

## عطاء رقم(T27/2020.21)

توريد وتركيب وتشغيل شبكات و محطات كهرباء ضغط متوسط لمبنى كلية العلوم الطبية - 3 و مبنى المختبرات و المشاغل

## Supply, Install, and Commission Medium Voltage Network & Substation for AMS-III and Labs Buildings

(AMS-III and Labs MV Network & S/S's)





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ج- الجزء الثالث:

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#### الجزء الأول (1)

تدعو الجامعة العربية الأمريكية الشركات المختصة الى المشاركة في العطاء المذكور أعلاه. يمكن الاستفسار أو الحصول على وثائق العطاء من دائرة اللوازم والمشتريات في الجامعة/ الدوائر الإدارية هاتف- 2418888 04- تحويلة 1486 فاكس 2510972 04 بريد الكترونيpnp@aaup.edu مقابل مبلغ غير مسترد مقداره (100) دولار امريكي تدفع في إحدى البنوك المعتمدة وذلك (حسب اعلان الصحف).

#### ملاحظات:

- 1. آخر موعد لتسليم العطاءات (حسب اعلان الصحف).
- 2. يجب تقديم كفالة دخول عطاء تعادل 5% من قيمة العطاء على شكل كفالة بنكية أو شيك بنكي مصدق لصالح الجامعة العربية الأمريكية .
- 3. الأسعار تشمل جميع الضرائب بما فيها ضريبة القيمة المضافة وعلى المورد تقديم الفواتير الضريبية وشهادة خصم المصدر.
  - 4. الجامعة غير ملزمة بأقل الأسعار وبدون إبداء الأسباب.
    - 5. رسوم الاعلان على من يرسو عليه العطاء.





### الشروط والتعليمات التنظيمية للعطاء

(2)

- 1. على جميع المشاركين في العطاء الالتزام التام بهذه الشروط والتعليمات، وهي تعتبر جزءاً لا يتجزأ من أي أمر شراء أو عقد يبرم مع المشارك الفائز ما لم ينص صراحة على خلاف ذلك في أمر الشراء أو العقد.
  - 2. في هذه الشروط والتعليمات يرمز إلى "الجامعة العربية الامريكية بالاختصار (AAUP).
- 3. يجب أن تكون الشركة المتقدمة للعطاء مسجلة رسمياً ومشتغلاً مرخصاً ومتخصصة في مجال شبكات الكهرباء المختلفة بما فيها شبكات الضغط المتوسط والمحولات.
  - 4. تقدم الأسعار بالشيكل شاملاً لجميع الضرائب بما في ذلك ضريبة القيمة المضافة (VAT).
- 5. يلتزم المشارك الفائز بتقديم شهادات خصم المصدر والفواتير الضريبية اللازمة وأية مستندات قانونية أخرى تغطى عملية الشراء.
- 6. يجب أن تشتمل الأسعار على جميع المصاريف المطلوبة من النقل والتركيب والتشغيل والفحص والكفالة في المواقع المحددة و حسب جدول المواصفات والكميات المرفق.
  - 7. يجب أن تكون الأسعار المقدمة سارية المفعول لمدة لا تقل عن (90) يوماً من تاريخ تقديم العرض.
- 8. على المشارك الفائز تقديم كفالة حسن تنفيذ خلال أسبوع من تاريخ الاتفاقية بحيث تعادل (10%) من قيمة الاتفاقية على شكل كفالة بنكية صادرة عن إحدى البنوك العاملة في فلسطين أو شيك مصدق صادر لصالح "الجامعة العربية الامريكية".
- 9. إذا تخلف المناقص الفائز عن تقديم كفالة حسن التنفيذ عن الموعد المحدد في البند السابق فإنه يحق لـ (AAUP) إلغاء الإحالة.
  - 10. على المشاركين في العطاء ارفاق كتالوجات عن المنتج.
- 11. يلتزم من يرسو عليه العطاء بدفع غرامة تأخير بواقع (0.001) من قيمة الاتفاقية لكل يوم تأخير عن الوقت المحدد في الاتفاقية، ويتم احتساب هذه الغرامات من الدفعات المستحقة له أو من كفالة حسن التنفيذ.





