From: Ben Saunders <ben.saunders@spower.com>

**Sent:** Thursday, March 14, 2019 12:44 PM

To: Wanda Parrish

**Cc:** Anthony Bell; Charlie Payne; Daniel Menahem

**Subject:** RE: PV Module recycling quote

Wanda,

I received more information yesterday about the recycling value estimate for the PV panels in the decommissioning estimate. Besides the scrap metal from the panels, it also includes the two additional items highlighted below to get to the \$8,175,756 credit value number.

Please let me know if you have any additional questions.

- Estimate is based on a recycled glass value of \$0.07 per pound
- Estimate is based on a recycled glass value of \$0.07 per pound.
- 13 Estimate is based on a electronic disposal waste fee of \$0.30 per pound.

# Ben Saunders | sPower

M: 804.212.7179 O: 804.533.6034

From: Charlie Payne < cpayne@hirschlerlaw.com > Sent: Wednesday, March 13, 2019 11:09 AM
To: Wanda Parrish < WParrish@spotsylvania.va.us >

Cc: Ben Saunders <br/>
<a href="mailto:sepower.com">ben.saunders@spower.com</a> ; Anthony Bell <a href="mailto:anthony.bell@spower.com">anthony.bell@spower.com</a> ;

Subject: FW: PV Module recycling quote

Wanda,

I hope this finds you well. Please note below and attached email regarding source of PV modules recycling values.

Hope this helps. Please let us know if you have any questions.

# Thanks

From: Ben Saunders < ben.saunders@spower.com > Sent: Wednesday, March 13, 2019 10:26 AM
To: Charlie Payne < cpayne@hirschlerlaw.com >

Cc: Daniel Menahem <a href="mailto:spower.com">dmenahem@spower.com</a>>; Anthony Bell <a href="mailto:anthony.bell@spower.com">anthony.bell@spower.com</a>>

**Subject:** [EXTERNAL] FW: PV Module recycling quote

Charlie,

In our decommissioning estimate, there has been questions about the source of recycling value of the PV modules highlighted below. We determined that the value is based on the historical scrap metal prices. See attached email.

So the value is based on scrap metal prices only, similar to the support assemblies. Considering that we have the option to landfill the rest of the PV module (glass and substrate), I think this works in our favor to negate the opposition theory that we would have to pay to recycle the panels.

This is a simple scrap metal value exercise.

Salvage Value			
	Qty	Unit	Salvage Value
Remove & Recycle Substation Step Up Transformer	6	EA	(\$1,800)
Remove & Recycle Substation Disconnect Switches	12	EA	(\$720)
Remove & Recycle Substation Circuit Breakers	12	EA	(\$3,600)
Remove & Recycle Substation Pedestals	18	EA	\$441
Remove & Recycle AC Conductor	518,189	LF	\$652,918
Remove & Recycle Conduit	77,730	LF	\$97,940
Remove & Recycle Switchgear Assemblies	1	LS	(\$12)
Remove & Recycle Inverters & Xfmrs	169	LS	(\$15,654)
Remove & Recycle DC Conductor	9,694,572	LF	\$446,340
Remove & Recycle Photovoltaic Modules	<mark>1,615,762</mark>	<mark>EA</mark>	<mark>\$8,175,756</mark>
Remove & Recycle Support Assemblies	23,588	EA	\$9,075,893
Remove & Recycle W6 x 7 x 11' Foundations	214,585	EA	\$2,284,311
Remove & Recycle W6 x 9 x 11.5' Foundations	45,148	EA	\$646,017
Remove & Recycle W6 x 12 x 9' Foundations	22,574	EA	\$337,052
Remove & Recycle W6 x 20 x 11' Foundations	2,704	EA	\$82,242
Remove & Recycle W6 x 7 x 11' Foundations	19,235	EA	\$204,761
Remove SCADA and Met Stations	25	EA	(\$300)
Total Value of Salvage Material			\$21,981,586
Material and salvage unit costs have been based on historical data for this type and size of			
project, and RSMeans Construction Cost Databases modified for scale and location.			
Final Salvage Value subject to change based on Final Site Design			
Estimate is based on a current recycled steel value of \$276.5 per ton.		•	
Estimate is based on a current 'clean' recycled aluminum value of \$0.455 per pound.			

Estimate is based on a current 'dirty' recycled aluminum value of \$0.32 per pound.						
Estimate is based on a current recycled copper value of \$1.465 per pound.						
Estimate is based on a recycled glass value of \$0.07 per pound.						
Estimate is based on a electronic disposal waste fee of \$0.30 per pound.						

Ben Saunders | sPower

M: 804.212.7179 O: 804.533.6034

Charles W. Payne, Jr.

D: 540.604.2108

cpayne@hirschlerlaw.com

# Hirschler

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# **Wanda Parrish**

From:

Brian Irlbeck < BIrlbeck@swinerton.com>

Sent:

Tuesday, November 13, 2018 8:01 PM

To: Cc: Adam Bowers; Angelo Purpura Randy Corey; Brandon Valencia

Subject:

RE: [EXTERNAL] RE: Decommissioning Plan Question

We used <a href="http://fredericksburgscrapmetal.com/">https://fredericksburgscrapmetal.com/</a> and <a href="https://www.scrapmonster.com/scrap-yards/prices/virginia/state/3411">https://www.scrapmonster.com/scrap-yards/prices/virginia/state/3411</a>

for some non-ferrous metals, and historical data for the rest.

### **Brian Irlbeck**

Sr. Project Manager

### **SWINERTON**

RENEWABLE ENERGY 16798 West Bernardo Drive San Diego, CA 92127 D 858.815.2413 | M 619.737.6708

E <u>birlbeck@swinerton.com</u> <u>swinertonrenewable.com</u>

From: Adam Bowers [mailto:abowers@spower.com]

Sent: Tuesday, November 13, 2018 1:56 PM

To: Angelo Purpura; Brian Irlbeck Cc: Randy Corey; Brandon Valencia

Subject: [EXTERNAL] RE: Decommissioning Plan Question

Gents,

Really need help with this request. Please assist.

Thank you,

Adam Bowers | Director, Engineering

O: 415-692-7580 M: 415-378-0964



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From: Adam Bowers

Sent: Monday, November 12, 2018 11:39 AM

To: Apurpura@swinerton.com; Brian Iribeck <BIrlbeck@swinerton.com>

Cc: Randy Corey <<u>rcorey@spower.com</u>>; Brandon Valencia (<u>BValencia@swinerton.com</u>) <<u>BValencia@swinerton.com</u>>

Subject: Decommissioning Plan Question

Importance: High

Angelo,

Long time no speak. I hope you are doing well. I'm sure you are staying busy.

I have a request coming in from our Independent Engineer (DNV GL) regarding the Decommissioning plan Brian Irlbeck put together for the Highlander project and need Swinerton/SOLV input. I assume your team worked on this.

### DNV's note is as follows:

"Can you please request detail on salvage value assumptions on p.7 from Swinerton? For each assumption of recyclable/scrap value, please have them provide detail on how these values were determined (e.g. website addresses similar to that provided for wage rates on p.8)."

We need your input as quickly as possible as you can imagine. Please assist.

Thank you,

Adam Bowers | Director, Engineering
O: 415-692-7580
M: 415-378-0964



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