

सार्वजनिक निजी लागत सहभागितामा विद्युतीय सवारी साधनको चार्जिङ्ग स्टेशन
निर्माण तथा संचालन सम्बन्धी कार्यविधि २०८०

प्रस्तावना:

बागमती प्रदेशभित्र संचालन हुने विद्युतीय सवारी साधनहरूका लागि सहज रूपमा चार्जिङ्ग सुविधा उपलब्ध गराई विद्युतीय सवारी साधनको प्रयोगलाई प्रोत्साहित गराउने उद्देश्यले प्रदेशभित्रका संभावित स्थानहरूमा प्रदेश सरकार र निजी क्षेत्रको साझेदारीमा निर्माण तथा संचालन गर्नका लागि मन्त्रालयको चालु आ. व. २०८०/८१ को वार्षिक कार्यक्रम तथा बजेटको क्रम संख्या ११.३.७.७ को विद्युतिय गाडी चार्जिङ्ग उपकरण (खर्च शिर्षक नं. ३११२२) र क्रम संख्या ११.४.२२.४ को विद्युतिय सवारी साधन चार्जिङ्ग स्टेशन निर्माण (खर्च शिर्षक नं. ३११५९) शीर्षकमा विनियोजन भएको रकमबाट कार्यक्रम संचालन गर्ने कार्यलाई सरल, पारदर्शी र प्रभावकारी बनाउन वान्छनीय भएकोले, प्रदेश विनियोजन ऐन २०८० को दफा ऐन को दफा ९(२) ले दिएको अधिकार प्रयोग गरी बागमती प्रदेश, श्रम, रोजगार तथा यातायात मन्त्रालयले यो कार्यविधि तर्जुमा गरेको छ ।

परिच्छेद - १

प्रारम्भिक

१. संक्षिप्त नाम र प्रारम्भ: (१) यस कार्यविधिको नाम "सार्वजनिक, निजी लागत सहभागितामा विद्युतीय सवारी साधनको चार्जिङ्ग स्टेशन निर्माण तथा संचालन सम्बन्धी कार्यविधि २०८० " रहेको छ ।

(२) यो कार्यविधि मन्त्रालयबाट स्वीकृत भएको मितिदेखि लागू हुनेछ ।

२. परिभाषा : (१) विषय वा प्रसङ्गले अर्को अर्थ नलागेमा यस कार्यविधिमा :

(क) "मन्त्रालय भन्नाले श्रम, रोजगार तथा यातायात मन्त्रालय, बागमती प्रदेश सम्झनुपर्छ ।

(ख) "प्रदेश" भन्नाले बागमती प्रदेश सम्झनुपर्छ ।

(ग) "कम्पनी" भन्नाले कम्पनी ऐन अनुसार दर्ता भएको निजी कम्पनी लाई सम्झनुपर्छ । यस शब्दले घरेलु तथा साना उद्योग कार्यालयमा दर्ता भएको फर्म समेतलाई जनाउनेछ ।



- (घ) "चार्जिङ्ग स्टेशन" भन्नाले विद्युतीय सवारी साधन चार्ज गर्नका लागि स्थापना गरिएको स्थानलाई सम्झनुपर्छ ।
- (ङ) "संरचना" भन्नाले चार्जिङ्ग स्टेशनको तोकिएको ढाँचा सहितको पूर्वाधारलाई सम्झनुपर्छ । यस शब्दले रिफ्रेसमेन्ट सेन्टरको संरचनालाई समेतलाई जनाउनेछ ।
- (च) "मेशीनरी औजार" भन्नाले विद्युतीय सवारी साधन चार्ज गर्ने मेशीनलाई सम्झनुपर्छ ।
- (छ) " आधारभूत संरचना" भन्नाले चार्जिङ्ग स्टेशनको शेड र शौचालयलाई जनाउनेछ ।
- (ज) "थप संरचना" भन्नाले आधारभूत संरचनामा प्रतिकक्षालय, चमेनागृह तथा स्थानीय उत्पादनको बिक्रीस्थल लगायत थप गरी तयार गरिएको संरचनालाई जनाउनेछ ।
- (झ) "आयोजना" भन्नाले अनुसूचि बमोजिम कम्पनीले सञ्चालन गर्न प्रस्ताव गरेको रिफ्रेसमेन्ट सेन्टर सहितको चार्जिङ्ग स्टेशन निर्माण तथा संचालन आयोजना सम्झनुपर्छ ।
- (ञ) "कार्यविधि" भन्नाले सार्वजनिक, निजी लागत सहभागितामा विद्युतीय सवारी साधनको चार्जिङ्ग स्टेशन निर्माण तथा संचालन सम्बन्धी कार्यविधि २०८० सम्झनुपर्छ ।



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परिच्छेद - २

लागत सहभागिता सम्बन्धी व्यवस्था

३. कार्यक्रम कार्यान्वयन तथा बजेट व्यवस्था: (१) आ. व. २०८०/८१ को वार्षिक कार्यक्रम तथा बजेटको क्रम संख्या ११.३.७.७ को विधुतिय गाडी चार्जिङ्ग उपकरण (खर्च शिर्षक नं. ३११२२) मा विनियोजित बजेट रु एक करोड र क्रम संख्या ११.४.२२.४ को विधुतिय सवारी साधन चार्जिङ्ग स्टेशन निर्माण (खर्च शिर्षक नं. ३११५९) शीर्षकमा विनियोजित बजेट रु तिन करोड गरी जम्मा चार करोड बजेट यो कार्यविधि अनुसार खर्च गरिने छ ।

(२) कार्यक्रमको कार्यान्वयन बागमती प्रदेशको सार्वजनिक, निजी, सहकारी साझेदारी ऐन २०७६ को दफा ५(ज) अनुसार निर्माण, स्वामित्व र सञ्चालनको ढाँचामा गरिने छ ।

४. मन्त्रालयले लागत साझेदारी गर्ने: (१) रिफ्रेसिङ्ग सेन्टर सहितको चार्जिङ्ग सेन्टरको संरचनाभिन्न विधुतिय सवारीको लागी चार्जिङ्ग स्टेशन सहित पार्किङ्ग स्थल र दफा २(१छ र १ज) अनुसारको रिफ्रेसिङ्ग सेन्टर सहितको पूर्ण संरचना पर्दछ ।

(२) चार्जिङ्ग स्टेशन निर्माण तथा संचालन कार्यमा निजी क्षेत्रलाई प्रोत्साहन गर्न मन्त्रालयले चार्जिङ्ग स्टेशन निर्माणमा लागत साझेदारी गर्नेछ ।

(३) लागत साझेदारी अन्तर्गत रहि मन्त्रालयले चार्जिङ्ग सेन्टरको उपकरण खरिद गरी चार्जिङ्ग उपकरण राख्ने स्लाव सहित चार्जिङ्ग सेन्टरको स्थापना मन्त्रालयले गर्ने छ भने पार्किङ्ग स्थल र दफा २(१छ र १ज) अनुसारको रिफ्रेसिङ्ग सेन्टर सहितको पूर्ण संरचना प्रस्तावकले निर्माण गर्नुपर्ने छ ।

(४) लागत साझेदारीको हिस्सा अनुसूची ९ मा उल्लेख गरे बमोजिम हुनेछ ।

(५) यस कार्यविधि बमोजिम प्रस्तावकले आधारभूत संरचनाको निर्माण गरेपछि मात्र मन्त्रालयले सवारी साधन चार्जिङ्ग सम्बन्धी मेशीनरी औजार खरिद गरी स्थापना गर्नेछ ।

(६) उपदफा (१) बमोजिम कम्पनीले मन्त्रालयसंगको सम्झौता अनुरूप स्थापित चार्जिङ्ग स्टेशनको संचालन कम्तिमा दश वर्षसम्म गर्नुपर्नेछ ।



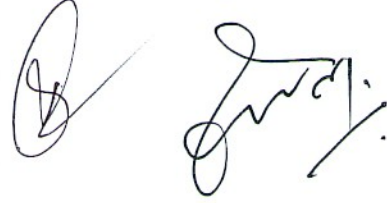
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(७) यस कार्यविधि बमोजिम मन्त्रालयले संघिय सरकार, प्रदेश सरकार, स्थानिय तह वा कुनैपनि सरकारी निकायबाट प्राप्त अनुदान वा लागतमा दोहोरो नपर्ने गरी लागत साझेदारीको सम्झौता गर्ने छ ।

(८) उपदफा (६) बमोजिम अनुदान वा लागतमा दोहोरो नपरेको कुरा प्रस्तावकले स्वघोषणा गर्नुपर्ने छ । गलत घोषणा गर्ने प्रस्तावकको प्रस्ताव रद्द गरीनेछ । साथै प्रदेश सरकारको लगानी सरकारी बाकी सरह असुलउपर गरिनेछ ।



परिच्छेद - ३
लागत सहभागिता गर्ने प्रक्रिया

५. सूचना प्रकाशन गर्ने: मन्त्रालयले लागत सहभागिताका आधारमा चार्जिङ्ग स्टेशन संचालन गर्न ईच्छुक कम्पनीलाई प्रस्ताव पेश गर्नको लागि राष्ट्रिय दैनिक पत्रिकामा कम्तिमा १५ (पन्ध्र) दिनको अवधि दिई सूचना प्रकाशन गर्नेछ ।

६. दरखास्त पेश गर्नुपर्ने: यस कार्यविधि बमोजिम लागत सहभागितामा कार्य गर्न चाहने कम्पनीले देहायका कागजात तथा विवरण संलग्न गरि दफा ५ बमोजिम प्रकाशित सूचनामा तोकिएको अवधि भित्र दफा ११ अनुसारको योग्यता पुगेको कम्पनीले अनुसूची- १ बमोजिमको ढाँचामा मन्त्रालयमा आवेदन दिनु पर्नेछ ।

