

SAUDI ARABIAN OIL COMPANY (Saudi Aramco)

GENERAL INSTRUCTION MANUAL

ISSUING ORG. FINANCIAL ACCOUNTING DEPARTMENT

SUBJECT MAINTAIN POTENTIAL MASTER APPROPRIATIONS

GI NUMBER **APPROVED**
20.720

ISSUE DATE 03/05/2017 REPLACES 07/18/2009

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CONTENT:

This instruction defines the scope of Maintain Potential Master Appropriations capital Expenditure Requests and describes the procedures for releasing funds, and controlling and reporting expenditures. The text includes the following.

1. Definitions
 2. Scope
 3. Releases
 4. Internal Controls
 5. Expenditure Estimates
 6. Reporting of Plant and Equipment
 7. Related Instructions
- Schedule A – Items to be Included
Schedule B – Items to be Excluded

1.0 DEFINITIONS:

- 1.1 Maintain Potential Master Appropriations** are Master Appropriations which through approved releases authorize incremental well-defined scopes of work which are routine and repetitive in nature. The purpose of Maintain Potential Master Appropriations is to fund and install new onshore and offshore Maintain Potential facilities to sustain crude oil and gas production from onshore and offshore fields covering all required facilities between the well and processing facilities to support production targets and Maximum Sustainable Capability (MSC). Maintain Potential Master Appropriations authorize the purchase of equipment and work to be performed where the full scope cannot be defined at the time that the Expenditure Request (ER) is approved. The approved ER provides authorization to incur expenditures and make commitments for projects within the scope described in the ER. As a practical matter, the scope of the Master Appropriation should be sufficiently defined to allow preparation of lists of intended equipment purchases and general specifications, i.e., types and locations, of work to be accomplished. The guidelines for preparation, submission and approval of Maintain Potential ERs are detailed in GI 20.500: *Expenditure Requests* and in the Facilities Planning Department's (FPD) Guidelines for ER Preparation.

Maintain Potential Master Appropriations fall into two categories:

- 1.1.1 Onshore Maintain Potential** Master Appropriations provide onshore facilities required to sustain crude oil and gas production from onshore fields.
- 1.1.2 Offshore Maintain Potential** Master Appropriations provide offshore facilities required to sustain crude oil and gas production from offshore fields.
- 1.2 Execution Period** is the authorized period in which equipment can be purchased and work performed against the appropriation. The execution period or Master Appropriation duration shall be defined in the ER brief based on the scope to be executed. The actual life of the Master Appropriation may extend beyond the typical execution period via Project Change Request (PCR) until all expenditures against authorized releases are complete. Execution period extensions require prior approval and are contingent on satisfying release and internal control guidelines.
- 1.3 Expenditure Request Release** henceforth referred to as a release, is the official mechanism that authorizes and funds well-defined scope of work against the approved ER. The Production & Facilities Development Department (P&FDD), henceforth referred to as the proponent, has the responsibility for initiating and processing an ER

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release defining the equipment to be purchased, the work to be performed, or both, utilizing ER Form 56 in accordance with GI 20.500: *Expenditure Requests*.

- 1.4 Release Period** is the period in which funds are authorized for release to purchase equipment or to perform work as defined in the Master Appropriation ER. The release period for all Maintain Potential Master Appropriations is defined in the approved ER. Releases must be processed and approved prior to the expiration of the release period specified in the ER. A release period extension for an open master is allowed only through an ER Redefinition and must be processed and approved prior to the release period expiration date.
- 1.5 Minimum Capital Value** is \$20,000 for individual items or pieces of equipment as per Accounting Manual guidelines governing capital vs. expense. Delivery, installation and commissioning costs directly attributable to an individual item or piece of equipment are also capitalized as part and parcel of the \$20,000 minimum capital cost. Exceptions and additional clarifications of capital vs. expense guidelines are covered under general provisions in the Capital Assets, Sections 300 – 310, of the Accounting Manual.
- 1.6 Scope and Scope Revisions:** Scope includes the purpose, schedule, design, defined work, materials and equipment (including type and quantity), location, commitments or expenditures associated with an engineered project. Scope revisions represent changes to any portion of a project scope.
- 1.7 Cost Estimate Request (CER):** The CER is a high-level scope definition document that further defines and includes all required scope elements for a specific field-related proposed scope to be constructed under Maintain Potential, and will be the cost baseline on which the required funds will be requested.
- 1.8 Geographical Areas:** For onshore facilities only, Maintain Potential scope items within Saudi Aramco's oil and gas fields will be identified in the Budget Item Summary Information (BISI) by field, per type (oil, gas, water injection and evaluation), and divided within three major geographical areas, Southern Area, Northern Area and Non-Associated Gas Area.

