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**Technical Report** (Arial 10 pt Bold)

NREL/TP-xxxx-xxxxx

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National Renewable Energy Laboratory  
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## Foreword (NREL Head 01 Not in TOC)

The **NREL Head 01 Not in TOC** style is used for most sections that come before the main body text, such as the Foreword, Preface, Acknowledgments, List of Acronyms, and Table of Contents.

This is an example of **NREL Body Text**.

## Preface

The *NREL Style Guide* is an essential tool for preparing publications and websites at the National Renewable Energy Laboratory. It features formatting, spelling, punctuation, capitalization, grammar, and language guidelines for the laboratory's writers and editors.

This document is based on, and is a companion to, the style guide. It provides a visual example of NREL formatting styles described in the guide.

The majority of this document was created using the NREL report template. Styles applied from the template are indicated in blue text.

# Acknowledgments

Text here.

## List of Acronyms

AOD	aerosol optical depth (use style type <a href="#">NREL Nomenclature</a> )
BESS	battery energy storage system
DER	distributed energy resource
DOE	U.S. Department of Energy
GHI	global horizontal irradiance
MBE	mean bias error
NREL	National Renewable Energy Laboratory
RMS	root-mean-square

## Executive Summary

Use [NREL Body Text](#) style, which is Times New Roman, 12 point, black. You can include the Executive Summary in the Table of Contents or omit it if you prefer ([NREL Head 01](#) vs. [NREL Head 01 Not in TOC](#)).

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Fusce est. Vivamus a tellus. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Proin pharetra nonummy pede.



**Figure ES-1. The NREL Education Center gives regular tours ([NREL Figure Caption](#))**

*Photo by David Parsons, NREL 12345 ([NREL Figure Note](#))*

Follow guidelines in the [NREL Style Guide](#) for the use and placement of photo, image, and video credits. Figures in the Executive Summary can be numbered differently from figures in the body of the report.

## Second-Level Heading

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# 1 First-Level Numbered Heading (NREL Head 01 Numbered)

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## 1.1 Second-Level Numbered Heading (NREL Head 02 Numbered)

In the NREL Technical Report template, use the preformatted styles that begin with “NREL.”

This is an example of a block quote ([NREL Block](#)). Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas porttitor congue massa. Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero, sit amet commodo magna eros quis urna.

Other styles are highlighted throughout this example report.

### 1.1.1 Third-Level Heading (NREL Head 03 Numbered): *Bulleted Lists*

This is an example of an NREL bulleted list ([NREL Bullet](#)):

- Make bulleted lists parallel in construction (that is, begin all the items in the list with the same part of speech, such as a verb or a noun).
  - Make sure items are either all phrases or all complete sentences.
  - Punctuate all items consistently.
- Use bulleted lists sparingly to:
  - Highlight important items
  - Draw attention to main points
  - Help readers find information.
- Use numbered or lettered lists instead of bullets if you want to refer to items in a list or procedure elsewhere in the text.
- Begin each item with a capital letter; omit ending punctuation for all but the last item, unless all items are complete sentences.

### 1.1.2 *Numbered Lists*

This is an example of an NREL numbered list ([NREL List](#)):

1. Include at least two items in a bulleted or numbered list.
2. Use numbered lists for procedural steps and for items referred to elsewhere in text (for example, “as described in Step 2”).

3. Use parallel construction in lists; that is, make all the listed items similar. Use sentences or phrases throughout and begin each item with a verb or a noun consistently.
  - a. Use lowercase letters to mark subordinate items in your list.
  - b. Make sure you have at least two subordinate items under each main item.
  - c. Indent them like this.
4. Use punctuation in lists when the items are complete sentences; otherwise, place a period after the last item only. *This applies to websites too.*

If you choose to include a simple list in paragraph format, number the items (1), (2), and (3).

## 1.2 References and Citations

Author-date citations are NREL’s preferred reference style (Bird and Hulstrom 1981). Examples of NREL reference format for commonly cited publication types can be found in the “references and citations” entry of the *NREL Style Guide*.

All cited references are listed in the References section after that main body text and before any appendices. Multiple citations are separated by a semicolon (Conrad 2008; Gaertner et al. 2020). Be sure to check that all citations have corresponding reference entries (and vice versa—make sure that all references are cited in text).

## 2 First-Level Numbered Heading

Use page breaks for subsequent first-level headings.

### 2.1 Tables

Table 1 is an example of NREL table formatting. Tables should be centered and should use simple formatting with horizontal rules. Try to avoid vertical rules.

**Table 1. Table Captions Use NREL Table Caption Style**

<b>Criteria<sup>a</sup></b>	<b>Description (NREL Table Header)</b>
Economic potential <sup>b</sup>	Provides ongoing revenue, profit, and return on investment
Low technology risk	Does not take technology risks beyond products that are commercially available or otherwise guaranteed to perform at such a level (NREL Table Content)
Low marketing risk	Accommodates low threshold of adoption for members and is easy to understand and use
Low development risk	Offers a short timetable from the development of an idea to the completion of a business plan to the successful implementation of a renewable energy initiative

<sup>a</sup> This is a table note.

<sup>b</sup> An easy way to insert table notes is to add a row at the end of the table (without borders) and merge cells to create a full-width space for the table note.

