

October 31 2021  
Ref.: 276219

To: All Tender Participants

Dear Sir / Madam,

**Re: Tender No. 049-21 (the "Tender") – Revised Specification & Notice Regarding Submission Deadline #3**

1. Please find attached a **Revised Specification** (which includes all answers to questions submitted to Energy Infrastructures Ltd. (the "Company")).
2. Accordingly, the Company has decided to extend the Submission Deadline to Wednesday, November 17, 2021 (the "**Extended Deadline**").
3. Thank you for your continued interest in the Tender; we look forward to receiving your bids.

Sincerely,

*Talmor*

Talmor Sela

Procurement and Engagements Department





תשתיות נפט ואנרגיה בע"מ  
קו מוצרי דלק בע"מ

**PETROLEUM & ENERGY INFRASTRUCTURE LTD.**

**SPECIFICATION FOR BASKET FILTER & AIR  
ELIMINATOR**

**SPEC. No. \_\_\_\_\_**

**PEI PROJECT No. 2533**

PEI – Engineering Division

October 2021

P1	27.10.2021	FOR BID	N.Z.	C.S	
P0	04.08.2020	FOR BID	N.Z.	C.S	
REV.	DATE	ISSUE	PREPARED	APPROVED	CLIENT APP'D



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## **ATTACHMENTS**

- A. BASKET FILTER DATA SHEET
  
- B. BILL OF QUANTITIES

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## 1. GENERAL

This document covers the technical requirements for manufacturing, assembly, testing, supply and delivery of basket filter fitted with air eliminator device. The filter shall be operating in Petroleum & Energy Infrastructure LTD. at EHSEL TERMINAL and PRMS.

The filter shall handle commercial diesel fuel described hereafter:

## 2. DEVIATIONS AND EXCLUSIONS

The Supplier shall identify any requirement for which he is unable to comply and shall list all deviations and exclusions to all requirements in question Unless deviations / exclusions are specifically identified by the Supplier in the bid proposal and agreed by the Client, the Supplier shall be deemed to have confirmed full compliance with all listed requirements.

## 3. DIESEL FUEL PROPERTIES

Density 150 C	0.842
Kinematics viscosity (CP)	5

## 4. SITE CONDITIONS

- 4.1 The filter shall be installed outdoor.
- 4.2 Site approximate is about 0-200 m' above sea level.
- 4.3 Ambient temperature varies between 0°C- 45°C.
- 4.4 Relative humidity varies between 15% - 90%.
- 4.5 Rainfall around 200-400 mm' / year.
- 4.6 Dusty environment

## 5. TECHNICAL REQUEST

- 5.1 The filter is to meet the duty and material requirements of the data sheet



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5.2 Flange connections are to be according to ANSI B16.5 150# RF, in standard, non – offset horizontal nozzle position.

5.3 Inlet and outlet nozzles size – 6"-10" as per bidder calculations.

5.4 Max Differential pressure on clean Basket – 200 mbar

5.5 Basket: reinforced heavy gauge 316 stainless steel constructions with perforation 40 mesh (420 mu).

5.6 Threaded connection is to be according to NPT.

5.7 Filter casing to be designed to the latest editions of ASME code, Section VIII, Div. 1 for the rate design condition.

5.8 filter will be installed with 0.5" NPT connections for a DPT system (differential pressure transmitter).

5.9 Strainer is to be offered with quick opening cover (BLIND FLANGE) with eye bolted, lifting davit and O-Ring seal.

5.10 Strainer is to be offered with drain 2" .The strainer shall be fitted with self-supporting legs.

5.11 The max length between the offset horizontal nozzles and the bottom legs will be 1100 mm'.

5.12 Cover to be provided with an air eliminator device.

5.13 Ultrasonic RT tests will be performed as required for welds.

5.14 Painting:

- Surface preparation – sa 2.5
- Primer - Zinc rich epoxy 70 micron thick SSPC. Primer will contain over 80% zinc by weight of the dry film.
- Intermediate - tolerant epoxy mastic surface thick at 150 microns minimum, two layers as needed.
- Upper - polyurethane oval white 80 micron thick single layer or two separate layers of 40 microns each Ready Made. Hue of upper layers will be white matte, reflective level of about 84%



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- Total dry thickness – at least 300 microns.  
Manufacture shall provide his detailed painting procedures to pei (with proposal).

