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QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

Name and address of submitting body:

**Power Sector Skill Council, 2nd Floor, CBIP Building Malcha Marg,
Chanakyapuri, New Delhi**

Name and contact details of individual dealing with the submission

Name: Vinod Behari

Position in the organisation: Chief Executive Officer

Address if different from above

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List of documents submitted in support of the Qualifications File

1. **Qualification Pack**
2. **List of companies and Industry associations participated in the development of these qualification packs (part of report)**
3. **List of QP/NOS validating companies.**

QUALIFICATION FILE SUMMARY

Qualification Title	Senior Lineman-Distribution		
Classification Code	PSS/Q 0103		
Body/bodies which will assess candidates	Details are given in Section 1 below		
Body/bodies which will award the certificate for the qualification.	Power Sector Skill Council		
Body which will accredit providers to offer the qualification.	Power sector Skills Council		
Occupation(s) to which the qualification gives access	Lineman		
Proposed level of the qualification in the NSQF.	5		
Anticipated volume of training/learning required to complete the qualification.	330 hours	For ITI - 165 hrs	
Entry requirements / recommendations.	8 th Standard		
Progression from the qualification.	Junior Engineer		
Planned arrangements for RPL.	RPL arrangements and policies are under development. The guidelines should be ready in 2-3 months.		
International Comparability	Australia - UETDRSB21A (PSS N 0107), UETDRSB22A (PSS N 0105), UETDREL12A (PSS N 0109, PSS N 0105) uk-, EUSPTD004 (PSS N 0107, N 0105, 0109)		
Formal structure of the qualification			
Title of unit or other component (include any identification code used)	Mandatory/ Optional	Estimated size (learning hours)	Level
PSS N 0109 (Inspection of Power Distribution Substation, Lines and Components)	Mandatory	50	5
PSS N 0105 (Repair and maintenance of sub-station, power distribution lines and components)	Mandatory	50	5
PSS N 0107 (Operation and maintenance of 11/0.433 KV Distribution Substation)	Mandatory	50	5
PSS N 0110 (Supervise work and crew in power distribution installation and maintenance work)	Mandatory	50	5
PSS/ N 2001 (Use basic health and safety practices for power related work)	Mandatory	65	Common across 1-5 levels

CSC/ N 1336 (Work effectively with others)	Mandatory	65	Common across 1-5 levels
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Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack.

Give details of the document here:

- Qualification Pack is attached as Annexure 1

SECTION 1

ASSESSMENT

Name of assessment body:	
Navriti Tehcnologies Pvt.Ltd	2nd Floor, #15,25/1, 19th A Main , 9th Cross, JP Nagar 2nd Phase, Bangalore 560078
Induslynk Training Service Pvt. Ltd	Plot No97, ground Floor, Sector-44, Gurgaon, Haryana - 122003
Aspiring Minds Assessment Pvt Ltd	323, Udyog Vihar Phase-2, Gurgaon, Haryana - 122016
Manipal City and Guilds Pvt Ltd	No.256, Okhla Industrial Estate, Phase-3, Modi Mill Compound, New Delhi-110020
Trendsetters Skill Assessors Pvt Ltd	Unit 340, Tower B - 3, Spaze IT Park, Sewctor - 49, Sohna Road, Gurgaon, Haryana - 122018
Ace Assessments Pvt Ltd	488, Sec-11, DDA Pocket-4, Dwarka, New Delhi-110075
Assure Quality Management Certification Services Private Limited	S.C.F 19, M.E, Opp. Flat No. 363-A(Old Housing Complex) Sector 19, Panchkula-134113
Prima Competencies Pvt Ltd*	51 A, 2nd Floor, Uday park, New Delhi 110049

Will the assessment body be responsible for RPL assessment?

Yes

Give details of how RPL assessment for the qualification will be carried out and quality assured.
RPL will be based on the same approved Qualification Pack and Assessment Criteria mentioned in the Qualification Pack.

