Southern California Edison
2022-WMPs – 2022 Wildfire Mitigation Plan Updates

DATA REQUEST SET O E I S - S C E - 2 2 - 0 0 4

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Question 03:
Regarding Section 7.3.5.14- Recruiting and Training of VM Personnel:
a. On page 421, SCE states it "employs or contracts with ISA-certified arborists or persons close to certification when it is necessary to do so." Define what "persons close to certification" means.
b. On page 421, SCE states "Pre-inspections require a worker to accurately determine distances between vegetation and SCE's facilities as well as estimating annual growth rates of different types of trees. Currently, SCE does not believe this work requires an ISA-certified arborist at the time of hire to perform." How does SCE and its contractors evaluate prospective employee qualifications to perform "accurate distance determinations and annual growth rate estimations"?
c. On page 421, SCE states its "vegetation management program has a training and qualification advisor to organize its training programs. Vegetation management contractors are responsible for training their own crews on vegetation management work to meet SCE's standards." How do SCE's audit results tie back to employee and contractor trainings? "Add-on" training or otherwise?
d. On pages 422-423, SCE mentions a partnership with Cal Poly SLO. What does the Cal Poly SLO partnership entail? (e.g., undergraduate education, certificate program, internships, specific training modules, pathways to employment at SCE, etc.)

Response to Question 03:
a.) The requirements to become an ISA-certified arborist include a minimum of three years of full-time experience in arboriculture or a combination of education and practical arboricultural experience. During the hiring process, all candidates undergo an interview conducted by experienced vegetation management personnel where the candidates' relevant work experience, arboriculture knowledge, and educational background is discussed. This discussion usually determines the candidates' qualifications to perform the job. Some applicants are hired with the understanding that the 3-year minimum requirement for ISA certification may not be met yet, but the potential for certification is high. When hiring non-certified arborists, SCE typically requires that they can obtain ISA-certification within twelve months.

b.) Please see response in part (a) regarding qualifications and regarding the interview and evaluation process for prospective employees.

Regarding performing accurate distance determinations, all field personnel regardless of certification may use distance measuring tools such as hand-held laser range finders to make

accurate determinations of the clearance of the trees to SCE's facilities. The training regarding use of these tools is typically provided by the contractor's employer. While these field tools are available for use, the primary method of measurement involves the use of proximate objects. For example, the spacing between a primary and secondary line on a standard pole is approximately 8-10 feet. Inspectors use this spatial proximity in the air to gauge the clearance distances from encroaching vegetation. As another data point, a typical distribution pole stands approximately 45'-55' tall. Inspectors can use this pole height to estimate tree heights in proximity, accounting for subtle things like gradients and leans.

Regarding annual growth rate estimations, Attachment A to UVM-09 provides a list of all tree species found in SCE service territory and identifies corresponding growth rates as slow (0 to 3 feet annually), medium (3.1 to 6 feet annually), or fast (more than 6 feet annually). The pre-inspectors use this list to determine annual grow rate estimations.

c.) SCE relies on its post-work verification and QC process to determine the conformance to SCE's program standards. Although making a direct correlation to the employee's performance or any specific training is challenging, SCE's vegetation conformance rate has been steadily increasing over the past two to three years, and SCE believes the increase in performance is a good indicator of the effectiveness of the training that has been provided.

One specific example where additional training was correlated with better performance relates to the determination of vegetation to conductor clearances around SCE's transmission lines. In these instances, clearance must be determined by factoring in conductor dynamics (e.g., sag and sway). Early QC results identified that transmission clearances were not being achieved to factor in the conductor dynamics. SCE provided supplemental training to pre-inspection personnel on how to use LiDAR data and/or sag and sway tables to effectively prescribe to the clearance requirements. Additional communications and trainings were also provided to tree trimming contractors for better understanding of the execution requirements for these prescriptions. After the training, the conformance rates improved.

d.) As part of SCE's partnership with Cal Poly SLO, SCE is supporting the development of course material at Cal Poly SLO in the College of Agriculture, Food, and Environmental Sciences for a sponsored certificate program targeted at utility vegetation management. SCE's role is to support the curriculum development and provide subject matter expertise for utility arboriculture best practices to support the ongoing efforts to enhance pipelines for qualified personnel in the UVM industry for the State of California.

In addition to the university-based program, SCE is also working to collaborate on a certificate program for both pre-inspection and tree workers at the community college level.