- 12. يحق لـ (AAUP) إلغاء العطاء دون إبداء الأسباب كما أن (AAUP) غير ملزمة بإحالة العطاء على أقل العروض سعراً دون إبداء الأسباب. ولها أن ترفض كل أو بعض العروض المقدمة لها دون أن يكون لأي من المشاركين الحق في الرجوع إليها بأي خسارة أو ضرر ناجم عن تقديم عرضه ولا يترتب على (AAUP) أي التزامات مادية أو غير مادية مقابل ذلك.
- 13. يلتزم من يرسو عليه العطاء بتقديم كفالة بنكية (صيانة) بقيمة (5%) من قيمة الأعمال المنجزة صالحة لمدة عام من تاريخ تسليم الأعمال.
- 14. على المشارك في العطاء تقديم عرضه على أساس المواصفات الفنية االمبينة في وثائق العطاء وبموجب الكميات المحددة في جدول الكميات المرفق.
- 15. لا يجوز للمشارك في العطاء أن يتنازل لأي طرف آخر عن كل أو جزء من أمر الشراء دون الحصول على إذن خطي من (AAUP) مع الاحتفاظ بكامل حقوق (AAUP) وفقاً لشروط أمر الشراء.
- 16. عند دراسة العروض يؤخذ بعين الاعتبار كفاءة المناقص من الناحيتين المالية والفنية وقدرته على الوفاء بالتزامات العطاء وخبرته في تقديم اللوازم المطلوبة والسمعة التجارية والتسهيلات التي يقدمها ويجوز استبعاد عرضه لنقص كل أو بعض هذه المتطلبات.
- 17. لا تقبل العروض أو التعديلات التي ترد بعد التاريخ والموعد المحدد كآخر موعد لتقديم العروض.
  - 18. يجب تعبئة جداول المواصفات المرفقة و لن ينظر بأي عرض لا يلتزم بتعبئة الجداول.
    - 19. يلتزم المتناقص الفائز بتقديم بوليصة تامين للعمال تغطي فترة العمل في المشروع.
      - 20. مدة العمل (60) يوم تقويمياً من تاريخ امر المباشرة للمشروع.
- 21. يجب ان تكون الشركة المتقدمة للعطاء مؤهلة فنيا لدى شركة كهرباء منطقة طوباس، والاشراف على العمل واستلامة سيتم بالشراكة ما بين الجامعة وشركة كهرباء طوباس و على أن يكون أي طلب اعتماد معتمداً و مختوماً من شركة كهرباء طوباس قبل تقديمه للجامعة.
  - 22. تقديم عرض الاسعار الفني والمالي بنسختين: الأولى ورقية، والأخرى الكترونية (محوسبة).





(3)

### طريقة الدفع

تقوم الجامعة AAUP بدفع مستحقات الشركة التي يرسو عليها ويتم التعاقد معها لإنجاز هذا العمل كما يلي:

- 1. يتم دفع ما نسبته 50% من قيمة العطاء عندما يتم توريد المواد جميعها الى الموقع ويتم استلامها من ممثل AAUP حسب الأصول
  - 2. المبلغ المتبقي عند التشغيل والتسليم وتقديم كفالة الصيانة وحسب الأصول
    - 3. جميع الدفعات تتم بعد تقديم الفواتير ومنها خصم المصدر
- 4. يتم الدفع خلال مدة أقصاها 90 يوم من اعتماد المطالبة والفاتورة من ممثل
   AAUP





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Supply, Install, and Commission Medium Voltage Network & Substation for AMS-III and Labs Buildings

(AMS-III and Labs MV Network & S/S's)

