

## 1.- REGASIFICATION PLANTS

ENAGAS GTS can vary the destination plant of the vessels affected by this maintenances, with the least impact and as early as possible. Maintenance or restrictions involving pipelines or plants located in the same area of influence won't simultaneously be programmed. Programming is discarded for long-term activities that limit the capabilities of emission or discharge of vessels during the winter period (November 1st to March 31st). The maintenance dates that prevent the loading/unloading, or significantly limit the emission capacity of the Plant, must be viable in the previous monthly schedule. The user term refers indistinctly to the shipper, the direct customer in the market or the final customer. The condition of affection to users will be reviewed each month in the monthly update of this document.

### BILBAO PLANT – BBG

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
25th March to 9th April	BBE stop for seawater system maintenance	16 days. Exclusive regasification by submerged combustion vaporizer. Maximum production 200.000 Nm3/h	To be evaluated in monthly program	1908
May	High voltage system revision	7 days of duration with a maximum theoretical production of 600.000 Nm3/h	NO	1909
May	6 kV transfer improving	1 day of 8 to 10 hours during which tests will be carried out that may lead to plant shutdowns.	NO	1910
4th quarter (October)	Annual preventive review of the relicuador	4 hours. The specific date will depend on the production needs of the plant and its condition. Theoretical maximum production of 400.000 Nm3/h	NO	1911

**BILBAO PLANT – BBG**

<b>TENTATIVE DATE</b>	<b>MAINTENANCE</b>	<b>PERIOD/LIMITATION</b>	<b>USERS AFFECTION</b>	<b>REF NUM</b>
Throughout the year, depending on ship dates and meteorology	Preventive maintenance of unloading arms	Without send out restrictions. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	NO	1912
Throughout the year, depending on the dates of recharges and meteorology	Preventive maintenance of boil-off compressors	Without send out restrictions. CIIt will be coordinated to prioritize loading or unloading scheduled operations of vessels.	NO	1913
Throughout the year, depending on the dates of recharges and meteorology	Preventive maintenance of the LNG trucks loading bay	Without send out restrictions. Coordination of these activities is necessary to prioritize the LNG trucks operations.	NO	1914

**SAGUNTO PLANT – SAGGAS**

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
25th February	Preventive maintenance of the 41K01 main delivery compressor	10 days without operation of the equipment	To be evaluated in monthly program	1915
2nd quarter	Unloading arms revision	2 weeks. Limited discharge to 8.000 m3/h	NO	1916
3rd quarter	Cleaning of catchment pool	2 days. Maximum emission 400.000 Nm3/h from 8:00 a.m. - 5:30 p.m. and 3 weeks maximum 750.000 Nm3/h	NO	1917
3rd quarter	Periodic Tests ESD Matrix	1 day. Plant emission restricted to the use of the compressor for shipment to the transport network (from 8:00 a.m. to 5:30 p.m.)	NO	1918

**MUGARDOS PLANT – REGANOSA**

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
January	Arms maintenance at LNG trucks loading dock	1 day LNG trucks loading stop from 5:00 a.m. to 1:30p.m. During this time one of the two bays will stand inoperative.	NO	1919
March	Arms maintenance at LNG trucks loading dock	1 day LNG trucks loading stop from 5:00 a.m. to 1:30p.m. During this time one of the two bays will stand inoperative.	NO	1920
March	Scales Inspection at LNG trucks loading facilities	1 day LNG trucks loading stop from 5:00 a.m. to 1:30p.m. During this time one of the two bays sill stand inoperative.	NO	1921
May	Arms maintenance at LNG trucks loading dock (annual)	1 day LNG trucks loading stop from 5:00 a.m. to 1:30p.m. During this time one of the two bays will stand inoperative.	NO	1922
July	Arms maintenance at LNG trucks loading dock	1 day LNG trucks loading stop from 5:00 a.m. to 1:30p.m. During this time one of the two bays sill stand inoperative.	NO	1923
From 5th to 9th August	Revision of the seawater system Safety Loop Testing Maintenance of power supply line	5 days. Whitout send out 12 hours/day. 2 days with loading LNG trucks interruption 12 hours/day	To be evaluated in monthly program	1924
September	Scales Calibration at LNG trucks loading facilities	1 day LNG trucks loading stop from 5:00 a.m. to 3:00 p.m. During this time the two bays will stand inoperative.	NO	1925