2.0 SCOPE:

The authorized scope of work involves routine and repetitive work to tie-in, hook-up, transport, measure, control and monitor reservoir fluids between the well heads, remote headers, manifolds and platforms, and processing facilities. All scope items should be inclusive of associated engineering, materials procurement and construction, and are subject to accounting provisions governing capital versus expense. While it is understood that the scope of the Master Appropriation ER may not be completely defined at the time of ER approval, the scope of individual releases against the approved master should be firmly defined upon release approval. As much as possible, the scope of a Budget Item (BI) will be limited to the planned quantities by field, per type, and within an area as specified in the BISI. However, due to the dynamics of the drilling activities, scope changes will be measured per type, irrespective of the field, within each area. If the scope in one field, per type, is exceeded, as long as the total approved quantity within the area is not exceeded, the scope will be treated as "in-scope". In such case, the release request shall clearly specify the scope deviation. Any scope that exceeds the total approved quantity within one area, per type, shall be considered "out of scope". Oil, water, gas and evaluation wells cannot be interchanged within one field.

As with other Master Appropriation ERs, Maintain Potential Master Appropriation funds cannot be re-directed to perform scope of other active ERs. Utilizing Maintain Potential Master Appropriation's funds to complement a scope under an approved stand-alone ER is not permitted. The scope of Maintain Potential Master Appropriations follows the development drilling program and may deviate accordingly within the guidelines of this general instruction. Changing technologies,

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geographical uncertainties, market influences and changes in operating requirements may necessitate exceptions. This is subject to the prior review and approval from the Capital Programs Division (CPD) of the Financial Accounting Department (FAD). Scope additions (new work) to releases beyond the ER release period are not permitted. However, onshore releases can be supplemented from the same BI up to the original ERC date.

Schedules "A" and "B" of this instruction provide guidelines for activities that are generally approved for inclusion as well as items to be generally excluded from the scope of Maintain Potential Master Appropriations. The guidelines highlight current major items and are not intended to be all inclusive. Questions pertaining to specific rulings of referenced items, as well as the inclusion of items not referenced within this General Instruction, should be directed to CPD.

3.0 RELEASES:

P&FDD is responsible for initiating a release to authorize expenditures and commence work once the Master Appropriation ER has been approved and the individual release scope has been adequately defined and accompanied by an ER-quality $\pm 10\%$ cost estimate broken down by major scope elements including engineering, materials and construction. Releases should represent a total project package supported by a well-defined, cohesive scope of work and contain all the elements necessary to complete the intended project. Where practical, the requirement for a well-defined scope of work can be accomplished through the use of pre-established standard detailed design information.

Changes in production requirements, drilling schedules and well locations directly impact Maintain Potential releases. As a result, proper definition and timing of releases is essential to ensure funds are available on time to initiate and complete adequately defined work while avoiding unnecessary on-stream date extensions, subsequent actions and write-offs. Releases involving the relocation and/or substitution of funded wells within the same area, by type, will be allowed within the guidelines of this General Instruction. Maintain Potential facilities relocations and substitutions between different areas are not allowed. In addition, cost and scope changes which exceed 10% of the original release amount or \$100 million, whichever is less, are subject to internal control guidelines outlined in GI 20.500: *Expenditure Requests*.