الجزء الثاني جدول الكميات والمواصفات

2020/2021



# Arab American University AMS-III and Labs MV Networks & S/S's

#### **Bill of Quantities**

| em  | Description   | Timir | 0        | U/ Price | Total        |
|-----|---|-------|----------|----------|--------------|
| lo. | Description   | Unit  | Quantity | n n      | <sub>D</sub> |
| 0.2 | Preliminaries   |       |          |          |              |
|     | All installation works must be according to technical specifications,                               |       |          |          |              |
|     | drawings, and engineer's instructions and must be approved, tested                                  |       |          | 1        |              |
|     | and certified by local electricity distributer company (TEDCO) and                                  |       |          |          |              |
|     | all related local authorities. Price shall include the following:                                   |       |          |          |              |
|     | 1- All equipments, machines, etc. needed for proper execution and                                   |       |          |          |              |
|     | completion of work activities.  |       |          |          |              |
|     | 2- Excavation, and casting concrete B300 for steel poles bases along                                |       |          |          |              |
|     | with relevant tests of concrete compressive strength cubes.   |       |          |          |              |
|     | 3- Preparation of proper access to the work site as may deem  |       |          |          |              |
|     | necessary.  |       |          |          |              |
|     | 4- Repairing of all damages may occur to the existing facilities during<br>the implementation.      |       |          |          |              |
|     | 5- Dismantle and removal of any damaged poles, wires, surplus                                       |       |          |          |              |
|     | materials, etc. then transport to locations nominated by consultant                                 |       |          |          |              |
|     | engineer.   |       |          |          |              |
|     | 6- All necessary tests according to the technical specification and the<br>engineer's instructions. |       |          |          |              |
|     | 7-Transfer all surplus materials to the agreed dump sites according to supervisor instruction.      |       |          |          |              |
|     | 8- All necessary shop drawings and as built drawings to the engineer's approval.                    |       |          |          |              |
|     | 9- Complete coordination with Local Electricity Distributer Company                                 |       |          |          |              |
|     | (TEDCO) technical support and company engineers as long as the                                      |       |          |          |              |
|     | project is under implementation, starting from initial site survey,                                 |       |          |          |              |
|     | drawings and materials approvals, step by step safety, progress, and                                |       |          |          |              |
|     | site works acceptance, and finishing with last event of linking,                                    |       |          |          |              |
|     | testing, and operating the new services.  |       |          |          |              |
|     | 10- Contractor shall coordinate with all projects contractors in site                               |       |          |          |              |
|     | work who implementing the two buildings for which this project will                                 |       |          |          |              |
|     | supply. Any missing point in existing contractors works at meeting or                               |       |          |          |              |
|     | overlapping work points shall be included according to TEDCO  |       |          |          |              |
|     | requirements and approvals.   |       |          |          |              |
|     | requirements and approvais.   |       |          |          |              |