The process of RPL assessment is under development.

Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:

The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria. The assessment papers are developed by Subject Matter Experts (SME) available with the Assessment Agency as per the performance and assessment criteria mentioned in the Qualification Pack. The assessments papers are also checked for the various outcome based parameters such as quality, time taken, precision, tools & equipment requirement etc. The assessment sets are then reviewed by PSSC official for consistency. The assessments are designed so as to assess maximum parts during the practical hands on work. The technical limitations at the training centres are taken care in theory and viva. Criteria such as use of lift to pick heavy objects or selection of fire extinguisher during a fire are also assessed under theory/viva.

The assessment agencies are instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would

compromise impartiality of the assessments. The assessment agencies are instructed to Ideally have assessor with minimum 15 years industry experience as an ITI graduate / minimum 10 years' industry experience as diploma engineer and minimum 5 years' industry experience as graduate engineer.

The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to PSSC Assessment Framework, competency based assessments, assessors guide etc.

The assessors are provided with assessors guide developed by the Subject Matter Expert of the assessment agency as per the assessment framework. The assessment guides are developed to ensure the maximum possible consistency in the assessment by different assessors and elaborate on the following

- 1 Qualification Pack Structure
- 2 Guidance for the assessor to conduct theory, practical and viva assessments
- 3 Guidance for trainees to be given by assessor before the start of the assessments.
- 4 Guidance on assessments process, practical brief with steps of operations practical observation checklist and mark sheet
- 5 Viva guidance for uniformity and consistency across the batch.
- 6 Guidance on assessment evidence collection

A sample format of Assessment Guide for Fitter-Fabrication is attached. Similar Assessor Guides are developed and shared with the assessors before the start of the assessments as standard practices for all assessments by PSSC. The Sample of Assessor Guide is attached as Annexure 4

The assessment results are backed by evidences collected by assessors.

- 1 The assessor needs to collect a copy of the attendance for the training done under the scheme. The attendance sheets are signed and stamped by the In charge /Head of the Training Centre.
- 2 The assessor needs to verify the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/Government. The same needs to be mentioned in the attendance sheet. In case of suspicion, the assessor should authenticate and cross verify trainee's credentials in the enrolment form.
- 3 The assessor needs to take a photograph of all the students along with the assessor standing in the middle and with the centre name/banner at the back as evidence.
- 4 The assessor needs to carry a camera to click photograph of the trainees working on the job and giving theory exam as evidence.
- 5 The assessor also needs to carry a photo ID card.
- 6 The assessor also needs to take the photographs as evidence from appropriate angles/sides of the final work piece/job submitted by the trainee. This evidence is signed by the trainee at the time of submission of the job piece.
- 7 The assessor needs to measure the dimensions and finish of the submitted job piece as per the tolerance or standards mentioned in the assessment guide.
- 8 The assessor will also check internal record of assignments, performance records and feedback provided to candidates.

The assessment agencies are instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments. This code of conduct is enclosed. The assessment agencies are instructed to Ideally have assessor with minimum 15 years industry experience as an ITI graduate / minimum 10 years' industry experience as diploma engineer and minimum 5 years' industry experience as graduate

engineer.

The details on affiliation of assessment agencies are elaborated in PSSC Accreditation of Assessment Agencies form attached.

Please attach any documents giving further information about assessment and/or RPL.
Give details of the document(s) here:

ASSESSMENT EVIDENCE

Complete the following grid for each grouping of NOS, assessment unit or other component as per the assessment criteria. Insert the required number of rows.