Maintain Potential releases should adhere to the following guidelines.

- All releases are subject to the review and endorsement of CPD for completeness of information, adherence to the intended scope and this General Guidelines, availability of funds, approval authority limits as defined in Section 4 of the Management Guide in the Approval Authority engine, and proper accounting treatment of capital versus expense. Releases should fall within the scope of the approved ER, or include a statement, justification and estimated cost for all requested out of scope work. Out-of-scope items are subject to the review and endorsement from CPD. CPD may request FPD's independent review and advice regarding any release.
- A release should not be processed which would result in an overrun to approved ER funding.
- Releases must take place within the release period stated in the ER brief. No release can be authorized prior to the effective date or after the release expiration date as stated in the ER brief, except for advance engineering.
- Initial releases are to be used to fund engineering design, survey and to lease Project Management Team's (PMT) temporary construction camps and site offices. The initial engineering funds shall only cover the scope of the Master Appropriation since it is routine and repetitive in nature to generate Company's estimates.
- Releases for well sites should be supported by defined well locations. Coordinates can be used to identify well locations to expedite the issuance of the release. Nearby wells and their associated facilities within the same field and/or producing area may be grouped in one release where economic and operationally advantageous, so long as internal controls and accountability of the approved work scope are maintained and subject to CPD approval.

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- Releases of funds for a specific project scope of work within the Master Appropriation ER may not be split in order to keep releases within the approval authority delegated to a certain position. Likewise, packaging of unrelated individual items of less than \$20,000 value to qualify for minimum capital value requirement is not allowed. Similarly, field-wide implementation of unrelated items, whose functionality is independent to each other, costing less than \$20,000 are not allowed.
- The requirement of FPD endorsement of the business case and the Project Management Office Department (PMOD) ER-quality $\pm 10\%$ cost estimate shall be in accordance with Section 4 of the Management Guide; Part III, Item E: *Budgets & Appropriations - Remarks*, Paragraph 4.0. Details of both capital and expense requirements, if applicable, are required.
- Releases related to replacement or upgrade of existing equipment or other facilities shall include the old asset number. Approval authority for abandonment costs is required prior to submitting the release.

All releases should also include the following information as it is designed in the ER workflow system through SAP transaction (ZP0400). Also, refer to GI 20.500: *Expenditure Requests*.

- **Title:**
 - The title should match with the approved 56D. The release action type should match the required action. For example, any scope change where supplement is also required, the title should be Redefinition & Supplement (the same concept should be applied for Redefinition & Partial Cancellation); otherwise, if no scope change is required or proposed, the action should be Supplement or Partial Cancellation. Refer to Paragraph 4.3.
- **Present Situation:**
 - Construction status, if a Redefinition, Redefinition & Supplement or a Supplement release.
 - Well name, type (gas, oil, water or evaluation).
 - Planned wells per drilling schedule.
- **Proposal:**
 - Form 56D showing engineering, material and construction costs. If a subsequent action release, the Form 56D must show the project's total cost, not only the scope change or the supplement cost.
 - Where applicable, expensed amount should be reflected in the release and in the Form 56D as expense.
 - Proposed scope items that comply with these instructions, but not included in the approved ER must be classified as addition to scope.
 - Detailed scope description must be clearly indicated in the release, including quantities, when applicable.
 - The ER release scope should match the CER scope objective. Refer to Paragraph 5.2.
 - Engineering funds amount required for the proposed scope.
 - Scope deviations (addition or deletions) must be indicated when the proposed scope deviates from the approved ER, by field, per type, within an area. Refer to Paragraph 2.0.
- **Justification:**

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- Justification for the funds request must be provided.
- For subsequent action releases, the justification for the action must be provided.

○ **Alternatives:**

- Different options explored, i.e., the use of non-metallic material for trunklines or flowlines; N/A, If not applicable.
- Different options explored for power supply, i.e., solar, wind, etc.; N/A, If not applicable.

○ **Sensitivity / Risks:**

- Any risk associated with the scope must be indicated, i.e. loss of production risk, etc.; N/A, If not applicable.

