

Market Survey Transportation and logistics services

Technical Description

The ITER Organization is an intergovernmental organization that was created by an international agreement signed in 2006, and formally established on 24 October 2007 after its ratification by all Parties. The Parties to the ITER Agreement (the ITER Members) are the People's Republic of China; the European Atomic Energy Community (Euratom); the Republic of India; Japan; the Republic of Korea; the Russian Federation; and the United States of America.

The purpose of the ITER Organization is to provide for and promote cooperation among its Members for the benefit of the ITER Project, an international collaboration to demonstrate the scientific and technological feasibility of fusion energy for peaceful purposes. It acts as the overall integrator of the project and nuclear operator of the ITER facility.

Market Survey description:

The Fourth Party Logistics Provider, known as 4PL in the industry partner will be responsible for all of the supply chain management, for assessing, designing, building, running, and measuring solutions for the ITER Organization and the Domestic Agencies (DAs). On behalf of the client, the single partner controls and manages the supply chain by overseeing the combination of warehouses, shipping companies, freight, and preservation of the components and issuing of the components to Construction Site on demand.



Supply chain integration





4PL activities overview

Skills of a 4PL to be provided:

- 1. Transports/ Logistics (Inbound & Outbound) shall have the following skills:
 - a. Advanced Logistics data management (e.g. Planning Transportation)
 - i. Gathering of the input data from the Domestic Agencies and IO-TROs for IN-CASH Procurement to provide the transportation forecast and the needed storage space inside the different storage zones
 - ii. For the forecasting and data population the SMARTPLANT Materials system is to be used
 - b. A global/international Network or partner network at least in US, EU, India, China, Japan, Russia and Korea
 - c. The network shall have the capability to manage:
 - i. Sea freight (e.g. Bulk, Container, Conventional and Heavy Haulage Vessel liners)
 - ii. Airfreight
 - iii. Consolidation
 - iv. Heavy-Haulage transports
 - d. Customs clearance (e.g. Export- / Import-Customs Clearance) by using Form3 templates for tax exemption
 - e. Know-how of managing a highly regulated project logistics (e.g. export control, nuclear safety requirements)



- f. Managing third party surveyors along the supply chain for PIC (protected important components) components inclusive Transportation Quality Plan, Shipping Plan of load and a Method of Statement for each shipment
- g. Ensuring traceability of the components from the source of pick-up over warehousing till issuing to Construction Site
- h. Organization and performance of the Heavy Components transports from FOS-Sur-Mer to the ITER Site
 - i. Alignment & Managing with the stakeholders for heavy exceptional loads (HELs)
 - 1. Gendarmerie
 - 2. Axima
 - 3. Vinci Motorway management
 - 4. AIF (Agence ITER France)
 - 5. EUROFOS, Darse sud (Arcelormittal terminal) and Darse 3 of Fos Port
 - 6. Staging areas for the intermediate storage of the HELs of Lyondell Basell
 - 7. The barging company of CFT for the barge transfers of FOS PORT to BERRE

2. Warehousing of the materials and components On-Site and Off-Site of ITER

At ITER, we will provide the following warehouses to be managed by the 4PL:

Storage Area	Storage Level	Total Space (Gross Surface Area) m ²	Temperature Control	Humidity Control (%)
Zone 1 warehouse	Level B	1200	5 °C to 60 °C	None
Zone 1 Open Yard	Level D	4800	None	None
Zone 2 Cell A (North)	Level A	3000	5°C - 28 °C	10% - 70% RH (*)
Zone 2 Cell B (South)	Level A	6000	5°C - 28 °C	0% - 70% RH (*)
Zone 2 Open Yard	Level D	3700	None	None
Zone 3.1 Warehouse	Level B	800	5 °C to 60 °C	None
Zone 3.2 Warehouse	Level C	800	None	None
Area 73 Open Yard	Level D	1440	None	None
B73.1 Warehouse (west)	Level B	1650	5 °C to 60 °C	None
B73.1 workshop (East)	Level A	750	15 °C to 29 °C (**)	30% - 60% (**)
B73.3	Level B	2500	5 °C to 60 °C	None
PSL Warehouse	Level B	30000	5 °C to 60 °C	None
B55.2	Level B	1800	5 °C to 60 °C	None
A3.2	Level C	400	None	None
Area 85	Level D	6000	None	None
Zone 2.1 Warehouse	Level B	2850	5 °C to 60 °C	None
Zone 2.1 Outside Cantilevers	Level D	900	None	None
Zone 2.1 Open Yard	Level D	3500	None	None
TOTAL	1	72 090		

ITER Organization will provide beside the facilities as well the handling equipment (e.g. forklifts, cranes and other handling equipment) and the dedicated ERP System Software (e.g. SMARTPLANT Materials) to do the correct inventory management at the different warehouses.



Skills to be provided by the 4PL, beside the human resources and trucks for the deliveries:

- a. Inbound Activities
 - i. Managing of the access to ITER Site of the arrivals of the shipments
 - ii. unloading, incoming inspection and after passing it -> storing of the materials inside the warehouses with the support of mobile scan for the goods receipt receptions and the necessary material transfers inside the warehouses
 - iii. Inventory Management of the stored materials and components (approximate 1.5 Million items) inside the different warehouses as well as the rolling inventory,

Hazardous materials storage in off-site dedicated warehouses to be sourced by 4PL close to the ITER site

- iv. Preservation Activities according input by IO-TRO/ manufacturer done via mobile companion, an add-on to SMARTPLANT Materials (tablets). Needed equipment for the preservation activities is been also provided by ITER;
- v. Additional handling equipment and transport vehicles (e.g. truck cranes) to be provided by 4PL
- b. Outbound Activities
 - Picking and preparation of the materials inside the warehouses, re-packing, loading onto the trucks, issuance to the Construction Site according the progress of the Construction Schedule
 - ii. Picking up of the surplus materials from the Construction Site back to the warehouse for return to inventory, warehousing and preservation of those materials
 - iii. Following the scrapping process at ITER for dunnage when required
- c. Onsite-Logistics-Activities
 - i. Managing the heavy component movements by SPMT on Site between the heavy haulage storage areas, workshops and point of usage
 - ii. Providing with Logistics Engineering for the different movements supported by CAD software
 - iii. Managing any other materials movements on Site
- d. Health, Security and Safety
 - i. Ensuring of the operations, safety and health activities of the 4PL and their Sub-Contractors according [ITER_D_43UJN7 – ITER Policy on Safety, Security and Environment Protection Management] and [ITER_D_YSU3VK - ITER Site Golden Rules of Safety Enforcement Rules]