|            |   |      |          | U/ Price | Total      |
|------------|---|------|----------|----------|------------|
| tem<br>No. | Description   | Unit | Quantity | P        | 回          |
| 10.        |   |      |          |          |            |
| 2.1        | Steel Poles   |      |          |          |            |
| 2.1.1      | Supply and Install Hot Dipped Galvanized Lattice Steel Pole (L.S.P) 80/90 12m long. Price to Include Installation of Steel Base 4m long according to existing site levels to achieve minimum OHL height as per drawings. Min. 2x2x2 Mtr B300 reinforced concrete base fixing the steel base shall be included, concrete base must be designed and implemented according to authorized civil engineer to work against wires tension, wind load and transformers loads. concrete base must be treated with water isolation finish from all six sides. price shall include galvanized steel strip welded to reinforcement steel around the concrete base to connect MV side earthing system. All Steel Bolts , Nuts , Washers with all needed accessories for Fixing & Installation with accordance to TEDCO regulations are included.   | No   | 3        |          | ඩ <b>-</b> |
| 2.1.2      | Supply and Install Hot Dipped Galvanized Lattice Steel Pole (L.S.P) 80/90 12m long. Price to Include Installation of Steel Base 4m long and 6m steel pole extension according to existing site levels to achieve minimum OHL height as per drawings (under Existing Network to which new line to be linked). Min. 2x2x2 Mtr B300 reinforced concrete base fixing the steel base shall be included, concrete base must be designed and implemented according to authorized civil engineer to work against wires tension, wind load and transformers loads. concrete base must be treated with water isolation finish from all six sides. price shall include galvanized steel strip welded to reinforcement steel around the concrete base to connect MV side earthing system. All Steel Bolts, Nuts, Washers with all needed accessories for Fixing & Installation with accordance to TEDCO regulations are included. |      | 2        |          | - ن        |
|            | Supply and Install complete Hot Dipped Galvanized U14 Chanel Steel Pole (C.S.P) 12m long including flat strip set. Price to Include Installation of Steel Base 4m long according to existing site levels to achieve minimum OHL height as per drawings. Min. 1.2x1.2x1.5 Mtr B300 reinforced concrete base fixing the steel base shall be included, concrete base must be designed and implemented according to authorized civil engineer to work against wires tension, wind load and transformers loads. concrete base must be treated with water isolation finish from all six sides. price shall include galvanized steel strip welded to reinforcement steel around the concrete base to connect MV side earthing system. All Steel Bolts, Nuts, Washers with all needed accessories for Fixing & Installation with accordance to TEDCO  | No   | s 1      |          | п          |
| 2.1        | regulations are included.   | NO   | ) 1      |          | D          |
| _          | Total Carried to summary ( ILS ₪ )  |      |          |          | 回          |





