS resins and other chemical products
“synthetic fiber”	a type of chemical fiber obtained through chemical synthesis and which is used in the textile industry
“synthetic resins”	a type of petrochemical product, including polyethylene, polypropylene, polystyrene, PVC and ABS resins
“synthetic rubber”	a type of petrochemical product, including maleic rubber, SSBR, chloroprene rubber, acrylonitrile-butadiene rubber, ethylene-propylene rubber, butyl rubber and other rubbers
“t/h”	tons per hour
“ton”	metric ton, equivalent to 1,000 kilograms
“total solution”	a solution that includes full services, including the preparation of a project implementation plan, seeking client’s approval of the implementation plan, design, procurement, construction, on-site management to commissioning, and other after-project services like maintenance, upgrading and technology support
“VAC”	vinyl acetate, a colorless, transparent and inflammable liquid that has the smell of vinegar and is made by catalytic oxidation of ethylene, oxygen and acetic acid. In Asian countries like China, it is mainly used in producing polyvinyl alcohol for further production of vinylon

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“VCM”	vinyl chloride monomer, a substantially linear polymer (polyethylene), with significant numbers of short branches, commonly made by copolymerization of ethylene with longer-chain olefins
“venturi pipe”	a pipe that passes through the venturi structure. It can ensure that the flow of materials in the pipe is maintained at a critical level, in order to ensure a constant flow
“WMTO”	Wison methanol-to-olefins, one of our proprietary technologies
“yield”	the target product percentage of total products produced in a production process
“YoY”	year on year