

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Provider Reference and User Guide

December 2024

RELIABILITY | RESILIENCE | SECURITY



**3353 Peachtree Road NE
Suite 600, North Tower
Atlanta, GA 30326
404-446-2560 | www.nerc.com**

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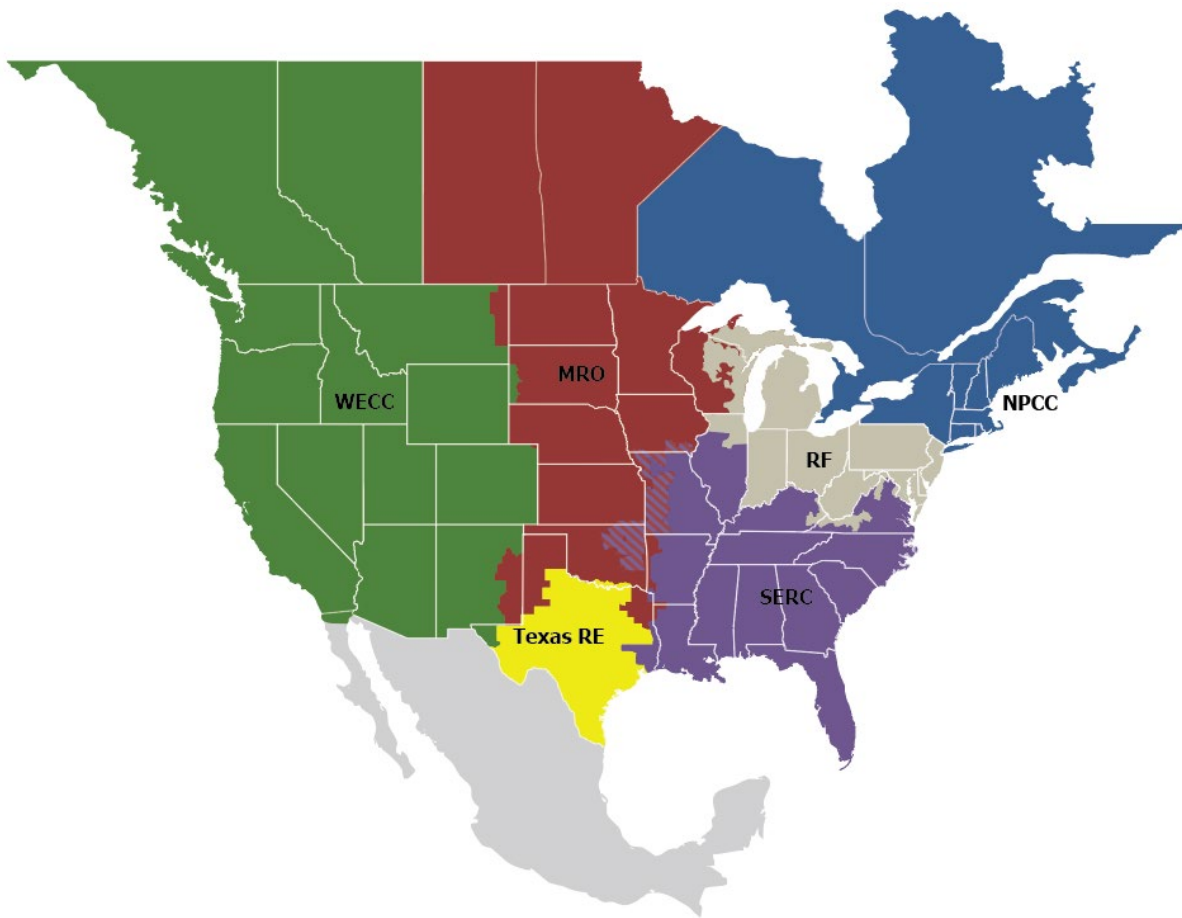
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Preface

Electricity is a key component of the fabric of modern society and the Electric Reliability Organization (ERO) Enterprise serves to strengthen that fabric. The vision for the ERO Enterprise, which is comprised of the North American Electric Reliability Corporation (NERC) and the six Regional Entities, is a highly reliable and secure North American bulk power system (BPS). Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

Reliability | Resilience | Security
Because nearly 400 million citizens in North America are counting on us

The North American BPS is made up of six Regional Entity boundaries as shown in the map and corresponding table below. The multicolored area denotes overlap as some load-serving entities participate in one Regional Entity while associated Transmission Owners/Operators participate in another.



MRO	Midwest Reliability Organization
NPCC	Northeast Power Coordinating Council
RF	ReliabilityFirst
SERC	SERC Reliability Corporation
Texas RE	Texas Reliability Entity
WECC	WECC

Summary

The Credential Maintenance Program Administrative Manual¹ (CM Manual) provides the framework for the Credential Maintenance Program. It is the provider's responsibility to read and understand the CM Manual.

The CM Manual is located on the System Operator Certification and Credential Maintenance Program² page on NERC.com³ under One-Stop Shop⁴.

The Provider Reference and User Guide provides System Operator Certification and Continuing Education Database (SOCCED) information and a how to reference for providers. This guide references the CM Manual numerous times. NERC staff recommends providers refer to the CM Manual when noted in the guide.

Please submit additional topic suggestions or feedback via a SOCCED Help Desk⁵ ticket.

¹ https://www.nerc.com/pa/Train/SysOpCert/System%20Operator%20Certification%20DL/CM_Program_Manual_v1.2.pdf

² <https://www.nerc.com/pa/Train/SysOpCert/Pages/default.aspx>

³ <https://www.nerc.com/Pages/default.aspx>

⁴ <https://www.nerc.com/pa/Train/SysOpCert/Pages/SOOneStopShop.aspx>

⁵ <https://soccedsupport.zendesk.com/hc/en-us/requests/new>

Introduction

System Operator Certification (SOC) and Credential Maintenance Program

In support of NERC's mission, the SOC Program promotes the reliability of the North American BPS by ensuring that employers have a workforce of System Operators (SO) that meet minimum qualifications. NERC monitors SOs to ensure they maintain the required credentials to work in system control centers across North America. NERC's SOC exam tests specific knowledge of job skills and reliability standards. It also prepares operators to handle the BPS during normal and emergency operations. SOs maintain certification by completing NERC-approved Credential Maintenance Program courses and activities. These industry-accepted qualifications are set through internationally recognized processes and procedures for agencies that certify persons.

Governance

The Personnel Certification Governance Committee (PCGC)⁶ is a NERC standing committee that provides oversight to the policies and processes used to implement and maintain the integrity and independence of the NERC SOC program. The PCGC provides reports to the NERC Board of Trustees and NERC President regarding the governance and administration of the SOC program.

The Credential Maintenance Working Group (CMWG)⁷ reports to the PCGC and is responsible for developing and maintaining the Credential Maintenance Program under the general guidelines set by the PCGC, including:

1. Development and implementation of NERC Credential Maintenance Program requirements to ensure quality-learning activities for use in NERC Certified System Operator credential maintenance.
2. Development and maintenance of a process to approve credential maintenance providers and learning activities that meet the PCGC credential maintenance requirements.
3. Periodic audits of credential maintenance providers and training activities to ensure the approved providers and training activities satisfy the PCGC credential maintenance requirements.
4. Development and maintenance of a multi-level review process for disputed application reviews, probation, or suspension of NERC-approved provider status, and Continuing Education Hours (CEH) disputes.

⁶ <https://www.nerc.com/comm/PCGC/Pages/default.aspx>

⁷ <https://www.nerc.com/comm/PCGC/Pages/CMWG.aspx>

Credential Maintenance Program

NERC's Credential Maintenance Program acknowledges high-quality learning activities within the electric utility industry by approving continuing education providers that meet NERC guidelines and standards. Information on becoming a NERC-recognized continuing education provider can be found in the CM Manual.

Provider Functions in SOCCED:

Continuing Education providers can access SOCCED⁸ to do the following:

Level 1 Providers

1. Create a new provider account
2. Access an existing provider user account
3. Update provider user profile
4. Update organization profile
5. Manage provider users
6. Apply and/or renew provider account (Level 1 or Level 2)
7. View system operator transcripts and certificate renewal progress¹⁰
8. View order history

Level 2 and Level 3 Providers

1. Create a new provider account
2. Access an existing provider user account
3. Update provider user profile
4. Update organization profile
5. Manage provider users
6. Apply/change/renew provider account (Level 1, 2, or 3)
7. Submit supplemental documentation for Individual Learning Activities (ILAs)/audits
8. Submit individual learning activity (ILA) applications
9. Renew ILAs
10. Review the status of existing courses
11. Award, edit or delete CEHs for delivered courses
12. View system operator transcripts and certificate renewal progress¹⁰
13. View order history

⁸ <https://nerc-socced.useclarus.com>

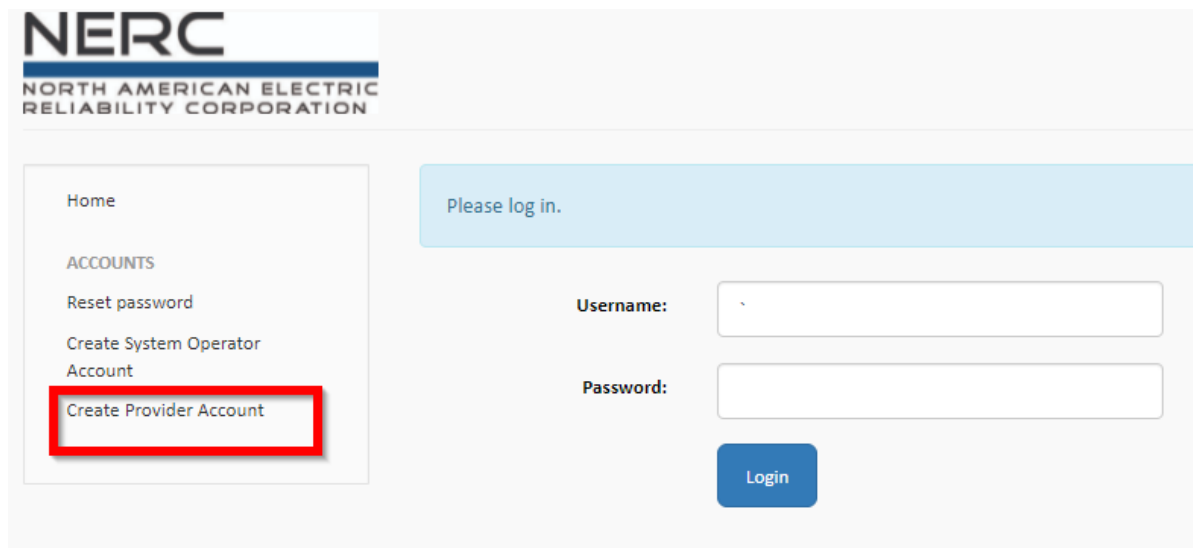
Chapter 1: Creating and Updating Provider User Accounts

Creating an Account in SOCCED

TIP – If the organization has an existing account in SOCCED and a user should have access, *skip* to **Inviting a Provider User**. For the system to associate a new provider user account with the existing organization’s account, the primary user of the account must invite the user via SOCCED to have access. If the primary user is no longer with the organization, submit a ticket via the SOCCED Help Desk,⁹ a NERC SOCCED Administrator will assist.