- (क) कम्पनी दर्ता प्रमाण पत्रको प्रतिलिपी,
- (ख) प्यान/भ्याट दर्ता प्रमाणपत्रको प्रतिलिपी,
- (ग) पछिल्लो आर्थिक वर्षको लेखापरीक्षण प्रतिवेदन,
- (घ) पछिल्लो आर्थिक वर्षको कर चुक्ताको प्रमाण पत्र,
- (ङ) अनुसूची २ बमोजिमको आयोजनाको प्रस्ताव,
- (छ) अनुसूची ३ बमोजिमको प्रतिवद्धता पत्र
- (ज) अनुसूची ४ बमोजिमको आयोजना कार्यान्वयनको कार्ययोजना,
- (झ) चार्जिङ्ग स्टेशनको आवश्यकता र संभाव्यताको विवरण
- (ञ) चार्जिङ्ग स्टेशनका लागि जग्गाको उपलब्धता खुल्ने निम्नानुसरको कुनै एक

प्रमाण

- सरकारी वा सार्वजनिक जग्गा प्रयोग गर्ने भए सम्बन्धित निकायबाट कम्तिमा दश वर्षसम्म भोगाधिकार दिएको खुल्ने कागजात
- आफ्नै स्वामित्वको जग्गा भए जग्गाधनी प्रमाणपत्रको प्रतिलिपी
- जग्गा लिजमा लिएको भएको भए कम्तिमा दश वर्षसम्म प्रयोग गर्न पाउने शर्त खुल्ने कागजात

७. प्रस्ताव छनोट तथा मूल्याङ्कन समिति: (१) लागत सहभागिताका लागि रीतपूर्वकको प्रस्ताव प्राप्त भएपछि उपयुक्त साझेदार कम्पनी छनोट गर्नका लागि देहाय बमोजिमको समिति हुनेछ ।

क योजना, प्रशासन, महाशाखा प्रमुख, मन्त्रालय

- संयोजक



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ख यातायात शाखा प्रमुख	- सदस्य
ग प्राविधिक प्रतिनिधि, मन्त्रालय	- सदस्य
घ आर्थिक प्रशासन शाखा प्रमुख, मन्त्रालय	- सदस्य
ङ कानून अधिकृत, मन्त्रालय	- सदस्य
च योजना शाखा प्रमुख, मन्त्रालय	- सदस्य- सचिव

(२) समितिको बैठकमा आवश्यकता अनुसार बढीमा तीन जनासम्म विषयविज्ञहरुलाई आमन्त्रण गर्न सकिनेछ ।

(३) मूल्याङ्कन गर्दा अनुसूची ५ बमोजिमको आधार तथा प्राविधिक स्पेशिफिकेशन र प्रस्तावित स्थानको सम्भाव्यता अध्ययन समेतका आधारमा मूल्याङ्कन गर्नुपर्नेछ ।

(४) समितिले मूल्याङ्कन गरी कम्पनीहरुको योग्यताक्रमानुसारको सूची तयार गरी साझेदार कम्पनी छनौट गर्नेछ ।

८. जानकारी दिनुपर्ने: लागत सहभागिताको प्रस्ताव स्वीकृत भएपछि ७ (सात) दिन भित्र सम्झौता गर्न आउनको लागि सम्बन्धित कम्पनीलाई मन्त्रालयले जानकारी गराउनु पर्नेछ ।

९. सम्झौता गर्नुपर्ने: यस कार्यविधि बमोजिम प्रस्ताव स्वीकृत भएपछि सो को २१ दिनभित्र कम्पनी र मन्त्रालय बीच अनुसूची ४ बमोजिम सम्झौता गर्नु पर्नेछ ।

परिच्छेद - ४

योग्यता तथा मापदण्ड

१०. चार्जिङ्ग स्टेशन तथा रिफ्रेशिङ्ग केन्द्रको मापदण्ड: (१) यस कार्यविधि बमोजिम कम्पनीले चार्जिङ्ग स्टेशन तथा रिफ्रेशिङ्ग केन्द्रको निर्माण तथा सञ्चालन गर्दा देहायको मापदण्ड पुरा गर्नुपर्नेछ ।

(क) प्रस्तावित निर्माण क्षेत्र राष्ट्रिय, प्रादेशिक र जिल्लास्तरका सडकसँग जोडिएको तर सडकको Right of way मा नपर्ने हुनु पर्नेछ ।

(ख) प्रस्तावित निर्माण क्षेत्रमा पर्याप्त पानीको उपलब्धता भएको र सरसफाई तथा पानीको निकासको लागि उचित प्रबन्ध गरिएको हुनुपर्नेछ ।



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- (ग) प्रस्तावित निर्माण क्षेत्रमा प्रज्वलनशील पदार्थको वितरण र भण्डारण क्षेत्रबाट कम्तीमा १० मिटर टाडा हुनुपर्ने छ ।
- (घ) प्रस्तावित निर्माण क्षेत्रको बढीमा ३० मिटरको क्षेत्रमा ४०० भोल्टको थ्रि फेजको विधुत प्रसारण लाईन रहेको हुनुपर्नेछ ।
- (ङ) प्रस्तावित निर्माण क्षेत्रमा इन्टरनेट तथा टेलीफोनको लागी नेटवर्क कभरेज भएको हुनुपर्नेछ ।
- (च) प्रस्तावित निर्माणको लागी सम्झौता गर्दासम्ममा स्थानिय तहँबाट निर्माण इजाजतपत्र वा स्थानिय तहँको सिफारिस पत्र पेश गर्नुपर्नेछ ।
- (छ) प्रस्तावित निर्माणमा महिला र पुरुषको लागी छुट्टा छुट्टै शौचालयको व्यवस्था रहेको हुनु पर्नेछ ।
- (ज) प्रस्तावित निर्माणमा सवारी साधनको सरसफाईको लागी Washing Center र चमेना गृह लगायतका सुविधा उपलब्ध हुने व्यवस्था मिलाउनु पर्नेछ ।
- (घ) प्रस्तावित निर्माण क्षेत्र कम्तीमा ८०० बर्ग मिटरको हुनुपर्नेछ ।
- (ङ) प्रस्तावित स्थलमा आम सर्वसाधारणको निर्वाध पहुँच सुनिश्चित हुनु पर्नेछ ।
- (च) प्रस्तावित निर्माण क्षेत्र प्राकृतिक प्रकोपजन्य हुनु नहुने ।

(२) छनोट तथा मूल्याङ्कन समितिले दफा १० मा उल्लेखित मापदण्ड समेतको आधारमा अनुसूची ५ मा उल्लेखित आधारहरु समेतलाई अध्ययन गरी प्रस्तावहरुको मूल्याङ्कन तथा सिफारिस गर्ने छ ।

११. प्रस्तावक कम्पनीको योग्यता: अन्यन्त्र जुनसकै कुरा लेखिएको भए तापनि देहायको अवस्थामा कम्पनीसंग मन्त्रालयले लागत सहभागिता गर्नेछैन :

- (क) नियमित रुपमा वार्षिक लेखा परीक्षण नगराएको,
- (ख) कर चुक्ता प्रमाण पत्र नभएको,
- (ग) प्यान/भ्याटमा दर्ता नभएको,
- (घ) सम्बन्धित नियामक निकायमा नियमित रुपमा प्रतिवेदन तथा विवरण पेश नगरेको,
- (ङ) पछिल्लो आर्थिक बर्षको खुद आम्दानी ऋणात्मक भएको,
- (च) दफा १० बमोजिमको मापदण्ड नपुगेको,



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परिच्छेद - ५
अनुगमन तथा मुल्याङ्कन

१२. मन्त्रालयले अनुगमन गर्ने: (१) मन्त्रालयले तोकेको ढाँचामा संरचना निर्माण गरेपछि मन्त्रालयले स्थलगत अनुगमन समेत गरी संरचनाको प्राविधिक मूल्यांकन गर्नेछ ।

(२) संरचनाको प्राविधिक मूल्यांकन गरी तोकिएको डिजाइन र स्पेशलिफिकेशन बमोजिम निर्माण भैसकेको खण्डमा मात्र मन्त्रालय मेशीनरी औजार खरिद गरी कम्पनीलाई हस्तान्तरण गर्नेछ ।

(३) प्राविधिक मूल्यांकन गर्दा तोकिएको मापदण्ड अनुसार संचरना निर्माण भएको नदेखिएमा मेशीनरी औजार हस्तान्तरण गर्न मन्त्रालय बाध्य हुनेछैन ।

(४) मन्त्रालयबाट प्राप्त मेशीनरी औजार सम्झौतामा उल्लेखित शर्त र समयावधिमा संरचनामा जडान गरी सेवा संचालन गर्नु कम्पनीको दायित्व हुनेछ ।

(५) मेशीनरी औजारको स्पेशलिफिकेशन अनुसूची ७ बमोजिम हुनेछ ।

(६) यस कार्यविधि बमोजिम कम्पनीले गरेको कार्यको मन्त्रालय तथा सम्बन्धित स्थानीय तहबाट नियमित अनुगमन हुनेछ ।

(७) उपदफा (६) अनुगमन कार्यमा आवश्यक सहयोग गर्नु सम्बन्धित कम्पनीको दायित्व हुनेछ ।

१३. कार्यक्रमको सदुपयोग गर्नुपर्ने: (१) कम्पनीले मन्त्रालयबाट प्राप्त जिन्सी सामान जुन प्रयोजनको लागि प्राप्त भएको हो, सोही प्रयोजनमा उपयोग गरि स्रेस्ता अघावधिक गर्नु पर्नेछ ।

(२) छनोट भई चार्जिङ्ग स्टेशन सञ्चालन गर्ने कम्पनीले अनुसूची ८ मा तोकिएको ढाँचामा बोर्ड राख्नुपर्नेछ ।