**MUGARDOS PLANT – REGANOSA**

<b>TENTATIVE DATE</b>	<b>MAINTENANCE</b>	<b>PERIOD/LIMITATION</b>	<b>USERS AFFECTION</b>	<b>REF NUM</b>
September	Arms maintenance at LNG trucks loading dock	1 day LNG trucks loading stop from 5:00 a.m. to 3:00 p.m. During this time the two bays will stand inoperative.	NO	1926
November	Arms maintenance at LNG trucks loading dock	1 day LNG trucks loading stop from 5:00 a.m. to 3:00 p.m. During this time the two bays sill stand inoperative.	NO	1927

### BARCELONA PLANT – ENAGAS

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
5th April	LNG trucks laoding facilities chromatograph sample disassembly	3 days: No LNG trucks loading	YES	1883
6th April	MUS BOG A263 installation	5 days: without vessels operations at berth A-263. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	NO	1597
April	Substitution of pressure control valves from plant outlet to R72.	6 days: Max. send out 1.500.000Nm3/h	NO	1781
April	Hot tap relicuador entry, new sampling chromatographs	5 days: BOG management capacity (Vessels loading limitation)	NO	1884
April	Flanges/pool collector 3 valves sanitised; north catchmen N°3 cleaning	21 days: Max. send out 1.050.000Nm3/h	NO	1928
Mayo	FIL 2501 A seawater filters assembly	40 days: Max. send out 1.800.000Nm3/h	NO	1929
Mayo	FIL 2501 A seawater filters assembly	15 days: Max. send out 1.500.000Nm3/h	NO	1930
September	Nº2 drawer catchment cleaning	15 days: Max send out 1.800.000Nm3/h	NO	1931
To be defined	Fender change and FMC A-263 new frame arms assembly	7 days: without vesels operations at berth A-263. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	NO	1932

**CARTAGENA PLANT – ENAGAS**

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
11th March	HIPPs valve installation in impulsion compressors export	5 days: Export compressors not available. Necessary send out to Step 1	NO	1933
April	Large scale dock: PX-221A and PX-222 unloading arms inspection and maintenance	28 days: without vessels operations at large berth. (14 days per arm. Can be done separately) It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	NO	1934
April	BO-GNL interconnections exchanger/Change LNG valves to PA-233A/B	5 days: without vessels operations. Max. send out: 450.000 Nm3/h. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	NO	1785
April	Small scale dock arms revision. Adequacy in front of berth 2 (APC maritime works)	60 days. No loading/unloading vesssels in small berth. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	NO	1935
2º quarter	Electrical panels revamping and emergency generator GE-201 installation	3 days: No loading or unloading vessels. Emission and LNG truckser loading stopped 6 hours. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	YES	1787

**CARTAGENA PLANT – ENAGAS**

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
September	Biennial legal verification of LNG trucks loading scales	2 days: Without loading LNG trucks at reserve dock from 8:00 a.m. to 5:00 p.m.	NO	1936
September	Seawater vaporizer collector sections replacement and repairs. Phase 1 collector A	12 days: Max. send out 1.200.000 Nm3/h.	NO	1783
3rd quarter	Loop 3: Extension and adaptation of the Rotork actuator control loop system.	2 days: Whithout loading/unloading of vessels at both berths. Affection to send out pending to be assessed. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.operations.	NO	1937
2nd August	GB-223 maintenance	30 days: Limitation in recovery BO. Maximum production 15.000 Nm3/h	NO	1938
October	LNG trucks docks: install new shut-off valves (XV) in each of the loaders.	3 days: Without loading LNG trucks at reserve dock from 8:00 a.m. to 5:00 p.m.	NO	1784