If the organization does not have an existing account with SOCCED and the person creating the account will be the primary user, please follow the steps below.

To *create* a provider account in SOCCED, go to the SOCCED database and *click* on **Create Provider Account**.



During the process, the provider user will be prompted to create a username and password and provide other pertinent information.

- Username: Determined by provider user
- First Name: First name on driver’s license or other form of legal ID
- Middle Name: Optional (for common first and last names, please use middle initial, at a minimum.)
- Last Name: Last name on driver’s license or other form of legal ID

⁹ <https://soccedsupport.zendesk.com/hc/en-us/requests/new>

- Home
- ACCOUNTS
 - Reset password
 - Create System Operator Account
 - Create Provider Account

You have to fill out the user profile first in order to apply for provider.

(*) denotes a required field

Account Information

User Name *

Email Address *

Password

Confirm Password

Primary Provider User Profile

First name *

Middle Name

Last name *

Job title

Company Address

Address *

Address (cont.)

City *

Country *

State *

Postal Code *

Phone Number *

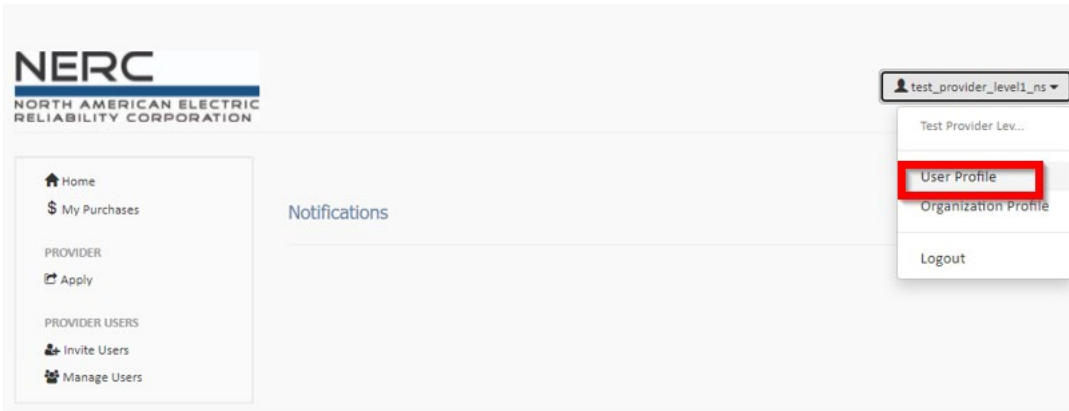
Alternate Phone

Submit

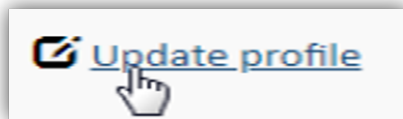
Updating User Profile

The provider user has the ability to make changes to contact information by updating the user profile in SOCCED.

1. *Login* in to **SOCCED**
2. *Select* **Dropdown arrow** and *select* **User Profile**



3. *Select* **Update Profile**

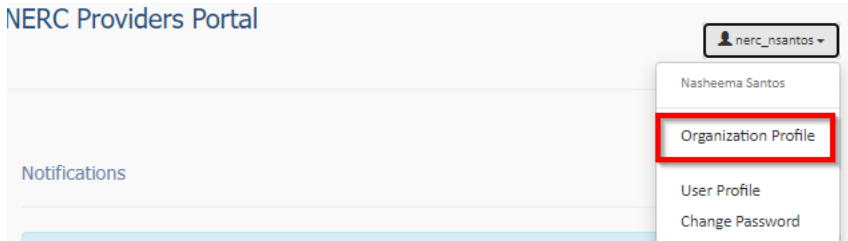


- a. Make necessary changes
- b. *Select* **Save Changes**

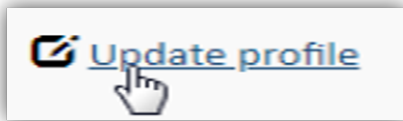
Updating Organization Profile

The primary provider user can update the organization's contact information by updating the organization profile in SOCCED.

1. *Login* in to **SOCCED**
2. *Select* **Dropdown arrow** and *select* **User Profile**



3. *Select* **Update Profile**



- a. Make necessary changes
- b. *Select* **Save Changes**

Logging into a Provider User Account

Go to the SOCCED database and use the credentials used when the provider user account was created.

Duplicate SOCCED Accounts

Provider users should not create duplicate accounts. Duplicate SOCCED accounts are prohibited. NERC completes routine audits on duplicate accounts. If found, NERC will move forward in closing the duplicate account(s), and the provider user will potentially lose information.

If the provider user cannot recall the username/password, submit a ticket to the SOCCED Help Desk, a NERC SOCCED administrator will assist.

Forgot Username / Password

- Submit a ticket via the SOCCED Help Center¹⁰.

Include full name, email address, and phone number

Help Desk

NERC Staff manages and responds to SOCCED System Operator and Credential Maintenance Program questions typically within 48 business hours (excluding holidays and weekends).

- Help Desk: (404) 446-9759 (General Questions; M-F 8:30 a.m. – 5:00 p.m. Eastern)
- Submit a Request to the SOCCED helpdesk.

Include full name, email address, and phone number.

Table 1.1: Help Desk Initial Contact

Day Ticket Received	Initial Response by NERC Administrator No Later Than
Sunday	Tuesday
Monday	Wednesday
Tuesday	Thursday
Wednesday	Friday
Thursday	Monday
Friday	Monday
Saturday	Tuesday

¹⁰ <https://soccedsupport.zendesk.com/hc/en-us/requests/new>

Chapter 2: Provider Applications

There are three types of provider applications¹¹:

1. Initial Application as a Level 1 or Level 2
2. Initial Application as a Level 3
3. Renewal application (all levels)

At the time of submitting an initial application for an organization that does not have an account in SOCCED, the provider user must follow the steps below:

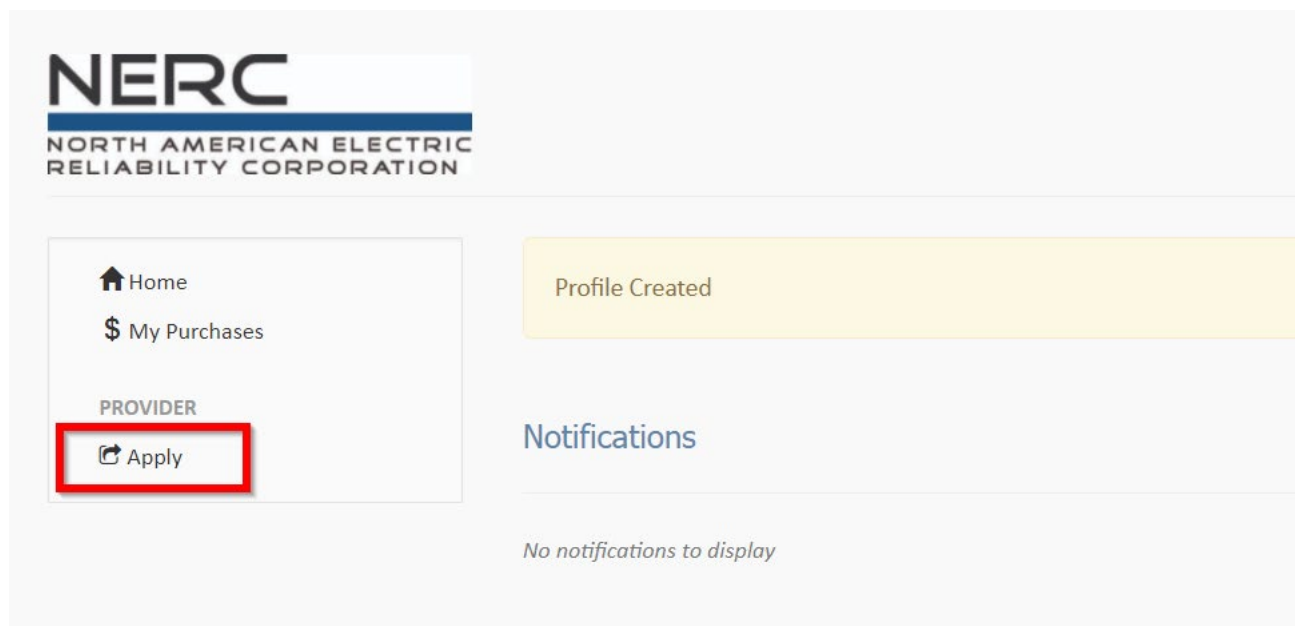
The provider user must first create a profile. See [Chapter 1: Creating and Updating Provider User Accounts](#).

Initial Application for Level 1 and Level 2 Providers

Provider users with an account in SOCCED that has not been associated to an existing organization can create a Provider Organization account at the time they create a provider user account. See [Chapter 1: Creating and Updating Provider User Accounts](#).

After creating the provider user account, users must:

1. Go to **Apply** menu in the provider user account
2. Select **Level 1** or **Level 2** provider (make sure the correct one is selected)
3. Complete all of the required fields in the **Provider Profile** section
 - a. Level 2 Providers will also have to complete a **Provider Application** section
4. Submit application fee



The screenshot displays the NERC (North American Electric Reliability Corporation) user interface. On the left, there is a navigation menu with options: Home (house icon), My Purchases (dollar sign icon), and a section titled 'PROVIDER' containing an 'Apply' button (arrow icon) which is highlighted with a red rectangular box. On the right, a yellow notification banner reads 'Profile Created'. Below this, the 'Notifications' section is visible, showing 'No notifications to display'.