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role : Senior Lineman-Distribution

Qualification Pack : PSS/ Q 0103

Sector Skill Council : Power Sector Skill Council

Guidelines for Assessment:

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack , every trainee should score a minimum of 70% in every NOS
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

Assessable outcomes	Assessment Criteria	Total Mark	Out of	Theory	Skills Practical
PSS/ N 0109: Inspection of Power Distribution Substation, Lines and Components	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	100	3	1	2
	PC2. adhere to procedures or systems in place for health and safety, personal protective equipment (PPE) and other relevant safety regulations for electrical and related operations		3	1	2
	PC3. work following laid down procedures and instructions		2	1	1
	PC4. ensure that all tools, equipment, etc. are in a safe and usable condition and are kept at secured location		1	0	1
	PC5. ensure work area is clean and safe from hazards before and after the job is completed		1	0	1
	PC6. prepare and maintain the work area as per procedure or operation specification		2	1	1
	PC7. inspect power transformers including general transformer appearance, bushings, free of contamination, no oil leaks, auxiliary cooling system safely and as per required and approved procedures		3	1	2

PC8. inspect circuit breakers including general breaker appearance, bushings, for contamination, oil leaks, doors locked and working safely and as per required and approved procedures	3	1	2
PC9. inspect insulators including substation, bus support, suspension, etc. using safe and correct methods	3	1	2
PC10. inspect any steel superstructures where applicable	3	1	2
PC11. inspect substation components including circuit switchers, disconnect switches, coupling capacitors, capacitors, cable potheads, lightning arresters, metal-clad switchgear, relays, etc. safely, as per required and approved procedures	3	1	2
PC12. inspect communication equipment, back-up battery systems, control house, etc. as per required and approved procedures	3	1	2
PC13. inspect for physical security including locks on switches, enclosures, and gates, fences, gates, and warning signs (including washouts) to identify risks	3	1	2
PC14. inspect grounds and the grounding system including broken, loose, or exposed wires and exposed ground rods as per required and approved procedures	3	1	2
PC15. inspect for weeds and bird nests, such growth which may hamper access, deteriorate conditions of equipment and components, increase moisture content and support insect growth	2	1	1
PC16. carry out specific equipment tests on the equipment based upon frequency of operation such as Oil dielectric tests, Relay tests, Infrared tests, Voltage regulation equipment tests accurately, efficiently and safely	2	0	2
PC17. carry out predictive maintenance tests of load tap changer motor-control circuitry, and of breaker operator mechanisms accurately and safely	2	0	2
PC18. carry out battery and battery-charger tests accurately and safely	2	0	2
PC19. follow and develop plans and schedule inspections of distribution lines including regular periodic and special routines such as pre-monsoon inspection	2	0	2

PC20. identify various types of circuits and its components accurately	1	0	1
PC21. identify and acquire correct tools, equipment and instruments required for Distribution line assessment and inspection	1	0	1
PC22. ensure the tools and equipment is well maintained, calibrated and approved for use	1	0	1
PC23. access and survey area in accordance with established procedures	2	1	1
PC24. assess components of distribution line for damage or risk for damage through visual, sensory and instrument methods	1	0	1
PC25. carry out pole to pole inspection using patrolling as per job requirement, safely and efficiently	3	1	2
PC26. assess and confirm condition of pole structure based on Distribution line standards	3	1	2
PC27. check guys for damage, distance to primary conductor or equipment, insulator condition accurately	3	1	2
PC28. check pole top assemblies for damage, safely and as per required and approved procedures	4	1	3
PC29. perform load checks to identify imbalanced and overloaded circuits accurately and safely	3	1	2
PC30. assist engineer in testing cable integrity and designation by using methods such as ultra-low frequency (ULF), very low frequency (VLF)	2	1	1
PC31. check line conductors for damage, slack, tension, sparks and burns, foreign objects, clearance, etc. safely and as per required and approved procedures	3	1	2
PC32. identify hazards of trimming trees such as limits of approach, public safety and step and touch potential	2	0	1
PC33. conduct site inspection for emergency cases following established procedures	3	1	2
PC34. observe and follow safety procedures	3	1	2
PC35. document and record findings clearly, accurately and in required detail using correct forms and formats if any	1	0	1

