

Smart Grid - Smart Collaboration

NRTC gridposium 2011

May 12-13, 2011

Barton Creek Resort - Austin, Texas





Smart Grid - Defined / Purpose

Defined:

- ✓ Infrastructure for electrical power,
- ✓ Monitored,
- ✓ Managed, and
- ✓ Continual two-way communications

Purpose:

- ✓ Remote management,
 - ✓ Reading
 - ✓ Service On/Off
 - ✓ Demand schedules
 - ✓ Fault isolation
- ✓ Energy conservation
- ✓ Integrate energy resources



Cooperative Comparison

Attribute	Electric Co-op	Telephone Co-op	Remarks
Industry	Public Utility	Public Utility	
Regulated	Yes	Yes	State + Federal
Service Area	Rural	Rural	Urban Fringe
Focus	Customers	Customers	(Members)
Security	Very High	Very High	CALEA
History	REA	REA (RUS)	1930s vs. 1950s
Network Purpose	Distribution+	Distribution+	Smarter Networks
Interdependence	Yes	Yes	



Cooperative Comparison





Smart Grid Network Planning Two Schools of Thought

Lone Ranger Mind-Set:

- +100% of CAPEX?
- +100% of OpEX?
- +100% of Risks?
- +Single Application?
- Regulator's Scrutiny?
- Business Dilution?

Posse Mind-Set:

- +Shared CAPEX?
- +Shared OpEX?
- +Shared Risks?
- +Multiple Applications?
- +Regulator's Approval?
- +Business Specialty Focus?

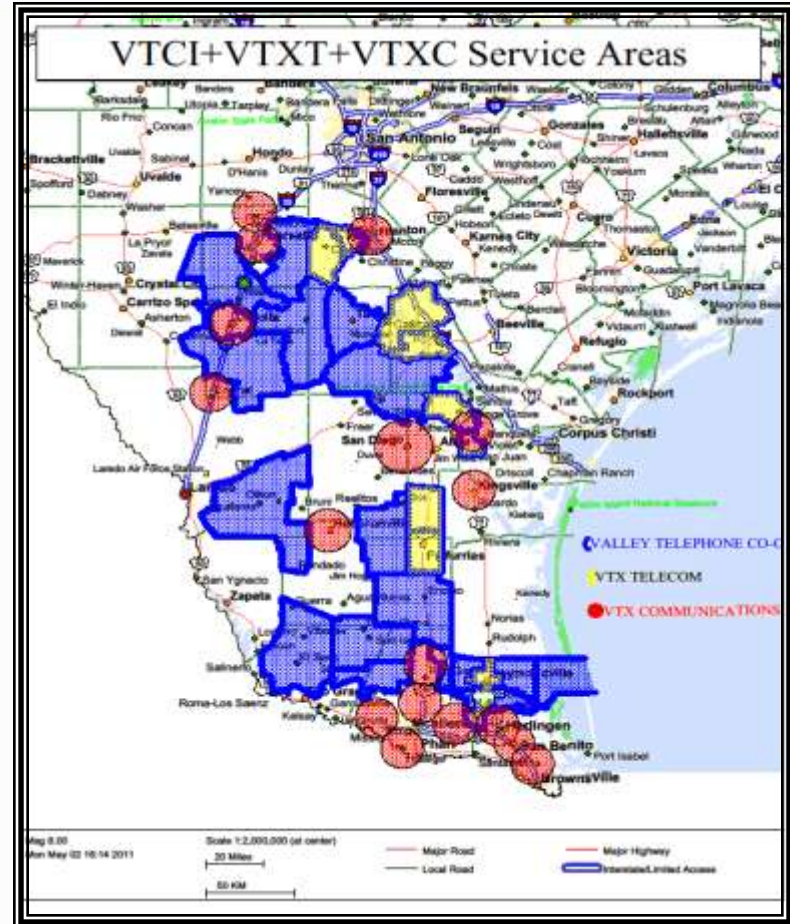
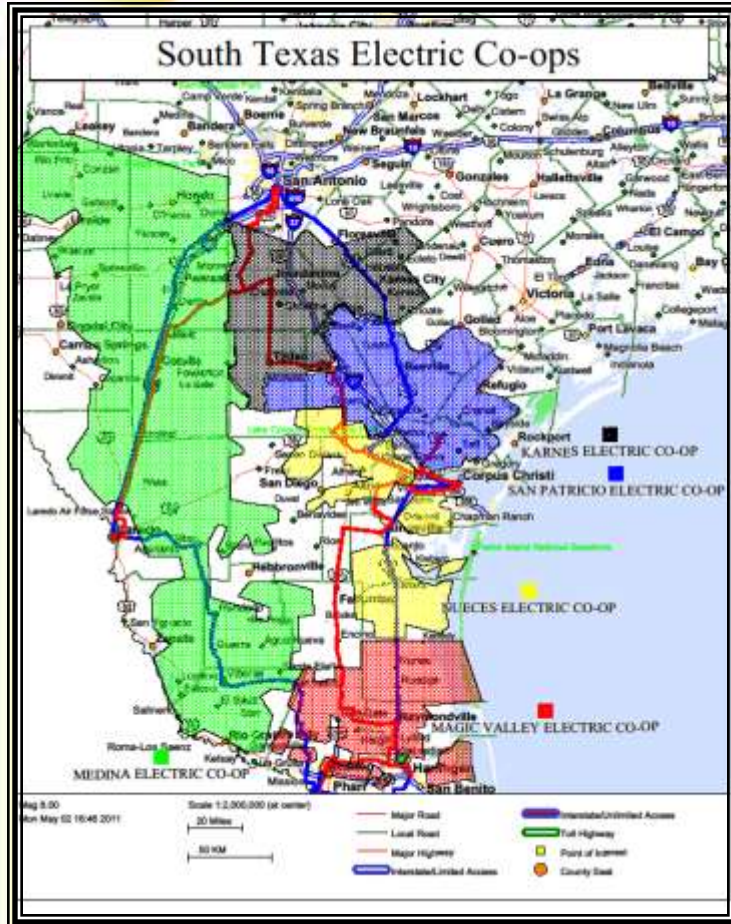
Doesn't an Alliance make sense?