१४. समयावधिको पालना: सम्झौतामा तोकिएको समयावधिभित्र आयोजनाको कार्य अनिवार्य रुपमा सम्पन्न गर्नु कम्पनीको कर्तव्य हुनेछ ।

१५. सेवा शुल्क: कम्पनीले विद्युतीय सवारी साधनको चार्जिङ्ग वापत लिने शुल्क तोकिए बमोजिम हुनेछ । तोकिएको भन्दा बढी सेवा शुल्क लिन पाइने छैन ।



१६. असुल उपर गरिने: दफा १२ बमोजिम अनुगमन गर्दा प्रदान गरिएको जिन्सी सामान दुरुपयोग गरेको पाइएमा वा तोकिएभन्दा बढी सेवाशूल्क लिएको पाइएमा त्यस्तो रकम सम्बन्धित कम्पनीबाट सरकारी बाँकी सरह असूल उपर गरिनेछ।

१७. सफाई पेश गर्न मौका दिनु पर्ने: दफा १६ बमोजिम रकम असुल उपर गर्नु पर्दाको अवस्थामा सम्बन्धित संस्थालाई सफाई पेश गर्न मौका दिनु पर्नेछ।

१८. नाफाको बाडफाइ: (१) कम्पनीले चार्जिङ्ग मेशीनबाट हुने आम्दानी र खर्चको छुट्टै हिसाव राखी वार्षिक रुपमा खुद आम्दानी गणना गर्नुपर्नेछ।

(२) उपदफा (१)बमोजिम गणना भएको आम्दानी दफा १७ बमोजिम लेखापरीक्षण समेत भई प्रमाणित भएपछि लागत साझेदारीको अनुपातको आधारमा खुद आम्दानीको हिस्सा कम्पनीले प्रदेश सरकारको खातामा जम्मा गर्नुपर्नेछ।

१९. लेखापरीक्षण: कम्पनीले यस कार्यविधि बमोजिम प्राप्त सहयोग रकमको लेखापरीक्षण प्रचलित कानून बमोजिम गराउनु पर्नेछ।



परिच्छेद - ४

विविध

१९. विवरण सार्वजनिक गर्नुपर्ने: (१) यस कार्यविधि बमोजिम स्वीकृत भई मन्त्रालयबाट प्राप्त मेशीनरी औजारको विवरण र प्रयोजन समेत खुलाई सर्वसाधारणको जानकारीका लागि प्रष्टसंग पढ्न सकिने गरि सम्बन्धित कम्पनीको कार्यालयको सूचना पाटीमा सार्वजनिक गर्नु पर्नेछ ।

(२) कम्पनीले चार्जिङ्ग स्टेशनमा मन्त्रालयको लागत सहभागिता समेत देखिने गरी अनुसूची ७ बमोजिमको होर्डिङ्ग बोर्ड राख्नुपर्नेछ ।

२०. प्रतिवेदन प्रकाशन गर्नुपर्ने: मन्त्रालयले यस कार्यविधि बमोजिम गरेको लागत सहभागिता कार्यक्रमको प्रतिफल समेत झल्कने गरि वार्षिक रूपमा प्रतिवेदन प्रकाशन गर्नुपर्नेछ ।

२१. स्थानीय तहसंगको समन्वय : (१) यस कार्यविधि बमोजिम चार्जिङ्ग स्टेशन निर्माण र संचालनका लागि सम्बन्धित कम्पनीले स्थानीय तहसंग समन्वय गरी नियमानुसार जग्गा प्राप्त गर्न सक्नेछन ।

(२) यस कार्यविधि बमोजिम निर्माण र संचालन गरिने चार्जिङ्ग स्टेशनको अनुगमन गर्नका लागि सम्बन्धित स्थानीय तहसंग मन्त्रालयले आवश्यक समन्वय गर्नेछ ।

२२. नेपाल विद्युत प्राधिकरणसंग समन्वय: मन्त्रालयले चार्जिङ्ग स्टेशनमा आवश्यक विद्युत आपूर्तिको लागि नेपाल विद्युत प्राधिकरणसंग समन्वय गरिनेछ ।

२३. बाधा अड्काउ फुकाउने: कार्यविधि कार्यान्वयनमा कुनै बाधा अवरोध र अस्पष्टता आएमा प्रदेश मन्त्रालयले आवश्यकता अनुसार कार्यविधिको व्यवस्था प्रतिकूल नहुने गरी बाधा अड्काउ फुकाउन सक्नेछ ।



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अनुसूची - १
(दफा ६ सँग सम्बन्धित)
दरखास्तको ढाँचा

मिति :-

श्री श्रम,रोजगार तथा यातायात मन्त्रालय,
बागमती प्रदेश, हेटौँडा ।

विषय :- प्रस्ताव पेश गरिएको सम्बन्धमा ।

त्यस मन्त्रालयबाट मिति मा..... राष्ट्रिय दैनिकमा प्रकाशित सूचना अनुसार यस कम्पनी लि. ले लागत सहभागितामा रिफ्रेसमेन्ट सेन्टर सहितको चार्जिङ्ग स्टेशनजिल्लाको..... मा निर्माण तथा संचालन गर्न मन्जुर भई सूचनामा तोकिएको कागजात तथा तपसिलमा उल्लेखित कागजात संलग्न राखी यो दरखास्त पेश गरिएको छ ।

" सार्वजनिक निजी सहभागिताका आधारमा विद्युतीय सवारी साधनका लागि रिफ्रेसमेन्ट सेन्टर सहितको चार्जिङ्ग स्टेशन निर्माण तथा संचालन सम्बन्धी कार्यविधि २०८०" का शर्त तथा बन्देजहरु पालना गर्न यो कम्पनी मन्जुर छ ।

भवदीय

आधिकारिक व्यक्तिको दस्तखत

नाम थर:-

कम्पनीको नाम ठेगाना:-

कम्पनीकोको छाप:-

सम्पर्क नं.:-



तपसिल

कम्पनी सम्बन्धी निम्न विवरणहरु खुलाउनुहोस

१. सञ्चालकहरुको विवरण

सि नं	नामथर	पद	ठेगाना	सम्पर्क नं.	कैफियत

२. लेखापरीक्षणको विवरण

सि नं	आ व	लेखापरीक्षण भएको नभएको	सम्पन्न	कूल चुक्ता पूँजी	कैफियत
१	०७९।०८०				
२	०७८।०७९				
३	०७७।०७८				

३. कम्पनीले स्थानीय तह, प्रदेश र संघीय सरकारबाट समान प्रकृतिको सहयोग लिए नलिएको

४. कम्पनीले हालसम्म संचालन गरेका व्यवसायिक कार्यहरुको सूची

सि.नं.	संचालन गरेका व्यवसायिक कार्यहरु
१	
२	
३	
४	



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अनुसूची -२
(दफा ६ सँग सम्बन्धित)

आयोजना प्रस्ताव

क्र.सं.	लागत गरिने कार्य	साझेदारीमा इकाई	इकाई	परिमाण	दर	जम्मा लागत	मन्त्रालयले व्यहोर्ने	कम्पनीले व्यहोर्ने
१	चार्जिङ्ग संरचना निर्माण	स्टेशनको	वटा	१				
२	मेशीनरी औजार		वटा	१				
	जम्मा							

निर्माण गरिने चार्जिङ्ग स्टेशनको संरचनाको मन्त्रालयले तोकेबमोजिमको स्पेशीफिकेशन र सम्बन्धित प्राविधिकबाट प्रमाणित भएको लागत अनुमान संलग्न हुनुपर्नेछ ।



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अनुसूची ३
(दफा ६ सँग सम्बन्धित)

प्रतिवद्धता पत्र

श्रम, रोजगार तथा यातायात मन्त्रालय, बागमती प्रदेश, हेटौँडाको मिति
.....मा प्रकाशित सूचना अनुसार
कार्यक्रममा सहभागताको लागि इच्छुक भई सो को कार्ययोजना सहित आवेदन पेश
गरेका छौं । उक्त कार्यक्रममा छनोट भएमा कार्ययोजनामा उल्लेख भएबमोजिमको
कार्य गर्नेछौं र कम्तिमा १० वर्षसम्म निरन्तरता दिनेछौं । कार्ययोजना
अनुसारको कार्य नगरेमा वा निरन्तरता नदिएमा प्रदेश सरकारबाट प्राप्त अनुदान
रकम प्रचलित व्याज सहित फिर्ता गर्ने प्रतिवद्धता व्यक्त गर्दछौं । सञ्चालित
क्रियाकलापबाट वातावरणलाई नकारात्मक असर नपुर्याउने व्यहोरा तथा
प्रतिवद्धता समेत व्यक्त गर्दछौं । यसमा लेखिए बमोजिम नगरेमा प्रचलित कानून
बमोजिम सहूँला बुझाउँला ।

लागत सहभागिता गर्ने कम्पनीको तर्फबाट दस्तखत गर्ने सञ्चालकहरु

सि नं पद नामथर ठेगाना दस्तखत



अनुसूची ४
(दफा ६ सँग सम्बन्धित)

आयोजना कार्यान्वयनका लागि प्रस्तावित कार्ययोजना

आयोजनाको नाम :

आयोजना सञ्चालन गर्ने स्थल :

सि नं क्रियाकलाप

कार्यान्वयन गर्ने समय

१ चार्जिङ्ग स्टेशनको संरचना निर्माण

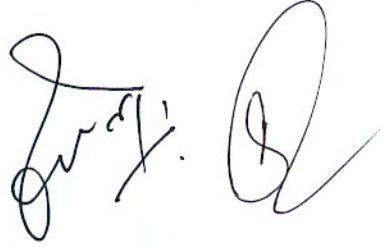
.....महिनाभित्र

२ मन्त्रालयबाट मेशीनरी औजार प्राप्त गरी जडान गर्ने

.....महिनाभित्र

३ चार्जिङ्ग स्टेशन संचालन गर्ने

.....देखि



अनुसूची - ५
सम्झौताको ढाँचा
(दफा ९ सम्बन्धित)