	PC36. prepare recommendations for corrective and preventive maintenance based on the findings of the inspection		2	0	2
	PC37. clean and test Distribution line tools according to standard procedures		2	1	1
	PC38. inspect, repair and replace distribution line tools and equipment, if necessary after use		2	1	1
	PC39. restore system to normal operating status by using switching procedures where disconnected		2	1	1
	PC40. record details of inspection accurately and clearly in required ledgers, forms and formats as per required and approved procedures		2	1	1
	PC41. make correct and required recommendations for repair and maintenance where risks, faults or damage recorded		3	1	2
	PC42. deal promptly and effectively with problems within control, and seek help and guidance from the relevant people for problems that cannot be resolved		2	0	2
	PC43. leave the work area in a safe and tidy condition on completion of the inspection and testing activities		1	0	1
	PC44. refer unresolved job related problems to appropriate personnel for support		1	0	2
	PC45. monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		1	0	1
		Total	100	28	72
PSS/ N 0105: Repair and maintenance of Sub-station, Power Distribution Lines and components	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	100	3	1	2
	PC2. adhere to procedures or systems in place for health and safety, personal protective equipment (PPE) and other relevant safety regulations for electrical and related operations		3	1	2
	PC3. work following laid down procedures and instructions		2	1	1
	PC4. ensure that all tools, equipment, etc. are in a safe and usable condition and are kept at secured location		1	0	1
	PC5. ensure work area is clean and safe from hazards before and after the job is completed		1	0	1

PC6. access and survey area in accordance with established procedures	3	1	2
PC7. assess and confirm condition of pole structure and components based on Distribution line standards	4	2	2
PC8. perform load checks to identify imbalanced and overloaded circuits	2	0	2
PC9. identify hazards of trimming trees such as limits of approach, public safety and step and touch potential prior to commencing work	2	0	2
PC10. conduct site inspection for emergency cases following established procedures	3	1	2
PC11. identify various types of circuits	1	0	1
PC12. identify and acquire correct tools, equipment and instruments required for Distribution line assessment and inspection	1	0	1
PC13. ensure the tools and equipment is well maintained, calibrated and approved for use	1	0	1
PC14. use Distribution line tools, equipment and hardware in line with job requirements for maintenance operations	2	1	1
PC15. prepare and maintain the work area as per procedure or operation specification	2	1	1
PC16. switch off, isolate, discharge and earth (side) line cables	2	0	2
PC17. confirm and/or obtain PTW/work permit (shut down) is taken to proceed to work from appropriate personnel in accordance with standard procedure	3	1	2
PC18. safely operate switchgears eg. on/off, earth, etc.	2	0	2
PC19. perform off-line overhead line maintenance procedure according to job specifications and requirements	4	2	2
PC20. perform off-line underground line maintenance procedure according to job specifications and requirements	4	2	2
PC21. perform stay wire assembly as per requirements and specifications, safely and efficiently	4	2	2
PC22. ensure lines are properly aligned by tightening appropriate nuts and bolts	2	0	2
PC23. ensure proper clearance of lowest conductor from ground	2	0	2