| Item<br>No. | Description   | Unit | Quantity - | U/ Price | 1     | Total |
|-------------|---|------|------------|----------|-------|-------|
| 110.        |   |      |            | 回        |       | 回     |
| 2.2         | Steel Arms  | T    | Т          |          | +     |       |
|             | Supply and Install Hot Dipped Galvanized Lattice Pole Tension Central   |      |            |          |       |       |
|             | Arm K1 for OHL. price shall Include Steel Bolts, Nuts & Washers with  | 1    |            |          |       |       |
| 2.2.1       | all needed accessories for Fixing & Installation.   | No   | 7          |          | l Di  |       |
|             | Supply and Install Hot Dipped Galvanized Lattice Pole Tension Side  |      | 1          |          | 1.0   |       |
|             | Arm K64 for branching to start suggested line. price shall Include Steel  |      |            |          |       |       |
|             | Bolts Nuts & Washers with all needed accessories for Fixing &   |      |            |          |       |       |
| 2.2.2       |   | No   | 1          |          | 回     | -     |
|             | Supply and Install Hot Dipped Galvanized Chanel Pole Tension  |      |            |          |       |       |
|             | Central/Side Arm K42 for OHL deflection angle of 28°. price shall   |      |            |          |       |       |
| 222         | Include Steel Bolts , Nuts & Washers with all needed accessories for  |      |            |          |       |       |
| 2.2.3       | B ee motanation.  | No   | 1          |          | 回     | -     |
|             | Supply and Install Hot Dipped Galvanized Transformer Arm K183 with  |      |            |          |       |       |
| 224         | K188 transformer joints. price shall Include Steel Bolts, Nuts &  |      |            |          |       |       |
| 2.2.4       | The state and the edge de cessories for I family of mistallation.   | Set. | 2          |          | 回     | -     |
|             | Supply and Install Hot Dipped Galvanized Auxiliary Arm K160/3 for   |      |            |          |       |       |
| 225         | surge arrestors. price shall Include Steel Bolts, Nuts & Washers with all needed accessories for Fixing & Installation. | Set. | 2          |          |       |       |
| 2.2.3       | Supply and Install Hot Dipped Galvanized Auxiliary Arm K1743 for  |      |            |          | 回     | -     |
|             | Fuse Set. price shall Include Steel Bolts, Nuts & Washers with all  |      |            |          |       |       |
| 2.2.6       | needed accessories for Fixing & Installation.   | Set. | 4          |          |       |       |
|             | research decessories for Fixing & Installation.   |      |            |          | D     | -     |
|             | Supply and Install Hot Dipped Galvanized Auxiliary Arm K1555 for  |      |            |          |       |       |
|             | switch disconnector (knife Switch ). price shall Include Steel Bolts,   | Set. | 2          |          |       |       |
| 2.2.7       | Nuts & Washers with all needed accessories for Fixing & Installation.   |      |            |          |       |       |
|             | Supply and Install Hot Dipped Galvanized Auxiliary Arm for switch   |      |            |          | 回     | •     |
|             | disconnector (knife Switch) to disconnect all the new line from existing  |      |            |          |       |       |
|             | network, price shall Include Steel Bolts, Nuts & Washers with all   | Set. | 1          |          |       |       |
| 2.2.8       | needed accessories for Fixing & Installation.   |      | - 1        |          | 回     |       |
|             | Supply and Install Hot Dipped Galvanized cable fixing Arm K11102.   |      |            |          | 10    | _     |
| - 1         | price shall Include Steel Bolts, Nuts & Washers with all needed   | Set. | 0          |          |       |       |
| 2.2.9       | accessories for Fixing & Installation.  |      |            |          | lu    | _     |
|             | Supply and Install Hot Dipped Galvanized Auxiliary Arm K18 for  |      |            |          |       |       |
|             | Earth Line. price shall Include Steel Bolts, Nuts & Washers with all  |      |            |          |       |       |
| 2.10        | needed accessories for Fixing & Installation.   | Set. | 5          |          | D)    |       |
| 2 11        | Supply and Install Hot Dipped Galvanized Anti-Climbing Steel Arm  |      |            |          |       |       |
| 2.11        | K113/8, for L.S.P   | Set. | 5          |          | 回     | -     |
| 2 12        | Supply and Install Hot Dipped Galvanized Anti-Climbing Steel Arm K78/2, for C.S.P                                       |      |            |          |       |       |
| 2.12        | N/0/2 , 10F C.S.P   | Set. | 1          |          | 回     | -     |
|             |   |      |            |          |       |       |
|             | Total Carried to summary (ILS ₪)  |      |            |          | rel . |       |





| Item<br>No. | Demoissis   | VI!  |          | U/ Price | Total |     |
|-------------|---|------|----------|----------|-------|-----|
|             | Description   | Unit | Quantity | 间        |       | 回   |
| 2.3         | 33 KV Insulators  |      |          |          |       |     |
| 2.3         | Supply and Install M.V Polymeric Insulator, Creepage Distance 1050        |      |          |          | -     |     |
|             | mm and 170 mm Pin with 2 Nuts 100 mm thread and all needed                |      |          |          |       |     |
| 2.3.1       | accessories for Fixing & Installation .                                   | No.  | 18       |          | l Di  |     |
| 21011       | Supply and Install Tension Unit, the Item Include One Tension             | 110. | 10       |          | 1,0   |     |
|             | Polymeric (Creepage Distance 1170 mm), Half Moon, Steel Twisted           |      |          |          |       |     |
|             | Clamp and Dead End Clamps for Wire 95 mm2 ACSR with all needed            |      |          |          |       |     |
| 2.3.2       | accessories for Fixing & Connection .                                     | No.  | 12       |          | 回     | -   |
|             |   |      |          |          |       |     |
| 2.4         | 36 KV OHL Wires   |      |          |          |       |     |
|             | Supply, Install and Connect ACSR Wire (1x95)mm <sup>2</sup> . Price shall |      |          |          |       |     |
|             | Include Non Tension Clamps, Distribution Ties, Compression Lugs,          |      |          |          |       |     |
|             | Joints & Steel Bolts and all needed accessories for Fixing & Connection   |      |          |          |       |     |
| 2.4.1       |   | L.M  | 1,800    |          | 回     | -   |
|             | Install and Connect Outdoor Metal Oxide Surge Arrestor                    |      |          |          |       |     |
|             | M.C.O.V(Maximum continuous operating voltage) 36 KV, Nominal              |      |          |          |       |     |
| 2 4 2       | discharge current 10kA and Minimum Creepage distance 1200 with            |      |          |          |       |     |
| 2.4.2       | Ground Lead Disconnector included Brackets and Cable                      | Set  | 3        |          | ID I  | -   |
|             | Total Carried to summary ( ILS ₪ )  |      |          |          | lu    | 177 |