¹¹ Criteria can be found in the CM Manual - <https://www.nerc.com/pa/Train/SysOpCert/Pages/SOOneStopShop.aspx>

Level 1 Providers

Primary Contact

Do you understand that in creating this profile, you are the primary administrator? Yes No

Company Information

Company Name *

Address *

Address (cont.)

City *

Country

State

Postal Code *

Level 1 provider applications will be automatically approved once the fee is paid. The account will be active effective immediately.

Level 2 Providers

If the organization applied to become a Level 2 provider, the provider user will also have to complete the **Provider Application** section and will have to submit supporting documentation per Chapter 3 of the CM Manual. The application will be reviewed by the CMWG to determine if the organization’s application will be approved.

Provider Profile **Provider Application** Application Documents

General Information

Do you offer learning activities open to the public?*

Yes No

What types of CE programs will you offer? (Mark all that apply)

- Classroom
- Workshop/Seminar
- Conference
- Internet-based
- Operator Training Simulation
- Computer-Based (CBT)

General Information about CE Programs you intend to offer

Describe the curriculum you plan to develop

Describe the procedures for updating your curriculum to reflect industry changes.

Briefly, describe the procedures to be used in evaluating a participant's performance in a CE learning activity.

Briefly, describe the procedures to be used to manage and verify participant attendance.

Acknowledgement

Have you reviewed the Continuing Education Administrative Manual?*

Yes No

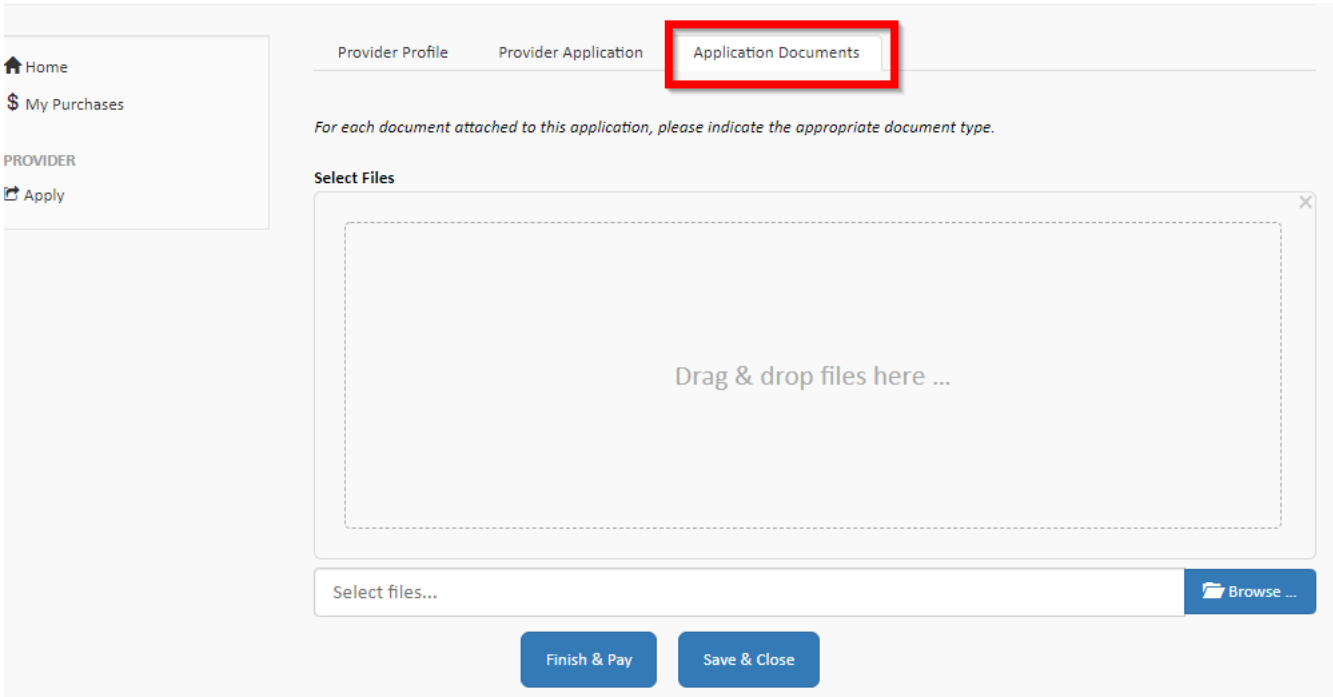
Have you reviewed the Provider Application User Guide?*

Yes No

Have you reviewed the System Operator Certification Program Manual, especially Appendix A?*

Yes No

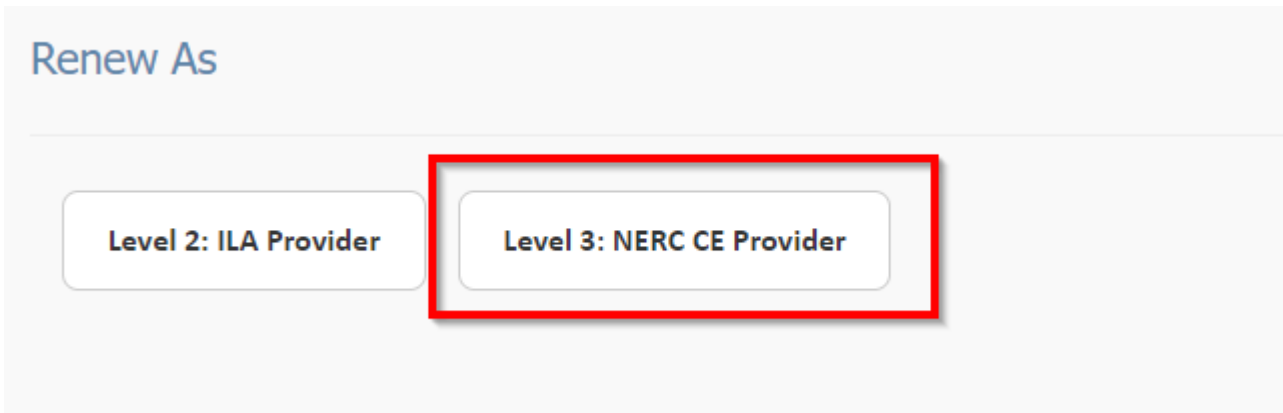
Save



Application to become a Level 3 Provider

In order to apply for a Level 3 provider status, the organization must have been operating successfully as a Level 2 provider for a minimum of one year. Once approved to become a Level 3 provider, the organization renews every three years.

Providers looking to apply to become a Level 3 provider at the time of renewal must go to the Upgrade/Renew button on the dashboard.



Once an application has been submitted to become a Level 3 provider, the NERC CE Administrator will verify that the provider is eligible to proceed. The NERC CE Administrator will contact the provider with follow up instructions.

Renewal (all Provider Levels)

Provider users will have the ability to renew the organization’s provider status within 90 days of the organization’s expiration date. All providers must meet minimum requirements to renew according to the terms of the provider

status level (refer to the CM Manual). Primary users of all organizations have to log into the provider user account and select the Upgrade/Renew option.

NOTE: To upgrade from a Level 1 to a Level 2 or from a Level 2 to a Level 3, please see the application process.

Level 1 and Level 2 providers must submit a renewal application annually via SOCCED. The provider’s primary user should select the type of account the organization wishes to renew as.

Level 1 providers have the option to renew as a Level 1.

Level 2 providers have the option to renew as a Level 2 (if associated audit and active ILA requirements are met) or downgrade to a Level 1.

Level 3 providers have the option to renew as a Level 3, downgrade to a Level 2 (if associated audit and active ILA requirements are met, respectively) or downgrade to a Level 1.

Timing of Renewals

Once providers have met the requirements to renew the organization’s provider status and paid the renewal fee, the system will update and reflect the new expiration date. Requirements must be met (including the application renewal fee) by 11:59 p.m., Eastern the evening prior to the expiration date. See the Example below.

Example

An organization with an active provider status from August 2, 2017, to August 2, 2020, will have to meet the renewal requirements prior to the organization’s expiration date of August 2, 2020. If requirements are not met by 11:59 p.m., Eastern on August 1, 2020, the provider status will change to suspended by 12:00 a.m. August 2, 2020. If the organization goes into suspension, it will not be able to carry out any of the functions allowed in the SOCCED account.

If renewal requirements are not met within 90 days after the organization’s expiration date, the organization’s provider status will expire. If the organization has expired, but the organization wishes to reinstate the organization’s account, submit a ticket via the SOCCED Help Desk and a NERC SOCCED Administrator will advise on the next steps to take.

Time Zone

SOCCED operates in the Eastern Prevailing Time Zone. Providers should note the time zone to prevent a timing issue when completing the provider renewal. As shown in [Table 2.1](#) below, if the provider user/organization is located in the Pacific time zone, the organization’s renewal will have to be completed by 9:00 p.m. Pacific the evening prior to the expiration date.

Time Zone	Time
Eastern	12:00 a.m.
Central	11: 00 p.m.
Mountain	10: 00 p.m.
Pacific	9: 00 p.m.

Provider Renewal Payment Timing

When renewing the organization’s provider status, the provider user must take into account the payment processing time. SOCCED does not allow renewal until the payment has processed.

The [Table 2.2](#) below shows the amount of time needed for payment via credit card and check.

Table 2.2: Provider Renewal Payment Timing	
Payment Type	Processing Time
Credit Card	Allow 24-48 Hours
Check	Allow 7 - 10 Days

Paying by credit card

Example: If the provider's expiration date is October 13, credit card payment must be submitted before October 11 to allow sufficient time for the payment to process.

Paying by check

Example: If the provider's expiration date is October 13, the provider user must submit the check payment before October 2 so that the organization can renew its provider status prior to October 12 at 00:00.

- Provider users that select the check payment type should include name and order number on the check. Check payments are sent to the following lockbox address:

NERC
PO Box 531652
Atlanta, GA 30353-1652

Chapter 3: Managing Provider Users

Definition

The *primary user* of an organization is the main contact for the organization. The primary user will be responsible for maintaining up-to-date contact information for the organization.