## 6. FLANGE (Class Range):

The filter shall have flanged ends.  
Inlet and Outlet connection ends shall be according to 6"-10" ANSI B16.5 150# RF (See paragraph 5.3)  
Drain end shall be 2" ANSI 150#, RF.  
Vent Connection - AIR ELIMINATOR be according to ½" NPT plugged 3000#  
Pressure Transmitter be according to ½"NPT plugged. 3000#

## 7. MATERIALS:

Filter shell Body: CS, A 216 Gr. WCB.  
Corr.' Allow: 3 mm.  
Basket: S.S 316  
Gasket Material: FLEXITALLIC  
ID plate: Stainless steel.

## 8. PROCESS DATA:

### 8.1 ITEM

Max Flow-rate: 500 m3/h @ 45m'.  
Temperature operating: varies between 0°C- 50°C.  
Design Temperature: 65 °C.  
Design pressure: 20 bar.  
Max Allowable Pressure drop: 200 mbar

### 8.2 ITEM:

Max Flow-rate: 350 m3/h @ 45m'.  
Temperature operating: varies between 0°C- 50°C  
Design Temperature: 65 °C.  
Design pressure: 20 bar.



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Max Allowable Pressure drop: 200 mbar

## 9. DIMENTION:

9.1 ITEM (500 m3/h). See paragraph 5.3.

Nozzles	Flange	Size	Rating
Inlet	RF	6" -10" (See paragraph 5.3)	150#
Outlet	RF	6"-10" (See paragraph 5.3)	150#
Drain	RF	2"	150#
DPT	NPT	1/2"	3000#
Air eliminator unite.	NPT	1/2"	3000#

9.2 ITEM (350 m3/h) :



Nozzles	Flange	Size	Rating
Inlet	RF	12"	150#
Outlet	RF	12"	150#
Drain	RF	2"	150#
DPT	NPT	1/2"	3000#
Air eliminator unite.	NPT	1/2"	3000#

## 10. GENERAL TERMS:

In order to evaluate the tender's quotation, the following information must be given:

- 10.1 Filter drawings.
- 10.2 Accessories drawings.



  <p>תשתיות נפט ואנרגיה בע"מ קו מוצרי דלק בע"מ</p>	<b>SPECIFICATION FOR BASKET FILTER &amp; AIR ELIMINATOR</b>			
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- 10.3 List of recommended spare parts (for 2 years) with pricing.
- 10.4 Delivery date.
- 10.5 List of Israeli suppliers including contact address.
- 10.6 Price for the offer.
- 10.7 The price should include the packing and preparation for seaworthy shipment and delivery CIF ASHDOD Port.

## 11. GUARANTEE:

Product warranty for 18 months from the date of installation. Any defect due to faulty design, materials or bad workmanship become apparent during the warranty period, a vendor shall repair or otherwise rectify the defects, and free of charge to purchaser. Changes shall be made at a time and a manner agreeable to the client.