**HUELVA PLANT – ENAGAS**

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
31st May	B LNG trucks dock LNG block change	3 days: Without LNG trucks loading	YES	1795
2º quarter	Dismantling of phase I equipment and internal change MOV-8604	5 days: Without vessel unloading. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	NO	1792
2º quarter	Phase II equipment dismantling	5 days: No vessel unloading. It will be coordinated to prioritize the scheduled loading or unloading operations of vessels.	NO	1867
2º quarter	Phase IV equipment dismantling	5 days: No vessel unloading. It will be coordinated to prioritize loading or unloading scheduled operations of vessels.	NO	1791
21st September	Bunkering interconnections	10 days: No vessel unloading. It will be coordinated to prioritize loading or unloading scheduled operations of vessels	NO	1794
3rd quarter	Phase III equipment dismantling	5 days: Max. send out 900.000 Nm3/h	NO	1939
3rd quarter	Phase V equipment dismantling	5 days: Max send out 450.000 Nm3/h	NO	1941

## 2.- TRANSPORT: PIPELINES

### 2.1. Desviations – Direct Insertions

Definitive dates as well as possible restrictions for delivery grids will be noticed before each monthly operation plan. In all cases it exists the gas pipeline or branch affection and it can be estimated a duration between 1 and 6 days in each intervention.

The affection to the specified production resources is inevitable because they have to adapt their emission to the demand in the intercepted section. Generally, operations that impose significant restrictions on transport during the winter period (1st November to 31st March) are not viable.

Maintenance or operations that involve restrictions on gas pipelines or entry points in the same influence area are no combined. The user term refers indistinctly to the shipper, the direct customer in the market or the final customer. The condition of affection to users will be reviewed each month in the monthly update of this document.

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
To be defined	Deviation in branch to Murcia between positions 15.28 and 15.28.01	5 days. It involves cutting the pipeline between positions 15.28 and 15.28.1.	NO	1838
To be defined	Deviation at RAB-00 Montmeló - Rio Besós	5 days. Affection to be determined	NO	1978
November	APA 6" branch 14.863 m. construction (Arakil – P.I. de Lekumberri)	5 days. Affection to be determined	NO	1979
4th quarter	Deviation at Padesa branch, Tortosa and Amposta	5 days. Affection to be determined	NO	1980
To be defined	RAB-F00 C1 45 bar DN 8"; Huelva-Ayamonte pipeline.	5 days. Affection to be determined	NO	1870

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
4th quarter	Huesca - Barbastro Pipeline - Monzón (Pos. A3.1 - A3.1A) Deviation	5 days. It involves cutting the pipeline between positions A31 y A31A	NO	1943
4th quarter	Castellón Branch (Pos. 15.09A y 15.09A1) and duplex (Pos. 15.09A - 15.09A3) deviation	5 days. It involves cutting the pipeline between positions 15.09A, 15.09A1 y 15.09A3	NO	1944
4th quarter	Torrelavega-Camargo Pipeline deviation (Pos. D07.3 - D07.4)	5 days. It involves cutting the pipeline between positions D07.03 and D07.04	NO	1945
4th quarter	Santurze - Zierbana pipeline deviation (Pos 45.04D - 45.05D):	5 days. It involves cutting the pipeline between positions 45.04D y 45.05D	NO	1946

## 2.2. New Connections

Definitive dates as well as possible restrictions for delivery grids will be noticed before each monthly operation plan. In all cases it exists the gas pipeline or branch affection and it can be estimated a duration between 1 and 6 days in each intervention.

The affection to the specified production resources is inevitable because they have to adapt their emission to the demand in the intercepted section. Tentative dates are indicated. In the case of load taps, the welding works of accessories and drill may require determined gas velocity and pressure conditions, which may cause restrictions in the gas flow and, therefore, in the transport in this area.

Maintenance or operations that involve restrictions on gas pipelines or entry points in the same influence area are no combined. The user term refers indistinctly to the shipper, the direct customer in the market or the final customer. The condition of affection to users will be reviewed each month in the monthly update of this document.