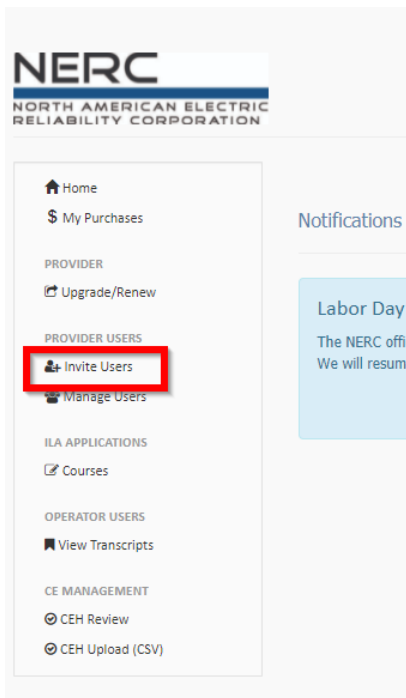
NOTE: The primary user is responsible for any audit process for the organization (Level 2 or Level 3). The NERC Program Coordinator and the Continuing Education Review Panel (CERP) will contact the person listed in the database as the primary user.

A *provider user* is someone within the organization that is able to access the organization's SOCCED account. All provider users within the same organization will be able to carry out the same functions, with the exception of the audit/renewal process.

Adding Provider Users to an Existing Organization's Account

If the organization has an existing account in SOCCED, new users must be invited by the primary user via SOCCED following the steps listed below:

1. The primary user must log into the provider user account in SOCCED.
2. *Click on Invite Users*



3. Enter the new user's email address and *select Send Invitation*

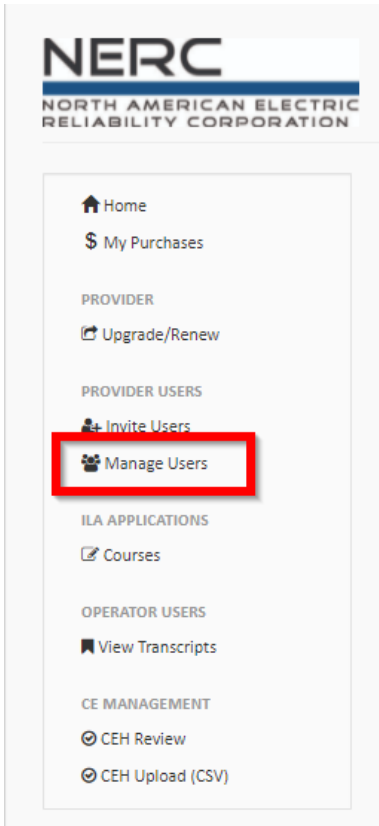
The new user will receive an email that will prompt the user to create a profile. Creating the profile via the link provided in the email, will automatically associate the new provider user account with the existing organization account.

Deactivating a Provider User's Account

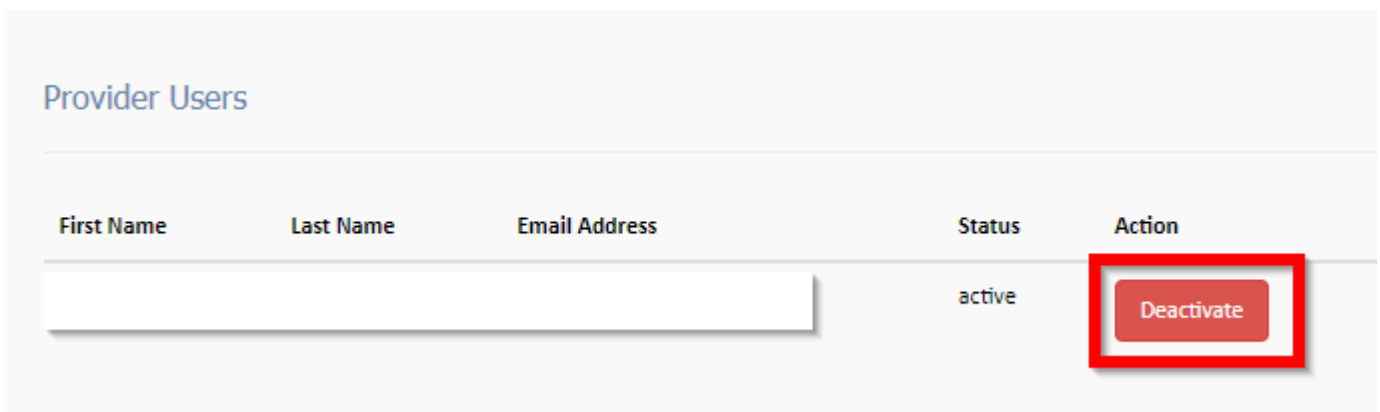
The primary user of an account should deactivate users that should no longer have access to the organization's account (either due to leaving the company or a change in the role).

To deactivate a provider user, the primary user:

1. Must log in to the provider user account in SOCCED.
2. Click on **Manage Users**



3. Click the **Deactivate** button next to the user's name



Chapter 4: Individual Learning Activities (ILAs)

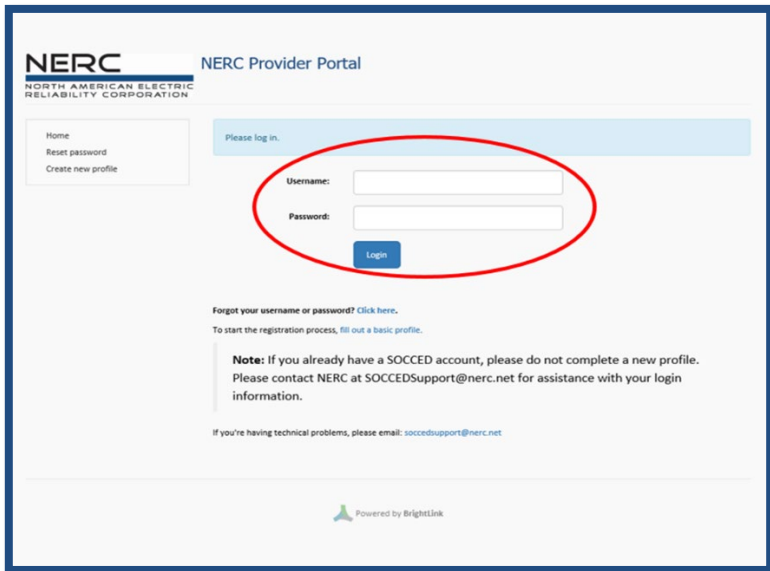
Locating and Generating a New ILA Form

The following pages show step-by-step instructions on how to access, generate, and submit a new ILA form.

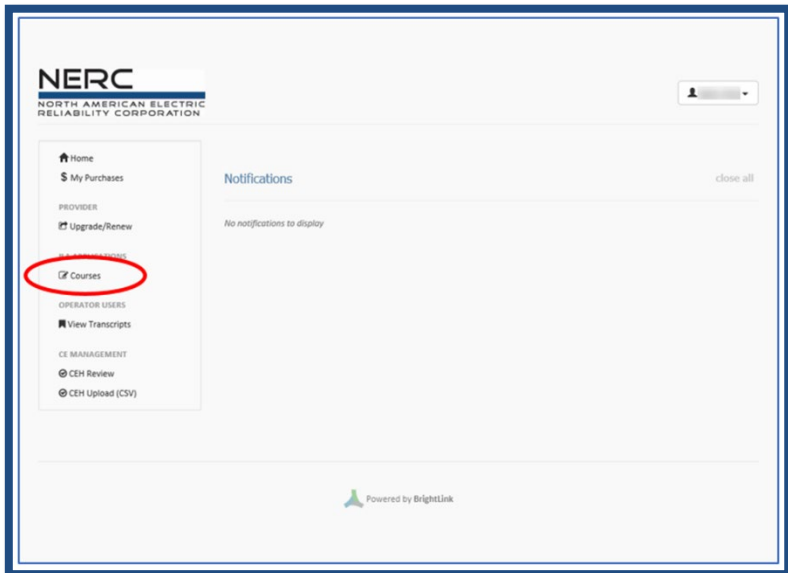
Visit SOCCED here:

<https://nerc-socced.useclarus.com> and log into your account.

