FILED BY GULFTERRA ENERGY PARTNERS, L.P.
PURSUANT TO RULE 425 UNDER THE SECURITIES ACT OF 1933, AS AMENDED
AND DEEMED FILED PURSUANT TO RULE 14A-12 AND RULE 14D-2(b)
OF THE SECURITIES EXCHANGE ACT OF 1934

SUBJECT COMPANY: GULFTERRA ENERGY PARTNERS, L.P. COMMISSION FILE NO.: 1-11680

GULFTERRA ENERGY PARTNERS, L.P. ("GULFTERRA") AND ENTERPRISE PRODUCTS PARTNERS L.P. ("ENTERPRISE") WILL FILE A JOINT PROXY STATEMENT/PROSPECTUS AND OTHER RELEVANT DOCUMENTS WITH THE SECURITIES AND EXCHANGE COMMISSION. INVESTORS AND SECURITY HOLDERS ARE URGED TO READ CAREFULLY THE JOINT PROXY STATEMENT/PROSPECTUS AND OTHER RELEVANT DOCUMENTS WHEN THEY BECOME AVAILABLE, BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION REGARDING GULFTERRA, ENTERPRISE AND THE MERGER. A DEFINITIVE JOINT PROXY STATEMENT/PROSPECTUS WILL BE SENT TO SECURITY HOLDERS OF GULFTERRA AND ENTERPRISE SEEKING THEIR APPROVAL OF THE MERGER TRANSACTIONS. INVESTORS AND SECURITY HOLDERS MAY OBTAIN A FREE COPY OF THE JOINT PROXY STATEMENT/PROSPECTUS (WHEN IT IS AVAILABLE) AND OTHER RELEVANT DOCUMENTS CONTAINING INFORMATION ABOUT GULFTERRA AND ENTERPRISE AT THE SEC'S WEB SITE AT WWW.SEC.GOV. COPIES OF THE DEFINITIVE JOINT PROXY STATEMENT/PROSPECTUS AND THE SEC FILINGS THAT WILL BE INCORPORATED BY REFERENCE IN THE JOINT PROXY STATEMENT/PROSPECTUS MAY ALSO BE OBTAINED FOR FREE BY DIRECTING A REQUEST TO THE RESPECTIVE PARTNERSHIPS.

GULFTERRA AND ENTERPRISE AND THE OFFICERS AND DIRECTORS OF THEIR RESPECTIVE GENERAL PARTNERS MAY BE DEEMED TO BE PARTICIPANTS IN THE SOLICITATION OF PROXIES FROM THEIR SECURITY HOLDERS. INFORMATION ABOUT THESE PERSONS CAN BE FOUND IN GULFTERRA'S AND ENTERPRISE'S RESPECTIVE ANNUAL REPORTS ON FORM 10-K FILED WITH THE SEC, AND ADDITIONAL INFORMATION ABOUT SUCH PERSONS MAY BE OBTAINED FROM THE JOINT PROXY STATEMENT/PROSPECTUS WHEN IT BECOMES AVAILABLE.

GulfTerra Energy Partners L.P. ("GulfTerra") is filing an interoffice memo addressed to all Enterprise and GulfTerra employees dated May 7, 2004 from O.S. ("Dub") Andras and Bob Phillips regarding the status of the merger integration process.

## **Merger Integration Process Update**

From: Dub Andras — President and CEO, Enterprise Products

Bob Phillips — Chairman and CEO GulfTerra Energy

To: All Enterprise and GulfTerra employees

Date: May 7, 2004

Subject: Merger Integration Process Update

We are writing to provide all employees with another update on the continued positive progress towards the merger of Enterprise Products Partners and GulfTerra Energy Partners. Since our last update, the Working Teams have successfully completed Phase I of the merger integration process, which includes designing the high level organization, identifying merger-related cost-synergies, and identifying merger-related issues and challenges that we will have to address moving forward.

We are now launching Phase II of the merger integration process, in which we will focus more closely on designing merger integration projects and creating a comprehensive merger transition plan, while at the same time continuing to push forward on organization design and cost synergy identification. These efforts should ensure that the new organization will be strongly positioned for growth and industry leadership.

At present, the merger is still on track to close in the second half of 2004. We continue to make progress toward gaining the approval of regulatory agencies and the unitholders of Enterprise and GulfTerra. To ensure this, it is of paramount importance that both companies continue to operate as independent entities throughout this process. We had initially intended to announce the next level of the organization (directors and managers) in April. However, we have now determined to refrain from identifying and announcing the next level of the organization until we are further along in the regulatory approval process.

Your patience with and dedication to this process are greatly appreciated by the leaders of both organizations. As this process advances, we continue to believe that our collective efforts will help us to build the world's greatest midstream energy company.