

Exhibit CS-BW-68

*Docket 8302
Second Supplemental Testimony
of Mark Kane*

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Petition of Chelsea Solar LLC for a	)	:
certificate of public good, pursuant to	)	
30 V.S.A. § 248, authorizing the	)	Docket No. 8302
installation and operation of the	)	
“Chelsea Solar Project” consisting of a	)	
2.0 MW solar electric generation	)	
facility to be located at 500 Apple Hill	)	
Road in Bennington, Vermont	)	

**SECOND SUPPLEMENTAL PREFILED TESTIMONY OF
MARK KANE
ON BEHALF OF
PETITIONER**

January 9, 2015

Mr. Kane’s supplemental testimony addresses the potential effect of the Project under 30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(8) and the criteria pertaining to aesthetics, visual impacts, and town and regional plans.

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EXHIBITS

Exhibit Petitioner SUP2-MK-1	Figure 1, Site Plan
Exhibit Petitioner SUP2-MK-2	Figure 2, Site Section 1
Exhibit Petitioner SUP2-MK-3	Figure 3, Site Photographs
Exhibit Petitioner SUP2-MK-4	Figure 4, Site Photographs

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January 9, 2015

1 **1. Introduction**

2 Q1. Please state your name, occupation and business address.

3 A1. My name is Mark Kane. I am a land use planner and the Director of Community Planning
4 and Design at SE Group, which is a multi-disciplinary consulting firm specializing in the
5 planning, entitlement and design of public facilities, mountain and resort communities and
6 other complex projects on challenging sites. SE Group has four offices across the United
7 States, and the Vermont office is located at 131 Church Street, Burlington, Vermont 05401.

8

9 Q2. Have you previously provided testimony on this Docket before the Public Service Board

1 A2. Yes. I provided pre-filed testimony including an aesthetics analysis report and supporting
2 exhibits regarding the Chelsea Solar Project on June 18, 2014. I also provided
3 supplemental pre-filed testimony on September 26, 2014.

4 Q3. What is the purpose of your testimony?

5 A3. I am providing this supplemental testimony to address additional analysis related to
6 potential aesthetic impacts from the Project; specifically with respect to the development
7 of a Green Mountain Power (GMP) three-phase circuit and associated wooden utility poles
8 to service the Project. This testimony presents the additional analysis undertaken by SE
9 Group to assess visual change due to the proposed line extension associated with the
10 planned Project, and reaffirms that the Project will not create an unduly adverse impacts to
11 the visual character of the area and viewshed around the Project. This testimony is
12 supported by a number of figures identifying the route of the line extension, a cross-section
13 showing the presence of the poles in the landscape and photographs of the area (See Exh.
14 SUP2-MK-1 to Exh. SUP2-MK-4, Figures 1 through 4).

15
16 **2. Visual Assessment [30 V.S.A § 248(b)(5) & 10 V.S.A. §6086(a)(8)]**

17 Q4. Please describe what the additional assessment analysis was intended to address that was
18 not included in your original report.

19 A4. The original analysis report that I prepared addressed all elements of the Project as they
20 existed at the timing of the filing. I had previously submitted additional supplemental
21 testimony (September 26, 2014) and a report that addressed other areas of potential concern
22 for visual/aesthetic impacts. This testimony updates my previous analysis to address the
23 potential impacts of a new three-phase circuit on wooden power poles along portions of

1 Willow Road and Hewitt Drive in Bennington, Vermont. I completed this analysis by
2 examining the planned route of the utility line extension in relationship to the topographic
3 and vegetated conditions of the area and reviewing existing conditions through site
4 photographs taken by one of my staff on December 21, 2014.

5
6 Q5. Can you describe the basic components of the line extension and its relationship to the
7 Project?

8 A5. Yes. As shown on an updated site plan provided (See Exh. SUP2-MK-1, Figure 1), the
9 proposed line extension to service the Project traverses portions of Hewitt Road and
10 Willow Road. This extension can be broken down into three (3) basic components, each
11 of which is color-coded on Figure 1. The segment represented in orange on Figure 1
12 shows nine (9) new poles along the access road (Willow Road) to the Project and
13 terminates at the interconnection point of the Project near the midpoint of the array along
14 its southern boundary. The segment in blue represents the replacement of three (3)
15 existing poles to taller ones that can accommodate the new three-phase extension. The
16 segment in red includes nine (9) new poles along Hewitt Drive. All new or replacement
17 poles will be wooden with cross-arms and be approximately 38 to 43 feet in height.

18
19 Q6. Can you describe the character and potential visibility for each of the three components of
20 the line extension identified above?

21 A6. Yes. These areas are described below:

1 Orange Segment: This segment consists of nine (9) new poles of 38 feet in height and
2 extends about 1,500 feet from the end of the paved portion of Willow Road to the
3 interconnection point at the center of the proposed array. The poles and line will be
4 placed along the northern edge of the proposed gravel access road. This area is north of
5 the Route 7 interchange (northbound on-ramp) and, as shown on the existing conditions
6 photograph “B” (See Exh. SUP2-MK-3, Figure 3), portions of the road and the new poles
7 will be seen from the northbound ramp. The poles, however, will be set against a
8 backdrop of existing vegetation to the north and slightly uphill. One residential structure
9 in this area will be impacted by the extension of the existing line. As shown on existing
10 condition photograph “C” (See Exh. SUP2-MK-3, Figure 3), the character along portions
11 of Willow Road includes existing poles of similar height and form to what is proposed.