वागमती प्रदेश सरकार, श्रम, रोजगार तथा यातायात मन्त्रालयको आ व ०८०८१ को स्वीकृत वार्षिक कार्यक्रम पेश हुन आएका प्रस्तावहरु मध्ये मूल्याङ्कन समितिबाट सिफारिस को निर्णयबाट श्री भई मिति को प्रस्ताव छनौट भएको हुँदा श्रम, रोजगार तथा यातायात मन्त्रालय, वागमती प्रदेश (यस पछि प्रथम पक्ष भनिने.....(यस पछि दोश्रो पक्ष भनिने) बिच तपशिल अनुसारका शर्तहरु पालना गर्ने गरि माथि उल्लेखित कार्यक्रम कार्यान्वयनका लागि द्विपक्षीय सम्झौता गरी बुझि लियौं/ दियौं ।

शर्तहरु:

१. प्रथम पक्षले कार्यविधि बमोजिमकोकार्यक्रम कार्यान्वयनका लागि चार्जिङ्ग स्टेशनको मेसीनरी औजारहरु खरिद गरी दोश्रो पक्षलाई प्रदान गर्नेछ । प्राप्त जिन्सी सामानहरु नियमानुसार आम्दानी बाँधी उद्देश्य अनुसार प्रयोगमा ल्याउनुपर्नेछ ।
२. कार्यक्रम कार्यान्वयनका बाकी सम्पूर्ण व्यवस्थापन दोश्रो पक्ष आफैले गर्नु पर्नेछ ।
३. दोश्रो पक्षले कार्यक्रम कार्यान्वयन स्थलमा अनिवार्य रुपमा कार्यक्रमको नाम, ठेगाना तथा सहयोगी निकायको नाम र सहयोग रकम लगायतका विवरण उल्लेख गरिएको विवरण सार्वजनिक गर्नु पर्नेछ ।
४. प्रथम पक्षले कुनै पनि समयमा सञ्चालित कार्यको अनुगमननिरीक्षण गरी सम्झौता / बमोजिम कार्य नभएको हेर्न र आवश्यक सल्लाह सुझाव दिन सक्नेछ ।
५. द्विपक्षीय सम्झौता मुताबिकको कार्य नभै रकम सदुपयोग हुन नसक्ने देखेमा प्रथम पक्षले कार्यविधिको प्रक्रिया अपनाई सहयोग रोक्का गर्न सक्नेछ ।
७. अनुगमननिरीक्षण प्रतिवेदनबाट सहयोग रकम दुरुपयोग गरेको पाइएमा त्यस्तो रकम / दुरुपयोग गर्ने संस्थाका सदस्य तथा पदाधिकारीको घरघरानाबाट सरकारी बाँकी सरह असूल उपर गरिनेछ ।
८. सम्झौतामा उल्लेख हुन छुट भएका विषयको हकमा कार्यविधि र प्रचलित कानून बमोजिम हुनेछ ।
९. कार्यक्रम कार्यान्वयनका दौरानमा कुनै बुँदा हेरफेर वा परिमार्जन गर्नु परेमा आपसी सहमति अनुसार हुनेछ ।



सहिली पक्षको तर्फबाट

(Signature)

दोश्रो पक्षको तर्फबाट

(Signature)

दस्तखत :

नाम :

पद :

कार्यालय :श्रम, रोजगार तथा यातायात मन्त्रालय,
बागमती प्रदेश, हेटौंडा ।

दस्तखत:

नाम :

पद. :

कम्पनीको नाम :

ईति सम्बत्..... साल शुभम् गते रोज..... महिना



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अनुसूची - ६
(दफा १० र ११ सँग सम्बन्धित)

प्रस्तावक कम्पनीको प्रस्ताव मूल्याङ्कन आधार र अङ्क

कम्पनीको नाम:

स्थान :

जम्मा पूर्णाङ्क:

प्राप्ताङ्क:

सेवा लिने अनुमानित विद्युतीय सवारी साधन :

कम्पनीको चुक्ता पूँजी

उपलब्ध गराउने रोजगारी :

		अंक	पूर्णांक	प्राप्तांक
(क)	प्रस्तावित निर्माण क्षेत्र राष्ट्रिय, प्रादेशिक र जिल्लास्तरका सडकसँग जोडिएको तर सडकको Right of way मा नपर्ने हुनु पर्नेछ ।		५	
१	राष्ट्रिय राजमार्ग	५		
२	फिडर रोड	४		
३	जिल्ला रोड	३		
(ख)	प्रस्तावित निर्माण क्षेत्रमा पर्याप्त पानीको उपलब्धता भएको र सरसफाई तथा पानीको निकासको लागी उचित प्रबन्ध गरिएको हुनुपर्नेछ ।		५	
	उत्तम	५		
	मध्यम	४		
	निम्न	३		
(ग)	प्रस्तावित निर्माण क्षेत्रमा प्रज्वलनशील पदार्थको वितरण र भण्डारण क्षेत्रबाट कम्तीमा १० मिटर टाडा हुनुपर्ने छ ।	२	२	
(घ)	प्रस्तावित निर्माण क्षेत्रको बढीमा ५० मिटरको क्षेत्रमा ४०० भोल्टको त्रि फेजको विद्युत प्रसारण लाईन रहेको हुनुपर्नेछ ।	२	२	
(ङ)	प्रस्तावित निर्माण क्षेत्रमा इन्टरनेट तथा टेलीफोनको लागी नेटवर्क कभरेज भएको हुनुपर्नेछ ।		५	
१	Fibre वा Cable Internet सेवा पहुँच भएको	५		
२	मोबाइल नेटवर्कको सुविधा भएको	४		
(च)	प्रस्तावित निर्माणको लागी सम्झौता गर्दासम्ममा स्थानिय तहबाट निर्माण इजाजतपत्र वा स्थानिय तहको सिफारिस पत्र पेश गर्नुपर्नेछ ।	५	५	
(छ)	प्रस्तावित निर्माणमा महिला र पुरुषको लागी छुट्टा छुट्टै शौचालयको व्यवस्था रहेको हुनु पर्नेछ ।		५	
१	महिला र पुरुषको लागी १/१ वटा ट्वाइलेट	१		
२	महिला र पुरुषको लागी १/१ वटा ट्वाइलेट सहित ४ वटा यूरिनरी	२		
३	महिला र पुरुषको लागी २/२ वटा ट्वाइलेट सहित ६ वटा यूरिनरी	३		
४	महिला र पुरुषको लागी २/२ वटा ट्वाइलेट सहित ६ वटा यूरिनरी	४		







५	अपाङ्गमैत्री ट्वाइलेटको लागि थप अंकभार	१		
(ज)	प्रस्तावित निर्माणमा सवारी साधनको सरसफाईको लागी Washing Center र चमेना गृह लगायतका अन्य सुविधाको उपलब्धता		६	
१	न्यूनतम १० जनाले आरामपूर्वक खान मिल्ने रिफ्रेसिड हाउस/कफिसप आदि सुविधा भएको चमेना गृह	२		
१	न्यूनतम २० जनासम्म आरामपूर्वक खान मिल्ने रिफ्रेसिड हाउस/कफिसप आदि सुविधा भएको चमेना गृह	३		
२	स्थानीय उत्पादनको विक्रीस्थल सहितको संरचना भएको लागि थप अंकभार	१		
३	गाडी धुन मिल्ने (Washing Centre) भएको लागि थप अंकभार	१		
४	टायरमा हावा भर्ने र सामान्य मर्मत गर्न सकिने मर्मत केन्द्र भएको लागि	१		
(झ)	प्रस्तावित निर्माण स्थलको क्षेत्रफल कम्तीमा ८०० बर्ग मिटरको हुनुपर्नेछ ।		५	
१	प्रस्तावित निर्माण स्थलको क्षेत्रफल ९०० सम्म भएको	२		
२	प्रस्तावित निर्माण स्थलको क्षेत्रफल ९०० देखि १२०० बर्ग मिटर सम्म भएको	३		
३	प्रस्तावित निर्माण स्थलको क्षेत्रफल १२०० देखि १५०० बर्ग मिटर सम्म भएको	४		
४	प्रस्तावित निर्माण स्थलको क्षेत्रफल १५०० बर्ग मिटर भन्दा माथी भएको	५		
(ञ)	सार्वजनिक निकायद्वारा स्थापित वा संचालित चार्जिड स्टेसनभन्दा कम्तीमा ५ कि.मि दुरीमा हुनुपर्नेछ ।		५	
१	सार्वजनिक निकायद्वारा स्थापित वा संचालित चार्जिड स्टेसनभन्दा १० देखि १५ कि.मि सम्मको दुरी भएको	३		
२	सार्वजनिक निकायद्वारा स्थापित वा संचालित चार्जिड स्टेसनभन्दा १५ देखि २० कि.मि सम्मको दुरी भएको	४		
३	सार्वजनिक निकायद्वारा स्थापित वा संचालित चार्जिड स्टेसनभन्दा २० कि.मि भन्दा माथी दुरी भएको	५		
जम्मा पूर्णाङ्क				४५







अनुसूची ६

चार्जिङ्ग स्टेशनको उपकरणहरूको स्पेसिफिकेशन

1. Scope of Work

The main works of Electric Vehicle (EV) charging station (referred interchangeably as “plant and services” or “facilities” throughout) installation project shall include but not limited to the following:

- a. Design, supply, delivery to the project site, installation/erection, testing, pre-commissioning and commissioning of EV charging station as per the terms of the bidding document.
- b. The charging equipment must come with a comprehensive extended on-site warranty and AMC package of 2 years from the date of installation and commissioning of the charging equipment and design life of 10 years.
- c. Electric connection from transformer to meter and from meter to charger with necessary electrical connection to the EV charger including earthing as required.

