

Chart of Competency

Wind Turbine Technician

Electricity Human Resources Canada is a non-profit organization supporting the human resources needs of the Canadian electricity sector.

Our Vision

Keeping the lights on in Canada by preparing and empowering a world-class workforce for the entire electricity industry.

Our Mission

Working to strengthen the ability of the Canadian electricity industry in meeting current and future needs for their workforce—one that is safety-focused, highly skilled, diverse and productive.

Our Values

We are a values-driven organization, committed to the improvement of our sector, the growth of Canada's economy, and the stability of our power grid. Our core values are:

Collaboration

Working with all stakeholders in Canada's electricity sector for our mutual benefit.

Trust

Forging relationships and products built on unwavering integrity.

Innovation

Leading the industry to be future-ready.

Chart of Competency: Wind Turbine Technician

This Chart outlines the competencies (also known as skills and knowledge) that are performed by Wind Turbine Technicians.

Key: Tasks included in trade national occupational analyses (i.e. Industrial and Construction Electricians) that are also performed or supported by Wind Turbine Technicians

Occupational Definition:

Wind Turbine Technicians perform preventative maintenance and repair work to keep wind turbines in optimal condition for generating electricity. Their work involves maintaining, testing and repairing mechanical, hydraulic and electrical equipment.

Major Category	Competency Area	Competency Unit					
Asset Maintenance	Prepare to Maintain Equipment and Systems	Organize materials and equipment for maintenance	Coordinate maintenance activities with others				
	Conduct Tests for Asset Maintenance	Conduct electrical tests for maintenance	Conduct vibration analysis				
	Maintain Control Systems	Maintain discrete input/output (I/O) devices	Maintain analog input/output (I/O) devices	Maintain automated control systems			
	Maintain Wind Turbine Systems	Perform preventative maintenance on wind turbines	Torque or tension bolts on wind turbines	Repair wind turbine mechanical and hydraulic equipment	Repair wind turbine electrical equipment		
Safety	Maintain a Safe Working Environment	Follow safe work practices	Use Personal Protective Equipment (PPE)	Participate in safety meetings and emergency drills	Isolate component, equipment or system	Perform lock-out tag-out procedures	Handle, transport and store hazardous materials
		Use fall arrest equipment	Work in confined spaces	Climb wind turbine ladders			
	Maintain a Sustainable Environment	Follow sustainable work practices	Contribute to wildlife mitigation practices				
	Respond to Emergencies	Respond to chemical spills and leaks	Respond to non-electrical emergencies	Participate in high-angle rescue			
Security	Follow Security Practices	Follow security practices for physical work environment	Follow cybersecurity procedures				
Organizational Policies and Procedures	Follow Organizational Policies and Procedures	Follow organizational policies and procedures					
Information/Record Management	Complete Information/Record Management Tasks	Maintain technical information and data	Use information/record management system for generation, transmission and distribution operations				
Information and Communication Technology Foundations	Use Digital Technology	Use communication applications	Use common software applications	Use navigation and mapping applications	Use digital mobile radios		
	Use Organization's ICT System	Use organization's ICT system					
Foundation Trade Skills	Perform Routine Trade Tasks	Use hand and power tools	Use electrical measuring and testing equipment	Use access equipment and work platforms	Operate vehicles and motorized equipment	Lubricate equipment and components	Assist with rigging, hoisting/lifting and moving tasks
Personal Competencies	Demonstrate Professionalism	Work as member of a team	Develop professionally	Demonstrate professional and ethical conduct	Mentor/coach others	Manage stress	Manage time
	Communicate Effectively	Use active listening skills	Use speaking skills	Use hand signals	Use writing skills	Exchange information with internal and external stakeholders	

National Occupational Standards (NOS)

NOS are voluntary guidelines that have been developed to provide businesses, educators, trainers, and job seekers with practical guidance.

How are NOS used?

Employers, employees, and educational institutions can put NOS to a wide variety of uses supporting effective workforce planning:

- Support personnel certification or accreditation programs.
- Inform curricula for colleges and apprenticeships.
- Assist recruitment by informing job descriptions and providing a benchmark for employee appraisals.
- Identify career paths in order to promote employee retention.
- Help employers evaluate and determine the competencies of potential employees, including Internationally Trained Workers (ITWs).

Electricity Human Resources Canada has developed National Occupational Standards for a variety of occupations.

Visit electricityhr.ca for more information.