

Enabling EV and DER Adoption Through DERMS, AMI, and Fiber Integration

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Project Summary

This project will modernize REC's distribution system to benefit its customers and the environment more broadly through better energy decisions. REC will partner with OATI to deploy a distributed energy resources management system (DERMS) that will be enabled through an advanced metering upgrade supplied by Landis+Gyr. The fiber optic network will be designed and constructed to serve as the Cooperative's communication backbone. The results of the project will help to promote the adoption of distributed energy resources and electric vehicles and will help REC manages these resources will help the utility reduce peak power consumption, avoid costly system upgrades, drive resiliency, reliability, and improve the flexibility of the grid.

Key Personnel and Partners



Prime Recipient: Rappahannock Electric Cooperative

Key Personnel: Peter Muhoro, John Arp



Landis+Gyr



Budget and Timeline

Project Total: \$76,324,029 **Federal Funds:** \$38,162,015

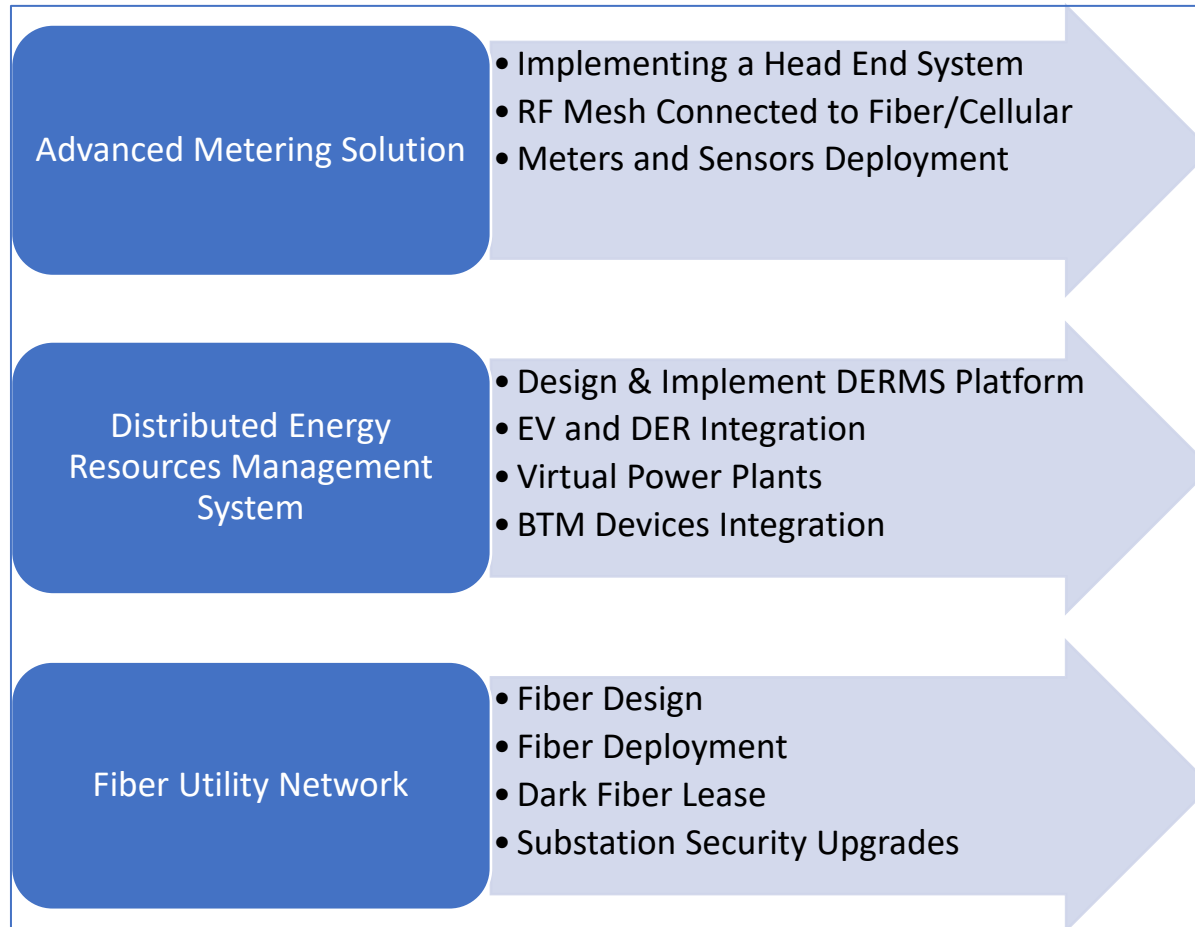
Cost Share: \$38,162,015 **Timeline:** 2024 – 2029

Project Impact

The results of this project will advance REC's capabilities in managing DERs and EVs, providing consumers with more flexibility and ensuring even the most disadvantaged can participate in an equitable energy future that is affordable, reliable, safe, and sustainable.