Candidates for South Texas Electric-Broadband Alliance

Electric Company	Meters	Mapping Color
Medina Co-op	28,334	Light Green 
Karnes Co-op	15,851	Charcoal 
San Patricio Co-op	10,313	Light Blue 
Nueces Co-op	17,293	Light Yellow 
Magic Valley Co-op	103,000	Red 

South Texas Geography





VTCI+VTX South Texas Electric-Broadband Alliance

- ✓ Territory comparison VTCI/VTX over-lap Electric Co-ops
 - ✓ ≈52% without wireless
 - ✓ ≈69% with wireless
- ✓ Future 2011-2013 VTXT VTXC Growth Initiatives
 - ✓ \$101,000,000 (ARRA 2009 Loan/Grants)
 - ✓ VTXT \$78.6MM (100% Underground Plant)
 - ✓ +548 Intercity Fiber Miles
 - ✓ +280 Local Fiber Miles [41 Local Fiber Miles Today]
 - ✓ VTXC \$22.8MM
 - ✓ +166 Intercity Fiber Miles [1,378 Intercity Fiber Miles Today]
 - ✓ VTCI \$21.0MM
 - ✓ +65 Local Fiber Miles [327 Local Fiber Miles Today]
 - ✓ +80 Intercity Fiber Miles [751 Intercity Fiber Miles Today]



South Texas Electric-Broadband Alliance

- Electric-Telco Alliance - Smart Grid Advantages
 - Modern facilities plus “Electric Intelligence” at premise and Network Operations Center
 - Broadband Speeds-Layers of Applications
 - Diversity of networks (ringed and meshed topology)
 - Security of IP Networks  “Proprietary Network”
 - Light versus copper (terrestrial)
 - Encryption Plus (wireless)
 - Local presence in rural and remote areas
 - Play the hometown game together
 - Creates a Win-Win-Win environment



(Customer-Electric Company-Broadband Company)



South Texas Electric-Broadband Alliance

- Other Possible Electric-Broadband Alliances
 - Pooling Economic Development Funds - USDA REDLG
 - Provide for local-rural seed funding for entrepreneurs and expansionary projects for existing businesses
 - Very low interest funding
 - Localized Support Services - Business Office Presence
 - Bill payments and service initialization applications and deposits
 - Marketing services
 - Wholesale Services -
 - Fixed Wireless Broadband Coverage
 - Security and Surveillance Services



South Texas Electric-Broadband Alliance

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