○ **Environmental Impact:**

- Environmental risk must be indicated; N/A, If not applicable.

○ **Completion Date:**

- Month/Year.

3.1 Advance Engineering Funds Releases: Advance engineering funds for long-lead engineering scope items which are sufficiently identified and planned to be funded and executed in the next year's ER may be included in the current year's ER to start early engineering work in order to meet planned completion dates. The proposed scope to be included for advance engineering funds shall meet the requirements of these General Instructions, cannot be re-directed to perform any procurement or construction activities and will be subject to the following rules:

- a) The scope to be included for advance engineering is subject to CPD's approval.
- b) The initial engineering release (first release for engineering) shall not include scope that was authorized and included in the advance engineering funds release, and vice versa. The proposed eligible scope for which the advance engineering funds will be requested shall be listed in the current year's ER package. Advance engineering funds for additional long-lead engineering scope (after current year's ERA) can also be requested.
- c) The advance engineering funds shall be requested through individual release(s) for a specific eligible scope. The Work Breakdown Structure (WBS) of the individual advance engineering fund release will collect the cost of engineering, and in order to maintain control of the total cost and the scope the following funding mechanisms will be available:
 - i. Upon approval of the full funding release from the next year's ER, the early engineering costs shall be transferred from the current year ER's engineering release WBS account to the next year ER's full funding release WBS account. Once the transfer of advance engineering costs to the next year's ER is completed, the individual advance engineering funds release under the current year's ER will be cancelled, regardless whether the advance engineering activities were completed or not. This action would require a Cancellation Previous release.

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- ii. The proponent may also elect not to cancel the advance engineering funds release and supplement it with the procurement and construction activities, for full funding. This way, both the original advance engineering release under the current year's ER and the full funding release under the next year's ER will be referenced to each other in the SAP in order to capture the project's overall costs. Current year's ER will remain open until the related release(s) from the next year's ER is closed. This action would require a Supplement Previous release.
- iii. Should the early engineering work be completed prior to next year's ER full funding, the proponent may elect to advance full funding that was planned under the next year's ER to be executed under the current year's ER to commence the project's scope earlier. This action would be considered as an addition to scope, and a Redefinition & Supplement Current release would be required.
- d) The advance engineering funds, if required, shall be limited to the following types of scopes to support new wells:

For Onshore

- Gas gathering manifolds upgrade/modifications
- New or modification of remote headers
- Overhead power lines requiring extensive engineering, i.e. Electrical Transient Analysis Program (ETAP), etc.

For Offshore

- Backbones, i.e. trunklines, pipelines, Supervisory Control and Data Acquisition (SCADA) and power
- Auxiliary platforms
- Flexible risers
- Slipover platform installation or brownfield upgrade

3.2 Timing of Releases: The issuance of the CER for funds release shall take place as early as possible to provide sufficient time to execute the project by the required On-stream date. Special attention should be given to early releases of funds for wells, and especially for gas wells, due to the uncertainty of well yield and significantly higher well tie-in costs. Where justified, such as a specific need to accelerate the tie-in process to support higher than planned production requirements and MSC, CPD will support advanced release of Maintain Potential funds within the following guidelines:

- An execution schedule has been prepared by PMT.
- A site survey has been conducted to determine the approximate length of the required flowlines and/or trunklines.
- The scope includes all elements of work or is based on a design package including model or standard drawings.
- Confirmation that a land use permit (LUP) will be obtained before or after the release, if required.

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4.0 INTERNAL CONTROLS:

Effective internal controls are essential to ensure capital projects are executed in the most economic and effective manner. They provide proper governance and ensure Saudi Aramco realizes the full benefit of its capital investment program. The purpose of Master Appropriation internal controls are to monitor and report scope and cost changes against approved Master Appropriation ERs. They also ensure that release approval authorities are aware of proposed scope and cost changes and that significant changes receive appropriate Management Committee review and Board or EXCOM approval, as required.

