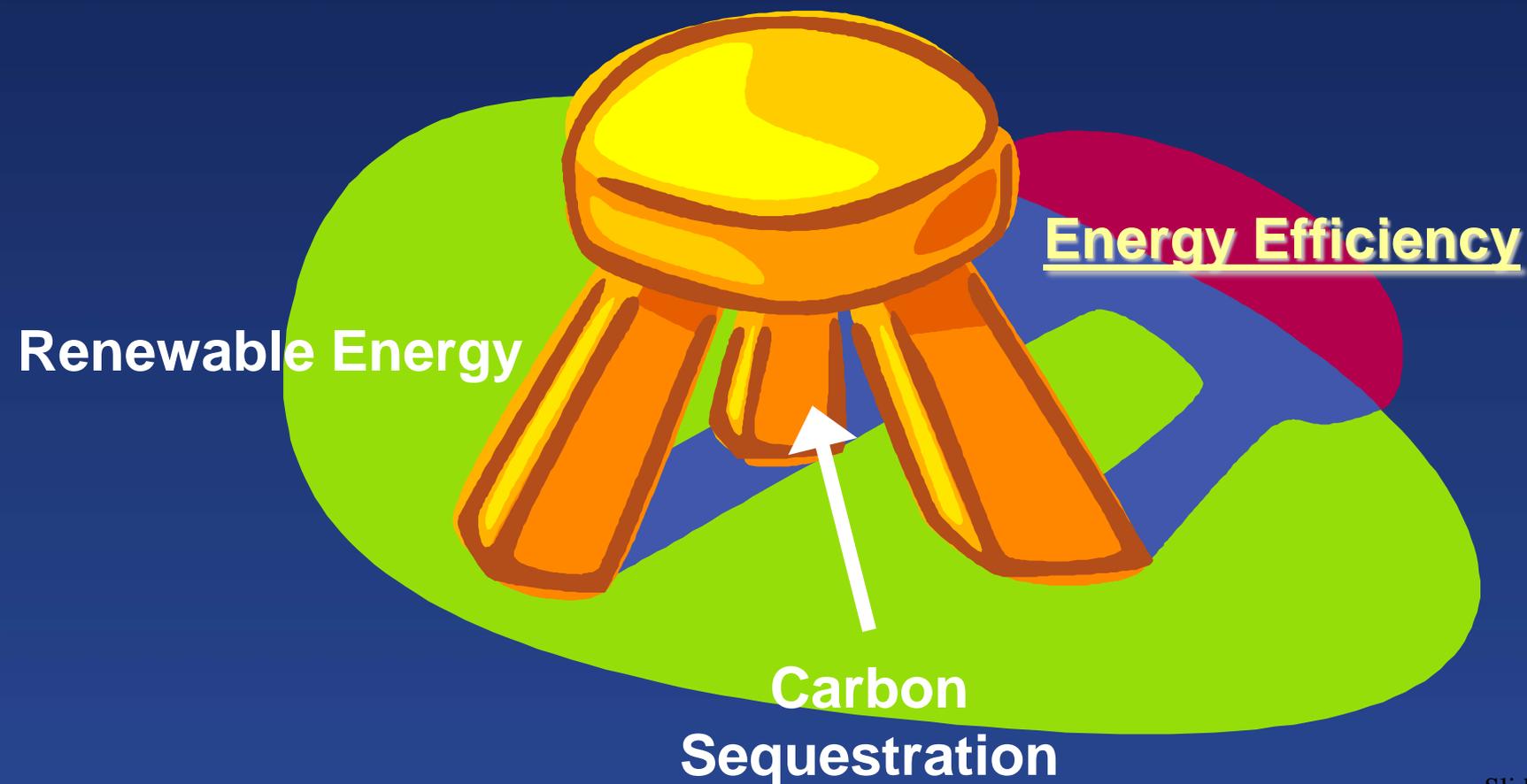


# NRCS Energy Tools

Air Quality and Energy Training  
4/20-22/2010

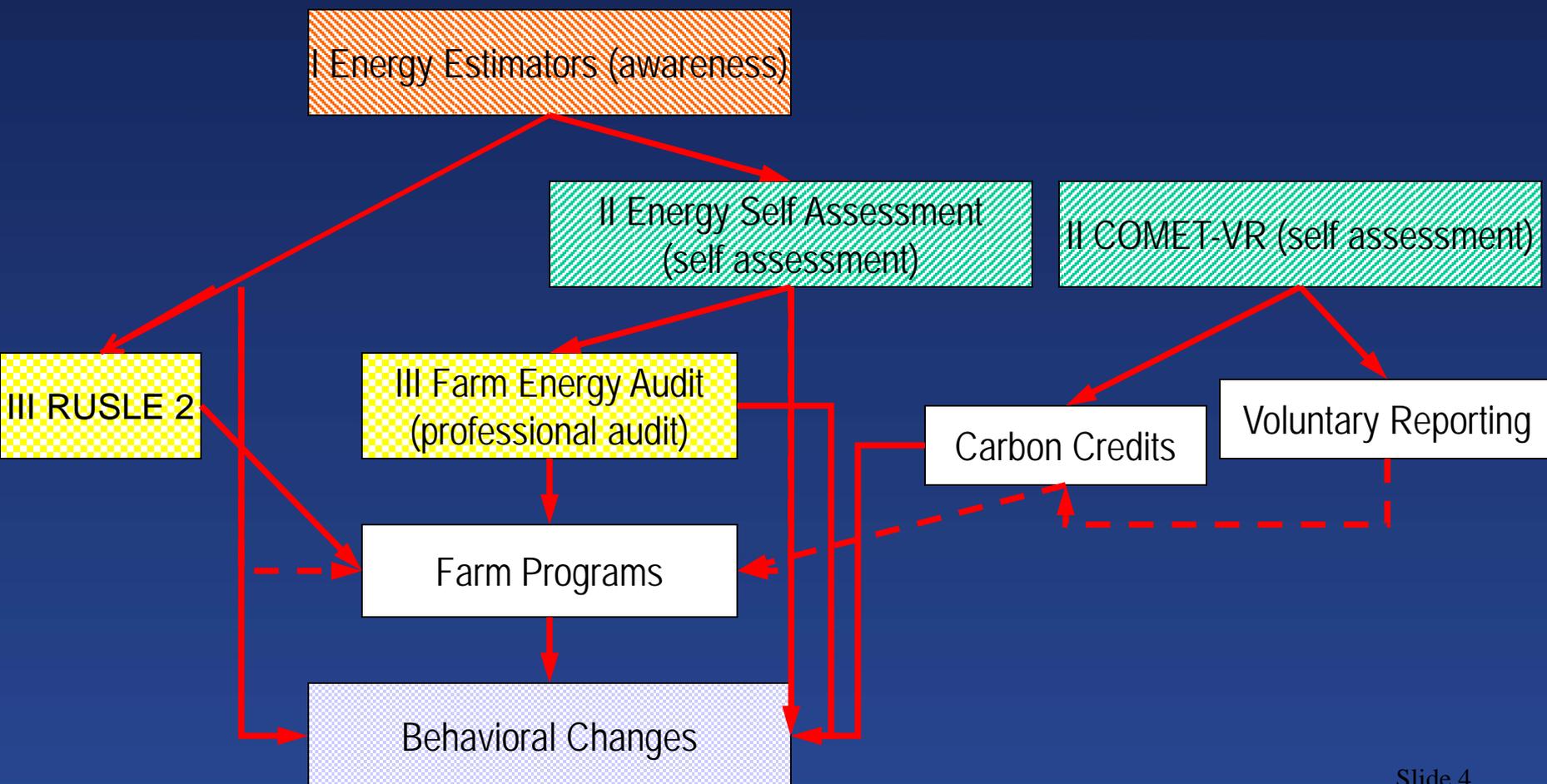
# NRCS Web-based Tools address three legs of energy policy



# NRCS Energy Tools – A Tiered Approach

- Tier 1 – Awareness Tools
- Tier 2 – Self Assessment Models
- Tier 3 – Professional Tools (Energy Audit)

# NRCS Energy Tools



# Characteristics of Awareness Tools

- Easy to use and understand
- No training needed
- Log-in not required
- “3-click”
- Links to resources including other tools
- Can be run from slow computer with “dial up” connection
- “Awareness” level results

# Characteristics of Tier-II Tools

- Easy to use and understand
- “Moderate” level of inputs needed
- Results are farm-specific
- May lead to behavioral change or professional audit
- May support farm programs

# Characteristics of Tier III Tools

- “Professional” level activity
- Usually for a fee (Energy Audit)
- Detailed farm or field-specific results
- Can support farm programs

- **Energy Estimator:  
Tillage**



<http://ecat.sc.egov.usda.gov>

- **Nitrogen Fertilizer  
Awareness Tool**



<http://nfat.sc.egov.usda.gov>

- **Energy Estimator:  
Irrigation**



<http://ipat.sc.egov.usda.gov>

- **Energy Estimator:  
Animal Housing**



<http://ahat.sc.egov.usda.gov>

# Energy Estimators

# RUSLE2 – Energy Component

RUSLE2 Version 1.26.6.4 (Nov 13 2006)

Worksheet: OH Ex. 6