1.1 Design, Supply, Delivery, Installation, Testing, Commissioning and Warranty of EV Fast Charging Stations

- i) Bidder has to perform, supply, transportation & insurance (till delivery at site), delivery to project site, unloading, handling and storage and erection, testing and commissioning, along with 2-year comprehensive on-site warranty and AMC for 2 years of EV-Fast Charger (CCS 2.0 and GB/T). The technical specifications of the fast charger shall comply with the requirements given under Chapter "Technical Specifications".
- ii) The bidder shall supply the entire lot of charging stations and part components of the charging station including other related items/software to the project site.
- iii) Insurance: The goods supplied under the contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage, delivery. For delivery of goods at site, the insurance shall be obtained by the bidder, for an amount not less than the Contract Price of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War risks and strikes. This shall include insurance during the entire contract period against natural calamities and theft.



iv) Transportation, storage

Bidder is required under the contract to transport the Goods to place of destination defined as Site and make necessary arrangements for storage of the material till the same are installed at various locations. Transport to such place of destination shall be arranged by the successful bidder, and the related cost shall be included in the Contract Price.

v) All the Tools and Plants, including Special T&P, testing and measuring instruments required for the implementation of the project is to be arranged by the bidder and quoted price shall be inclusive of the same.

vi) Storage for supplies, servicing warranty redemptions is in the scope of work of the bidder.

1.2 EV Fast Charging Stations Warranty and Repair & Maintenance phase for the 2 Years AMC period

i) For Repair & Maintenance of chargers, the bidder either shall demonstrate that it has or set-up at least one service center(s) at any location in Bagamati Province. In case if bidder does not have the service center at the time of bidding, bidder shall submit the commitment letter to setup the at least one service center inside Bagamati Province and a successful bidder shall setup a service station before commencement of the warranty period.

ii) If above conditions are not met by the bidder, employer reserves the right to make appropriate deductions from payments.



Section – A: TECHNICAL SPECIFICATIONS

1. Overview

Ministry of Labor, Employment and Transport (MoLET) intends to select a contractor for the supply, erection, testing & commissioning of 60 kW EV Charger, and a comprehensive on-site maintenance of the EV Chargers for five (2) years from the date of handing over in all designated locations to MoLET.

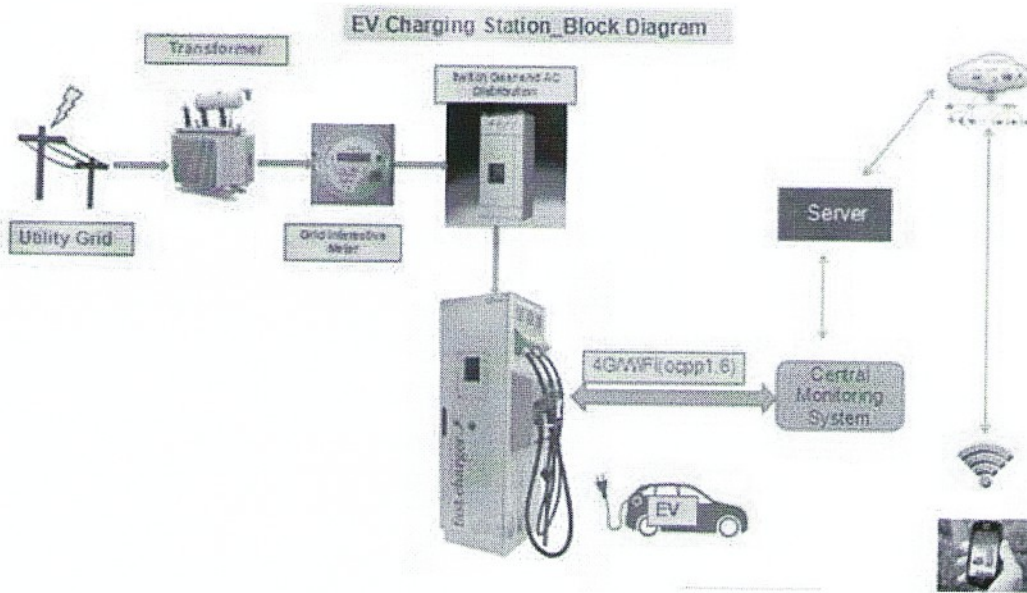


Fig 1: Overview of EV Charging Station

2. EV Charging stations

EV charging station of 60 kW capacity each compatible to charge EV battery (Lithium-ion integrated technology) with voltage range 200 V to 1000 V for DC fast charging with compatibility of combination of charging protocols, such as CCS 2.0 and GB/T with CAN or PLC communication between Electric Vehicle Supply Equipment (EVSE) and Electric Vehicle (EV). It should also be compatible for communication between EVSE and Central Monitoring System (CMS) with Open Charge Point Protocol (OCPP) 1.6 or latest version.

Following requirements must be fulfilled at the minimum:

- Bidders must submit basic design details, Technical Data Sheet cables, scheme to effectively power the EV chargers, system protection schemes, integration and power evacuation details with existing power system, with appropriate diagram and drawings;
- DC charging integrated machine must include but not limited to charging module, power

- With charging management function, the color touch screen display and input for human-machine interaction interface, which can display the information such as current charging mode, charging current, charging voltage and charging time;
- The charger should be able to dynamically adjust the constant current and constant voltage modes according to the Battery Management System (BMS) charging voltage and current limit. When the requested charging current is greater than the constant power output range of the charger, its output must be adjusted according to the maximum allowable current value of the charger;
- Automatically detect whether the charging connector and charging cable are properly connected. When the charger is properly connected to the EV, the charger may start the charging process and when the charger detects that the connection with the electric vehicle is not normal, the charging must be automatically stopped immediately;
- If an individual module is damaged, it must be possible to remove only that module from the working system without affecting the normal operation of the charger with the remaining modules;
- Details of all materials and equipment required for successful completion and commissioning of the project must be included. The design details and other accessories should adhere to and match with the technical specifications and standards provided in tender document.
- The contractor shall submit all the appropriate diagram and drawings to the employer for approval. Also, specifications of major items such as EVSE, distribution panel board etc. shall be submitted to the employer for approval.
- The bidders are required to submit the overall technical details of the charging station meeting all the requirements of the bid document.
- The bidders are required to submit the 5 2 years on-sites warranty and AMC modality of charging station.
- During the process of bid evaluation, MoLET will arrange a program where the bidders are required to present their proposed methodology, technical details, 5 2-year AMC plan and resource planning.

2.1. Safety aspects

1. Unsafe charging mode such as manual charging should not be performed;
2. The system must have following protections at the minimum: AC input over/under voltage protection, DC output over/under voltage protection, setting DC output voltage limiting/current limiting value, overvoltage and overcurrent protection, short circuit protection, AC lightning protection, overheat protection, battery reverse connection, limit Protection functions such as pressure limiting current protection, accidental extraction of guns, lightning protection, insulation monitoring, bleeder circuit, power supply loop contactor adhesion monitoring, and charging gun temperature protection;
3. The charger should have an emergency stop device which is visible and easily accessible and measures to prevent maloperation, which is used to cut off the connection between the power supply equipment and the electric vehicle to prevent electric shock, fire or explosion;
4. The charging gun should have a temperature detection function;
5. The charger should have a bleed function. After fault detection, the charging output voltage shall be vented to avoid voltage shock to the battery load during the charging phase.



6. The charger should have an insulation monitoring function. When the charging gun interface is connected, the charger should be responsible for the insulation monitoring inside the charger (including the charging cable) before charging starts. An alarm should be created and charging stopped when the insulation resistance crosses standard limit;
7. There should be a proper protection scheme provided with the system for an immediate system shutdown in case of fatal errors (such as load polarity reverse, input and output short circuit);
8. The charger should have the function of monitoring and alarming the power circuit contactor.
9. **Locking of coupler:** A vehicle connector used for DC charging shall be locked on a vehicle inlet if the voltage is higher than 60 V DC. The vehicle connector shall not be unlocked (if the locking mechanism is engaged) when hazardous voltage is detected through charging process including after the end of charging. In case of charging system malfunction, a means for safe disconnection may be provided
10. **Disconnection of EV:** One second after having disconnected the EV from the supply (mains), the voltage between accessible conductive parts or any accessible conductive part and earth shall be less than or equal to 42.4 V peak (30 V rms) , or 60 V D.C., and the stored energy available shall be less than 20 J (as per IEC 60950). If the voltage is greater than 42.4 V peak (30 V rms) or 60 V D.C., or the energy is 20 J or more, a warning label shall be attached in an appropriate position on the charging stations.
11. **Protection against overvoltage at the battery:** The D.C. EV charging point shall disconnect supply of electricity to prevent overvoltage at the battery, if output voltage exceeds maximum voltage limit sent by the vehicle.
12. **Verification of Vehicle Connector Voltage:** The EV Charging station shall not energize the charging cable when the vehicle connector is unlocked. The voltage at which the vehicle connector unlocks shall be lower than 60 V.
13. **Earth protection system for charging stations**
 - o All Residual Current Device (RCDs) for the protection of supplies for EVs shall have a residual operating current of not greater than 30mA and shall operate to interrupt all live conductors, including the neutral. All Residual Current Device (RCDs) should be type A.
 - o All RCDs used for the protection of supplies to EVs shall be permanently marked to identify their function and the location of the charging station or socket outlet they protect.
 - o Each EV charging station shall be supplied individually by a dedicated final sub-circuit protected by an overcurrent protective device complying with IEC 60947-2, IEC 60947-6-2 or the IEC 60269 series. The overcurrent protective device shall be part of a switchboard.
 - o Co-ordination of various protective devices shall be required.
 - o Where required for service reasons, discrimination (selectivity) shall be maintained between the RCD protecting a connecting point.
 - o All EV charging stations shall be supplied from a sub-circuit protected by a voltage independent RCD and also providing personal protection that is compatible with a charging supply for an electric vehicle.
 - o All EV charging stations shall be provided with an earth continuity monitoring system that disconnects the supply in the event that the earthing connection to the vehicle becomes ineffective.