4.1 On-Stream Date Revisions: PCRs cannot be used to revise the scope of Master Appropriations or extend the ER authorized release period. PCRs, their purpose and use are explained in detail in GI 20.520: *Project Change Requests*. Refer to GI 20.520 for on-stream date extensions. When requesting on-stream date extension for Maintain Potential Master Appropriations, PCRs should include all releases with forecast completion date after the Master Appropriation's approved ERC date, with the reasons for the delay and the new forecast completion date for each release.

4.2 Cost and Scope Revisions: Refer to GI 20.500: *Expenditure Requests*, and Section 4 of the Management Guide for specific information regarding the following actions:

- Overruns and Supplements
- Underruns and Cancellations
- Redefinitions

4.3 ER Action Types: ERs subsequent to the initial ER approval for the release level or the whole ER level should be identified by one of the following action types as appropriate to the case.

1) Release Level (To be selected in the SAP System for releases)

- a) New
- b) Supplement Current
- c) Cancellation Current
- d) Partial Cancellation Current
- e) Redefinition Current
- f) Redefinition and Supplement Current
- g) Redefinition and Partial Cancellation Current
- h) Supplement Previous
- i) Cancellation Previous
- j) Partial Cancellation Previous
- k) Redefinition Previous
- l) Redefinition and Supplement Previous
- m) Redefinition and Partial Cancellation Previous

2) ER Level (Applicable for Master Appropriation ER Subsequent Action)

- a) Supplement ER-xxxxx: ER Title (Typical)
- b) Cancellation ER-xxxxx:
- c) Partial Cancellation ER-xxxxx:
- d) Redefinition ER-xxxxx:
- e) Redefinition and Supplement ER-xxxxx:
- f) Redefinition and Partial Cancellation ER-xxxxx:

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5.0 EXPENDITURE ESTIMATES:

- 5.1 The ER-quality $\pm 10\%$ cost estimate should include all expenditures associated with the scope of work proposed in the ER. The cost estimate for ER Redefinition & Supplemental or ER Supplement releases should capture not only the additional costs, but the total revised cost of the scope of work. A sample Saudi Aramco Cost Estimate Form 56D is presented in Supplement 20.500-2. PMOD should be consulted for guidelines concerning preparation and review of ER-quality $\pm 10\%$ cost estimates.
- 5.2 Both the release request and the CER should reflect the same scope of work to be executed. However, in case a single CER is utilized for several releases, the scope to be included in the cost estimate should be clearly indicated in the release.

6.0 REPORTING OF PLANT AND EQUIPMENT:

An ER will include information pertaining to existing plant and/or equipment items to be used or retired to complete a proposed project. Plant Transfers, may either be moved to another location or so used in the proposed work that they will not be available for their original service. The movement of previously capitalized assets to other locations will be recorded by preparing form SA-630. Section 307 of the Accounting Manual and the Accounting Instruction Manual (AIM) 206 describe rules to be followed in recording transfers of plant and equipment. Specific rulings on capital vs. expense should be obtained from CPD, if required, per the Accounting Manual, Section 310.

7.0 RELATED INSTRUCTIONS:

General Instructions and other procedures providing additional information relevant to this G. I. are listed below for convenient reference.

Other General Instructions

GI 20.031 – *Capital Program and Budget*
GI 20.500 – *Expenditure Requests*
GI 20.520 – *Project Change Requests*
GI 20.620 – *Miscellaneous Projects and Purchases Mater Appropriations (BI-19)*
GI 21.201 – *Approval Authority*

Saudi Aramco Manuals

Management Guide, Section 4 – Approval Authority
Facilities Planning Department's Guidelines for Expenditure Request Preparation
Accounting Manual, Capital Assets, Sections 300 – 310
AIM 206 – *Form SA-630 – Capital Assets Change Authorization*

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SCHEDULE A – ITEMS TO BE INCLUDED

Included Scope Items:

The listing of generally included scope items provided by this instruction is not intended to be all inclusive. As a result of evolving technologies and changing industry standards, this will be periodically reviewed and revised as required. The scope of Maintain Potential Master Appropriation's releases does not require extensive engineering work; hence, the development of the Design Basis Scoping Paper (DBSP) and the Project Proposal (PP) requirements prior to full funding are not required. Scope items to be included in the ER package must meet the guidelines provided in this instruction. All scope items should be inclusive of associated engineering, materials procurement and construction and subject to accounting provisions governing capital versus expense. The minimum capital value for individual items or pieces of equipment is \$20,000, as per Accounting Manual guidelines governing capital vs. expense.