PC24. ensure guy insulators are of suitable capacity to the stay sets	2	0	2
PC25. select and use test equipment such as tong testers/clip-on meter, meggers and voltmeters to verify fault and integrity	2	0	2
PC26. sectionalize circuit to determine location of fault	2	0	2
PC27. isolate fault, damage or hazard and restore power to customers using equipment such as switches	2	0	2
PC28. repair conductor by splicing, jointing, using armor rods, line guards, vibration dampers	2	0	2
PC29. check work carried out by team members and ensure it is as per standard requirement	4	2	2
PC30. provide useful feedback regarding work matter to team members in a timely, polite and supportive manner	2	0	2
PC31. report trouble and required actions such as repairs or replacements, and estimated repair time to system authority	2	0	2
PC32. ensure pole dismantling and re-setting procedure is carried out as per standard procedure, where required	4	2	2
PC33. carry out conductor stringing procedures, paving conductor on the ground along the pole taking into account permissible span length and sagging	3	0	3
PC34. replace components such as transformers, disconnects, conductors, poles, switches, elbows and terminations and insulators safely and as per company procedure	3	1	2
PC35. replace other line components due to damage or unsuitability as per standard procedure, where required	3	1	2
PC36. make connections and energize replaced underground cables, as per standard procedures where required	4	2	2
PC37. restore system to normal operating status by using switching procedures	3	1	2
PC38. deal promptly and effectively with problems within control, and seek help and guidance from the relevant people for problems that cannot be resolved	2	0	2
PC39. leave the work area in a safe and tidy condition on completion of the repair and maintenance activities	2	0	2

	PC40. refer unresolved job related problems to appropriate personnel for support		2	0	2
	PC41. monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		2	0	2
		Total	100	25	75
PSS/ N 0107: Operation and maintenance of 11/0.433 KV Distribution Substation	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	100	3	1	2
	PC2. adhere to procedures or systems in place for health and safety, personal protective equipment (PPE) and other relevant safety regulations for Electrical and related operations		3	1	2
	PC3. work following laid down procedures and instructions		2	1	1
	PC4. ensure that all tools, equipment, power cables are in a safe and usable condition and are kept at secured location		2	0	2
	PC5. ensure work area is clean and safe from hazards before and after the job is completed		2	0	2
	PC6. inspect the component to check if it is as per specification and without defects		3	1	2
	PC7. identify job requirements for specific operations as per instructions given from valid sources		3	1	2
	PC8. identify various components of the power system		2	1	1
	PC9. ensure equipment and tools required for installation work are identified, acquired, calibrated, suitable and approved for use		2	0	2
	PC10. identify, estimate and acquire correct materials required for the Substation erection and installation work		2	0	2
	PC11. follow standard specifications and procedures for installing a pole mounted distribution transformer		5	2	3
	PC12. ensure poles set to proper depth, and properly aligned		2	0	2
	PC13. carry out erection of channel on the double pole for preparation of transformer bed as per requirement		5	2	3
	PC14. fix lightning arrester as per requirement and standard procedure		4	2	2
	PC15. install earth connection as per standard procedure		3	1	2
	PC16. install cross arm as per		3	1	2

specifications and requirement			
PC17. provide anti-climbing device on poles	2	0	2
PC18. arrange to lift the transformer and put it on the transformer bed in a safe and efficient manner	3	0	3
PC19. fit the Gang operating (GO Switch) and dropout fuse as per standard procedure	5	2	3
PC20. follow applicable construction standards eg. REC construction standards, for carrying out the erection procedures	4	2	2
PC21. connect low voltage cables as per standard procedures in a safe and efficient manner	3	1	2
PC22. carry out low voltage cable joints as per standard procedures, safely and effectively	3	1	2
PC23. perform post-installation procedures for ensuring clean and safe environment in the work and surrounding area	2	0	2
PC24. check Oil level and ensure leakages are attended to and arrested	2	0	2
PC25. check Oil BDV and acidity at regular intervals as per schedule and standard procedure	3	1	2
PC26. checking for sludge, dust, dirt ,moisture ion in oil and address it effectively in a timely fashion	2	0	2
PC27. clean bushings regularly and inspect for any cracks	2	0	2
PC28. check, note and rectify dust & dirt deposition, salt or chemical deposition, cement or acid fumes depositions	2	0	2
PC29. check tap position and gap of arching horn and tighten connection as requirement to address any issues	3	1	2
PC30. check neutral grounding and ensure it is maintained as per standard	3	1	2
PC31. periodically check for any loose connections of the terminations of HV & LV side	2	0	2
PC32. examine the breather through color of silica gel , if pink heat it or replace if necessary	2	0	2
PC33. ensure facility is locked and warning signs are displayed effectively	2	0	2