| Item  | Description  | Unit | Quantity | U/ Price | Total  |
|-------|--|------|----------|----------|--------|
| No.   | Description  | Unit | Quantity | D        | D      |
| 2.5   | M.V Disconnectores   |      |          |          |        |
| 2.5.1 | Supply, Install and Connect 36 kV, 400A Switch Disconnector (Isolating Switch) with built-in arc interrupter, the Item Include 3 Complete Basic Poles With 9 Composite Polymer Insulators, Load Break Device(36kv,630A), Manual Operating Device, Operating Rod, 6 Operating Rod Supports, 2 Joints, Triangular Plate for Operating on Cross arm including Fixing Arrangement for Horizontal Rod, 2 Mounting Beams L=1990 mm, Nuts/bolts for Fastening of Disconnector to Beam, Operating Shaft For Isolator L=1990 mm and Operating Lever with Rod Head, Master key lock, Compression Lugs with all needed Accessories for Fixing & Installation. | Set. | 3        |          | e -    |
| 2.6   | MV Drop Out Fuse   |      |          |          |        |
| 2.6.1 | Supply and Install MV drop fuse set ( for three phase ) with No. 3 fuse link 25A, price shall include, 25A links, jumpers, with all needed Accessories for Fixing & complete connection.   | Set. | 2        |          | n -    |
| 2.7   | Earthing Unit  |      |          |          |        |
| 2.7.1 | Supply and Install Earthing Unit , the Item Include Wire PN CU 70 mm2 PVC Yellow/Green , Earth Rods 15mm Diameter 1.5 m Long , Earth Rod Joints 15 mm Diameter , Earth Rod Connection Clamps & Compression Lugs , Steel Bolts with all needed Accessories for Fixing & Connection . ( The Earth Resistance should be less than 1 ohm )   | Unit | 3        |          | - س    |
|       | Total Carried to summary ( ILS ₪ )   |      |          |          | lei ei |