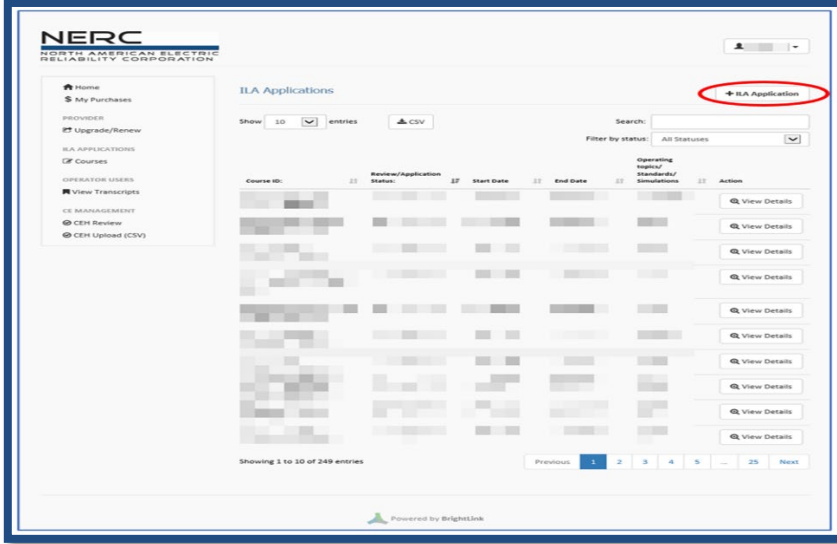
1. Enter Username and Password



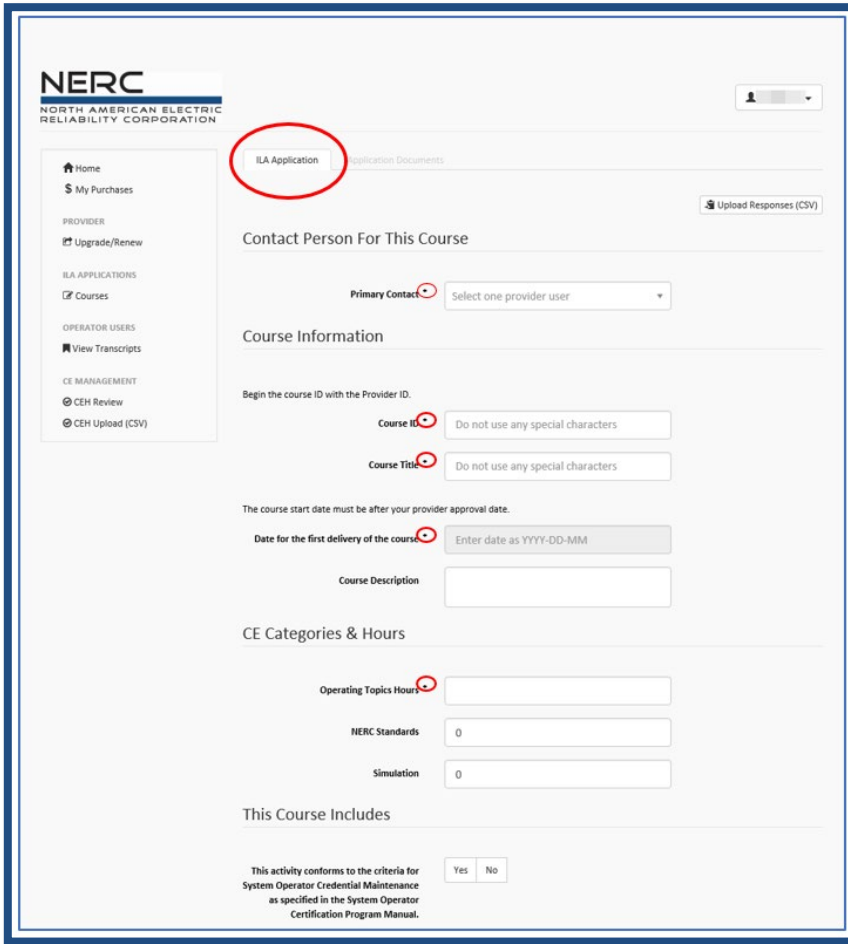
2. Select Courses



3. Select ILA Application



Required Fields

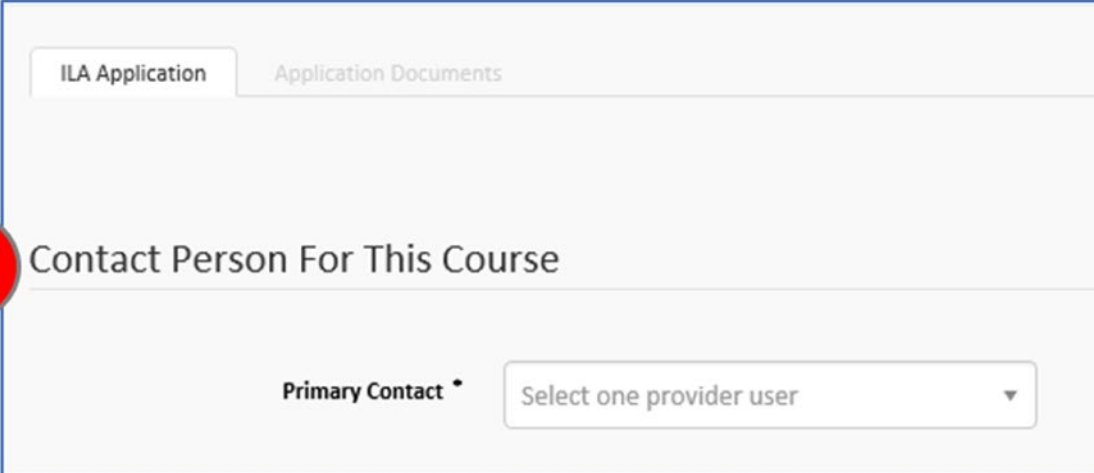


Contact Person for This Course

1. Primary Contact

- a. This is the individual who will answer questions a reviewer may have regarding the learning activity.

- b. This may or may not be the primary contact listed on the provider's account.



The screenshot shows a web interface for an ILA Application. At the top, there are two tabs: 'ILA Application' (active) and 'Application Documents'. Below the tabs, the main heading is 'Contact Person For This Course'. Underneath this heading, there is a label 'Primary Contact *' followed by a dropdown menu with the text 'Select one provider user' and a downward arrow. A red circle with the number '1' is positioned to the left of the dropdown menu, highlighting it.

Course Information

2. Course Information

a. **Course ID**

- i. Course ID must begin with provider ID (i.e. ABC_001).
- ii. During the provider application process, an entity is assigned a provider ID by NERC.
- iii. Must be unique to a single learning activity.
- iv. Cannot be edited once course has been entered into a transcript.

b. **Course Title**

- i. Course Title and Course ID may be the same.
- ii. Must be unique to a single learning activity.

c. **Date for the first delivery of the course**

- i. Date format must match: YYYY-DD-MM
- ii. Refer to the CM Manual for information regarding submission time frame requirements.

d. **Course Description**

- i. This field is not required; but, considered to be best practice to include a terminal objective or goal for the learning activity.
- ii. Refer to the CM Manual for information regarding specialized learning activities.

2 Course Information

Begin the course ID with the Provider ID.

a Course ID *

b Course Title *

The course start date must be after your provider approval date.

c Date for the first delivery of the course *

d Course Description

Continuing Education Categories and Hours

3. **Continuing Education Categories and Hours** indicate what categories are included in each Learning Activity Content Segment.

a. **Operating Topics**

- i. Should include total of all Learning Activity Content Segments.
- ii. Minimum number of CE hours for a course must be at least 1.0.
- iii. Fractional increment of an hour is rounded down to the next whole or half hour with a one hour minimum. Should relate to "Appendix A – Recognized Operator Training Topics" found in the System Operator Certification Program Manual¹².

b. **NERC Standards hours** cannot exceed **Operating Topics Hours**.

- i. Time devoted to NERC Standards should be included in Operating Topics Hours; these hours are subsets of the total.

c. **Simulation hours** cannot exceed **Operating Topics Hours**.

- i. Time devoted to Simulation should be included in Operating Topics Hours; these hours are subsets of the total.

d. Refer to the CM Manual for information regarding CE hours.

3 CE Categories & Hours

a Operating Topics Hours *

b NERC Standards

c Simulation

¹²https://www.nerc.com/pa/Train/SysOpCert/System%20Operator%20Certification%20DL/SOC_Program_Manual_V4.1.pdf

This Course Includes

4. This Course Includes:
- a. This activity conforms to the criteria for System Operator Credential Maintenance as specified in the System Operator Certification Program Manual.
 - i. Select Yes or No.
 - b. **This course is an Emergency Operations related training topic.**
 - ii. Select Yes or No.
 - iii. Refer to the System Operator Certification Manual Chapter 4 for the definition of Emergency Operations Training Topics.
 - c. **Pilot data**
 - iv. Select No. Pilot data is no longer required.
 - v. Any attached documents will not be used when in the consideration of ILA approval.
 - vi. Refer to the CM Manual for information regarding determination of total CE hours for eligible learning activities.

4

This Course Includes

a	<p>This activity conforms to the criteria for System Operator Credential Maintenance as specified in the System Operator Certification Program Manual.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Yes</td> <td style="width: 50%; text-align: center;">No</td> </tr> </table>	Yes	No	
Yes	No				
b	<p>This course is an Emergency Operations related training topic.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Yes</td> <td style="width: 50%; text-align: center;">No</td> </tr> </table>	Yes	No	
Yes	No				
c	<p>Pilot data is attached, if applicable.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">Yes</td> <td style="width: 33%; text-align: center;">No</td> <td style="width: 34%; text-align: center;">N/A</td> </tr> </table>	Yes	No	N/A
Yes	No	N/A			

Learning Assessment/Course Evaluation and Attendance Verification

5. How will the learning be assessed? Learning Assessment measures the extent to which training achieved its objectives and improved learner's knowledge or skills. Select all that apply.
- a. Written/Online Exam
 - b. Performance Demonstration
 - c. Other
 - d. If other, please describe.
 - e. If learning assessments are not Written/Online Exam or Performance Demonstration, select Other.
 - f. Include enough detail to clearly explain assessment process.
 - g. Refer to the CM Manual for information regarding requirements for learning assessment.

Learning Assessment/Course Evaluation and Attendance Verification

5

How will the learning be assessed?

Written/Online Exam

Performance Demonstration

Other

If other, please describe.

Learning Objectives

6. Learning Objectives must have clear and concise written statements of intended learning:
 2. These objectives represent what trainees are expected to achieve based on learning activities.
 2. Include all intended objectives in this field.
 2. Individual Objective(s) will be assigned to each Learning Activity Content Segment(s) in the next section.
 2. For clarification, assign a number to each objective.
 2. Refer to Guide to Writing Objectives on the One Stop Shop¹³ of the System Operator Certification and Credential Maintenance Program¹⁴ website regarding additional information.

6

Learning Objectives

Learning Objective *

Segment Categories

7. Segment Categories indicate what categories are included in each segment.

¹³ [One-Stop Shop \(System Operators Certification and Credential Maintenance Program\) \(nerc.com\)](https://www.nerc.com/One-Stop-Shop)

¹⁴ [System Operator Certification & Credential Maintenance Program \(nerc.com\)](https://www.nerc.com/System-Operator-Certification-Credential-Maintenance-Program)

- a. **Operating Topics** should include all segments related to the System Operator Certification Manual “Appendix A – Recognized Operator Training Topics”.¹⁵
- b. **NERC Standards** should include segments addressing these Standards.
- c. **Simulations** indicates segment is based on simulation.
- d. A segment may cover multiple categories.
- e. Select all categories that apply.

7

Segment Categories

Please select all that apply.

a

 Operating Topics

b

 NERC Standards

c

 Simulations

Learning Activity Content Segment

8. Learning Activity Content Segment

- a. **Partial Credit Available?** Select applicable Yes or No.
 - i. Refer to the CM Manual regarding Partial Credit.
- b. **Learning Objective(s) related to each segment**
 - i. List each objective(s) relative to Segment Delivery Description.
 - ii. This is where numbering of objectives is beneficial.
- c. **Segment Duration in minutes**
 - i. Enter total allocated times for each segment of learning activity.
 - ii. Do not enter decimals or percentages.
 - iii. Total of all Segment Duration should not be greater than Operating Topic Hours (3.a).
 - iv. A ten minute break is understood to be part of each CEH.
- d. **Segment Delivery Description**
 - i. Include enough detail to determine if learning objectives can be met.
 - ii. Include method of delivery and description of all materials used to deliver the course.
 - iii. Any ILA segment(s) that will be used to award NERC standards hours must comply with the following:
 1. Reference NERC standards that are “approved” or are already “in effect”
 2. Clearly convey how NERC standards will be incorporated into the course
 - iv. Provide specific information on how content of this course relates to the System Operator Certification Manual “Appendix A – Recognized Operator Training Topics”¹⁶.

