BOARD MEETING DATE: May 3, 2019 AGENDA NO. 5

PROPOSAL: Execute Contracts for Engineering Consultant to Review the BARCT Assessment for Proposed Rule 1109.1 – NOx Emission Reductions for Refinery Equipment.

SYNOPSIS: On December 7, 2018, the Board approved the release of an RFP for the review of staff's BARCT technology assessment, estimated emission reductions, and cost-effectiveness for NOx emitting equipment at petroleum refineries to support Proposed Rule 1109.1. This action is to award two separate contracts, one to Norton Engineering and one to Fossil Energy Research Corp to review various portions of staff's BARCT assessment for Proposed Rule 1109.1. To fund both contracts, staff is requesting that funding be increased from $100,000 to $200,000 from the original RFP request. Each qualified consulting firm will be awarded a fixed price contract of up to $100,000 and total funding for both contracts combined shall not exceed $200,000. Funds are available from CARB's Community Air Protection Program under AB 617.

COMMITTEE: Administrative, April 12, 2019; Recommended for Approval

RECOMMENDED ACTIONS:
Authorize the Executive Officer to:

1) Increase funding for the review of the Proposed Rule 1109.1 BARCT assessment from $100,000 to $200,000,
2) Execute a contract in the amount of up to $100,000 with Norton Engineering and a contract in the amount of up to $100,000 with Fossil Energy Research Corporation to review various portions of staff's BARCT assessment.

Wayne Nastri
Executive Officer

JW:PF:BB:SN:MK:HF:JHL:SK

Background
The 2016 AQMP included a control measure, (CMB-05), to transition NOx RECLAIM to a command-and-control regulatory structure. In addition, AB 617 accelerated South Coast AQMD efforts by requiring air districts to implement BARCT for facilities in the state GHG cap and trade program no later than December 31, 2023. Proposed Rule 1109.1 is an industry-specific rule for petroleum refineries that will include proposed NOx and ammonia emission limits based on a BARCT assessment for each equipment category. Proposed Rule 1109.1 is needed for the RECLAIM transition and will implement, in part, CMB-05.

On December 7, 2018 the Board released RFP #P2019-07 to solicit bids for a technically qualified engineering consulting firm with experience in NOx control technologies for refinery equipment. The RFP sought an independent third party to review staff's BARCT assessment for Proposed Rule 1109.1 and address any challenges associated with implementing BARCT at the affected facilities. The third party review includes assessing both the feasibility of staff's proposed NOx limits and the secondary pollutant limits, and cost-effective estimates for seven major emitting categories of stationary source equipment located at refineries and associated facilities. As part of this RFP, the consultant(s) would be responsible for providing a summary of findings and to provide additional recommendations, if appropriate.

Outreach
In accordance with South Coast Air Quality Management's Procurement Policy and Procedure, a public notice advertising the RFPs and inviting bids was published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin

Additionally, potential bidders may have been notified utilizing South Coast AQMD's own electronic listing of certified minority vendors. Notice of the RFP was emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at South Coast AQMD's website (http://www.aqmd.gov).

Proposals Received
The notice of RFP release was sent to 190 consultants via email. Three consulting firms attended the bidders conference on December 20, 2018, and there were no attendees on the conference call-in. Three proposals were received in response to the RFP by the deadline at 5:00 p.m. on January 16, 2019. The three consulting firms that submitted proposals are:

- Fossil Energy Research Corporation (FERCo)
- MD Environmental
- Norton Engineering

Bid Evaluation
Each proposal was scored based on technical aptitude and experience with engineering design and NOx control specific to the refinery process. The panel thoroughly reviewed all three bids and one consulting firm did not qualify based on technical experience. The review panel rated both Norton Engineering and FERCo as the most technically qualified consulting firms to perform the statement of work outlined in RFP #P2019-07. Norton Engineering scored slightly higher and has a team of qualified engineers with sound technical experience in NOx control technologies and previous BARCT experience with refinery applications. FERCo has extensive knowledge and understanding of selective catalytic reduction (SCR) NOx control and combustion technology, which is currently the predominate forms of NOx control technology implemented at the local refineries. FERCo has a team of highly qualified engineers that have robust experience in designing, engineering, and optimizing SCR systems in conjunction with vendors that have performed work for the local refineries. FERCO's design and engineering experience will be a benefit in the evaluating of site-specific issues at each facility such as space availability. FERCo's engineering strength is also in SCR system optimization and they can perform an analysis of existing SCR systems to determine if further reductions can be achieved. The analysis will also not be limited to SCR systems and may include new commercially available control technology.

The Attachment reflects the evaluation of the proposals and respective ratings.

Panel Composition
The Administrative Committee approved the evaluation panel at their February 2019 meeting. The evaluation panel consisted of a Planning and Rules Program Supervisor, Engineering and Compliance Manager, and Senior Air Quality Engineer from the Bay Area Air Quality Management District. All three have extensive experience with refinery equipment. Of the three panelists, one is Hispanic, one is Asian, and one is Caucasian; all males.

Proposal
Of the three proposals received, two were deemed technically qualified to complete the statement of work stated in the RFP with similar overall cost. In order to address the large scope of the project and concerns raised in ongoing stakeholder working group meetings pertaining to potential space constraints with the installation of BARCT, staff recommends expanding the original RFP from $100,000 to $200,000 and selecting both qualified contractors to complete separate tasks called for in the original RFP. Based on the technical experience of each firm, staff proposes the following:

<u>Norton Engineering:</u>

- **Task 1 -** BARCT feasibility assessment which includes commercially viable NOx control technologies and emission reduction levels that each technology can achieve and any caveats associated with achieving the NOx reductions, such as concurrent effects on other air pollutants, including PM, ammonia, and CO.

- **Task 2** - Review and verify cost analysis including, but not limited to, the use of U.S. EPA SCR cost model, model input assumptions, local labor costs, and other factors that affect the cost-effectiveness calculation.

FERCo:

- **Task 3** - Conduct potential site visits and engineering evaluations of the affected equipment, including, but not limited to, feasibility of installation of new controls or equipment, and consider any challenges associated with installation of control technologies such as space constraints. FERCo analysis will include difficult installations at multiple facilities and provide engineering design options, when appropriate. In addition, FERCo will also determine if further optimization can be performed on currently installed NOx control systems to help achieve further emission reductions.

Both firms:

- **Task 4** – Submit Progress and Final Report(s)
- **Task 5** – Participation in South Coast AQMD meeting(s)

Resource Impacts
Funding from CARB's Community Air Protection Program under AB 617 will provide sufficient resources for these contracts.

Attachment
Summary of Evaluation of Proposals for RFP #P2019-07

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Summary of Evaluation of Proposals for RFP #P2019-07

Three proposals were received in response to this RFP: Fossil Energy Research Corporation, MD Environmental, and Norton Engineering.

Evaluation Panel Scoring (100 points maximum)			
	Proposer		
	Fossil Energy Research Corporation	**MD Environmental**	**Norton Engineering**
Bid Amount	$99,741	$23,200	$99,758
Average Overall Evaluation Scores			
Quality of Proposal (10 Points)	7	1	8
Technical Qualifications (40 points)	25	0	38
Technical Management/Approach Schedule (20 Points)	15	0	10
Cost Proposal (30 Points)	25	2	20
Technical Score Total	72	3	76
Additional Points (15 points maximum)			
Additional Points *	15	15	15
Total Points	**87**	**18**	**91**

* Additional points awarded to each proposer were Small Business or Small Business Joint Venture (10 points) and Local Business (Non-Federally Funded Projects Only) (5 points).