12
13 Blue Segment: This segment extends along 325 feet of Willow Road and includes the
14 upgrading of three (3) existing poles. The upgrading might increase the height from
15 approximately 35 feet to 43 feet in order to accommodate the three-phase line. Existing
16 conditions photograph “A” (See Exh. SUP2-MK-3, Figure 3), was taken looking west
17 towards the intersection of Hewitt Drive and Willow Road. This photograph shows the
18 existing poles to be upgraded. The location of the line is not planned to change and the
19 roadside character not materially altered by the additional height of the upgraded poles.
20 Three existing residential structures are within this area, all of which have views of the
21 existing roadside poles and power lines.

22

1 Red Segment: This segment extends approximately 1,900 feet from the easternmost
2 upgraded pole along Hewitt Drive to existing GMP infrastructure located along East
3 Road. The existing visual character of the roadway is presented in existing conditions
4 photographs “E” through “H” (See Exh. SUP2-MK-3 and Exh. SUP2-MK-4, Figures 3
5 and 4). Within this segment are proposed nine (9) wooden poles of approximately 38 feet
6 in height. One residential structure near the intersection of Hewitt Drive and East Road is
7 within this area. Hewitt Drive is paved and slightly elevated to its surroundings. The line
8 extension is proposed along the southern edge of the roadway. Both sides of the roadway
9 are predominately wooded and the grade rises slightly to the south. No clearing of trees
10 is anticipated to accommodate the poles along the southern edge of the roadway. The
11 final appearance of the design will be visually consistent with typical roadside line
12 infrastructure commonly seen in and around the area.

13
14 Q7. Did you evaluate the potential visibility of the line extension from areas to the south
15 including Route 7, the Vermont Welcome Center and Route 279?

16 A7. Yes. As Figure 1 shows, the line extension in question is actually entering the Project in
17 the center of the array, not at the southwest corner. In this configuration, we expect no
18 direct visibility of the line extension near the interconnection point to areas along Route
19 7. To help explore this, I have updated a cross section (See Exh. SUP2-MK-2, Figure 2-
20 Site Section 1), that shows the relative position and height of the poles along a cross-
21 section line from the northbound access ramp to Route 7. Portions of the access road
22 and/or poles will be partially visible from the this northbound ramp of Route 7, but these

1 views will be partially broken up by existing vegetation that gets denser as it moves
2 westward towards the proposed array. Photographs from within the property highlighting
3 existing conditions are also provided on my Supplemental Site Photographs figures (See
4 Exh. SUP2-MK-3, Figure 3 and SUP2-MK-4, Figure 4). The Welcome Center is further
5 south of the Route 7 northbound on-ramp and also lower in elevation. Given this, and
6 reviewing the topographic information in and around the Project area, I do not believe the
7 line extension will be visible from the Welcome Center or its parking area. Route 279 is
8 further south and west of the line extension. In addition to being slightly lower in
9 elevation, with the continued presence of (more dense) vegetation along the south-west
10 corner of the property on which the Project is proposed, I also do not expect any view of
11 the line extension from Route 279. If some poles are visible, their position along the
12 access road would have them largely backed by retained trees when observed from the
13 south or west. This will significantly reduce their visual presence in the landscape;
14 greatly reducing any impact.

15
16 Q8. What impact to the aesthetics or scenic beauty of the area, if any, do you anticipate from
17 the development of the line extension?

18 A8. Overall, while the extension to connect the Project with the GMP grid is longer than often
19 seen in existing solar projects in Vermont, the infrastructure proposed by GMP has little
20 impact on either the general public or the few residential properties it is visible from.

21
22 My analysis suggests that only limited portions of the proposed line extension within the
23 “orange” segment will be visible from the northbound ramp of Route 7. Where visible,

1 however, the poles will be largely set against a backdrop of existing woods and will be of
2 a form and character that is both familiar and not likely to shock or offend an average
3 person. The existing and retained vegetation in the area will tend to break up the visual
4 appearance of the line in this area. Additionally, potential observers from Route 7 are
5 moving at a high rate of speed as they navigate the on ramp to the limited access
6 highway; limiting the duration of views and shifting the focus away from the proposed
7 line. Areas to the south of the Route 7 interchange (including Route 279 and the
8 Vermont Welcome Center) are not likely to have any direct views of the line extension as
9 the grade falls away; placing observers lower in elevation.

10
11 Within the “blue segment” where upgrading of an existing line is proposed, the impact
12 will be minimal. While the height will increase from about 35 feet to up to 43 feet, the
13 existing pattern of poles and their roadside configuration will remain. This increase in
14 height and the inclusion of additional conductors for the three-phase service, will not
15 materially alter the visual appearance or degrade the general scenic qualities.

16
17 The segment (“red”) along Hewitt Drive introduces new infrastructure into the landscape,
18 but its form and character is largely consistent with other roadways in the area. Only one
19 residential structure is located at the intersection of Hewitt Drive and East Road. While
20 the new line extension will pass this structure along the southern side of Hewitt Drive, the
21 new poles will not hinder outward views or otherwise negatively compromise the visual
22 qualities of the area. The view from this residential structure presently includes existing

1 roadside poles along East Road. This segment will be placed along the southern edge of
2 the road; away from the nearest residential structure and set against a backdrop of trees
3 and slightly rising hillside, lessening visual impact. This existing vegetation is relatively
4 mature and will be effective in softening the visual presence the infrastructure.

5
6 Q9. Has your ultimate conclusions on whether or not the Project creates an unduly adverse
7 impact with respect to the scenic beauty of the area changed?

8 A9. No. While the line extension expands the area within which visual impacts might occur,
9 its character, and location do not create an unduly adverse condition with respect to the
10 scenic beauty of the area. Furthermore, my consideration of the line extension components
11 along with the overall Project, has not resulted in any change of opinion.

12
13 **3. Conclusion**

14 Q10. Does this conclude your testimony at this time?

15 A10. Yes, it does.