

**Training Evaluation Request**  
**Oregon Environmental Services Advisory Council**  
**Watura**  
**Electricity in Drinking Water and Wastewater Systems**

**Course title:** Electricity in Drinking Water and Wastewater Systems

**Drinking Water CEUs:** 1.0 h

**Wastewater CEUs:** 1.0 h

**Instructor bio:** **Maelle LIMOUZIN** is a Water Resources and Environmental Engineer who studied at UT Austin. She spent 10 years working in a consulting company for drinking water and wastewater public utilities and 3 years in a company that manages drinking water and wastewater facilities. Currently, she uses her technical expertise and experience to train public and private organizations in managing their drinking water and wastewater systems.

**Course description:** Electricity is essential not only in our daily lives but also in ensuring the proper functioning of drinking water and wastewater systems. It supplies power to vital equipment like pumps, control panels, and other important devices in these treatment facilities. This course covers the basic concepts of electricity, like voltage and current, explains how electricity is transmitted and distributed, and outlines the difference between single-phase and three-phase alternating current.

**Learning goals:**

- Describe the basic concepts of electricity
- Identify the difference between single-phase and three-phase alternating current
- Describe the main stages in the journey of electricity

**Tracking attendance method:**

The e-learning platform offers a highly interactive experience designed to engage learners at every stage. It begins with an initial test to assess knowledge and tailor the learning journey. The course includes short, focused videos interspersed with mandatory training quizzes that reinforce key concepts and ensure active participation. Students are required to watch every video entirely and to answer practice questions before advancing to the next course module. Students cannot skip course content. A final quiz at the end of each chapter evaluates overall comprehension and certifies the learner's mastery of the material. Students must obtain a minimum score of 70% for every chapter's final quiz to successfully complete the course and obtain the certificate of attendance. The platform automatically tracks each learner's learning time. The real learning time is indicated alongside the delivered credits in the course completion certificate.

**Course outline:** Electricity in Drinking Water and Wastewater Systems

<b>Initial Test</b>		11 min
<b>1. Characteristics of Electricity</b>	1.1. Course Overview	1 min
	1.2. Electricity	6 min
	1.3. Voltage	4 min
	1.4. Current	4 min
	1.5. Resistance	4 min
	1.6. Characteristics of Electricity - Activity	1 min
	1.7. Single-Phase Alternating Current	4 min
	1.8. Three-Phase Alternating Current	4 min
	1.9. Chapter 1 - Fact Sheet	4 min
	<b>Chapter final test</b>	9 min
<b>2. Transmission and Distribution of Electricity</b>	2.1. Transformer	4 min
	2.2. Journey of Electricity	4 min
	2.3. Journey of Electricity - Activity	1 min
	2.3. Course glossary	3 min
	2.4. Chapter 2 - Fact Sheet	1 min
	<b>Chapter final test</b>	3 min
<b>Total Learning Time</b>		64 min
<b>Requested Contact Hours</b>		1 h