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
4th quarter	New position T-08A Arroyomolinos in the Semianillo 20" Southwest of Madrid	Duration: 5 days: Limitation to the capacity of transport in the semianillo of Madrid by isolation of the section.	NO	1484



### 2.3. Compression Stations

Definitive dates will be noticed before each monthly operation plan. In the compression facilities its necessary to carry out the maintenance and verification labors of the turbocompressors. These tasks are normally performed on the reserve units implying the unavailability of themselves, but without impact over the EC operation.

Maintenance or operations that involve restrictions on gas pipelines or entry points in the same influence area are no combined. The user term refers indistinctly to the shipper, the direct customer in the market or the final customer. The condition of affection to users will be reviewed each month in the monthly update of this document.

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
There are no scheduled operations in EECC with capacity impact.				

## 2.4. Inspections in service

Definitive dates will be noticed before each monthly operation plan. In all cases there could be impact on entrypoints and/or transport because they have to adapt the speed of gas to the inspection needs. The definitive speeds are function of the deliveries and real pressures of the system.

Maintenance or operations that involve restrictions on gas pipelines or entry points in the same influence area are no combined. The user term refers indistinctly to the shippers, the direct customer in the market or the final customer. The condition of affection to users will be reviewed each month in the monthly update of this document.

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
14th January	Torrijos-Talavera 10": ILI Inspection	5 days: Optimal speed 1 - 3m/s	NO	1947
21st January	Pontevedra - Amoeiro 10": ILI Inspection	5 days: Optimal speed 1 - 3m/s	NO	1948
January/February	Zaragoza - Calatayud 10": ILI Inspection	5 days: Optimal speed 1 - 3m/s	NO	1981
6th May	Lumbier-Villar by Arnedo 26": ILI Inspection	5 days: Optimal speed 1 - 3m/s . Flow conditions between 250.000 and 100.000 Nm3/h. 12 hours/day	To be evaluated in monthly program	1952
9th September	Haro - Villamayor 26": ILI Inspection	5 days: Optimal speed 1 - 3m/s	NO	1953
14th October	Bermeo - Lemona 16": ILI Inspection	5 days: Optimum speed 1 - 3m/s. Necessary injection in AS Gaviota	NO	1957
30th September	Córdoba - Martos 16": ILI Inspection	5 days: Optimal speed 1 - 3m/s	NO	1955
7th October	Algete - Alpedrete 16": ILI Inspection	5 days: Optimal speed 1 - 3m/s	NO	1956

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
16th September	Burgos - Villapresente 16": ILI Inspection - Prior Cleaning Campaign and ILI	12 days: Optimal speed 1 - 3m/s. Possible need to rebalance Oviedo's distribution network in coordination with the distributor.	NO	1954
4th November	Llanera - Villapresente 12": ILI Inspection - Pre-cleaning Campaign and ILI Inspection	12 days: Optimal speed 1 - 3m/s. Possible need to rebalance Oviedo's distribution network in coordination with the distributor.	NO	1951
18th February	Aranda - Soria 12": ILI Inspection	5 days: Optimal speed 1 - 3m/s	NO	1949
25th February	Zarza de Tajo-Cuenca 12": ILI Inspection	12 days: Optimal speed 1 - 3m/s	NO	1950

### 3.- UNDERGROUND STORAGES

In the case of AASS, it is necessary to carry out the pressure and temperature logging processes at the bottom of wells, as well as tests of the safety system and downhole valves, operations that imply unavailability for approximately 1 day.

Definitive dates will be noticed before each monthly operation plan. Maintenance or operations that involve restrictions on gas pipelines or entry points in the same influence area are no combined. The user term refers indistinctly to the shippers, the direct customer in the market or the final customer. The condition of affection to users will be reviewed each month in the monthly update of this document.

