

ERC Generation and Sales Process for SunEdison

Deever Bradley, P.E. – Partner, ERM

Mike Taylor – President, Emission Advisors

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Abstract

This presentation examines the entire process undertaken by SunEdison through its recent bankruptcy to generate and sell VOC and NO_x ERCs from its MEMC Pasadena facility, which shut down in 2016 and 2017, from the perspective of both the environmental consultant to generate the credits and emissions broker to market and sell the credits. Over a 33-month period, ERM and Emission Advisors worked jointly to overcome the challenges posed by TCEQ's evolving ERC guidance during a period of declining oil and gas prices for a bankrupt entity as it went through bankruptcy, reducing staff, and dismantling shutdown equipment. This case study benefits environmental professionals involved in ERC generation, even those with prior experience, by detailing the process of parallel regulatory and commercial approval for a complex emission credit transaction from generation through sale.

Acknowledgement

Robert Ontko, P.E., ERM Project Manager

The 33-month Saga (Part 1)

SIP Baseline Year is 2006

- December 2015 – site stops operation
- February 2016 – SunEdison announces plant closure
- June 2016 – submitted first ERC application (4.4 NO_x, 25.7 VOC)
- May 2016 – submitted MSS PBR for shutdown activities
- July/September/October 2016 – NODs and responses
- November 2016 – first set of ERCs issued to MEMC Pasadena
 - NO_x – 3.6 tons certified, 0 tons issued until MECT allowances surrendered
 - VOC – 19.4 tons issued
- December 2016 – additional information submitted for other sources
- February 2017 – shutdown of equipment is complete
- May 2017 – additional 0.1 tons NO_x, 0.3 tons VOC issued

The 33-month Saga (Part 2)

SIP Baseline Year is now 2014

- February 2017 – end of decommissioning/decontamination/demolition
- March 2017 – voided MSS PBR
- May 2017 – submitted second ERC application (1.6 NO_x, 1.5 VOC)
- August 2017 – NOD and response
- October 2017 – submitted Public Information Request
- July/August/September/November 2018 – NODs and responses
- January 2019 – second set of ERCs issued to MEMC Pasadena
 - NO_x – 0.4 tons issued, no MECT allowances for flares
 - VOC – 1.5 tons issued

ERC Totals	
0.5 tons NO _x	21.2 tons VOC

Complication #1 – Site Ownership

Selling your site after shutdown may complicate the process

- Consider whether or not to “phase” applications
- Designate an active Authorized Account Representative
- Sign Form EC-1 when you are owner/operator
- Emission reduction date required extensive records
 - Court order approving asset sale
 - Bid document and MSA for demolition and salvage from winning contractor



Complication #2 – Baseline Emissions

Emission inventory documentation was not sufficient

- Explanation for cases in which actuals = PTE
- Include sample calculations and methodology discussion
- Explanation for changes in calculation methodology
- Supporting documentation [30 TAC §101.303(d)(3)(D)*]:
 - Production records
 - Fuel flow rates
 - Source test results
 - Fugitive monitoring reports
 - Records beyond typical five-year retention period
 - Access to information after shutdown

**(D) documentation, including records for approved or approvable methods to quantify emissions, supporting the activity, emission rate, historical adjusted emissions, SIP emissions, baseline emissions, and strategic emissions*

Complication #3 – Regulatory Analysis

Questions on applicability analysis may delay approval

- Use specific citations for each applicable emission limit
- Expect to reiterate or clarify applicability
- Focus on applicable NO_x and VOC standards
- Be aware of the SIP baseline year



What Could Have Been Done Differently?

