



DIGITAL SOLUTIONS

# CASCADE FACILITY RATINGS

Optimize facility ratings management

Cascade Facility Ratings is the industry's first fully integrated facility ratings management solution, providing a single source of truth for facility ratings information.



Are you confident you have an accurate assessment of your facility ratings that will remain through next week, next month or next time you're audited? Do your engineering, planning and operations departments all have the same 'most recently approved' facility ratings to ensure safe and reliable operation of your system?

Cascade Facility Ratings is a purpose-built solution that ensures a consistent technical process, minimizing data loss and improving the accessibility of NERC FAC-008-3 compliance information between engineering, planning and operations. It is a fully integrated, technically accurate and secure system that covers all aspects of calculating, approving and reporting of the facilities across your network.

It includes a robust reporting system specialized for facility ratings, enabling you to manage and maintain NERC FAC-008-3 compliance.

Cascade Facility Ratings allows users to consistently apply and create rating methodologies with ease. Changes to the system are recorded with the option to attach supporting documentation at each stage of a change process.

#### Consistent approach to rating all equipment

Cascade Facility Ratings is the first commercially available electric grid software program to apply a consistent approach to rating all equipment on the line. The software addresses facility rating challenges, such as the organization of data, reporting of data, evergreening of data, coordination with operations and

information system management. It performs thermal rating calculations to accommodate different climate conditions, supporting a reliable grid and NERC compliance requirements. Cascade Facility Ratings allows for the use of industry standard (IEEE) algorithms for rating conductors, transformers and other equipment.

The software solution works as a standalone application or as a module to Cascade software from DNV GL. It can also be fully integrated with existing business IT systems and provides a platform for data export to PSS®E, CYME, EMS systems, as well as distribution analysis software such as Synergi Electric.

Ongoing support and facilities rating management best practices expertise are available through our experienced implementation and advisory service teams.

#### Break free from spreadsheets

Calculating facility ratings requires an intense level of detail and a consistent and accurate process to address infrastructure changes, including:

- Physical and thermal characteristics of equipment and operating thresholds
- Serial and parallel configuration of elements on facilities (cable groups, banked equipment, etc.)
- In-service and out-of-service equipment (bypass switches)
- Non-load carrying devices (relays, wave traps, RTUs, etc.)
- Environmental conditions

The calculations and standards (your rating methodology) that are used to arrive at individual apparatus ratings can be quite complex, with many inputs. Sourcing this data from disparate locations can be challenging, as is keeping it up to date based on the latest operations and maintenance activities. Further complicating the process is the tracking of equipment deterioration and the prioritization of replacement and/or upgrade of equipment to maintain a reliable system and meet long-term planning needs.

Facility Ratings helps utilities by integrating rating methodologies, element ratings and facility ratings into a single, comprehensive yet flexible solution.

All the functions and workflows of the facility rating process are now in one place. Facility Ratings is the complete solution for facility ratings management.

#### Key benefits of Cascade Facility Ratings:

- Enables continuous monitoring of your equipment's performance and environment, acting when events you define occur
- Helps ensure you have accurate, up-to-date facilities rating information easily available in one source of truth
- Reduces time and stress required for data management and compliance reporting for reliability standards, such as NERC FAC-008-3 and PRC-023
- Supports the use of consistent and technically accurate ratings methodology across the utility
- Offers configurability to design and apply methodologies specific to a utility's needs
- Helps you determine the specific piece of equipment that most limits throughput along a particular line (most limiting series element)
- Ensures all stakeholders have easy access to the most recent approved or historical ratings
- Creates reports to satisfy auditor requests
- Frees up key technical staff and subject matter experts (SMEs) to focus on system reliability, planning, and operations
- Provides a complete audit trail and history of facility ratings and maintenance for the line, facility and element
- Has configurable security settings to ensure necessary access and edit controls across teams
- Includes detailed user instructions and DNV GL training and support
- Enables plans for future construction or upgrades to the system

#### RATINGS METHODOLOGY AND DATA VISIBILITY

##### Line hierarchy

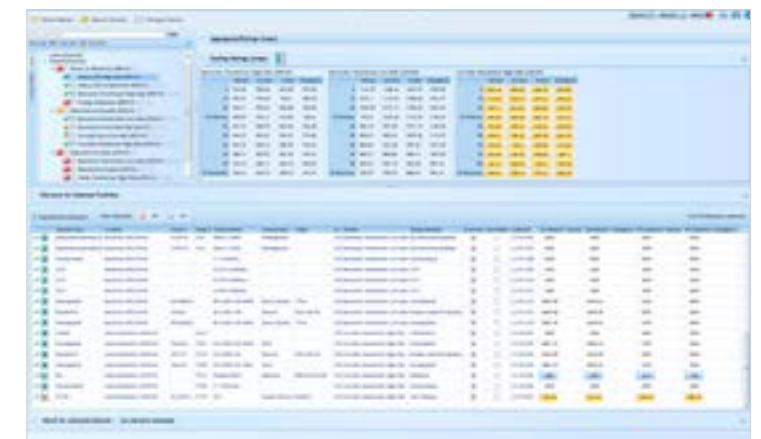
- Cascade Facility Ratings allows you to configure your hierarchy to show each line, facility, and element in your network.

##### Facility Ratings

- See your entire matrix of temperatures and durations and the ratings for each cell for every asset in your system.
- Automatically detects and updates when equipment is changed - then alerts and emails appropriate users.

##### Second MLSE

- Facility Ratings calculates and then displays the primary and secondary MLSE (Most Limiting Series Element).



Cascade Facility Ratings - Review Ratings Page

#### COMPLIANCE, FULL AUDIT TRAIL, AND SECURITY

##### Element status history

- Shows when an element was approved/unapproved and who executed that action.

##### Customizable security permissions

- Facility Ratings has three permission levels: read-only, editor, or config (admin). These basic permissions can then be customized to suit your security and organizational needs.



**DNV GL**

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**About DNV GL**

We are the independent expert in risk management and quality assurance. Driven by our purpose, to safeguard life, property and the environment, we empower our customers and their stakeholders with facts and reliable insights so that critical decisions can be made with confidence. As a trusted voice for many of the world's most successful organizations, we use our knowledge to advance safety and performance, set industry benchmarks, and inspire and invent solutions to tackle global transformations.

**Digital Solutions**

DNV GL is a world-leading provider of digital solutions for managing risk and improving safety and asset performance for ships, pipelines, processing plants, offshore structures, electric grids, smart cities and more. Our open industry platform Veracity, cyber security and software solutions support business-critical activities across many industries, including maritime, energy and healthcare.