- o Earthing of all EV charging stations shall be as per recognized national/ international standards for EV charger.
- o The cable may be fitted with an earth-connected metal shielding. The cable insulation shall be wear resistant and maintain flexibility over the full temperature range.
- o **Detection of the electrical continuity by the protective conductor:** A protective earth conductor shall be provided to establish an equipotential connection between the earth terminal of the supply and the conductive parts of the vehicle. The protective conductor shall be of sufficient rating to satisfy the requirements of IEC 60364-5-54
- o The earthing resistance value should be less than or equal to 15 Ohm (15Ω) measured with standard earthing resistance measuring device. In case if the contractor is unable to achieve the earthing resistance value due to geographic condition of the site or any valid technical reasons, contractor shall inform the employer about such case and both parties will reach a mutual agreement for the earthing resistance value.

2.2. Drawings and documents

Bidder shall include the required documents and drawings for the following:

1. EV DC Charger
2. LT Distribution Board
3. Surveillance camera location
4. Earthing and pit calculations
5. Lightning protection details and specifications

The drawings along with material selected and their standards shall be submitted to NEA and statutory authorities for approval before starting the execution work. The work will be carried out as per the approved design. Contractor shall furnish the following drawings to NEA for approval.

1. General arrangement and dimensional layout of the entire system
2. Schematic drawing showing the EV charger, AC and DC Distribution Boards, meters etc.
 - a. Cable layout (indicating details of cable route for power cables used in the installation of the EV Charger)
 - b. Sizes and specification of cables for interconnections, etc. shall be furnished.

2.3. Quality Assurance

The Contractor shall establish a Quality Assurance system for the Work as per tender requirements. The Quality Assurance system as per tender requirement shall be subject to the approval of the Engineer-in-Charge / concern authority appointed by MoLET.

1. Contractor must ensure strict compliance with the approved, proven & established quality assurance systems and procedures during the different stages of the project starting from sizing, selection of make, storage (at site), and during erection, testing and commissioning of the whole system.
2. The material supplied for the project should be tested as per the technical specification of the tender. All acceptance and routine tests of equipment as per the specification and



relevant standards shall be carried out by the contractor in presence MoLET's representatives.

3. All works shall be undertaken with the highest levels of quality and workmanship. Work shall be carried out in conformity with quality and safety norms.
4. Any materials or work found to be defective or which does not meet the requirements of the specification will be rejected and shall be replaced at contractor's cost.
5. The contractor shall furnish a detailed Quality Assurance Plan (QAP) for the project. The test and inspection shall be done in accordance with the relevant standards and the manufacturer's standard before the delivery to site as well as after the erection and commission at site.
6. The contractor shall provide the list of necessary tests they will carry out at site to show the performance of the system.

2.4. General Quality Requirements

The bidder shall use power electronics of adequate capacity as per standard test conditions, etc. to ensure attainment of design estimates.

1. The bidders must submit an offer integrated upon their own design with requirement mentioned in this bid document. The bidders are advised to visit the site before designing the system and offer their bid.
2. The equipment and materials for each location of EV charging infrastructure with associated system shall include but not limited to the supply, erection, testing, commissioning, and maintenance of EV chargers as specified.
3. Busbars and circuit breakers LT Power Interfacing Panel are suitable for EV charging station as specified in the bid document, common AC power evacuation panel.
4. Metering and protection.
5. LT power and control cables including end terminations and other required accessories for both AC & DC power communication interface, and any other equipment necessary for safe and efficient operation of the EV charging system shall be provided.
6. Testing, maintenance and condition monitoring of equipment.
7. Spares for 5 years. Contractor shall ensure the supply of the requires spare parts for the 5 years. Contractor shall quote the prices of all the spare parts at the time of the bidding and prices of the spare parts shall be updated for each year after on the date of commencement of warranty period each year. Contractor shall invoice the employer for the spare parts supplied as per the price list fixed for the year. Cost of Spare parts will not be the part of price evaluation of the bid.
8. Receipt, unloading, storage, erection, testing and commissioning of all supplied material.
9. Suitable termination and isolation from grid for safety of maintenance with lock and key as applicable.
10. LT evacuation from the system at the interconnection point of NEA Grid shall be under the Bidder's scope of work.

3. Electric Vehicle Supply Equipment (EVSE)

This section prescribes the definition, requirements and specifications for EVSE, herein also referred to as "DC charger", for conductive connection to the vehicle, with an AC input voltage of 3-phase, 400 V, 50Hz system. It also specifies the requirements for digital communication between DC EV charging station and electric vehicle for control of DC charging.



3.1. General Requirements

The requirement for EVSE is as follows:

Charger	Power Rating	Charging Standard	Rated Voltage (V)	No. of Charging Gun (CG)	Remarks
Category-I	60 kW	CCS 2.0	200-1000 V	02	
Category-II	60 kW	GB/T	200-1000 V	02	

Note: The power rating of the EVSE should be minimum 60 kW. In case of parallel operation, the wattage should not go lower than the minimum power defined for each output, but maximum power output of the charger should not cross 60 kW in any case.

An EV is to use an off-board charger for delivering direct current at minimum 60 kW with CCS and GB/T. The EV shall be connected to the EVSE so that in normal conditions of use, the conductive energy transfer function operates safely.

- Energy transfer mode: Conductive
- EVSE type: CCS 2.0, GB/T
- No. of outputs: 2
- Charging mode:
 - CCS 2.0 mode-4
 - GB/T mode-3 and mode-4
- Charger shall be Compact Pillar Charger

3.2. System Structure

The System requirement parameters are derived from Table D1 of Annex DD of IEC 61851-23.

- Regulation:** Regulated DC EV Charging station with combination of the modes:
controlled voltage charging (CVC) and controlled current charging (CCC)
- Isolation:** Isolated DC EV charging station, according to the type of insulation between input and output: a) Basic insulation (b) Reinforced insulation (c) Double insulation
- Each DC output should be isolated from each other [Section 7.5.101 of IEC 61851-23]
- Environmental conditions:** Outdoor use. EVSEs classified for outdoor use can be used for indoor use, provided ventilation requirements are satisfied.
- Power supply:** AC mains to EVSE charging station
- DC output voltage rating:** 200 - 1000V for CCS and GB/T
- Charge control communication:** Communicate by digital and analog signals
- Output Current:** Maximum 200 A.
- Interface inter-operability:** Interoperable with any EV supporting CCS, GB/T protocols, (for each gun respectively)



- j) **The Main Control Board** of the charger must have the remote upgrade function and the remote fault message download and diagnosis function.
- k) **PLC Protocol Board** must have remote fault information download and diagnosis function.

3.3. Input Requirements

- a) Rating of the AC supply voltage
- a. The AC supply system would be 3-Phase, 5 Wire AC system (3Ph+E) Nominal Input Voltage is 400V as per IS 12360 or equivalent.
- b. The rated value of the frequency is 50 Hz \pm 3Hz.

3.4. Output Requirements

The chargers should allow parallel charging of EV with minimum 30 kW of DC output from both the gun simultaneously as per the output configuration types given below.

- a) DC output voltage: 200-1000 V for CCS and GB/T
- b) Output current: Maximum 200 A
- c) Converter efficiency: $\geq 92\%$ at nominal output power
- d) Power Factor: ≥ 0.96 (Full Load)

The service life of coupler and breaking capacity of the coupler as defined in Section 9 of IEC 61851-23.

3.5. Charger configuration Requirement

EV DC charger shall be compatible to configure either one of CCS 2.0, GB/T and charging modes depending on the connected EV type.

CCS 2.0 (2 guns) - Nos

GB/T DC (2 guns) - Nos

3.6. Cable Requirements

Charging Cable Assembly: As per IEC 62196-1-2010, with the functional characteristics defined as below

- a. Functional characteristics: The minimum cord length shall be 5.0meter, straight cable.
- b. Cable Connection Type: supply cable shall be with EVSE as per Case C defined in section 12.11 of IEC61851-1.
- c. Cord Extension Set: No extension cord to be used.
- d. Adaptors: No adaptors to be used.
- e. Storage means of the cable assembly and vehicle connector: EVSE should have the provision for storage of cable and connector when not in use, at a height between 0.4m to 1.5m above ground level, as per IEC 61851-23 Section 101.1.3.

3.7. Environmental Requirements

- a. Ambient Temperature Range: -20°C to 50°C
- b. Ambient Humidity: 5% to 95%
- c. Ambient Pressure: 86 kpa to 106 kpa
- d. Storage Temperature: 0°C to 60°C



3.8. Mechanical Requirements

- a. Ingress Protection: The minimum IP degrees for ingress of objects shall be IP 55
- b. Mechanical Impact: As per IEC 61851-1 Section 11.11.2
- c. Mechanical Stability: As per IEC 61851-1 or equivalent
- d. Cooling: Forced cooling for protection and safety of equipment from any fire hazards
- e. Noise levels: Less than 65 dBA decibel levels

3.9. Protection Requirements

- a. Protection against Electric Shock: As per IEC 61140 and IEC 61851 or equivalent.
- b. Effective earth continuity between the enclosure and the external protective circuit, as per IEC 61851-1 or equivalent.

3.10. Specific Requirements

EVSE shall have provision of emergency switching, protection against uncontrolled reverse power flow from vehicle, output current regulation in CCC, Output voltage regulation in CVC, Controlled delay of charging current in CCC, limited periodic and random deviation (current ripple) and limited periodic and random deviation (voltage ripple in CVC), as per Section 102.2 of IEC 61851-23.