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REC Proposed Smart Grid Project



Key Milestones and Outcomes

Year 1: Design and Engineering with Propagation Study and Meter Changeout Plan

Year 2: Fiber Utility Network Construction Completed

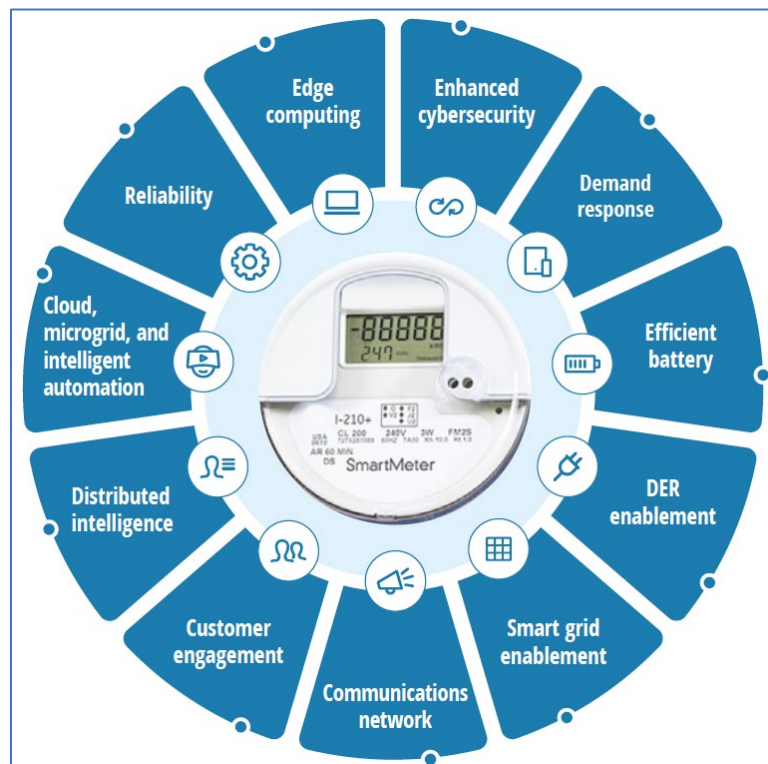
Year 3: DERMS Fully Deployed and Tested

Year 4: Extensive Data Collection and Analysis for Optimization

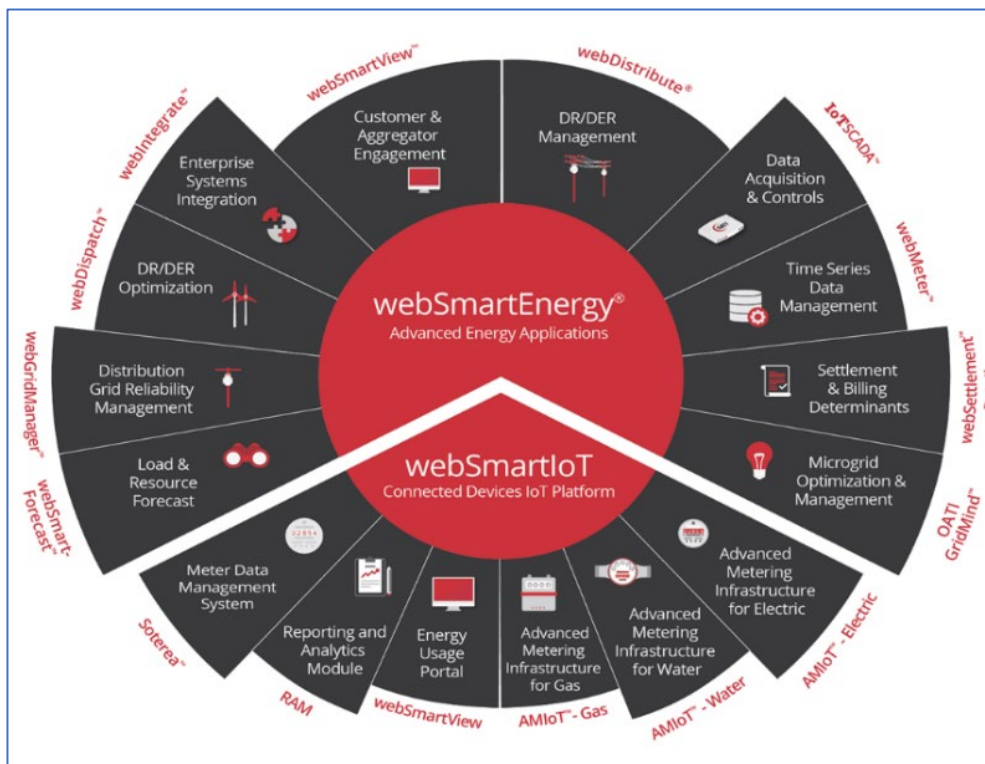
Year 5: All Meters Changed and Functional DERMS with Increased DERs and EVs

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Key Technologies



Smart Meters with RF Mesh



OATI DERMS Platform to Manage DERs and EVs