| 2.8 33/0.4 KV Transformer  Supply, Install, Connect, Test, energize, and operate 33/0.4 kV, 50Hz, 630 kVA Outdoor Tower Mounted Distribution Transformer substation, ONAN Ventilation, Dyn 11 vector group. contractor shall obtain Tedco tests and approvals supported with visual inspection, Measuring of insulation resistance, Measuring of Winding resistance, measuring of voltage ratio, phase displacement, and vector group, measuring of short circuit impedance and load losses, measuring of no-load losses and current, measuring of insulation resistance, Temperature rise test. However, contractor shall measure zero sequence impedance, determine sound levels of operation, measuring of the harmonics of the no-load current. Price to include all above tests certified by Tedco engineers. Price to include all jumpers that connect each phase from OHL or Under ground cable to Transformer MV side pushings with all needed accessories are included. Transformer manufacturer must be approved by Tedco.  Supply, Install, Connect, Test, energize, and operate 33/0.4 kV, 50Hz, 1000 kVA Outdoor Tower Mounted Distribution Transformer substation, ONAN Ventilation, Dyn 11 vector group. contractor shall obtain Tedco tests and approvals supported with visual inspection. | Unit Quantity | U/ Price | Total<br>即 |
|---|---------------|----------|------------|
| Supply, Install, Connect, Test, energize, and operate 33/0.4 kV, 50Hz, 630 kVA Outdoor Tower Mounted Distribution Transformer substation, ONAN Ventilation, Dyn 11 vector group. contractor shall obtain Tedco tests and approvals supported with visual inspection, Measuring of insulation resistance, Measuring of Winding resistance, measuring of voltage ratio, phase displacement, and vector group, measuring of short circuit impedance and load losses, measuring of no-load losses and current, measuring of insulation resistance, Temperature rise test. However, contractor shall measure zero sequence impedance, determine sound levels of operation, measuring of the harmonics of the no-load current. Price to include all above tests certified by Tedco engineers. Price to include all jumpers that connect each phase from OHL or Under ground cable to Transformer MV side pushings with all needed accessories are included. Transformer manufacturer must be approved by Tedco.  Supply, Install, Connect, Test, energize, and operate 33/0.4 kV, 50Hz, 1000 kVA Outdoor Tower Mounted Distribution Transformer substation, ONAN Ventilation, Dyn 11 vector group. contractor shall obtain Tedco tests and approvals supported with visual inspection.                            |               |          |            |
| 630 kVA Outdoor Tower Mounted Distribution Transformer substation, ONAN Ventilation, Dyn 11 vector group. contractor shall obtain Tedco tests and approvals supported with visual inspection, Measuring of insulation resistance, Measuring of Winding resistance, measuring of voltage ratio, phase displacement, and vector group, measuring of short circuit impedance and load losses, measuring of no-load losses and current, measuring of insulation resistance, Temperature rise test. However, contractor shall measure zero sequence impedance, determine sound levels of operation, measuring of the harmonics of the no- load current. Price to include all above tests certified by Tedco engineers. Price to include all jumpers that connect each phase from OHL or Under ground cable to Transformer MV side pushings with all needed accessories are included. Transformer manufacturer must be approved by Tedco.  Supply, Install, Connect, Test, energize, and operate 33/0.4 kV, 50Hz, 1000 kVA Outdoor Tower Mounted Distribution Transformer substation, ONAN Ventilation, Dyn 11 vector group. contractor shall obtain Tedco tests and approvals supported with visual inspection.  |               |          |            |
| 1000 kVA Outdoor Tower Mounted Distribution Transformer substation, ONAN Ventilation, Dyn 11 vector group, contractor shall obtain Tedco tests and approvals supported with visual inspection.  | Jo. 1         |          | 린 -        |
| Measuring of insulation resistance, Measuring of Winding resistance, measuring of voltage ratio, phase displacement, and vector group, measuring of short circuit impedance and load losses, measuring of noload losses and current, measuring of insulation resistance, Temperature rise test. However, contractor shall measure zero sequence impedance, determine sound levels of operation, measuring of the harmonics of the noload current. Price to include all above tests certified by Tedco engineers. Price to include all jumpers that connect each phase from OHL or Under ground cable to Transformer MV side pushings with all needed accessories are included. Transformer manufacturer must be approved by Tedco.  |               |          | <b>ඩ</b> - |





| Item   |  | TI-14 | 0        | U/ Price | Total |
|--------|--|-------|----------|----------|-------|
| No.    | Description  | Unit  | Quantity | 囘        | 囘     |
| 2.10   | 0.6/1 Kv Low Voltage Cables  |       |          |          |       |
|        | Supply, install, test and connect low voltage 0.6/1KV, XLPE, N2XY, FR1 single core power cable set of type Synergy from transformer low voltage side pushings to KWHM Pillar ( supplied by Others simultaneous with progress ), Price shall include, suitable cable lugs, colored heat shrink, connection from both sides, protection galvanized steel trunk, and all needed accessories to complete the job as per Tedco regulations and supervisor engineer. |       |          |          |       |
| 2.10.1 | 4x (4x1x240 mm²) XLPE, N2XY, FR1, power Cable  | L.M   | 14       |          | n -   |
| 2.10.2 | 3x (4x1x240 mm²) XLPE, N2XY, FR1, power Cable  | L.M   | 14       |          | n -   |
|        | Total Carried to summary (ILS ₪)   |       |          |          | 回     |