Certifying ERCs requires ongoing effort even before the strategy is implemented. Expect to provide records for each and every number in your baseline emission calculations

- Plans for plant shutdown and ownership transitions
- Pre-submittal discussion or earlier TCEQ management involvement
- Site could have provided more robust emissions documentation
 - Supporting calculations
 - Back-up copy of historical fugitive monitoring results

Process and Timeframe for Sale of ERCs

- March 2016 – Interview Multiple Brokerage Firms
- Early April 2016 – Select Emission Advisors to handle sale of ERCs and execute services agreement (firm was less than 2 months old, but chose on principals experience and relationships)
- April 20, 2016 – SunEdison files for Chapter 11 Bankruptcy
- May/June 2016 – Discuss Strategy to File Application as well as inquire about process to sell ERCs in Bankruptcy
- May/June 2016 – SunEdison approves a Purchase and Sale Agreement to share with bidders
- June 2016 – Start Marketing ERCs in same month the banking application was filed for 25.7 VOC and 4.4 NO_x

Process for Sale of ERCs

1. Potential Buyer submits bid through Emission Advisors
2. Emission Advisors submits to SunEdison for review and consideration and advises them.
3. SunEdison considers and discusses with Chief Restructuring Officer
4. If accepted, Emission Advisors sends out deal confirmation and supplies Approved PSA
5. After buyer approves contract, both buyer and SunEdison execute contract
6. SunEdison submits to courts for approval and creditors are allowed 7 days to object. If no objections, SunEdison submits for judges approval and signature.
7. After court approval, the transfer paperwork (EC-4) will be turned in once ERCs are issued to SunEdison
8. If SunEdison approves creditworthiness of Buyer, payment is after TCEQ approves transfer. SunEdison reserves right to request prepay if credit is not satisfactory.

Process and Timeframe for Sale of ERCs (cont.)

- June 2016 – SunEdison determines on minimum sales price acceptable for ERCs
- July 2016 – Emission Advisors marketed the ERC package to over 50 firms in less than 30 days. Some firms passed on opportunity given the bankruptcy issue. Any contract executed is not finalized until SunEdison files a motion and then ultimately approved by the courts.
- July 2016 - Seller initially wanted a prepay before the ERCs were issued. The bidders rejected the proposal.
- July 2016 – Sale Agreed to with a Buyer for up to 25.7 tons of VOC at \$100,000/ton to be paid and delivered upon issuance

Process and Timeframe for Sale of ERCs (cont.)

- August 2016 – Only Product left to sell was the NO_x ERCs but the NO_x ERCs were small volume expected ~ 4.1 tons of NO_x and 3.6 tons of those 4.1 tons require MECT NO_x allowances to be retired prior to issuance
- September 12, 2016 – Judge executes court order officially approving sale that was agreed to about 50 days after agreement between buyer and seller
- September 2016 – Bid received for NO_x ERCs, but rejected by SunEdison as below minimum price acceptable
- November 2016 – 19.4 VOC issued and transferred and paid for
- November 2016 – 3.6 NO_x approved, but not issued since surrender of MECT NO_x required

Process and Timeframe for Sale of ERCs (cont.)

- 1st Half 2017 – SunEdison has staff changes
- All 2017– Waiting on additional NO_x issuance to make package larger and have NO_x ERCs with no MECT NO_x requirement
- May 2017 – Another 0.3 tons of VOC issued and transferred at \$100,000/ton from original contract
- 2nd Half 2017 – SunEdison has staff changes
- Dec 29, 2017 – SunEdison emerges from bankruptcy, which changes approval process to sell NO_x credits
- 2018 – SunEdison sells 0.5 tons NO_x ERCs at \$60,000/ton and 3.6 tons of NO_x ERCs at require MECT NO_x allowances for dollar spread

Process and Timeframe for Sale of ERCs (cont.)

- December 2018 – January 2019 – 0.5 tons of NOX ERCs transfers at \$60,000/ton
- January 2019 – 1.5 tons of VOC transfers at \$100,000/ton still on original contract approved September 2016
- February 2019 – 1 ton of NO_x ERC sale

Lessons Learned

- Selling ERCs prior to issuance and complete shutdown of facility creates unknowns on delivery timeframes but can all be worked out through contracts
- Bankruptcy creates own unique process versus outside bankruptcy
- Records, Records, Records and Resources to find and dig through files over 12 years old.
- Good and Accessible records can be difference between of achieving a few more tons which could be \$250,000 or more
- Hire the Experience – the people that actually will be doing the work

Questions?

Deever Bradley, P.E.
Partner
deever.bradley@erm.com
(832) 786-5774

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Mike Taylor
President
mtaylor@emissionadvisors.com
(713) 385-3321

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