¹⁵https://www.nerc.com/pa/Train/SysOpCert/System%20Operator%20Certification%20DL/SOC_Program_Manual_V4.1.pdf

8

Learning Activity Content Segment

a

Partial Credit Available?

Yes

No

b

Learning Objective(s) related to each segment

c

Segment Duration in minutes

Briefly describe the information conveyed in each segment of the learning activity. Include instructional method(s) and describe all materials used in course delivery. The description MUST contain sufficient detail to determine if the learning objectives can be met. Provide specific information on how the content of this course relates to the System Operator Certification Program Manual, Appendix A.

d

Segment Delivery Description

Add More Learning Activity Content Segments

9. If additional segments need to be added:
 - a. Click + Add in the upper right corner.
 - b. Continue to include required information as described above.
 - i. Description of Segment Delivery – See 8.d
 - ii. Segment Categories – See 7.a, 7.b, 7.c
 - iii. Partial Credit Available? – See 8.a
 - iv. Learning Objective(s) related to each segment – See 8.b
 - v. Segment Duration in minutes – See 8.c
 - c. Continue to add as many Learning Activity Content Segments as needed.
 - d. Before submitting the course, ensure all Segment Duration minutes equal total Operating Topic Hours.

9

Add More Learning Activity Content Segments

a

+ Add

Briefly describe the information conveyed in each segment of the learning activity. Include instructional method(s) and describe all materials used in course delivery. The description MUST contain sufficient detail to determine if the learning objectives can be met.

Description of Segment Delivery *

Please select all that apply.

Operating Topics

NERC Standards

Simulations

Partial Credit Available?

Learning Objective(s) related to each segment

Segment Duration in minutes

Course Topics

10. Course Topics relate specifically to the System Operator Certification Manual “Appendix A – Recognized Operator Training Topics”.¹⁷
- Select all that apply.
 - Courses that provide CE hours for NERC certification credential maintenance shall be based on topics listed.

¹⁷https://www.nerc.com/pa/Train/SysOpCert/System%20Operator%20Certification%20DL/SOC_Program_Manual_V4.1.pdf

10

Course Topics

Basic AC/DC Electricity

- Capacitance
- Inductance
- Impedance
- Real and reactive power
- Electrical Circuits
- Magnetism

Basic Power System Mathematic Concepts

- Basic trigonometry
- Ratios
- Per unit values
- Pythagorean Theorem
- Ohm's Law

Course Topics

Basic AC/DC Electricity

- Capacitance
- Inductance
- Impedance
- Real and reactive power
- Electrical Circuits
- Magnetism

Basic Power System Mathematic Concepts

- Basic trigonometry
- Ratios
- Per unit values
- Pythagorean Theorem
- Ohm's Law
- Kirchhoff's Laws

Characteristics of the Bulk Electrical System

- Transmission lines
- Transformers
- Substations
- Power plants
- Protection
- Introduction to power system operations and interconnected operations

System Protection Principles

- Transmission lines
- Transformers
- Busses
- Generators
- Relays and protection schemes
- Power system faults
- Synchronizing equipment under-frequency load shedding
- Under-voltage load shedding
- Communication systems utilized

Interconnected Power System Operators

- Voltage control
- Frequency control
- Power system stability
- Facility outage both planned and unplanned
- Energy accounting
- Inadvertent energy
- Time error control
- Balancing of load and resources

Emergency Operations

- Loss of generation resource(s)
- Loss of transmission element(s)
- Operating reserves
- Contingency reserves
- Line loading relief
- Load shedding
- Voltage and reactive flows during emergencies
- Loss of EMS
- Loss of primary control center

Power System Restoration

- Restoration philosophies
- Facility restoration priorities
- Blackstart restoration
- Stability (angle and voltage)
- Islanding and synchronizing

Market Operations

- NAESB standards
- Standards of conduct
- Tariffs
- OASIS applications (Transmission Reservations)
- E-Tag application
- Transaction scheduling
- Market applications
- Interchange

Tools

- Supervisory Control and Data Acquisition (SCADA)
- Automatic Generation Control (AGC) application
- Power flow application
- State estimator application
- Contingency analysis application
- P-V Curves
- Load forecasting application
- Energy accounting application
- Voice and data communications systems
- Demand-side management programs

Operator Awareness

- Identifying loss of facilities
- Recognizing loss of communication facility
- Recognizing telemetry problems
- Recognizing and identifying contingency problems
- Proper communications (three-part)
- Communication with appropriate entities including the Reliability Coordinator
- Cyber and physical security and threats

- c. Save the ILA Form.
- d. Once the ILA Form is saved, the following screen should appear.

Policies and Procedures

- ISO/RTO operational and emergency policies and procedures
- Regional operational and emergency policies and procedures
- Company-specific operational and emergency policies and procedures

NERC Reliability Standards

- Application and/or implementation of NERC Reliability Standards

ILA Submission Process

11. Application Documents is a legacy feature that was previously used to capture application elements that are no longer required to be submitted. No additional documents are required to be submitted at this step.
12. When finished, choose one of the following 3 options:
 - a. Apply for Another Course. The website will return to a blank ILA Form.
 - b. Save & Close. The website will close browser but may be returned to later.
 - c. Finish & Pay.

11

The screenshot shows the NERC (North American Electric Reliability Corporation) user interface for Individual Learning Activities (ILAs). The page header includes the NERC logo and the user name 'dana vines'. The main content area is titled 'ILA Application' and 'Application Documents'. A 'Select Files' dialog box is open, showing a 'Drag & drop files here ...' area. Below the dialog, there are buttons for 'Apply for Another Course', 'Save & Close', and 'Finish & Pay'. A 'Browse...' button is also visible. The interface is powered by BrightLink.

a points to the 'Browse...' button in the 'Select Files' dialog.

b points to the 'Application Documents' tab and the 'Drag & drop files here ...' area in the 'Select Files' dialog.

c points to the 'Apply for Another Course' button.

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NERC Providers Portal

ILA Application Application Documents

Select Files

Drag & drop files here ...

Select files... Browse ...

Apply for Another Course Save & Close Finish & Pay

Powered by BrightLink

Note:

Level 2 providers must submit ILAs 45-days *prior* to the first date of delivery.
 Level 3 providers can submit ILAs up to 30-days *after* the first date of delivery.

ILA Renewals

Providers have the ability to renew ILAs 90 days prior to the expiration date. In order to renew an existing ILA, provider users should go to the **Courses** menu. Browse through the **Action** column and determine if there are ILAs that are up for renewal. The ILA will have a blue button giving the option to **Renew Course**. *Select* the **Renew Course** button and follow the steps as directed.

Chapter 4: Individual Learning Activities (ILAs)

- [Home](#)
- [My Purchases](#)
- PROVIDER
 - [Upgrade/Renew](#)
- PROVIDER USERS
 - [Invite Users](#)
 - [Manage Users](#)
- ILA APPLICATIONS
 - [Courses](#)
- OPERATOR USERS
 - [View Transcripts](#)
- CE MANAGEMENT
 - [CEH Review](#)
 - [CEH Upload \(CSV\)](#)

ILA Applications + ILA Application

Show entries

[CSV](#)

Search:

Filter by status: All Statuses

Course ID:	Review/Application Status:	Start Date	End Date	Operating topics/ Standards/ Simulations	Action
<input style="width: 100%;" type="text"/>	Course: expired	2020-08-31	2021-08-31	3 / 0 / 2.5	View Details Renew Course
<input style="width: 100%;" type="text"/>	Course: expired	2020-07-15	2021-07-15	3.5 / 2.5 / 1	View Details Renew Course
<input style="width: 100%;" type="text"/>	Course: expired	2020-07-13	2021-07-13	2.5 / 2.5 / 0	View Details Renew Course
<input style="width: 100%;" type="text"/>	Course: expired	2020-06-16	2021-06-16	3 / 2 / 0	View Details Renew Course

Withdrawing an ILA

Providers have the option to withdraw a course. Courses may only be withdrawn, with refund, up until the point they are assigned to a CERP reviewer for evaluation. To withdraw an ILA:

1. Go to the Courses menu
2. Type in the ILA's Course ID in the Search
3. Select View Details at the far right of the course
4. Select Withdraw Application

ILA Applications + ILA Application

Show entries CSV Search: Filter by status: All Statuses

Course ID:	Review/Application Status:	Start Date	End Date	Operating topics/ Standards/ Simulations	Action
<input type="text"/>	Pending review assignment	2022-01-17	2023-01-17	1.5 / 1 / 0	View Details

Showing 1 to 1 of 1 entries (filtered from 982 total entries) Previous **1** Next

Actions

Withdraw Application

View Application

View Status of All Courses

Provider users looking for a list of all submitted courses and the current course status should go to the “Courses” menu in the provider user account. Provider users can filter by the course status (Active, Expired, Pending Assignment, Denied, Waiting for Reviewer, Waiting for Staff or Withdrawn). Provider users can also sort by the Review/Application Status, Start Date, End Date, or the Operating topics/Standards/Simulations columns (ascending or descending) by clicking on the column header.

The screenshot displays the 'ILA Applications' interface. On the left is a navigation sidebar with categories like 'PROVIDER', 'PROVIDER USERS', 'OPERATOR USERS', and 'CE MANAGEMENT'. The 'ILA APPLICATIONS' section is highlighted with a red box, and the 'Courses' sub-item is also highlighted. The main content area shows a table of course applications. At the top right, there is a search bar and a 'Filter by status' dropdown menu, both highlighted with red boxes. The table has several columns: 'Course ID', 'Review/Application Status', 'Start Date', 'End Date', 'Operating topics/Standards/Simulations', and 'Action'. The 'Review/Application Status', 'Start Date', 'End Date', and 'Operating topics/Standards/Simulations' column headers are highlighted with red boxes. The table lists several expired courses with their respective dates and simulation counts. Each row includes 'View Details' and 'Renew Course' buttons.

