Weatherization, Efficiency, & Carbon Opportunities

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“Role of Extension in Energy”
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Summary Overview

- Great rural prospects for energy
- Unique rural economic opportunities
- Extension Alert! Critical need for alternative delivery mechanisms
Outline

• Introduction
  – What isn’t changing
  – What’s changed and is changing fast

• A new, rational approach: CEDAR
  – Rural payoff potential
  – Extension role

• Unmatched energy opportunities
  – Next steps & prospective partners
Unchanged in Rural America

• Very slow uptake on energy, due to
  – Historical resistance to change; too many rural institutions taking a “wait and see” position
  – Lack of population density, so program design is harder
  – Few user-friendly energy business models, so path to profit is not clear
Changed & Changing Fast

• Rural economy slipping even more
  – Some utility arrearages are at record highs

• New national policy:
  – *Energy Transformation*; rural has big role

• We’re getting better at applying “what works”
  – Fewer re-treads of urban models that don’t work in rural areas
New Cost-effective Approach: **C-E-D-A-R**

- **CEDAR** is rational, comprehensive, integrated and anti-silo (finally!)
- **CEDAR’s** four on-site steps (learn, do, tech, fit) emphasize the primacy of human factors
- **CEDAR** will yield >45K new rural hires to address 14M rural homes over 20y (part of the 170K new alt-energy rural jobs impact)
Five CEDAR Elements

• **Conservation is applied**
  – Low-cost/no-cost, mainly behavior, before…

• **Efficiency**
  – Mostly upgrading materials & equipment, before…

• **Demand peak reduction**
  – Expanding efficiency to power grid level, before…

• **Adders of non-metered net reductions**
  – E.g., Vehicle CEDAR; Bio-char, 3Rs, before…

• **Renewables**
  – Solar, Wind, Geothermal, Bio-fuels
Rural CEDAR Payoff – The Big Picture

• Yields desirable national impacts
  – Improves ag/rural sustainability, and keeps the next generation on the land
  – Introduces resource-based energy production as a reliable new source of rural income
  – Launches a new era of major rural workforce development
Rural CEDAR Payoff – Grass-roots Effects

• Improves regionally-appropriate rural economic factors
  – Reduces operating costs for homes, farms and small businesses
  – Improves prospects for new forms of farm-scale income
  – Creates better rural jobs and more attractive rural career options
Extension’s Role is Key

• To
  – **Lead** credible, actionable information, training, & education re: CEDAR
  – **Add value:** the final step in ag/rural energy research must be demonstrating & applying appropriate elements of CEDAR to benefit rural development
  – **Promote** practical ways to reduce energy & sequester carbon under CEDAR
Unmatched Energy Opportunities - I

• Complementing a “bio-based” focus, we should use unique rural niches to:
  – Rationally invest in deteriorating rural assets (buildings & human resources)
  – Ramp up the contribution of renewables
  – Improve the efficiency of the rural grid
  – Reduce non-metered rural impacts
  – Address the energy/water nexus
  – Take a big bite out of the U.S. carbon burden
Unmatched Energy Opportunities - II

• Complementing a “bio-based” focus, we can address the “Ultimate Big 3” rural issues with the CEDAR Protocol:
  – Reduce direct and indirect energy cost impacts on rural homes, farms, and businesses
  – Net-absorb GHG emissions for a fee
  – Revitalize rural economies with many new forms of energy-related income, jobs, and career options
Next Steps for Extension

• Check CEDAR out
  – Is this for real? How much can each agent do?

• Build on a good start
  – First wave of rural wind = new rural income, jobs, and tax relief; Coming up: 10x turbines

• Get personally involved
  – If CEDAR looks good, get on board! See how energy re-training can advance this approach

• ID rural $ interests & get them involved:
  – E.g., Feed & Seed, Implements, Livestock, Farm Insurance, Banks, Legal & Accounting, Real Estate, Utilities
Summary

• Great rural prospects for energy

• Unique rural economic opportunities

• We’re depending on you to help field new ways to capture them!
Thanks for your attention

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