	PC34. deal promptly and effectively with problems within control, and seek help and guidance from the relevant people for problems that cannot be resolved		3	0	3
	PC35. leave the work area in a safe and tidy condition on completion of the substation construction and maintenance activities		2	0	2
	PC36. refer unresolved job related problems to appropriate personnel for support		2	0	2
	PC37. monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		2	0	2
	Total		100	23	77
PSS/ N 0110: Supervise work and crew in power distribution installation and maintenance work	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	100	6	2	4
	PC2. work following laid down procedures and instructions		4	1	3
	PC3. ensure that work is done within the specified departmental rules and regulations, organisation rules, span of authority, roles and responsibilities for self and other team members		5	2	3
	PC4. ensure work area is clean and safe from hazards before and after the job is completed		4	1	3
	PC5. ensure self and all team members have completed necessary training in electrical safety and other mandatory trainings		4	1	3
	PC6. ensure while carrying out electrical work during repair and maintenance, installation or other work in the vicinity of power lines, substations, etc. all team members are complying with PPE requirements		5	2	3
	PC7. requisition necessary equipment, tools, materials or PPE gear from the store for carrying out work as per job and safety requirements		6	2	4
	PC8. explain to team members requirements of the job or task plan and clarify for shared understanding		5	1	4
	PC9. inspect work being carried out by team members to ensure work is being carried out safely and as per required and approved procedures		6	2	4

	PC10. inspect preparation, process and output of work to assess suitability as per job specifications and compliance to organizational and other rules and regulations		6	2	4
	PC11. ensure time on the job is utilized properly to achieve optimum productivity and efficiency		5	2	3
	PC12. assist team members to develop their own knowledge, skills and abilities by providing timely and accurate guidance, feedback and responsibilities		5	1	4
	PC13. address low performance through training, informal and formal guidance, support from other supervisors, management and HR department		6	2	4
	PC14. record details of performance and other records required by organization and departmental authorities, details accurately and clearly in required ledgers, forms and formats as per required and approved procedures		6	2	4
	PC15. address grievances and complaints promptly and as per organizational guidelines		6	2	4
	PC16. report incident and accidents as per organizational procedure in a timely fashion with necessary detail		6	2	4
	PC17. deal promptly and effectively with problems within control, and seek help and guidance from the relevant people for problems that cannot be resolved		5	1	4
	PC18. refer unresolved job related problems to appropriate personnel for support		5	1	4
	PC19. monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		5	1	4
		Total	100	30	70
PSS/ N 2001 (Use basic health and safety practices at the workplace)	PC1. use protective clothing/equipment for specific tasks and work conditions	100	3	0	3
	PC2. state the name and location of people responsible for health and safety in the workplace		2	0	2
	PC3. state the names and location of documents that refer to health and safety in the workplace		2	0	2
	PC4. identify job-site hazardous work and state possible causes of risk or accident in the workplace		3	1	2

PC5. follow electrical safe working procedures such as Tag out/Lock out, PTW (Permit To Work),	3	1	2
PC6. follow warning signs (danger, out of service, etc.) while working with electrical systems	3	1	2
PC7. use standard safe working practices when working at heights, confined areas and trenches	3	1	2
PC8. test any electrical equipment and system using insulated testing devices before touching them	3	1	2
PC9. ensure positive isolation of electrical equipment & system as per given standards	3	1	2
PC10. recognize any abnormalities in electrical equipment or system installed alarm annunciation and/or noticing parameters from gauge/ indicator installed	3	1	2
PC11. carry out safe working practices while dealing with hazards to ensure the safety of self and others	3	1	2
PC12. state methods of accident prevention in the work environment of the job role	2	0	2
PC13. state location of general health and safety equipment in the workplace	2	0	2
PC14. inspect for faults, set up and safely use of scaffolds and elevated platforms and ladders	2	0	2
PC15. lift, carry and transport heavy objects & tools safely using correct procedures from storage to workplace and vice versa	3	1	2
PC16. inspect power plant and its equipment routinely for any signs of oil, water and/or steam leakage	3	0	3
PC17. store flammable materials and machine lubricating oil safely and correctly	2	0	2
PC18. check that the emission and pollution control devices are working properly in line with environmental policy standards	5	2	3
PC19. apply good housekeeping practices at all times	3	1	2
PC20. identify common hazard signs displayed in various areas	2	0	2
PC21. retrieve and/or point out documents that refer to health and safety	2	0	2