Course ID	Review/Application Status	Start Date	End Date	Operating topics/Standards/Simulations	Action
[Redacted]	Course: expired	2020-08-31	2021-08-31	3 / 0 / 2.5	View Details, Renew Course
[Redacted]	Course: expired	2020-07-15	2021-07-15	3.5 / 2.5 / 1	View Details, Renew Course
[Redacted]	Course: expired	2020-07-13	2021-07-13	2.5 / 2.5 / 0	View Details, Renew Course
[Redacted]	Course: expired	2020-06-16	2021-06-16	3 / 2 / 0	View Details, Renew Course
[Redacted]	Course: expired	2020-05-05	2021-05-05	2.5 / 0 / 0	View Details
[Redacted]	Course: expired	2020-02-11	2021-02-11	2.5 / 2.5 / 0	View Details
[Redacted]	Course: expired	2020-02-10	2021-02-10	3 / 0 / 3	View Details
[Redacted]	Course: expired	2020-02-10	2021-02-10	2.5 / 0 / 1	View Details
[Redacted]	Course: expired	2020-02-09	2021-02-09	3 / 0 / 0	View Details

Chapter 5: Awarding, Editing and Deleting CEHs

Level 2 and Level 3 providers have the ability to award and delete CEHs for any course they have delivered.

Provider users can award CEHs manually via SOCCED or via a CSV upload.

To Award CEHs Manually (one course/one operator per entry):

1. Provider users should log into the provider user SOCCED account.
2. *Click on CEH Review*
3. *Scroll to the bottom and select Add New CEH*

The screenshot shows the 'CE MANAGEMENT' interface. On the left, there is a sidebar with two options: 'CEH Review' (which is selected and highlighted with a red box) and 'CEH Upload (CSV)'. The main area displays a table of CEH entries. Each entry consists of a checkbox, a course ID, a date, a description, and a status. The status column shows values like '3 / 0 / 2.5', '3 / 3 / 0', and '2.5 / 2.5 / 0'. At the bottom of the table, there is a pagination control showing 'Showing 1 to 25 of 1,249 entries' and a set of buttons: 'Previous', '1', '2', '3', '4', '5', '...', '50', and 'Next'. Below the pagination, there are three buttons: 'Delete Selected', 'Add new CEH' (highlighted with a red box), and 'Edit Selected'.

Checkbox	Course ID	Date	Description	Status
<input type="checkbox"/>		2020-09-10		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-10		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-10		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-10		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-10		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-10		3 / 3 / 0
<input type="checkbox"/>		2020-09-14		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-14		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-14		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-14		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-14		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-14		3 / 0 / 2.5
<input type="checkbox"/>		2020-09-14		2.5 / 2.5 / 0

4. Add the information requested and *select* **Create**

Create new entry ^

Course ID*:

Enrollment Date*:

Certification Number*:

Operating Topics:

Standards:

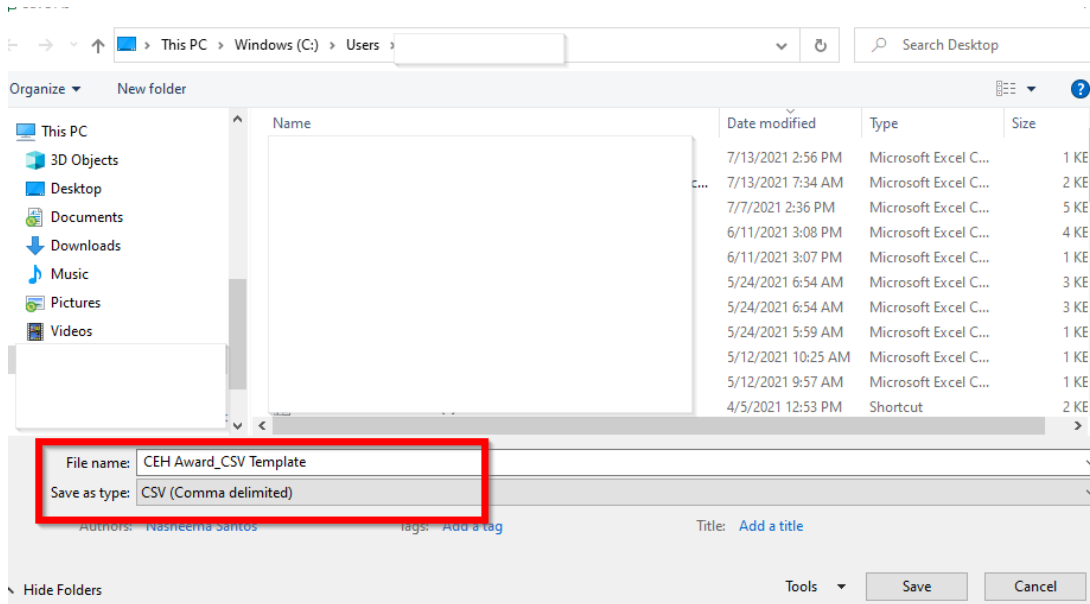
Simulations:

Cancel

Create

Awarding CEHs to Multiple Operators

To upload CEHs for multiple operators at one time, provider users should use a *CEH Upload CSV Template*¹⁸ and save it as a **CSV** (Comma delimited) file.



	A	B	C	D	E	F
1	course_id	enrollment_date	certification_number	operating_topics_ceh	standards	simulations

- course_id = the course's identification ID in SOCCED
- enrollment_date = date the operator took the course
- certification_number = operator's certificate number
- operating_topics_ceh = number of operating topic hours
- standards = number of standard hours
- simulations = number of simulation hours

Add the information to the csv file per the requirements listed above. Multiple operators can be listed within the same spreadsheet (each in its own individual row).

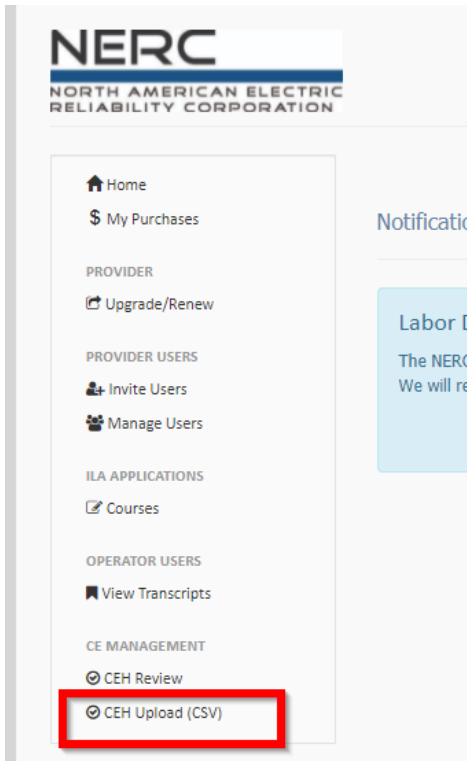
TIP: Use one csv file per course. NERC does not recommend uploading multiple courses with multiple operators within one csv file.

When the csv file is complete and ready for upload save it, go through the following steps to upload the csv file:

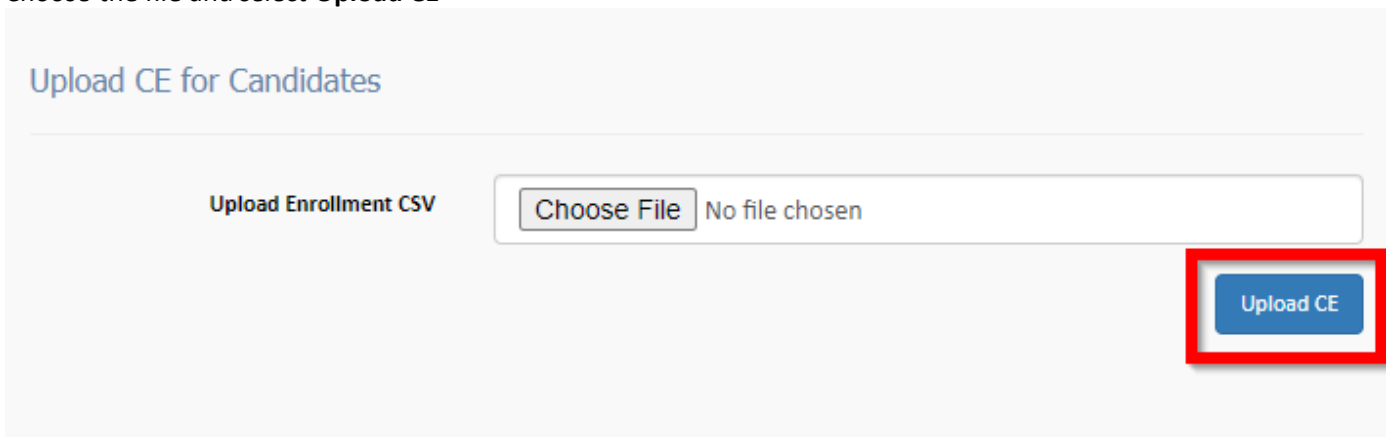
1. Log in to the provider user account

¹⁸ <https://www.nerc.com/pa/Train/SysOpCert/System Operator Certification DL/CEH Upload CSV Template.csv>

2. Click on the **CEH Upload (CSV)** option

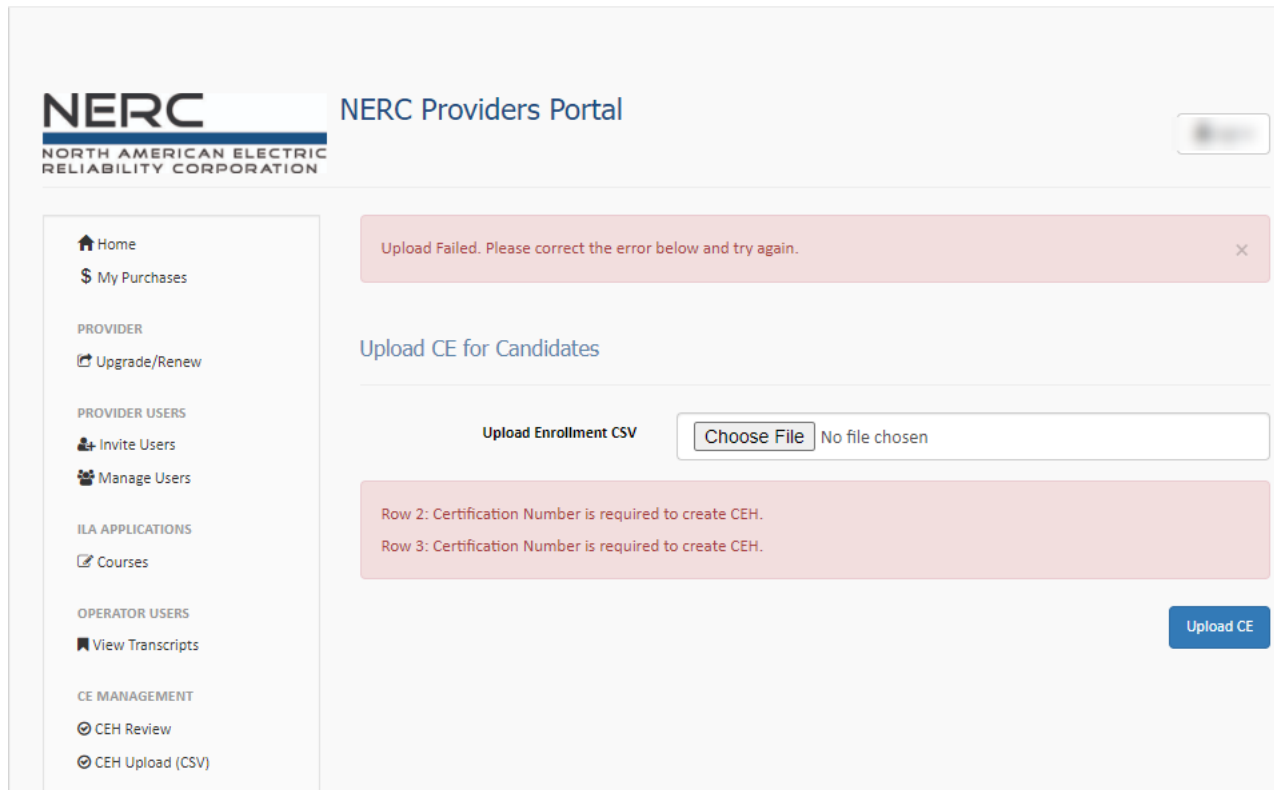


3. Choose the file and select **Upload CE**



That completes the upload of the CEHs awarded to multiple operators.