The specific requirements defined in Section 102.2 of IEC 61851-23 except for the functions provided with descriptions:

1. Rated outputs and maximum output power: The clause from Section 101.2.1.1 of IEC 61851- 23 is applicable except for the ambient temperature range to be -20°C to 50°C for climatic conditions in Nepal.
2. Descending rate of charging current: In case of normal condition, DCFC should be able to reduce the descending current at a rate of 100A per second or more as per Section 101.2.1.4 IEC 61851-23.
3. Load dump: In any case of load dump, voltage overshoot shall not exceed 110% of the maximum voltage limit of the battery systems, as per Annex BB 3.8.3 of IEC61851-23.
4. EMI/EMC as per IEC 61000 or equivalent.

3.11. Functional Requirements

The functional requirements should be as per Section 6 of IEC 61851-1 and Section 19.4.3 of IEC 61851- 23.

- a) **Measuring current and voltage:** The accuracy of output measurement of system shall be within the following values:
 1. Voltage measurement: $\pm 0.5\%$
 2. Current measurement:
 - a. $\pm 1\%$ if the actual current is less than or equal to (\leq) 50 A
 - b. $\pm 2\%$ if the actual current is above ($>$) 50A
- b) **Protection against overvoltage at the battery:** The DC EV charging station shall reduce the DC output current to less than 5A within 2s, to prevent overvoltage at the battery, if the output voltage exceeds the maximum voltage limit of the battery system for 1s.



3.12. Communication requirements

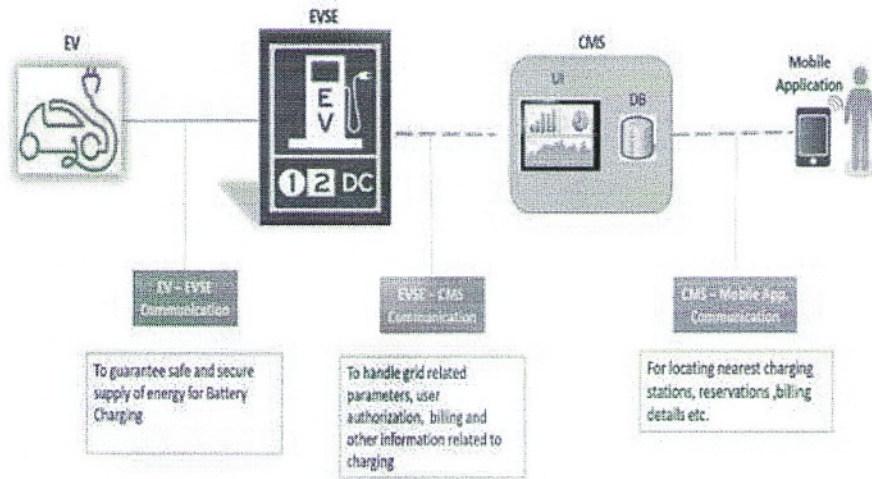


Figure 1: Architecture for EV and Charging Infrastructure

EV charging station Architecture

3.12.1. EV – EVSE Communication

The EV – EVSE communication would be as follows:

1. PLC Communication (CCS)
2. CAN Communication (GB/T)

3.12.2. EVSE – CMS Communication

The EVSE should be able to communicate with CMS using Open Charge Point Protocol (OCPP) 1.6 or higher versions compatible to OCPP1.6.

1. **Communication interface:** Reliable Internet connectivity
2. Should enable handshaking between EVSE and CMS for its discovery, firmware version, vendor version, vendor etc. It should authorize the operation, before electric vehicle can start or stop charging. EVSE should respond to CMS for the queried parameters. Addition and deletion of EVSE should be possible from CMS.
3. **Metering:** Grid responsive metering as per unit consumption
4. Should be upgradable to next version of OCPP whenever it is released.

Control and Monitoring System (CMS)

1. Bidder shall supply:

Option 1: The complete CMS backend OR

Option 2: Should integrate the EV Chargers with NEA's NSP System OR

Option 3: Should integrate the EV Chargers with Registered Privately owned or operated



- Bidder must specify its offered option in the bid proposal itself. Bid Proposal without the specific offered option of CMS system shall be considered as non-responsive bid."
2. In case of the integration of the EV Chargers with either NEA's NSP System or Privately owned or operated NSP/EV Charger CMS, the integration works shall be full responsibility of the bidder including all applicable charges (if any) for the period of contract agreement and or warranty period whichever is longer.
 3. In case of the integration of the EV Chargers with either NEA's NSP System or Privately owned or operated NSP/EV Charger CMS, the bidder shall supply the Control and Monitoring Panel/Portal. Bidders proposal shall include integration fees for all EV chargers for the duration of warranty period.
 4. The communication between the charging units and the CMS is based on Open Charge Point Protocol (OCPP) 1.6 or higher versions compatible to OCPP1.6 that enables real-time response to requests from the charging units, such as authorizations to recharge, requests for available services and energy delivery and charging unit meter readings at configurable intervals.
 5. Communication interface between EV Charger and CMS shall be reliable Internet connectivity (3G/4G, Wi-Fi or other methods.)
 6. The bidder shall provide an all-inclusive software solution (CMS or Control and Monitoring Panel/Portal and Mobile APP) for billing and payment.
 - A. Billing: Based on grid responsive metering
 - B. Payment: APP Server based Online Payment
 - C. Billing and metering system shall be separate for each of CCS, GB/T.
 - D. Payment from EV charging consumers must be deposited to the designated Bank Account of the Employer following a digital payment gateway approved by Nepal Rastra Bank."
 7. User Authentication: Charging session should start only after user authentication is successful.
 8. End of Charging: Once the charging process has been completed, the connector shall only be detached after a payment receipt/acknowledgement has been successfully received.
 9. EV Chargers should always be connected to the backend system and should send and receive data in real time.

Notes:

- 1) The Employer will be responsible for arrangement of data communication facilities using 3G/4G, Wi-Fi or other methods.

3.14. User Interface and Display Requirements

1. **ON- OFF (Start-Stop) Switches** – Physical or Virtual (Screen based) Must be provided
2. **Emergency stop switch:** Mushroom headed Push button type in Red Color, visible and easily accessible
3. **Visual Indicators:** Error indication, Presence of input supply indication, State of charge process indication and other relevant indications/notifications.
4. **Display:**
 - a. 720 x 480 pixels or better TFT LCD screen, user interface with touch screen or keypad
 - b. Separate displays, 1 for each of CCS, GB/T or single display capable of parallel operation of different module.
 - c. Toughened unbreakable glass to be used for display screen
 - d. The display must be remotely upgraded.
5. **Support Language:** English language is mandatory. Provision for additional regional languages including Nepali is optional.



6. **Display Messages:** EVSE should display appropriate messages for user during the various charging states like: Suggestive sequence of charger operation, Vehicle plugged in / Vehicle plugged out, Duration since start of charge, User authorization status, Idle / Charging in progress: SOC, Fault conditions, Metering Information: Consumption Units, time of charge.
7. At least 10m away from the charger, the status indication of the charger should be seen from the front, left and right side of the charger.

3.15. Integration with CMS

3.15.1. Charging unit provisioning, management & real-time geo-localization

1. The system allows configuration of charging units and real-time status of charging unit and its visualization on geo-referenced maps (geo-localization) with all the info related to their technical characteristics and the availability of charge.

3.15.2. Communication between Charging Unit and CMS using Open Charge Point Protocol (OCPP)

1. The communication between the charging units and the CMS is based on OCPP protocol that enables real-time response to requests from the charging units, such as authorizations to recharge, requests for available services and energy delivery and charging unit meter readings at configurable intervals.
2. Data communication is encrypted according to the most modern public and private key systems with certificate issue/revocation for each charging unit.
3. Charging units are always connected to the system and can send and receive data in real time; if the communication channel is under temporary fail, the charging unit can operate also in standalone mode until communication is back. During this black-out period, all the functionalities necessary to allow recharging, such as white list management or authorization process are in place and the charging unit automatically aligns with the CMS as soon as the connection is on again.
4. The charger must support two platforms, the customers' management platform and the manufacturer management platform.

3.15.3. Alarm Management

1. The alarm management is essential to operate the charging infrastructure as it allows the operator to be aware in real time if some issues are occurring in the charging unit, like faults in some components, misuse of the charging equipment, problems on the communication between the charging unit and the CMS solution.
2. The alarm management follows an industry standard process for notification (via visual, sound alerts, and alerts to specific persons as notified by MoLET from time-to-time), acquisition, operation and automatic closing of alarms if the problem is fixed.

3.15.4. Ticket Management

1. An integrated ticketing feature allows the Operator to issue maintenance tickets for faults occurring in the charging network.
2. The ticket management module allows tracking the ticket and the related actions performed.



3.16. Type Testing

S. N.	Criteria	Parameter	IEC Standard
1	Safety functions Verification	Earth Presence Detection (Socket - EVSE)	IEC 61851 – 1
		Earth Continuity Check (EVSE-EV)	
		Over Current and Short- Circuit Protection	
		Leakage Current (RCD)	
		Dielectric withstand voltage	
2	Mechanical Stability	Mechanical Impact	IP54
		IP testing	
3	Climatic environmental tests	Ambient air temperature	IEC 60068 and relevant standards
		Ambient humidity	
4	EMC Verification	General Compliance	IEC 61000 and relevant clauses for EV DC fast charger
		Immunity to electrostatic discharge	
		Electric Fast transient bursts	
		Surge immunity tests	
		Limitation of voltage changes, voltage fluctuations, and flicker in public low voltage supply system. Limitation for harmonic currents produced by equipment connected to public low voltage charging systems	

3.17. Requirement to prevent fire for EVs Charging Stations

Adequate firefighting equipment and extinguishing agents of sufficient capacity and quantity ready for immediate use should be provided with clear documentation for its replenishment and replacement schedule.

One liquefied carbon dioxide fire extinguisher upright type of capacity 5 kg having IS: 2171 - 7, IS: 10658 or equivalent IEC marked per installation of DC EV Charger shall be supplied by the Contractor. The fire extinguisher shall be suitable for fighting fire of oils, solvents, gases, paints, varnishes, electrical wiring, live machinery fires and all flammable liquid & gas.