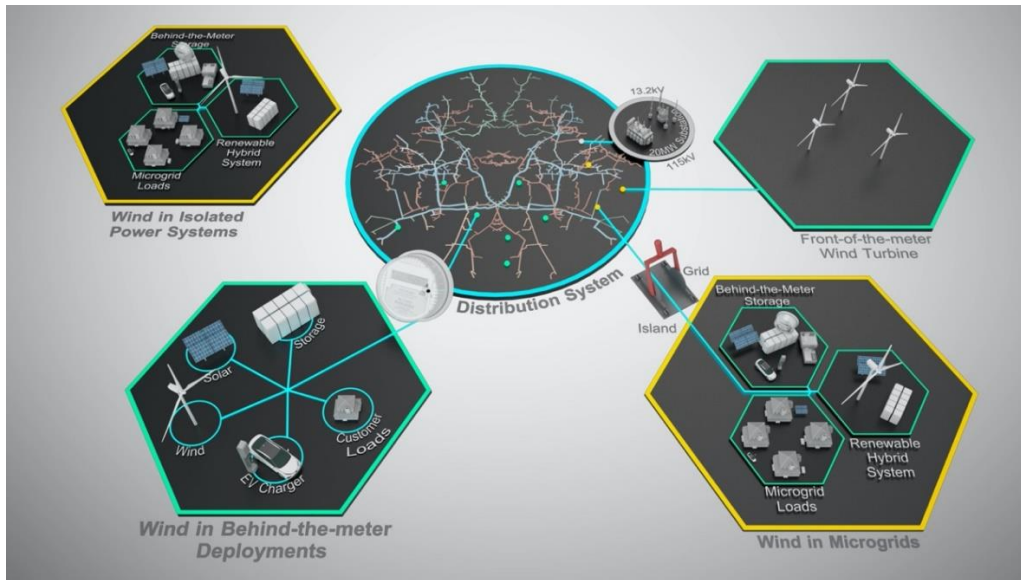
Table 2 is an example of a table that uses shading to delineate rows.

**Table 2. Using Shading in a Table**

<b>Service</b>	<b>Market Procured and Compensated Services (Yes [Y]/No [N])</b>	<b>Wind Can Technically Provide (Y/N)</b>	<b>Wind Currently Provides in United States (Y/N)</b>	<b>Requires Precurtailment for Wind to Provide (Y/N)</b>
Capacity	Y	Y	Y	N
Energy	Y	Y	Y	N
Inertial Response	N	Y	N/A	N
Primary Frequency Response	Required but not compensated – proposals only	Y	Limited	Y
Fast Frequency Response	N – proposals only	Y	Limited	Y
Regulating Reserves	Y	Y	Limited	Y
Contingency – Spinning	Y	Y	Limited	Y

## 2.2 Figures

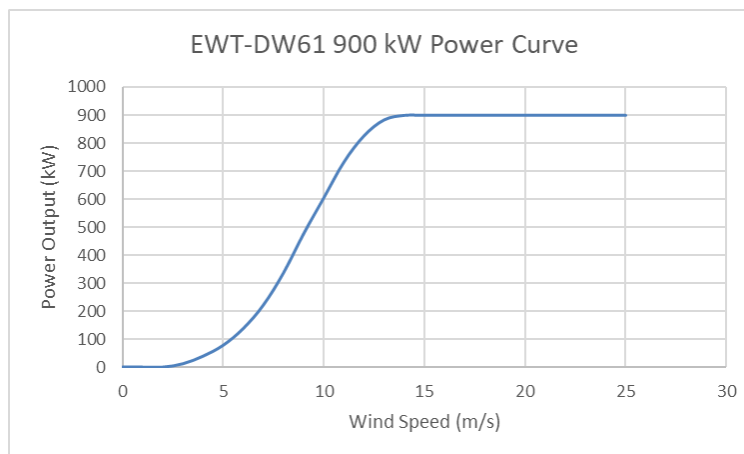
Figures should be centered with the caption centered beneath the figure. Figure 1 uses both a citation and an illustration credit in the Figure Note.



**Figure 1. MIRACL use case definitions for distributed wind (this is a Figure Caption)**

This is a Figure Note: Source: Reilly, Gentle, et al. 2021. Illustration by Josh Bauer, NREL.

Figure 2 is a chart taken from another source. As in Figure 1, the source is credited in the figure note.



**Figure 2. Power curve for the EWT DW61-900 wind turbine**

Source: Energya Wind Technologies (n.d.)

## 2.3 Equations

Follow the guidelines in the *NREL Style Guide* for including equations in text. If equations are referred to in text, they should be numbered. If they are not referred to in text, a number is not necessary.

Equation (1) is an example of an equation referenced in text. It is set on its own line and uses [NREL Equation](#) style and numbered, with the number right justified and in parentheses:

$$E = mc^2 \tag{1}$$

where

$E$  = energy

$m$  = mass

$c$  = constant for the speed of light.

Continue scrolling to see examples of References and optional sections that might appear after the main body text.

## Glossary (NREL Head 01)

Glossary	Use NREL Nomenclature style. The Glossary is an optional section.
Alternating current	A type of electrical current, the direction of which is reversed at regular intervals or cycles. In the United States, the standard is 120 reversals or 60 cycles per second. Electricity transmission networks use alternating current because voltage can be controlled with relative ease.



## References

- Bird, R. E., and R. L. Hulstrom. 1981. *A Simplified Clear Sky Model for Direct and Diffuse Insolation on Horizontal Surfaces*. Golden, CO: Solar Energy Research Institute. SERI/TR-642-761.  
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Gaertner, Evan, Jennifer Rinker, Latha Sethuraman, Frederik Zahle, Benjamin Anderson, Garrett Barter, Nikhar Abbas, et al. 2020. Definition of the IEA 15-Megawatt Offshore Reference Wind Turbine. Golden, CO: National Renewable Energy Laboratory. NREL/TP-5000-75698.

<https://www.nrel.gov/docs/fy20osti/75698.pdf>.

## Appendix A. NREL Head 01 Appendix

If the report has just one appendix, it does not need to be numbered. In that case, use [NREL Head 01](#) instead of [NREL Head 01 Appendix](#).