- 1.0 Well site preparation (including landfill as necessary), fencing and equipment required to secure and tie-in new wells. Fencing generally pertains to wells and drilling islands and excludes SSD type-I security fencing. Well site equipment generally pertains to equipment located within the well site fencing, including flare pit equipment. Fencing scope for future wells, costing more than \$4 million, for fields with potential encroachment risks, which have been clearly identified and supported by a drilling development plan and the Land Affairs Department's recommendations is included.
- 2.0 Installation of piping, flowlines, flanks, trunklines, jump-overs, chokes, valves, headers and manifolds, including Permanent Downhole Monitoring System (PDHMS), High-Integrated Pressure Protection System (HIPPS), Smart Well Completion (SWC), production boosting equipment (i.e. multi-phase pumps), Wellhead Compressors (WHC), velocity spools (Jet Pumps), flow meters in general (including multi-phase flow meters - MPFM, Venturi flow meters, Coriolis flow meters, orifice flow meters, etc.), in-line separator, surface gas lift valve, Supervisory Control and Data Acquisition (SCADA) system, Remote Terminal Unit (RTU), Emergency Shutdown system (ESD) and any required in-line or off-line devices/items to tie-in new wells to processing facilities. Specialized, non-routine and non-repetitive work for facilities and trunklines associated with the development of new fields or increments, must be funded by a stand-alone or the associated field development BI. On a case-by-case basis, increment scope facing difficulties to meet the increment's targets due to unforeseen obstacles may be considered.
- 3.0 Equipment or items required to restore the production of dead wells, including civil work, flowlines, valves, fencing, Cathodic Protection systems, PDHMS, surface panels, drain pits, production boosting equipment and Electric Submersible Pumps (ESP). Equipment or items to be included to restore dead wells must comply with the guidelines provided in these instructions.
- 4.0 Replacement of existing deteriorated piping, flowlines, trunklines, laterals, looping pipelines, injection headers, swing lines, transfer lines, flanks, headers and manifolds related to Maintain Potential facilities that are required to sustain the production of existing wells. Replacements will be applied to single deteriorated lines and shall not cover overall field replacement. Piece-mealing replacement scopes will not be allowed. Replacements must be recommended and supported by a Consulting Services Department's (CSD) official report, and concurred by FPD as the most adequate funding mechanism versus stand-alone BIs or other source of funds. Any single replacement spanning more than 100 kilometer or field-wide replacements must be funded by a stand-alone BI.
- 5.0 Upgrade or replacement of existing equipment that are deteriorated, obsolete or impacted by changes in well conditions or critical well data, and that are required to increase or sustain the production of existing wells. The upgrade or replacement of such items must be supported by proper documentation.
- 6.0 New piping, facilities and equipment for water injection and water supply, as well as upgrades or expansions to water injection systems, to support new wells and/or to sustain production. Releases related to water injection and water supply scope involving major upgrades of piping or pipelines, headers and manifolds may require the review

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of FPD for potential impact to systems and facilities. Water disposal lines from existing plants or Gas-Oil Separation Plants (GOSP) to be utilized for water injection to support new wells are included. Water injection scope for increments must be included and funded with the increment's BI.