3.19. Drawings, Data and Documents

The Contractor shall furnish following documents/ information along with the offer.

1. General description of equipment offered specifying the important features, make, technical parameters, etc. to enable the employer to have proper understanding of the equipment offered and its operation.
2. Technical literature, catalogue and publications.



3. Layout of Complete Plant Installation showing location of all major sub-systems.
4. Single line diagram.
5. Technical particulars as listed in this specification.
6. Type test certificates of all major equipment like EV Chargers etc.

3.20. Erection, Testing and Commissioning

1. The contractor shall provide necessary drawings and documents required by employer and obtain approval before taking up erection.
2. Any modification in the equipment or installation that may be demanded by the inspecting authorities shall be carried out by the contractor at no additional cost to the employer.
3. In accordance with the specific installation instruction as per the manufacturers drawings or as directed by the employer, the successful Bidder shall unload, assemble, erect, install, test, commission and hand over all the equipment included in this contract.
4. Erection materials including all consumables, tools, testing instruments or any other equipment required for successful commissioning shall be arranged by the successful Bidder in a timely manner.
5. All equipment and instruments, indoor and outdoor, shall be marked with relevant information as instructed by the employer and provided with danger boards before commissioning.
6. All Power equipment shall be handled and erected as per the relevant codes of practice and manufacturer's drawings and instruction manuals.
7. The Contractor shall obtain the temporary Electrical connection for construction purposes and the same has to be dismantled off the premises after completion of erection of plant.

3.21 Complying with all regulatory obligations

1. Contractor shall supply Operation manual for Operation of all the system in English
2. Contractor shall perform the Work and supply all required spare parts in a prudent and efficient manner and in accordance with
 - a. Manufacturers and systems designers' specifications, Operating Plan for the Plant and all operation and installation manuals,
 - b. All applicable laws of the GoN including environmental protection, pollution, sanitary, employment and safety laws, ("Government Rules").
 - c. Prudent Utility Practice to maximize plant capacity utilization and to minimize plant downtime
 - d. Optimize useful life of all the components of the installed system. Contractor shall be responsible for all the required activities for the successful running, optimum energy consumption & maintenance of the entire EV charging station
 - e. Monitoring, controlling, troubleshooting and maintaining of records/registers.
 - f. Use of consumables throughout the maintenance period as per recommendations of the equipment manufacturers.
 - g. Conducting periodical checking, testing, over hauling and preventive action.
 - h. Replacement of EV charger, damaged modules if any, during the contract warranty period.
 - i. Periodic Testing/calibration of all measuring devices as per respective manufacturer's instruction/ guideline.



TECHNICAL DATA SHEET

(To be completed by Bidder)

S.No.	Parameter	Description	Bidder's Offer
General Requirements			
1	EVSE Type	Category I: CCS 2.0 (60 kW) 2 physical guns Category II: GB/T (60 kW) 2 physical guns	
2	Energy Transfer Mode	Conductive	
3	Reliability and Serviceability	Modularity, self-diagnostic features, fault codes and easy serviceability in the field	
System Structure			
4	Regulation Method	Regulated DC EV Charging Station with combination of CVC or CCC but not simultaneously	
5	Isolation	Each output isolated from each other with proper insulation	
6	Environmental Conditions	Outdoor use	
7	Power Supply	DC EV charging station connected to AC mains	
8	DC output voltage rating	200-1000 V (for CCS and GB/T)	
9	Charge control Communication	Communicate by digital and analog signals	
10	Interface inter-operability	Inter-operable with any EV supporting CCS or GB/T (for each gun respectively)	
11	Operator	Operated by a trained person or EV owner	
Input Requirements			
S.No.	Parameter	Description	Bidder's Offer
12	AC Supply System	3-Phase, 5 Wire AC System (3Ph+N+E)	
13	Nominal Input Voltage	3-Phase 380Vac \pm 15%	
14	Input Frequency	50 Hz, +/- 3 Hz	
Output Requirements			
15	No. of Outputs	2	
16	Output Connectors	2 output connectors	
17	Output Connector Compatibility	CCS: IEC 61851-1, IEC 61851-21-2, IEC 61851-23, LVD 2014/35/EU, RED 2014/53/EU GB/T: GB/T 18487.1-2015, GB/T 18487.2-2017, NB/T 33001-2018, NB/T 33008.1-	



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18	Converter Efficiency	> 92% at nominal output power	
19	Power Factor	≥ 0.95 (Full Load) or better	
Cable Requirements			
20	Charging Cable Length	5-meter straight cable or better	
21	Cable Type	Charging cable and connector permanently attached to EVSE	
Environmental Requirements			
22	Ambient Temperature Range	-20°C to 50°C	
23	Ambient Humidity	5 to 95%	
24	Storage Temperature	0 to 60°C	
Mechanical Requirements			
25	Ingress Protection	IP54 or better	
26	Mechanical Stability	Shall not be damaged by mechanical impact as defined in IEC 61851-1	
27	Cooling	Forced Air Cooling	
28	Mechanical Impact	Shall not be damaged by mechanical impact as defined in IEC 61851-1	
29	Dimension (W*H*D) /	To be proposed by the bidder	



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S.No.	Parameter	Description	Bidder's Offer
User Interface and Display Requirements			
30	ON-OFF (Start-Stop) Switches	Mandatory, Physical or Virtual (Screen based)	
31	Emergency Stop Switch	Mushroom headed type	
32	Visual Indicators and voice notifications	Visual Indicators: Error indication, Presence of input supply indication, State of Charge process indication	
33	Display	720 x 480 pixels TFT LCD Screen, user interface with touch screen or keypad. Toughened unbreakable glass to be used for display screen	
34	Support Language	English: Mandatory, Provision for additional regional languages: Optional.	
35	Display Messages	EVSE should display appropriate messages for user during the various charging states like: <ul style="list-style-type: none"> - Vehicle plugged in / Vehicle plugged out - Duration since start of charge and kWh consumed - User authorization status - Idle / Charging in progress: SOC 	
36	Authentication	As per OCPP 1.6 or higher (through mobile application)	
Communication Requirements			
37	Communication between EVSE and Vehicle	As specified by CCS and GB/T Protocols	
38	Communication interface between charger and central management system	All of: Ethernet, Wi-Fi or 2G/3G/4G	
39	Communication between EVSE and Central Server	Open Charge Point Protocol (OCPP) 1.6 or higher version compatible with OCPP 1.6. Metering: Grid Responsive Metering	




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Billing Requirements			
40	Software Solution	CMS and USER APP	
41	Billing	Grid Responsive metering (Billing and Metering System shall be separate for each of CCS, CHAdeMO, GB/T and AC type-2	
42	Payment	Mobile application payment	
Protection and Safety Requirements			
43	Safety Parameters	Over Current, Under Current, Over Voltage, Residual Current, Surge Protection, Short Circuit, Earth Fault at input and output, Input Phase reversal, Emergency Shut-down with alarm, over temperature. Protection	








अनुसूची ७
(दफा १९ सँग सम्बन्धित)

चार्जिङ्ग स्टेशनको संकेत बोर्ड

वागमती प्रदेश सरकार श्रम रोजगार तथा यातायात मन्त्रालय र.....को लागत
सहभागितमा संचालित विद्युतीय सवारी साधन चार्जिङ्ग स्टेशन

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अनुसूची ८
(दफा ४ सँग सम्बन्धित)

प्रदेश सरकार र निजी क्षेत्रको लागत साझेदारीको विवरण

प्रदेश सरकार				निजी क्षेत्र				कैफियत
सि नं	विवरण	परिमाण/ इकाई	अनुमानित लागत (रु हजार)	सि नं	विवरण	परिमाण /इकाई	अनुमानित लागत (रु हजार)	
१	चार्जिङ्ग मेशीन (Specification)	वटा		१	जग्गा			आफ्नै वा भाडामा
२	चार्जिङ्ग मेशीनको स्ट्याण्ड			२	आधारभूत संरचना			चार्जिङ्ग स्टेशनको शेड र शौचालय
				३	थप संरचना			प्रतिक्षालय, रेष्टुरेन्ट, स्थानीय उत्पादनको विक्री कक्ष लगायत



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अनुसूची ९

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चारिङ्ग स्टेशन संचालनका लागि प्रस्तावित जिल्ला र स्थानहरू

सि.नं.	संभावित स्थानहरू	जिल्ला	चारिङ्ग प्रणाली
१	पाचंखाल क्षेत्र	काभ्रपलाञ्चोक	GB/T system
२	बनेपा क्षेत्र	काभ्रपलाञ्चोक	वा
३	नमोबुद्ध क्षेत्र	काभ्रपलाञ्चोक	CCS 2
४	दोलालघाट क्षेत्र	काभ्रपलाञ्चोक	मध्ये कुनै एउटा
५	नगरकोट क्षेत्र	भक्तपुर	छानी आवेदन गर्नुपर्ने
६	चरिकोट क्षेत्र	दोलखा	छ ।
७	मन्थली क्षेत्र	रामेछाप	
८	कमलामाई क्षेत्र	सिन्धुली	
९	कोटेश्वर क्षेत्र	काठमाडौं	
१०	विदुर क्षेत्र	नुवाकोट	
११	धादिङ्गवेसी क्षेत्र	धादिङ्ग	
१२	धादिङ्ग जिल्लाभित्र पृथ्वी राजमार्ग क्षेत्रमा	धादिङ्ग	
१३	हेटौंडा/नवलपुर क्षेत्र	मकवानपुर	
१४	सौराहा/टाडी क्षेत्र	चितवन	
१५	बालाजु/नागार्जुन क्षेत्र	काठमाडौं	
१६	राष्ट्रिय राजमार्ग क्षेत्र	सिन्धुपाल्चोक	

