



Wind, Solar, and BTM-PV Hourly Shape Development

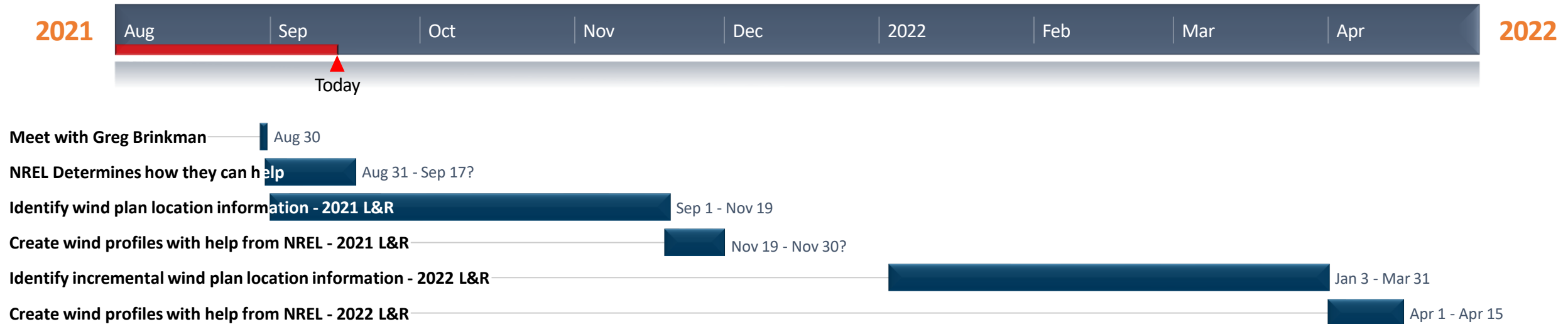
September 14, 2021

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Staff Engineer

Wind Profile Development Plan

- Needed data
 - Location, latitude and longitude
 - Size
 - Hub height
 - Technology type
- NREL will help develop wind profiles
 - Process is still under development

Wind Profile Timeline



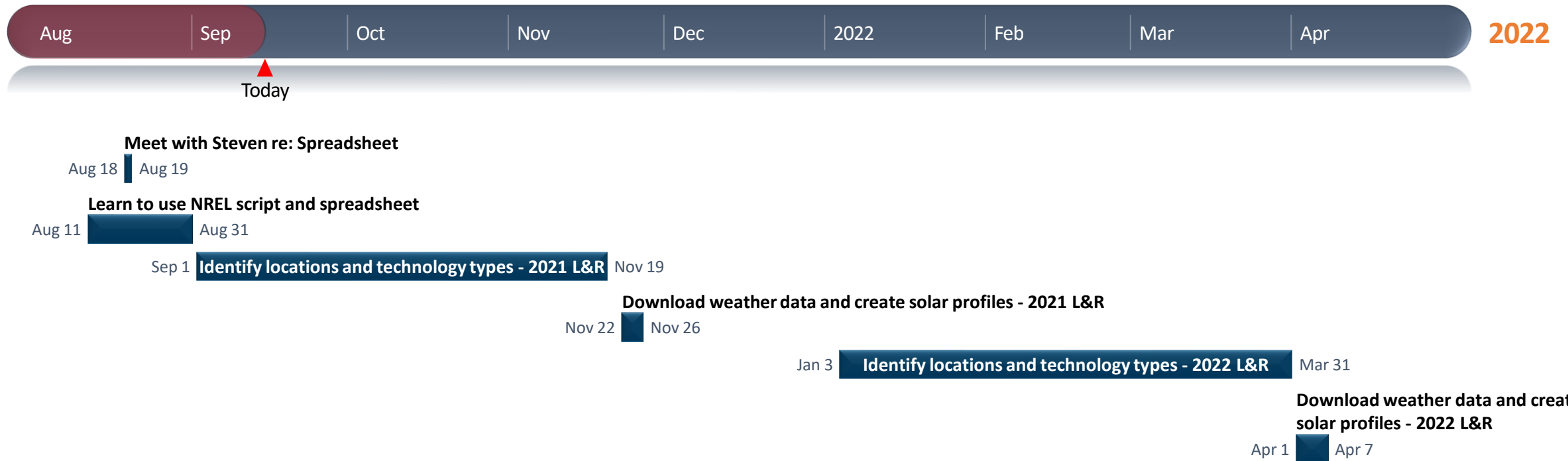
* Timeline for wind profile creation subject to change as NREL is still developing how they will create the wind shapes.

Solar Profile Development

- Needed data
 - Location, latitude and longitude
 - Fixed or tracking
- Use lk script to download weather files
- Use Spreadsheet developed by Steven to create solar profiles

- WECC staff has become familiar with how to use the tools
- Will need complete location data for all generators from L&R

Solar Profiles Timeline



BTM-PV Profile Development

- Needed Data
 - Multiple locations in each area
 - How many locations should we use?
- Use 6 rooftop types
- Use lk script to obtain weather files
- Modify Steven's spreadsheet to develop BTM shapes and average the multiple locations for each area
- Use Steven's spreadsheet to develop BTM shape for each area

BTM Profiles Timeline

2021 Aug Sep Oct Nov 2021

Today

Meet with Greg Brinkman

Aug 30 - Sep 14

Modify Steven's Spreadsheet

Sep 15 - Oct 26

Determine multiple locations for BTM sites

Sep 20 - Oct 29

Download weather data and create solar profiles

Nov 1 - Nov 5

Validate Shaptas

Aug 12 - Aug 25

WECC Staff Plan

- Wind Shapes
 - Compile needed data for wind shapes from 2021 L&R
 - Provide to NREL to develop profiles
 - Provide incremental resource data from 2022 L&R
 - Still working with NREL to complete final plan
- Solar and BTM
 - Compile needed data from L&R and other sources for 2021 L&R resources
 - Develop shapes using Steven's script and spreadsheet
 - Compile needed data from L&R for 2022 L&R resources and develop shapes
 - May need help from Steven for BTM for modifying spreadsheet



WECC

Electric Reliability and Security for the West

Contact:

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