Soil Loss t/ac/yr

Fuel information BTU/ac and \$/ac

Cons. plan, soil loss, t/ac/yr	Sed. delivery, t/ac/yr	Cover values	Soil conditioning index (SCI)	Wind & irrigation-induced erosion for SCI, t/ac/yr	Soil conditioning STIR value index (SCI)	Description	Fuel type	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US\$/ac	Show in summary?
12	12	cover	...l conditioning index	0	-0.92	128 ...g plowed narrow-row soybeans	(no)	10	1400000	30.12	Yes
9.6	9.6	cover	...l conditioning index	0	-0.59	...ks), disk, narrow-row soybeans	(no)	7.0	970000	21.06	Yes
1.8	1.8	cover	...l conditioning index	0	0.37	...ybeans with single disk openers	(no)	4.0	550000	11.85	Yes

Must have "Fuel Use" as part of your template for fuel info to be displayed

Finished calculating

R2\_NRCS\_Fld\_Office | Sample SCI and Fuel Use110206 | moses

Start | Inbox - Microsoft Outlook | RUSLE2 Version 1.26... | Document1 - Microsoft ... | Microsoft PowerPoint - [...]

11:05 AM



## Conservation Tools

- Dairy
- Grain Drying
- Greenhouse
- Irrigation
- Lighting
- Livestock
- Maple Syrup
- Potato Storage
- Ventilation
- Water Fountain

## Renewable Tools

- Biogas
- Biomass
- Solar PV
- Solar Thermal
- Wind

<http://www.ruralenergy.wisc.edu>

# Summary

- **Variety of energy tools**
- **Varying levels of complexity**
- **Different objectives**
- **Each has a place in the toolbox**
- **None is the ultimate tool**

*Now let's look at a few of these tools...*