If there is an error with one record, the .csv report will not upload and SOCCED will generate an error message. The Message will outline which line has the error. The header row of the .csv file is not counted as a row.



Editing CEHs

Level 2 and Level 3 providers are able to view and edit all of the CEHs they have awarded in the CEH Review screen. Providers may search by the Operator’s certification number to find the entry in question, or they may search by the course ID.

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NERC Providers Portal

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PROVIDER USERS
Invite Users
Manage Users

ILA APPLICATIONS
Courses

OPERATOR USERS
View Transcripts

CE MANAGEMENT
CEH Review
CEH Upload (CSV)

Notifications

ILA Submission Timeframes

Reminder:

Level 2 Providers: ILAs must be submitted at a minimum of 45 days prior to the first date of delivery.

Level 3 Providers: ILAs must be submitted at a maximum of 30 days after the first date of delivery.

Please refer to Chapter 5 of the Credential Maintenance Program Administrative Manual for further details

Enter the Certification Number into the Search box to generate a list of all of an operator’s CEHs.

CEH Review

Enrolled After

Show entries

Search:

Entering a Course ID into the Search box will generate a list of all of the operators that have been awarded CEHs for that particular course.

To edit a line item:

- *select* the **box** to the left of the Course ID;
- *scroll* to the bottom of the screen and *select* **Edit CEHs**

<input type="checkbox"/>	Course ID	Enrollment Date	Certification Number(s)	Category Hours lang OT / ST / SI
<input checked="" type="checkbox"/>	[Redacted]	2021-11-17	[Redacted]	12 / 6 / 12

Showing 1 to 25 of 2,361 entries 1 row selected

Delete Selected Add new CEH **Edit Selected**

The next screen will be an **Edit Enrollment** screen that allows the provider user to make edits to the Course ID, Enrollment Date, Certification Number, Operating Topics, Standards, and/or Simulations. Once the edit are complete, *click* the **Edit** button to save the changes.

Edit enrollment

Course ID*:

Enrollment Date*: 2021-11-17

Certification Number(s)*:

Operating Topics: 12

Standards: 6

Simulations: 12

Cancel **Edit**

Deleting CEHs for Single or Multiple Operators

Level 2 and Level 3 providers are able to view all of the CEHs they have been awarded in the CEH Review screen. Providers may search by the Operator's certification number (to delete CEHs for a single operator/one course) or look for the Course ID (if looking to delete CEHs for multiple operators/one course).

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CEH Review
CEH Upload (CSV)

Notifications

ILA Submission Timeframes

Reminder:

Level 2 Providers: ILAs must be submitted at a minimum of 45 days prior to the first date of delivery.

Level 3 Providers: ILAs must be submitted at a maximum of 30 days after the first date of delivery.

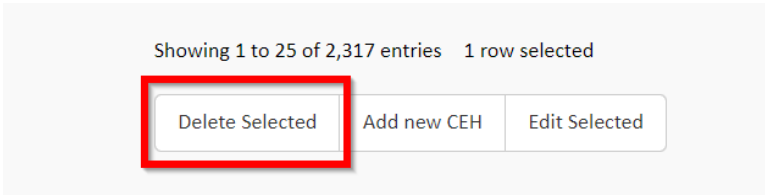
Please refer to Chapter 5 of the Credential Maintenance Program Administrative Manual for further details

Provider users should enter the Certification Number or the Course ID into the Search box, which will generate a list of either all of a single operator's CEHs (if looking for a single entry to delete) or all of the operators that have been awarded CEHs for a particular course.

Once the line item that must be deleted is found, the provider user should:

- *select* the **box** to the left of the **Course ID**,
- *scroll* to the bottom of the screen and *click* **Delete Selected**

	Enrollment Date	Certification Number(s)	Category Hours lang OT / ST / SI
<input type="checkbox"/> Course ID	2021-11-17		12 / 6 / 12



This will remove the entry from the operator(s) transcript(s).

Chapter 6: Transcript Review

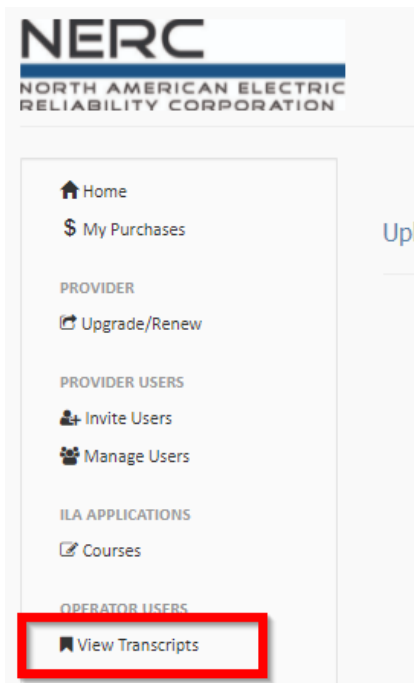
Provider users can view operators' certificate renewal progress and operators' transcripts, if the Operator has authorized the provider to view.

View Certificate Renewal Progress and Transcripts

Provider users can view an operator's certificate renewal progress. Therefore, they can see at-a-glance how many CEHs an operator has earned or is missing to meet renewal requirements.

To view the Certificate Renewal Progress, follow the steps below:

1. Log in to the provider user SOCCED account
2. *Select* **View Transcript**



3. *Search* for the **operator by name**



4. Click on **Transcript** at the end of the **operator's name**. This will show the **Renewal Progress**

Operator Users

Show entries Search:

First Name	Last Name	Certification Number	Certification Status	Certification Expiration Date	Operating Topic Hours	Details
			active	2022-03-06	167.0/140.0	<input type="button" value="Transcript"/>

Renewal Progress

Operating Topics (including 0 rollover hours)

167

Standards

50

Simulations

47

[View Full Transcript](#)

5. Click on **View Full Transcript**, to view the operator's complete transcript showing how many operating topics, standards, and simulation hours were earned per course and the date they were earned.
6. Click on **Download Transcript** to save the transcript file in an Excel format.

Viewing Transcript:

to

NOTE: Bulk download of all operators is not available at this time.

Chapter 7: Audits

Audits are conducted on a routine basis to ensure that all providers adhere to the NERC Credential Maintenance Program's criteria. Audits are independent from the renewal process and can occur anytime. A routine audit is an examination of an approved Individual Learning Activity (ILA) to ensure the course outlined in the CM Manual see **Chapter 8: Credential Maintenance Program Audits**¹⁹.

Providers will receive an email from the NERC Administrator which identifies the ILA that is being audited. Also included is Continuing Education Providers Routine Audit Checklist which outlines the documentation needed for the audit.

Providers will *upload* necessary documentation directly in to the **documents section** of the ILA. All documents will populate within the ILA.

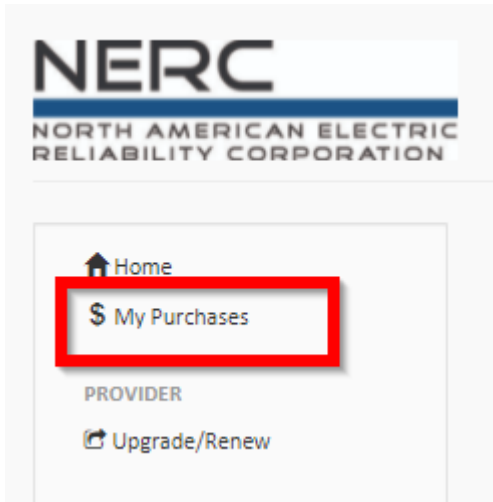
If a provider encounters any difficulties uploading documents, submit a ticket to the SOCCED Help Desk, a NERC SOCCED Administrator will assist.

¹⁹ https://www.nerc.com/pa/Train/SysOpCert/System%20Operator%20Certification%20DL/CM_Program_Manual_v1.2.pdf

Chapter 8: View Order History

All provider users can see Order History (including applications, renewals, and ILA submittals). To view all orders, providers should:

1. Log in to the provider user SOCCED account
2. *Select My Purchases*



3. Provider users will be able to see all of the purchases made within the provider user's account. It will include an order number, date of purchase, item purchased, and the total.
4. *Click on the Order Number to view the details of the order (i.e. ILA course ID).*

Order #	Status	Date	Items	Total
31213	New	August 24th 2021 07:57	<ul style="list-style-type: none">1 ILA Application1 ILA Application1 ILA Application1 ILA Application	\$720.00
30428	New	June 17th 2021 13:57	<ul style="list-style-type: none">1 ILA Application1 ILA Application1 ILA Application	\$900.00

Appendix A: Version History

Table A.1: Provider Reference Guide Version History			
Revision No.	Date	Chapter	Description
1	March 2022	All	The Provider Reference Guide was approved by the Personnel Certification Program Manager
2	May 2024	All	CMWG and IOTF edited the document with updated snapshots
3	December 2024	4	The Provider Reference Guide and Provider User ILA Guide was consolidated into one document.