#### A.S. GAVIOTA

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
1st June	Treatment Plant: Overhaul cold compressor GF-2A	60 days: Unavailability Withdrawn	NO	1820
March	Offshore Platform: Leak Tests Bottom Valves and Wellheads	2 days: Total unavailability Injection/Withdrawn. At the end of the withdrawn campaign.	NO	1958
May	Offshore Platform: Xmas Tree fittings change and lubrication campaign	14 days: Unavailability Injection and Withdrawn	To be evaluated in monthly program	1959
September	Offshore platform: Wireline G-6 installation antireturn bottom and change Xmas Tree G-10	7 days: Total unavailability Injection/Withdrawn	To be evaluated in monthly program	1960
October	Offshore Platform: Leak Tests Bottom Valves and Wellheads	2 days: Total unavailability Injection/Withdrawn. At the end of the injection campaign.	NO	1961



**A.S. SERRABLO**

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
15th March	Aurin Wells: Retrievable Wireline Bottom Valve Change	5 days: Total unavailability Aurin Injection	To be evaluated in monthly program	1822
March	Aurin Wells and Jaca Wells: Leak Tests Bottom Valves and Well Heads	5 days: Partial unavailability Injection/Withdrawn. At the end of the extraction campaign	NO	1962
1st July	Aurín Wells: Modification Flowlines Well S-3 and Well S-5	16 days: Total unavailability Aurin Injection. Reduction of injection capacity by 14 GWh/d	To be evaluated in monthly program	1963
1st September	Jaca Wells: Substitution Choke Production J-2	5 days: Unavailability of withdrawn 21 Gwh/day	NO	1964
October	Aurin Wells and Jaca Wells: Leak Tests Bottom Valves and Well Heads	5 days: Partial unavailability Injection/Withdrawn. At the end of the injection campaign.	NO	1965
5th November	Jaca Wells: Installation Skid Seals Turbocompressor Well J-17	5 days: Injection unavailability 14 GWh/day	NO	1966

**A.S. YELA**

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
12th March	Electrical Substation Discharge	3 days: Unavailability Total Injection	NO	1970

**A.S. MARISMAS**

<b>TENTATIVE DATE</b>	<b>MAINTENANCE</b>	<b>PERIOD/LIMITATION</b>	<b>USERS AFFECTION</b>	<b>REF NUM</b>
April	Half-yearly	1 month. AS 100% unavailable.	YES	1967
October	Half-yearly	1 month. AS 100% unavailable.	YES	1968
30th April	Workover works in the wells.	Authorization has been requested from MITECO (pending). Until the conclusion of the workover work restrictions in the withdrawn/injection capacity (modification of the steps).	To be evaluated in monthly program	1969

**4.- INTERNATIONAL CONNECTIONS AND FIELDS**

**C. I. TARIFA**

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
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There are no scheduled operations with impact on the daily capacity of this connection. Several interventions on reserve equipment are planned on the EMPL side.

**C. I. MEDGAZ**

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
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2nd half of September	Maintenance of the vent system at the compression station and manual valves at the receiving station.	Transport interruption a maximum of 48 hours. Could affect 3 days of gas.	YES	1971
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**C.I. LARRAU** (For operations on the French side see the adjacent operator's website: [www.terega.fr](http://www.terega.fr))

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
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See Inspections in service nº Ref 1952

**C.I. IRUN** (For operations on the French side see the adjacent operator's website: [www.terega.fr](http://www.terega.fr))

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
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There are no scheduled operations with impact on the daily capacity of this connection.

### C.C.I.I. BADAJOZ Y TUY (For operations on the Portuguese side see the adjacent operator's website: [www.ren.pt](http://www.ren.pt))

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
There are no scheduled operations affecting the daily capacity of this connection.				

### YACIMIENTO VIURA

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
24th February	Testing and certification trscsssv,xmas tree, hipps and bdv's	5 days. No emission	YES	1972
15th June	Annual plant maintenance and inspections/legal reviews	15 days. No emission	YES	1973
1st December	Annual plant maintenance and inspections/legal reviews	15 days. No emission	YES	1974

### YACIMIENTO POSEIDON

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
There are no scheduled operations affecting the daily capacity of this field.				

### BIOMETANO VALDEMINGOMEZ

TENTATIVE DATE	MAINTENANCE	PERIOD/LIMITATION	USERS AFFECTION	REF NUM
From 18th to 24th February	Preventive	7 days. 100% unavailable	YES	1975
From 10th to 16th June	Preventive	7 days. 100% unavailable	YES	1976
From 16th to 27th September	Preventive	12 days. 100% unavailable	YES	1977