- 7.0 Installation of new platforms, production deck modules (PDM) and drilling support structures (DSS), for new wells. PDMs associated with increments must be funded by stand-alone BI. DSSs associated with increments to advance drilling activities are included, with the exception of DSSs required for tie-in platforms associated with increments.
- 8.0 Modification of platform and deck to accommodate additional wells and associated facilities. Slipover and tie-in platforms (TP) installations or brownfield upgrade for existing single platform (not field-wide upgrade) to sustain production. Slipover platform installation or brownfield platform upgrades must be endorsed by CSD as a critical scope item that may jeopardize production, and concurred by FPD as the most adequate alternative and funding mechanism versus stand-alone BIs or other source of funds. The proposed scope must not include maintenance or wellhead (BI-60) activities or extensive pipeline replacement scope. For pipeline replacement scope refer to Item 4.0 above.
- 9.0 New gas injection pipelines and laterals to transport gas from the remote header, manifold, gas plant or injection compression facility to the gas well site. The tie-in point to gas plant or injection compression facilities shall be outside of the facilities.
- 10.0 New chemical injection equipment required for wells at locations outside of processing facilities to sustain production.
- 11.0 Expansion and addition of production, injection and disposal manifolds to accommodate new wells.
- 12.0 Safety and security equipment and systems required as part of the scope of new well tie-ins including shelters in place if required by LPD. New installation at existing wells or replacement of safety and security items for existing well sites, whose item(s) become obsolete or non-operational and jeopardize production are included. In such cases, the proposed scope must be endorsed by LPD. Field-wide replacement of safety devices for existing well sites must be funded by a stand-alone BI.
- 13.0 Initial procurement and installation of routine power supply and Cathodic Protection required for new Maintain Potential facilities, including new wells, platforms, flowlines, water injection and water supply lines, subsea cables, remote headers and gas gathering manifolds. Power supply or any modification required to restore production in dead wells is included. Power supply upgrade for existing wells or Maintain Potential facilities to support the tie-in of new wells or increased production is included. New installation or upgrades to power substations must be funded by a stand-alone BI.
- 14.0 Initial procurement and installation or upgrades (including software upgrade) of SCADA, PDHMS, RTU, ESD systems, ultra-high frequency (UHF) radio, in-line control devices or any surface equipment requirement for, or as a result of, new wells to increase production in existing wells, or to restore production from dead wells. Scope of work for communication and control systems and equipment should be limited to the communication and control of wells. New installation or major upgrade to Distributed Control System (DCS) or other in-plant control systems must be funded by a stand-alone BI.
- 15.0 Upgrade or replacement of control or measuring devices for existing flowlines or trunklines, which may be impacted by changes in well conditions or critical well data, or have become obsolete, and that are required to

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sustain the production of existing wells. The upgrade or replacement of such devices must be justified by a technical review report.

- 16.0 The purchase and installation of artificial lift such as ESPs and gas lift systems, along with associated piping, Variable Speed Drives (VSD) and Fixed Speed Drives (FSD) and associated routine power supply to initiate production in new wells and/or existing wells where justified as the most economical or effective means of artificial lift to restore or improve the productive capacity of the well(s). The implementation of new artificial lift systems for new fields, or field wide replacements of existing fields, shall require the additional review of FPD, and may require funding and implementation as a stand-alone BI. Generally, the purchase of ESPs should be funded under Maintain Potential with down-hole installation work to be performed under BI-60, and the top-side connection to well monitoring systems to be performed under Maintain Potential.

The procurement, repair, upgrade or replacement of ESPs is handled according to Company's budgeting and accounting policies regarding capital versus expense and as per authorized vendor supply and maintenance agreements. ESPs shall be capitalized and depreciated provided they meet the minimum capitalization threshold of \$20,000 per Accounting Manual, Section 300. For the purpose of fixed asset verification, the facilities' proponent is accountable for ESPs and form SA-630 should be used to inform Projects & Fixed Assets Accounting Division (P&FAAD) of changes in the status and location of capitalized ESPs.