	in the workplace				
	PC22. inform relevant authorities about any abnormal situation/behavior of any equipment/system promptly	3	0	3	
	PC23. use the various appropriate fire extinguishers on different types of fires correctly	4	1	3	
	PC24. demonstrate rescue techniques applied during fire hazard	3	1	2	
	PC25. demonstrate good housekeeping in order to prevent fire hazards	3	1	2	
	PC26. demonstrate the correct use of a fire extinguisher	3	1	2	
	PC27. demonstrate how to free a person from electrocution	3	1	2	
	PC28. administer appropriate first aid to victims where required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc.	3	0	3	
	PC29. demonstrate basic techniques of bandaging	3	1	2	
	PC30. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments	3	1	2	
	PC31. perform and organize loss minimization or rescue activity during an accident in real or simulated environments	3	1	2	
	PC32. administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases	3	1	2	
	PC33. demonstrate the artificial respiration and the CPR Process	3	1	2	
	PC34. participate in emergency procedures	3	1	2	
	PC35. complete a written accident/incident report or dictate a report to another person, and send report to person responsible	3	1	2	
	PC36. demonstrate correct method to move injured people and others during an emergency	3	1	2	
	Total	100	24	76	
CSC/ N 1336 (Work effectively with others)	PC1. accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required	100	10	3	7

	PC2. accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt		10	3	7
	PC3. give information to others clearly, at a pace and in a manner that helps them to understand		10	3	7
	PC4. display helpful behavior by assisting others in performing tasks in a positive manner, where required and possible		10	3	7
	PC5. consult with and assist others to maximize effectiveness and efficiency in carrying out tasks		10	3	7
	PC6. display appropriate communication etiquette while working		10	3	7
	PC7. display active listening skills while interacting with others at work		10	3	7
	PC8. use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism		10	3	7
	PC9. demonstrate responsible and disciplined behaviors at the workplace		10	3	7
	PC10. escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict		10	3	7
	Total		100	30	70

SECTION 2

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

While collecting data from secondary sources and industry representatives, which was collected with respect to roles for which qualification packs development, was to be prioritized. This was largely based on dominant roles in the sector, volume of people required, quantitative and qualitative shortfall which the Industry feels they face. Governing council of PSSC gave final approval and endorsement for the same.

What is the estimated uptake of this qualification and what is the basis of this estimate?

Internal Skills Gap analysis Reports for industry demand and secondary research data, though these do not lend to accurate demand projection. These include CEA and 12th plan reports.

- Feedback from industry for demand though again sample size may not lend to accurate figures
- Training duration, and current and potential training capacity envisaged

An LMIS development initiative is being put in place to be more precise regarding the demand and supply

An RFP is being issued for a more detailed occupational map and skills gap study and will be used to further provide information regarding the same.

What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?

- NSDC list of Approved and Under-Development QPs was checked prior to commissioning the work
- NSDC QRC team also confirmed the same

What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?

- Agencies have been appointed by the SSC to interact with training providers to gather feedback in implementation.
- Monitoring of results of assessments
- Employer feedback will be sought post-placement
- A formal review is scheduled in two years time (2017)

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

- Report to the Governing Council
- Minutes of the meeting of GC meetings
- CEA and 12th plan reports for Human Resource & Skills Requirement in Power Sector

SECTION 3

SUMMARY OF DIRECT EVIDENCE OF LEVEL

Justify the NSQF level allocated to the QP. Relate information about the job role and build upon the five descriptors for the level to justify.

