

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORP /DC/
 Form 424B3
 May 16, 2016

Filed Under Rule 424(b)(3), Registration Statement No. 333-199914
Pricing Supplement Number 417 Dated Monday, May 16, 2016
(To: Prospectus Dated November 6, 2014 and Prospectus Supplement Dated November 10, 2014)

| CUSIP Number | Principal Amount | Selling Price | Gross Concession | Net Proceeds | Coupon Type | Coupon Rate | Coupon Frequency | Maturity Date | 1 st Coupon Date |
|--------------|------------------|---------------|------------------|--------------|-------------|-------------|------------------|---------------|-----------------------------|
| 63743FZR0 | [] | 100% | 2.000% | [] | Fixed | 3.000% | MONTHLY | 05/15/2028 | 06/15/2016 |

Redemption Information: Non-Callable

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| <p>National Rural Utilities Cooperative Finance Corp</p> | <p>Offering Dates: Monday, May 16, 2016 through Monday, May 23, 2016 Trade Date: Monday, May 23, 2016 @ 12:00 PM ET Settlement Date: Thursday, May 26, 2016 Minimum Denomination/Increments: \$1,000.00/\$1,000.00 Initial trades settle flat and clear SDFS: DTC Book Entry only DTC number: 0235 via RBC Dain Rauscher Inc.</p> <p>Agents: Incapital, LLC, Citigroup, Comerica Securities, J.J.B. Hilliard, W.L. Lyons, Inc., Wells Fargo</p> <p>If the maturity date or an interest payment date for any note is not a Business Day (as term is defined in Prospectus), principal, premium, if any, and interest for that note is paid on the next Business Day, and no interest will accrue from, and after, the maturity date or interest payment date.</p> <p><i>InterNotes® is a registered trademark of Incapital Holdings, LLC. All rights reserved.</i></p> | <p>National Rural Utilities Cooperative Finance Corp Prospectus Dated November 6, 2014</p> |
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