- 17.0 Initial installation of flowline scraper launchers and receivers for new flowlines and piping, and their initial installation for existing flowlines and piping. Costs for the baseline instrument scraping survey, as required by SAES L-410, may be included with the scraping facilities.
- 18.0 Rerouting of well flowlines when required to accommodate new wells to sustain production.
- 19.0 Repair and replacement of existing piping and civil work required to accommodate the tie-in of new wells.
- 20.0 Gas Gathering Manifolds (GGM) and Offshore Gas Well Tie-in (OGWT) modifications, upgrades or expansions required as a result of new wells to sustain production capacity. Grassroots GGMs should be funded by a stand-alone BI.
- 21.0 Additional Maintain Potential in-scope items not part of the original ER or release complement, subject to this GI guidelines.
- 22.0 Limited, like-kind substitutions of equipment and other in-scope items within the same area (Southern Area, Northern Area and Non-Associated Gas Area for onshore) are subject to CPD review and approval. Like-kind substitution does not refer to replacement of equipment, but relocation of approved scope items within the same area.
- 23.0 Installation of new technology items for wells previously studied or trial tested and proven by the Company to be effective.

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SCHEDULE B – ITEMS TO BE EXCLUDED

Excluded Scope Items:

The listing of generally excluded scope items provided by this instruction is not intended to be all inclusive. Items not routine and repetitive in nature and which are not within the general intent and scope of the Maintain Potential Master Appropriations are to be excluded.

- 1.0 The replacement of expensed items or work to be performed under expense, such as routine repair, refurbishment, reconditioning or maintenance.
- 2.0 Items covered under pipeline rehabilitation and replacement BIs, or by nature of scope, quantity or cost represent a stand-alone BI or program, such as the field-wide implementation of major items.
- 3.0 Relocation, repair, replacement of added or stand-alone communication and control, SCADA, RTU, ESD for existing wells.
- 4.0 Civil, excavation and landfill work for increments, and drill sites not directly attributable to the routine tie-in of new wells.
- 5.0 Repair, replacement, upgrade or expansion of Cathodic Protection for existing wells and production facilities.
- 6.0 New or replacement of well heads to be performed under BI-60, Development Drilling.
- 7.0 An integral part of processing or other facilities including instrumentation, DCS and control systems, control rooms, major electrical systems and substations or their upgrade, utility and switching modifications or upgrades for plants and processing facilities not within the intent of Maintain Potential scope and normally carried out under Net Direct Expenditure (NDE), or as part of a separate BI or upgrade program.
- 8.0 Work for in-plant piping, GOSPs, or other processing facilities and equipment or their upgrades, and Items not directly associated with the tie-in of wells.
- 9.0 Mothballing or De-mothballing costs not directly associated or necessary to bring the project into operation; therefore, the cost should be charged to NDE. For details, refer to the Accounting Manual.
- 10.0 Operations' buildings or shelters, living or accommodation quarters, maintenance or utility buildings, paving, repair or replacement of roads. This excludes safety required shelters in-place as dictated by LPD, as referred in Attachment "A", Item 12.0.
- 11.0 In-plant compressor trains and shipping pumps.
- 12.0 The repair, refurbishment, or replacement of major equipment such as pumps and compressors.
- 13.0 Added or stand-alone fencing, safety and security equipment not directly associated with the tie-in of new wells must be funded as expense or a stand-alone BI. Refer to Schedule "A", Items 1.0 and 12.0, for certain exceptions applicable to security and safety, respectively.
- 14.0 New or unproven technology and study items to be funded under operating NDE.

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- 15.0 Scope items to complement scope of work funded and executed under another BI or any other source of funding.
- 16.0 Relocation or reroute of wash water and water disposal lines required for GOSPs' normal operations not related to the tie-in of new wells. Field-wide GOSPs' modifications related to this type of scope may require the additional review of FPD, and may also require funding and implementation as a stand-alone BI.
- 17.0 Onshore or offshore scope of work for oil, gas and water injection facilities associated with increment. See Schedule "A", Items 2.0 and 7.0 for certain exceptions applicable to increments.
- 18.0 Replacement of existing topside valves and well testing equipment.

Approved by:

M. F. Al-RUBAYA, Manager, Manager
Financial Accounting Department

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