Senior Lineman-Distribution				PSS/ Q 0103	
Process required	Professional Knowledge	Professional Skills	Core Skills	Responsibility	Level
<p>The job at this level requires well-developed skill to carry out various procedures and quality inspect the tasks, establish procedures required and carry out necessary work in line with requirements. This is carried out in the familiar context of Distribution set-ups.</p> <ul style="list-style-type: none"> • Eg. inspect power 	<p>The incumbent has to have knowledge of facts, principles, processes and general concepts in a field of work or study such as is evident from the examples below</p> <ul style="list-style-type: none"> • principles of electricity • principles and practices 	<p>A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information. For example</p> <ul style="list-style-type: none"> • assess components of distribution line for damage or 	<p>The job requires mathematical skill, and some skill of collecting and organising information, communication. As is evident from</p> <ul style="list-style-type: none"> • document and record findings clearly, accurately and in required detail using correct forms 	<p>The incumbent is responsible for own work and learning and has some responsibility for others' work and learning including the lineman and the helper, but not full responsibility for their work.</p> <p>Eg.</p> <ul style="list-style-type: none"> • assist team members to develop their 	<p>5</p>

<p>transformers including general transformer appearance, bushings, free of contamination, no oil leaks, auxiliary cooling system safely and as per required and approved procedures</p> <ul style="list-style-type: none"> inspect circuit breakers including general breaker appearance, bushings, for contamination, oil leaks, doors locked and working safely and as per required and approved procedures inspect insulators including substation, bus support, suspension, etc. using safe and correct methods make correct and required recommendations for repair and maintenance where risks, faults or damage recorded <p>This is not level 6 as the requirements are of fairly standard practices.</p>	<p>of electrical safety</p> <ul style="list-style-type: none"> relaying and control wiring drawings <p>Not only principles but also standards for a wide area and procedures.</p> <ul style="list-style-type: none"> Eg. overhead distribution system standards procedures for handling Distribution line components with imperfections/defects that cannot be removed/ repaired and how can they be minimized 	<p>risk for damage through visual, sensory and instrument methods</p> <ul style="list-style-type: none"> follow and develop plans and schedule inspections of distribution lines including regular periodic and special routines such as pre-monsoon inspection prepare recommendations for corrective and preventive maintenance based on the findings of the inspection <p>These require higher order cognitive skills for problem solving and establishing best course of action from a range of choices. (definitely above level 4)</p> <p>Since there is no generation of solutions, this cannot be assigned level 6.</p>	<p>and formats if any</p> <ul style="list-style-type: none"> prepare recommendations for corrective and preventive maintenance based on the findings of the inspection <p>The incumbent requires some amount of mathematical skills and logical communication. Mathematical skills are used to make sense of findings, readings and calculations which are quantitative in nature. Therefore closer to level 6 than level 5.</p>	<p>own knowledge, skills and abilities by providing timely and accurate guidance, feedback and responsibilities</p> <ul style="list-style-type: none"> inspect work being carried out by team members to ensure work is being carried out safely and as per required and approved procedures 	
5	5	5	6	5	

OTHER EVIDENCE OF LEVEL [This need only be filled in where evidence other than primary outcomes was used to allocate a level] (**Optional**)

Summary of other evidence (if used):

nil

SECTION 4

EVIDENCE OF RECOGNITION OR PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

- Vertical mobility options have been articulated, horizontal mobility will be articulated once full occupational mapping of the sector is completed.
- The vertical mobility options include moving to Junior Engineer, Shift Supervisor and Senior Engineer

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

- List of companies and Industry associations participated in developed of these qualifications (part of report)