# Arab American University AMS-III and Labs MV Networks & S/S's

#### **Summary Sheet**

| Page | Items Description                   | Total (ILS ₪) |
|------|-------------------------------------|---------------|
| 8    | Preliminaries                       |               |
| 9    | Steel Poles                         | e -           |
| 10   | Steel Arms                          | e -           |
| 11   | 33kV Insulators & OHL Wires         | re -          |
| 12   | MV Disconectors, Fuses, & Earthing  | e -           |
| 13   | 33/0.4 kV Transformers              | n -           |
| 14   | 0.6/1 kV Low Voltage Cables         | ы -           |
|      |                                     |               |
|      |                                     |               |
|      |                                     |               |
|      |                                     |               |
|      | Total Price Including VAT (ILS ₪)   | e -           |
|      | Discount Rate (%)                   |               |
|      | Discount Amount (ILS ₪)             | R -           |
|      | Grand Total after Discounts (ILS ₪) | e -           |

| Total in Letters (₪):   |              |
|-------------------------|--------------|
| Contractor:             | His Address: |
| Contractor's Signature: |              |



دائرة اللوازم والمشتريات

الجزء الثالث

المخطط الموقع مخطط الموقع

عطاء رقم (T27/2020.21)

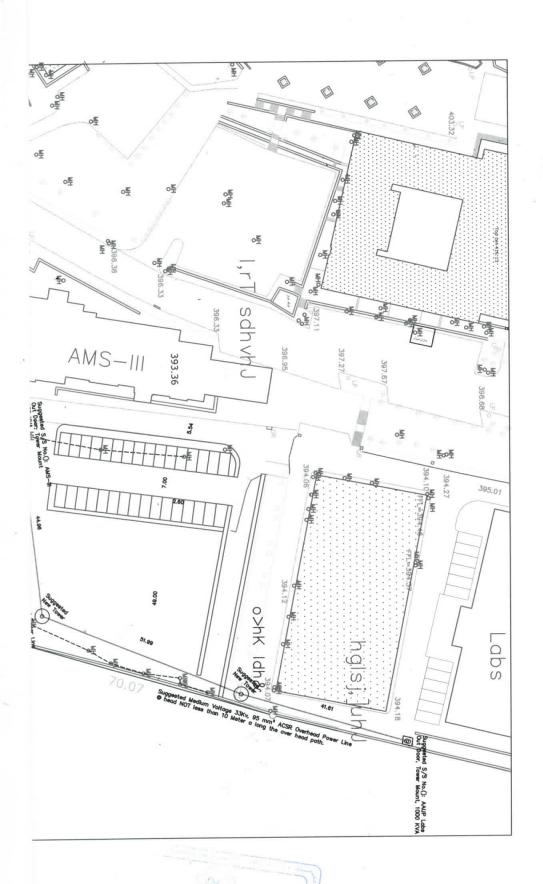
توريد وتركيب وتشغيل شبكات و محطات كهرباء ضغط متوسط لمبنى كلية العلوم الطبية - 3 و مبنى المختبرات و المشاغل

Supply, Install, and Commission Medium Voltage Network & Substation for AMS-III and Labs Buildings

(AMS-III and Labs MV Network & S/S's)



2020-2021





ARAB AMERICAN UNIVERSITY
- JENIN

#### PROJECT:

توريد و تركيب و تشخيل شبكات و محطات كهرباء ضغط متوسط لمبنى كلية العلوم الطبية - 3 و مبنى المختبرات و المشاغل

#### DESIGN:

الجامعة العربية الأمريكية - دائرة الهندسة و الصيانة

#### Drawing Name:

مخطط الموقع و المسار المقـــترح

#### Drawing Number:

E01

SCALE

N.T.S