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# ATTACHMENT A

## BASKET FILTER DATA SHEET

# SPECIFICATION FOR BASKET FILTER & AIR ELIMINATOR

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BARAN Project Number		Client Project Number	Document No.		Revision				
1-033-001		2533	BAR-ESM-SPC-002 SHIT.1		P1				
SERVICE <b>diesel fuel Inlet Filters</b>						ITEM	FLT (350 m <sup>3</sup> /h)		
DIAMETER (*) mm						QTY	3		
HEIGHT or LENGTH (*) mm						PLANT UNIT	EHSEL		
INSTALLATION		SERVICE TYPE		Basket		P&ID			
<b>GAS OR LIQUID</b>				<b>SKETCH</b>					
FLUID		diesel fuel							
FLOWRATE		m <sup>3</sup> /h						350	
DESIGN TEMP.		°C						65	
DESIGN PRESS.		bar(g)						20	
BRIX									
DENSITY		kg/m <sup>3</sup>						842	
VISCOSITY		Cp						5	
FLUID HAZARD									
FILTRATION TYPE									
<b>SOLID TO BE FILTERED</b>									
SOLID		CS, SAND							
FLOWRATE		kg/h		N/A					
DENSITY		kg/m <sup>3</sup>							
PARTICLE SIZE		420		mu					
PARTICLE SIZE DISTRIBUTION				mu		%			
				mu		%			
				mu		%			
				mu		%			
				mu		%			
<b>OPERATING DATA</b>									
DP CLEANED / DIRTY		mbar		200		/			
TOTAL EFF. REQ'D / ACTUAL		%		99		/			
				mu		%			
				mu		%			
				mu		%			
				mu		%			
				mu		%			
<b>CONSTRUCTION DATA OF ONE FILTER</b>									
FILTER MEDIA		TYPE		Basket		AREA (*) m <sup>2</sup>			
		MATERIAL		316 SS		GASKETS			
PACKING		TYPE				HEIGHT (*) mm			
		MATERIAL							
DESIGN PRESS / HYDRO TEST		bar(g)		COND. 1		COND. 2			
DESIGN TEMP.		°C		COND. 1		COND. 2			
BODY MATERIAL		CARBON STEEL				F.V. REQUIRED			
NOZZLES GASKETS		FLEXITALLIC				F.V. TEMP			
						CORR. ALLOW. 3 mm			
						INSULATION NO			
<b>NOZZLES</b>									
POS.	N.	SERVICE	SIZE	RATING	FLANGE	FINISHING	NOTES		
P1	1	INLET	12"	150#	WNRF				
P2	1	OUTLET	12"	150#	WNRF				
P3	1	DRAIN	2"	150#	WNRF		(*)		
P4	1	VENT	1/2"				(*)		
<b>NOTES</b>									
(*)To be specified by vendor.									

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1-033-001	2533	BAR-ESM-SPC-002 SHIT.2		P1			
SERVICE <b>diesel fuel Inlet Filters</b>		ITEM		FLT(500 m3/			
DIAMETER (*)	mm	QTY		5			
HEIGHT or LENGTH (*)	mm	PLANT UNIT		EHSEL/PRMS			
INSTALLATION		SERVICE TYPE		Basket P&ID			
<b>GAS OR LIQUID</b>				<b>SKETCH</b>			
FLUID	diesel fuel						
FLOWRATE	m3/h	500					
DESIGN TEMP.	°C	65					
DESIGN PRESS.	bar(g)	20					
BRIX							
DENSITY	kg/m <sup>3</sup>	842					
VISCOSITY	Cp	5					
FLUID HAZARD							
FILTRATION TYPE							
<b>SOLID TO BE FILTERED</b>							
SOLID	CS, SAND						
FLOWRATE	kg/h	N/A					
DENSITY	kg/m <sup>3</sup>						
PARTICLE SIZE	420	mu					
PARTICLE SIZE DISTRIBUTION		mu	%				
		mu	%				
		mu	%				
		mu	%				
		mu	%				
<b>OPERATING DATA</b>							
DP CLEANED / DIRTY	mbar	200	/				
TOTAL EFF. REQ'D / ACTUAL	%	99	/				
PARTIAL SEPARATION EFFICIENCY		mu	%				
		mu	%				
		mu	%				
		mu	%				
		mu	%				
<b>CONSTRUCTION DATA OF ONE FILTER</b>							
FILTER MEDIA	TYPE	Basket		AREA (*)	m <sup>2</sup>		
	MATERIAL	316 SS		GASKETS	FLEXITALLIC		
PACKING	TYPE			HEIGHT (*)	mm		
	MATERIAL						
DESIGN PRESS / HYDRO TES	bar(g)	COND. 1	COND. 2	F.V. REQUIRED			
DESIGN TEMP.	°C	COND. 1	COND. 2	F.V. TEMP			
BODY MATERIAL	CARBON STEEL			CORR. ALLOW.	3	mm	
NOZZLES GASKETS	FLEXITALLIC			INSULATION	NO		
<b>NOZZLES</b>							
POS.	N.	SERVICE	SIZE	RATING	FLANGE	FINISHING	NOTES
P1	1	INLET	6"-10"	150#	WN/RF		(*)
P2	1	OUTLET	6"-10"	150#	WN/RF		(*)
P3	1	DRAIN	2"	150#	WN/RF		(*)
P4	1	VENT	1/2"				(*)
<b>NOTES</b>							
(*)To be specified by vendor.							

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# ATTACHMENT B

## BILL OF QUANTITIES



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tem	Tag	Type	Size	Location	Qty	Unit price	Total
BASKET FILTER & AIR ELIMINATOR		FLT-(500 m3/h) :			5		
BASKET FILTER & AIR ELIMINATOR		FLT-(350 m3/h) :			3		