

PROJECT:	115 kV/34.5 kV Solar Power Plant/Substation Design Project
CLIENT:	Black and Veatch Corporation
CLIENT CONTACT:	Adam Literski
ADVISORS:	Venkataramana Ajjarapu, Anne Kimber
TEAM EMAIL:	<a href="mailto:may1602@iastate.edu">may1602@iastate.edu</a>

CHASE BENTON:	Team Leader
SENKO DIZDAREVIC:	Team Communication Leader
ARIF IBRAHIM:	Team Webmaster
MAKOKO MUKUMBILWA:	Key Concept Holder

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## ACOMPLISHMENTS

We may have submitted our final solar array layout and array parameter revision. An ILR of 1.29 was achieved. The layout is as square as it can possibly be at 426.6 by 551 ft. Solar plant conductors have been selected and pending approval.

Substation drawings were modified for our design including transformer ratings and circuit protections. Drawings are pending approval.

Design document was started.

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## MEETING NOTES

**Client Meeting**      10/14/2015    2:00-3:00pm

Adam Literski brought up issues with our conductor selection in the previous array parameter proposal. We learned that we were using the wrong temperature ratings due to a misplacing the conductors above ground as opposed to underground. The string conductors will be the only open air conductors in the PV plant. Also we did not select the conductors for NEC690(B) standard, which states at all conductors should be oversized for 125% of maximum current.

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## PENDING ISSUES

We still have yet to determine the cost of conductors, pending conductor design approval.

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## WEEK SUMMARY

We have finalized array block layout, array parameters and started marking up substation drawings.

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## GOAL FOR NEXT WEEK

- Finalize conductors with client.
- Continue substation drawings and markups.
- Make progress on budget.

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## INDIVIDUAL CONTRIBUTIONS

Chase Benton:

- Conductor selection and analysis.
- Attended meetings.

Senko Dizdarevic:

- Completed weekly reports
- Array parameter calculations.
- Array block layout redesign.
- Drafter design document version 1.
- Attended meetings.

Arif Ibrahim:

- Finalized array block sizing.
- Substation design markup first revision.
- Array block CAD draft.
- Attended meetings.

Makoko Mukumbilwa:

- Attended meetings.
- Research.

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## HOURLY CONTRIBUTIONS

Team Time Contribution Wekk 7 (hours)		
Member	Week Contribution	Individual Cumulative
Chase Benton	3.0	25.5
Senko Dizdarevic	16.0	44.5
Arif Ibrahim	22.0	39.0
Makoko Mukumbilwa	3.0	15.5
<b>Team Week Total</b>	<b>44.0</b>	
<b>Team Cumulative Total</b>	<b>124.5</b>	